The New Zealand Patient Handling Guidelines

THE LITEN UP APPROACH

Information published in Liten Up and Reduce the Risk: an Introduction to the Patient Handling Guidelines (March 2003) has been updated and included in this publication.

CONTENTS

Introduction to the New Zealand Patient Handling Guidelines 3

Review and evaluation 13

Policy and planning 19

Risk assessment and control 27

Training 55

Equipment 61

Facility design 99

Techniques for safer patient handling 133

Forms 181

Support materials may be photocopied for use. Black and white, full scale versions are included at the back for copying – or you can download them from www.acc.co.nz/injury-prevention/safer-industries/health/phg

INTRODUCTION TO THE NEW ZEALAND PATIENT HANDLING GUIDELINES

A new approach to patient handling

Lifting patients is one of the most significant causes of injury to nurses and carers. It costs the industry and ACC many millions of dollars each year and causes a great deal of suffering.

Over recent years a new approach has been used overseas with outstanding results. However, it requires an entirely new way of thinking.

We can eliminate thinking that a lift will be involved in patient handling. Instead we can take an integrated approach towards risk assessment, handling patients, use of equipment and facility design.

We call it the LITEN UP approach to patient handling. It sets a new best practice approach towards which all employers need to work. It's a major change – but one that has huge benefits for everyone.

These guidelines set out the main issues you should consider and the key steps you need to take to introduce a new patient handling programme to your workplace.

The high cost of injury

How many people in your organisation have been injured handling patients and how much is it costing each year? In 1999 ACC claims by nurses for injuries related to patient handling cost over $30 million. This does not take into account the indirect costs, including lost time and productivity, increased premiums, high staff attrition rates and patient injuries – or the pain and losses suffered by those who are injured.

Is there a solution?

Yes there is a solution and it is effective. However, it requires a wholesale change in the way we approach patient handling. First we need to recognise that lifting is unsafe. In these guidelines the view is taken that any load over 16 kg represents an increasing risk of harm.There is no lifting technique or training that can overcome this risk. The answer lies in a new way of doing things – and an integrated approach to risk assessment, handling patients, equipment use and ergonomic facility design.

We've developed LITEN UP patient handling guidelines and tools to help you introduce the change to your workplace. The name comes from LITE – the acronym for the risk assessment method used in the new approach.

Over the last five to seven years the United Kingdom and European Economic Community (EEC), and more recently Australia, have significantly reduced injuries with a 'no lift' approach to patient handling. It is now widely accepted best practice.

Why change?

The cost in human and financial terms is huge. Reported injuries include musculoskeletal disorders such as back injuries and sprains and strains, Occupational Overuse Syndrome conditions, and injuries to both patients and carers from slips and falls. Health care organisations also report high staff attrition rates and are struggling to find and retain good staff.

Creating a safer working environment makes financial sense and it may help attract and retain staff. There is a legal health and safety obligation for employers to protect workers' safety – and this requires following a best practice approach.

What are the benefits?

Based on overseas experience you could expect a significant reduction in injuries from a comprehensive patient handling programme, along with other benefits including:

- Better hazard control, less risk for carers
- Fewer and less severe injuries to staff and patients
- Reduced injury costs
- Improved performance and efficiency
- Improved morale and less absenteeism
- More people, such as older people, suitable for employment
- Better staff retention, fewer recruitment costs.

The need for change is growing as our population and workforce age. Change won't happen overnight – but we need to start now and we need to be committed to making it happen as quickly as we can.

Where do we start?

We've developed these guidelines to help you plan and introduce a LITEN UP patient handling programme to your workplace. They provide a voluntary standard to help you meet your health and safety obligations. The guidelines cover the key components of a comprehensive programme – including planning and review, risk assessment, safer techniques, training, equipment and facility design.

> The guidelines are intended for use throughout the health care sector. This includes employers, employees and their representatives, health and safety advisers, consultants, designers, suppliers, teachers, lecturers and students.

Background

What is patient handling?

Patient handling is a specialised area of manual handling. It includes any task that involves moving or supporting a patient including carrying, pushing, pulling, lifting and lowering. Handling a person is more complex and unpredictable than handling an object. People may be heavy or hard to grip, and must be treated with dignity, respect and consideration for their capabilities.

Safe handling means making it safe for both carer and patient. There are limits to the load people can handle without risk of harm. When the load is another person it usually exceeds those limits – so we need to eliminate thinking that a lift will be involved.

What's been tried in the past?

Internationally, there have been many attempts to reduce injuries in health care workers but success has been limited because the programmes tended to focus on single factors – and because the problem has been viewed in the past as a worker issue, rather than recognising it lies with the load. Past approaches include:

- **Back schools** – trying to teach people how to lift has failed because people may be heavy or hard to grip
- **Equipment** – success is limited when carers don't know how or when to use the equipment, don't have time, it's not part of standard procedures, or there is not enough space to use the equipment
- **Lifting teams** – even strong people are injured lifting, and many lifting teams have had their numbers cut because of funding shortfalls
- **Health screening** – while screening people with previous injuries is helpful, it has been legally challenged. It's difficult to screen effectively and even people with no past history are at risk.

There are numerous studies on single factor intervention, including 20 studies (1998-2001) showing that education alone has little impact on outcomes and six concluding that equipment alone has limited effectiveness. Full references are supplied on the ACC website.

What's happening in New Zealand?

New Zealand stakeholders have recognised the need to address patient handling issues. In the past many employers have developed patient handling programmes with varied degrees of success. The LITEN UP approach brings this work together, and uses information from successful programmes overseas, to provide a comprehensive and integrated patient handling programme. This initiative was supported by the New Zealand Nurses' Federation, District Health Boards, residential care organisations and private hospitals.

What's happened overseas?

The UK and Australia have successfully reduced injuries through a combination of legislation and numerical guidelines regarding load thresholds. The UK introduced manual handling regulations in 1992, following EEC directives. Patient handling guidelines then evolved over several years, with the latest *The Guide to the Handling of Patients 4th edition*, released in 1999.

Australia introduced a 'no lift' policy in 1998. The Australian Nursing Federation's 'no lift' policy is based on the UK approach. The 2002 evaluation report of the *Victorian Nurses Back Injury Prevention Project* states that in the year following implementation of its patient handling programme, WorkCover claims reduced by 48%. The largest reduction was in sprains and strains, but back injuries were down 40%. A survey done at 18 months showed days lost due to injury had reduced by 74% and claim costs were down 54%.

References

The Guide to the Handling of Patients: Introducing a Safer Handling Policy – revised 4th edition. National Back Pain Association in collaboration with the Royal College of Nursing, United Kingdom.

Victorian Nurses' Back Injury Prevention Project – evaluation report 2002. Policy and Strategic Project Division, Victorian Government Department of Human Sciences, available at www.nursing.vic.gov.au

What does a successful programme include?

The overseas experience shows us the most successful patient handling programmes use an integrated systems approach. They:

- Have a clear patient handling policy statement
- Define and communicate roles and responsibilities for everyone
- Are based on safe legal responsibilities
- Are based on safe biomechanical principles
- Use data collection tools for ongoing evaluation
- Use a risk assessment methodology
- Use handling equipment and safe techniques
- Describe and eliminate unsafe techniques
- Differentiate between patient care and therapeutic handling
- Put theory into practice
- Have full support at all levels of the organisation.

The LITEN UP patient handling guidelines are built around these principles.

References

An extensive literature review by ACC concluded that programmes work well within a system but not in isolation. Refer to *Preventing Low Back Pain Injuries: Literature Review* (1998), available at www.acc.co.nz/acc-publications

What are the roles of ACC and OSH?

ACC's mandate is to prevent injury. We have researched international best practice and developed the patient handling guidelines in consultation with industry groups. OSH will be promoting the use of the patient handling guidelines over the next four years. OSH has a role in enforcing compliance with the Health and Safety in Employment Act 1992.

Who have we consulted?

The groups we have consulted with include:

- Active Rehab Equipment
- Australian Nursing Federation
- Australian Nursing Federation (Victorian Branch)
- Barrier Free New Zealand Trust
- New Zealand Council of Trade Unions
- District Health Board Health and Safety Advisers
- District Health Boards of New Zealand (12)
- Ebos Group Ltd
- IHC
- National Back Pain Association, UK
- National Safety Council of Australia
- New Zealand Association of Occupational Therapists
- New Zealand Fire Service
- New Zealand Home Care Association
- New Zealand Ministry of Health
- New Zealand Nurses Organisation
- New Zealand Occupational Health Nurses Association
- New Zealand Private Hospitals Association
- New Zealand Society of Physiotherapists Inc.
- Nursing Council of New Zealand
- Occupational Safety and Health
- Public Service Association
- Residential Care New Zealand Inc.
- Salaried Medical Advisers
- Service and Food Workers Union
- St John Ambulance Association
- Waikato Institute of Technology

We are also grateful for the support of many others, who have contributed to the development of these guidelines. In particular, we would like to thank Janelle Aitken and Lynn Newman-Hall for their work on this project.

International advisers who provided advice and support include:

Louise O'Shea	No Lift Systems Australia Pty Ltd
Mike Fray	Director of Ergonomics and Rehabilitation Services Ltd, UK
Professor Dave Stubbs	Professor of Ergonomics, Robens Centre of Health Ergonomics, University of Surrey, UK

Your legal responsibilities

The Health and Safety in Employment Act 1992 requires employers to take all practicable steps to ensure the health and safety of employees and others at work. Adopting the LITEN UP approach and the 16 kilo limit will help employers meet their legal responsibilities.

In very general terms those responsibilities include:

- Proactively preventing harm to employees
- Identifying, assessing and controlling or eliminating significant hazards which can cause harm, including harm later on
- Monitoring health if a significant hazard can't be eliminated
- Educating employees about the risks and how to avoid them
- Providing training and supervision to prevent employees from harming themselves or others (including patients).

It is important to note that musculoskeletal conditions are included in the list of serious harms detailed in the Health and Safety in Employment Act 1992.

Proactively preventing harm to your employees includes:

- Providing and maintaining a safe working environment
- Providing and maintaining facilities for staff health and safety
- Ensuring equipment is safe and well maintained
- Ensuring working arrangements are not hazardous (including the way things are organised, stored and transported)
- Providing procedures to deal with emergencies at work.

What legal responsibilities do others have?

Under the legislation employees and those who design, manufacture or supply plant and equipment also have legal responsibilities to meet:

- **Employees** must take all practicable steps at work to ensure their own safety and that of others. This may include things like identifying and reporting hazards, following safety procedures and attending training
- **Designers, manufacturers and suppliers** must take all practicable steps to supply plant (and equipment) in accordance with ergonomic principles. Good design includes quality information on how equipment should be used and maintained.

Adopting *The New Zealand Patient Handling Guidelines* and the 16 kilo limit can help you meet your legal responsibilities. If you'd like more information about your legal responsibilities, visit www.osh.dol.govt.nz or www.workinfo.govt.nz

The LITEN UP approach

The LITEN UP approach is about making patient handling safe for both staff and patients by reducing the risk. The new approach is centred on assessing the risk using LITE principles.

What are the LITE principles?

LITE is a way to remember the key risk factors that must be considered when you are preparing a safe patient handling strategy. It is an acronym for:

	LITE principles
Load	Load means patient characteristics that can affect the handling risk, such as age, gender, diagnosis, dependency, neurological status, size, weight, ability to co-operate, and fall risk.
Individual	Individual mean the capabilities of carers, such as language, education, training, physical limitations, stress and fatigue which can affect their ability to do the job safely.
Task	Task means the nature of the task, what has to be done, how and when. Different tasks have different requirements, each needing assessment and a unique approach.
Environment	Environment means the working environment, and covers factors such as facilities, staffing levels, culture and resources, which all impact on how the task is done.

The risk factors are not necessarily assessed in this order – and not all risk factors need to be reassessed in every situation.

What else is required?

While assessing the risk and dealing with it appropriately are at the heart of the LITEN UP approach there are many other things that need to be addressed if the new approach is to work, including:

- Commitment to change at all levels of your organisation
- A sound framework of policy and procedures
- Training so everyone knows what to do
- Practical equipment and suitable facilities
- Good record keeping and regular reviews.

The LITE approach is about reducing the risk. To succeed we need an integrated systems approach to the way we manage patient handling in our hospitals and rest homes.

The 16 kilo limit

Patient handling involving any weight over 16 kilos greatly increases the risk of injury to both carer and patient. The 16 kilo limit is a best practice standard adopted by New Zealand to help prevent injury.

It is based on numerical guidelines, shown on the right, developed by the UK in 1992 to meet EEC directives. These are not safety limits. They are a filter to screen out straightforward cases and set a boundary within which patient handling is unlikely to cause harm. In most cases the handling task will fall way outside these limits.

A risk assessment using the LITE patient profile should be done for all patients and a safe handling plan completed if any risk is identified.

Maximum limits

As the chart shows, the maximum limits are 25 kilos for men and 16.6 kilos for women, but only when:

- The handling is done in a suitable environment
- Carers maintain good posture with spinal alignment
- The load is held close to the mid-body range between elbow and knuckle height.

The limits drop significantly in other positions.

The United Kingdom Numerical Guidelines

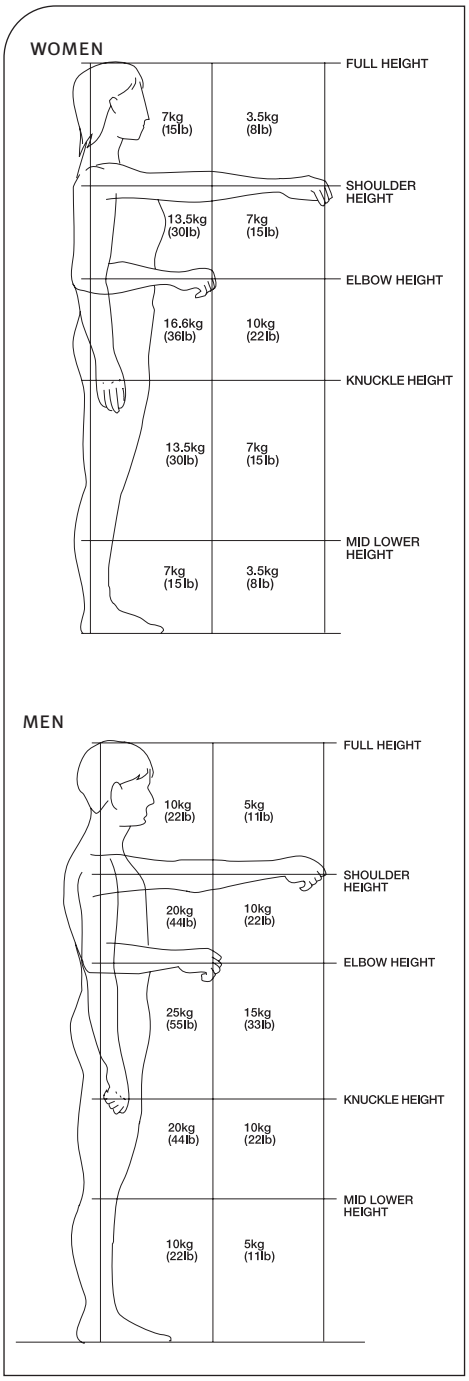


fig 1. The UK Numerical Guidelines. These charts form part of the UK Manual Handling Operations Regulations 1992 and were reproduced with the permission of the Health and Safety Executive

References and sources

- *Manual Handling Operations Regulations* 1992, United Kingdom. HMSO, London.
- *The Guide to the Handling of Patients: Introducing a Safer Handling Policy* – revised 4th edition. National Back Pain Association, United Kingdom.
- Waters, T. R., Putz-Anderson, V., Garg, A. and Fine, L. J. (1993) 'Revised NIOSH equation for the design and evaluation of manual lifting tasks'. *Ergonomics* 36, (7) 749-76.
- Materials Handling Research Unit. (1980) *Force Limits in Manual Work*. IPC Science and Technology Press Ltd, England.
- GC David, Robens Centre of Health Ergonomics, European Institute of Health and Medical Sciences, University of Surrey, United Kingdom.

The 16 kilo limit is not a safety limit. It sets the boundary for when a risk assessment is needed. Adopting this standard will help employers meet their legal responsibilities.

Three key steps

The LITEN UP patient handling guidelines are based around three key steps – review, plan and action. It's important to see these steps as part of a continuous cycle of improvement. By working through the cycle you can set up and support the systems needed to keep your workplace safe.

This model is based on the ACC WorkSafe cycle. WorkSafe provides a guide for building a comprehensive health and safety programme in your workplace. You can find out more about this at www.acc.co.nz

Resources and references

LITEN UP patient handling resources

The information in these guidelines and the support materials we've developed to help you introduce and manage your LITEN UP patient handling programme can be photocopied or downloaded free from www.acc.co.nz/injury-prevention/safer-industries/health/phg

Other materials will be added to the site, or updated from time to time.

Safety resources

The ACC website provides comprehensive information and advice on injury prevention and workplace programmes. For a full list of resources to help you improve safety and manage injuries, please refer to our publications list at www.acc.co.nz/acc-publications – you can order these resources online, or by calling us on 0800 THINKSAFE (0800 844 657).

Another helpful resource is the OSH website, where you can find information on health and safety laws, statistics and a range of publications. You can also find details of your nearest OSH office if you'd like to contact OSH field staff about health and safety planning. You can visit OSH at www.osh.dol.govt.nz or www.workinfo.govt.nz

Patient handling resources

The Guide to the Handling of Patients: Introducing a Safer Handling Policy – 4th edition (revised), 1998. National Back Pain Association in collaboration with the Royal College of Nursing, United Kingdom. ISBN 0-9530582-5-5.

Victorian Nurses Back Injury Prevention Project – Evaluation Report 2002. Policy and Strategic Project Division, Victorian Government Department of Human Sciences, available at www.nursing.vic.gov.au

Preventing Low Back Injuries: Literature Review. (1998) ACC, available at www.acc.co.nz/acc-publications under the injury prevention section.

A complete list of references is available from:
www.acc.co.nz/injury-prevention/safer-industries/health/phg

For more information

If you'd like more information, or would like to provide feedback or suggestions, please contact your ACC Injury Prevention Consultant or contact:
Accident Compensation Corporation, PO Box 242, Wellington, New Zealand
Phone: 0800 THINKSAFE (0800 844 657), Website: www.acc.co.nz

REVIEW AND EVALUATION

Contents

- The need for review 15
- Gathering data 17
- Analysis and reporting 18

Support materials

- Are you ready? – checklist 183
- LITE staff questionnaire 185

The need for review

Regular reviews are an important part of building an effective LITEN UP patient handling programme. They enable you to measure where you are starting from – and to measure your progress along the way.

Why are reviews so important?

Reviews are an integral part of the planning process. They enable you to:

- Measure the effectiveness of your current systems
- Measure your progress towards your goals
- Ensure you are on track to meet targets with regard to timelines and budgets set
- Develop baseline data against which to measure future progress
- Identify injury factors, quantify costs and calculate the return on your investment
- Create effective plans and allocate your resources more efficiently.

What is the review process?

You need to have a systematic and planned approach when conducting reviews – and you need to ensure you allocate the resources (people, time and money) needed for reviews to be done properly.

The review process involves:

- Making a commitment and allocating the resources needed
- Deciding what data sources you will use – then collecting and analysing the data
- Identifying issues and developing plans and budgets to address them
- Reporting your findings and recommendations to senior management
- Incorporating ward or unit reviews and plans into broader organisational planning
- Implementing and monitoring the strategies and plans developed
- Regularly reviewing progress as part of the cycle of continual improvement.

Check ACC's WorkSafe guide for suggestions about reviews and what you need to consider. This information is available from the ACC website: www.acc.co.nz

Who undertakes reviews and when?

The patient handling adviser is responsible for reviewing the overall patient handling programme at an organisational level, and for involving managers and staff in that process.

The ward or unit manager is responsible for reviews and plans relating to their work units. To do this they need to work closely with the patient handling adviser – and involve staff and employee representatives. Feedback from patients should also be taken into account where practical. The programme should be formally reviewed at least annually and the information fed back to senior management, so it can be incorporated into organisational plans and budgets. Other reviews and adjustments to workplace plans should also be done whenever there is a significant change or improvement.

How ready are you?
The starting point for any change is to assess your current position. What handling tasks are staff doing, how are they doing them, what are the hazards, and what do you need to do to meet the standards in these guidelines? There's a short checklist and staff questionnaire in the Forms section to help you measure how ready you are and decide on the first steps you need to take to implement a LITEN UP patient handling programme.

Are you ready? – checklist

ORGANISATION: **COMP**

WARD OR UNIT:

How ready is your organisation to introduce a LITEN UP patient han
the information provided in these guidelines. Score each qu
taken and 5 being com
might

Refer to page 183

LITE staff questionnaire

ORGANISATION: **YOUR**
(not

WARD OR UNIT:

The aim of this questionnaire is to gain your feedback on how well the patient ha
suggestions on areas that still need development.

POLICY AND

Refer to page 185

Gathering data

What resources do you have available to help you gather the information you need for your reviews? Here are some of the ways you can get the data you need. Remember it is important to involve staff, employee representatives and patients in the review process – especially when you are assessing the workplace, or considering the way work is carried out and the resources needed for the job.

Resource	What does it provide?	How often?
Tracker tool	You can use this to record data about incidents, injuries and issues, so you can identify and track the real cost of patient handling injuries. It allows you to measure workplace injuries by cost centre and lost time injuries	Data is entered by staff as issues arise. The data should be regularly reviewed by the ward or unit manager and patient handling adviser
Audit tool	The audit tool will be available in 2004. It will help you meaure your progress in the key areas covered by the LITEN UP patient handling guidelines	The audit should be completed annually by the patient handling adviser, working with the ward or unit manager/s
LITE workplace profile	The workplace profile provides an overview of the conditions that impact on patient handling at the ward or unit level. You can use it to identify and prioritise areas that need improvement, and to provide a baseline against which to measure progress	The profile should be done annually by the ward or unit manager, working with the patient handling adviser
LITE patient profiles	Patient profiles help you identify hazards and assess risks at the patient level so that safe handling plans can be developed, and any wider issues addressed. They provide 'ground level' information about risks staff face and the demand for training, equipment and facility improvements	Profiles are done by trained staff when the patient is admitted and reviewed regularly, depending on patient needs
Control plan	The control plan is used to record issues identified from the workplace profile and during everyday patient handling. It is also used to record controls. Reviewing this record will allow you to see what types of issues are arising in your workplace, how effective the controls are, and how quickly you are able to introduce controls and manage the issues	The control plan is maintained by the manager and added to by staff as issues arise. It should be regularly reviewed to ensure planned controls are in place and working
Staff questionnaire	This questionnaire enables you to gain a worker perspective on the operation and effectiveness of your patient handling programme. It provides high-level information to help you identify gaps and issues – and also provides a 'before and after' comparison of the way staff view the programme	All staff should complete the questionnaire annually. It should be reviewed by the manager, the patient handling adviser and the employee representative
ACC statistics	You can get information from the ACC website about injury statistics and levies, which may help you produce cost benefit data. Visit www.acc.co.nz	

Analysis and reporting

You will need to analyse and interpret the information you obtain from your review so you can measure your progress and report to senior management. This is the responsibility of the ward or unit manager.

Analysing and interpreting data

Analysis involves reducing data to a manageable size, summarising it, looking for patterns and applying statistical techniques. These are the main steps:

1. Set your review goals – to provide focus and help you organise your data
2. Read the data then collate it to show trends at both an organisational level and a ward or unit level
3. You might also find it useful to collate data so you can review key areas covered by the LITEN UP guidelines – policy and planning, roles and responsibilities, risk assessment and control, training, equipment and facility design
4. For each set of data, analyse the outcomes or performance against your goals.

Reporting results

The ultimate aim of the review process is to ensure management have the information they need for planning and allocation of resources to the programme.

The level and scope of your reports need to reflect the needs of management.

Your report should start with an executive summary – a short overview of the outcomes and your recommendations. The contents should include:

- A summary of your progress towards meeting programme goals
- A plan to address gaps and issues – be specific (who will do what by when?)
- A summary of costs and benefits and a proposed budget for the new plan
- A summary of the return on investment to date – how much have you saved?
- Your conclusions and recommendations
- Any relevant attachments, such as review tools.

It is very important that staff, and employee representatives, have the chance to provide feedback and input to your report and any recommendations you make.

During the review process ask yourself:

- What progress is being made toward achieving programme goals?
- Will the targets be met within the timelines set? And if not, why?
- Do staff have the resources they need to achieve the goals?
- How can priorities be changed to put more focus on achieving the goals?
- Do timelines, targets or goals need to be altered? And if so, why?
- How should goals be set in the future?
- What is the feedback from staff and employee representatives – what strengths and weaknesses do they think your programme has?
- What changes do staff, employee representatives and patients want to see?

POLICY AND PLANNING

Contents

- Building commitment 20
- Planning communication 21
- Developing policy and plans 22
- Managing change 24
- Steps to implementing change 26

Support materials

- Sample patient handling policy statement 189
- Sample organisational patient handling plan 191
- Patient handling roles and responsibilities 194

Building commitment

Adopting a patient handling programme is a significant change that requires commitment at all levels of your organisation. Everyone needs to understand what the change is, why it is being made and what their role is. Managerial commitment needs to be visible. Staff need to be involved in decisions and to feel a sense of ownership. Everyone needs to be clear about their role and responsibilities.

Commitment and ownership

Here are some vital signs that show an organisation is fully committed to the introduction of a LITEN UP approach:

- A policy and plan have been developed and agreed on
- Managers actively consult employees from the start
- Everyone has responsibilities for which they are accountable
- Policy, procedures and roles are clearly communicated
- Responsibilities are included in performance reviews
- Appropriate resources are allocated to the programme
- There is a recognised patient handling adviser with relevant experience
- Patient handling is a permanent management agenda item
- There is ongoing monitoring, review and development
- Review outcomes are communicated to all staff levels.

Following these steps will help ensure staff at all levels are involved and gain a sense of ownership.

Roles and responsibilities

Patient handling roles and responsibilities

	Board and senior management	Unit or ward managers
Review	• Prepare and review annual plan • Involve staff in review process • Incorporate recommendations and law changes into annual plan • Check policies and procedures • Review progress against objectives • Review staff performances	• Use tracker tool and review data • Complete workplace reviews • Review findings and make recommendation • Ensure staff feedback and input to plans, • Gain feedback and input from employe
Plan	• Ensure policy and procedures are written and communicated to staff • Make a copy available to all staff, patients and visitors •	• Know and follow policy a • Communicate role • Monit

Refer to page 194

Everyone is responsible for protecting their own health and safety, and that of others in the workplace. Everyone has a role to play. There is a detailed chart of roles and responsibilities on page 194, but here's a quick overview.

- **The board of directors** decides how the health care facility is run and how resources are allocated, and is responsible for overall health and safety compliance.
- **Senior management** are responsible for the success of the programme in their operational areas and need to set a clear leadership example.
- **Unit or ward managers** are responsible for the programme in their units or wards and their duties cover all operational aspects.
- **The patient handling adviser** is the champion of best practice and co-ordinates aspects such as training, buying equipment and reporting to managers and staff.
- **Staff and contractors** must protect their own safety and that of others in the workplace, and are responsible for correctly carrying out patient handling procedures.
- **Employee organisations** are expected to work in partnership with management and staff to create safer workplaces.
- **Equipment suppliers** must ensure equipment is fit for the purpose and provide clear instructions on use and maintenance.

Patients and families

Patients and their families also have an important role to play. Patients have the right to be treated with dignity and respect, and to be informed about and consent to procedures, but not to endanger the carers' health. Patients (and families) need to understand the new approach to patient handling and should be included in the risk assessment process.

If every effort has been made to find acceptable handling solutions and the patient (or family) will not comply, the team needs to decide on the best course to take, which could include withdrawing care. Workers are not obliged to put their own health and safety at risk. Ideally the explanation and consents should be incorporated into the admission process.

Planning communication

Introducing major change requires well planned, effective communication. This demonstrates commitment and ensures the voice of those who must use the new approach is heard.

The planned approach

You need to decide on your key messages for each of your audiences, and the channels you will use.

- **Key messages** include what the changes are, why they are being made, what the benefits are, when and how the changes will be made, what everyone's role is, what resources will be available, what evaluation will take place and so on. There will also be specific and detailed operational messages for each audience group.
- **Audiences** include management, staff, unions, patients and families, visitors, volunteers, suppliers, contractors, consultants, equipment designers and suppliers, facility designers,

students and teachers, stakeholders, health and safety advisers, professional groups, disability managers, media and interest groups.

- **Channels** may include memos, emails, newsletters, notice boards, wall charts, promotional activities, brochures, meetings and forums, training sessions, reports, manuals and suggestion boxes – as well as the grapevine.

The other factors you need to consider are timing and frequency. It's important to keep up a steady flow of communication, and to repeat key messages several times, preferably using different channels.

Encouraging two-way communication

Staff need to be involved and have a sense of ownership from the start. Effective two-way communication can help achieve this. Here are some suggestions:

- Seek staff input before drafting policy and procedures – circulate drafts for comments and feedback
- Set up a formal feedback process, but also use informal means such as suggestion boxes and talking to staff on the job
- Include staff representatives in the review, plan and action cycle
- Seek staff input before making big changes such as buying equipment or altering facilities
- Maintain a regular stream of communication about what's happening and make sure results are communicated to everyone
- Encourage regular staff meetings to review progress, and use forums like training sessions to gain staff views and suggestions
- Seek comment on issues using means such as feedback forms in newsletters, questionnaires and email polls.

Developing policy and plans

A clear policy statement and a considered plan help ensure everyone works towards a common goal in a consistent way. Changes in policy can have far-reaching effects so it's critical to have people affected by the change involved early on.

Patient handling policy and planning

The aim of developing a patient handling policy statement and plan is to support the creation of an environment where staff are trained, equipped, supported and encouraged to manage patient handling in a way that reduces the risk of injury to themselves and their patients.

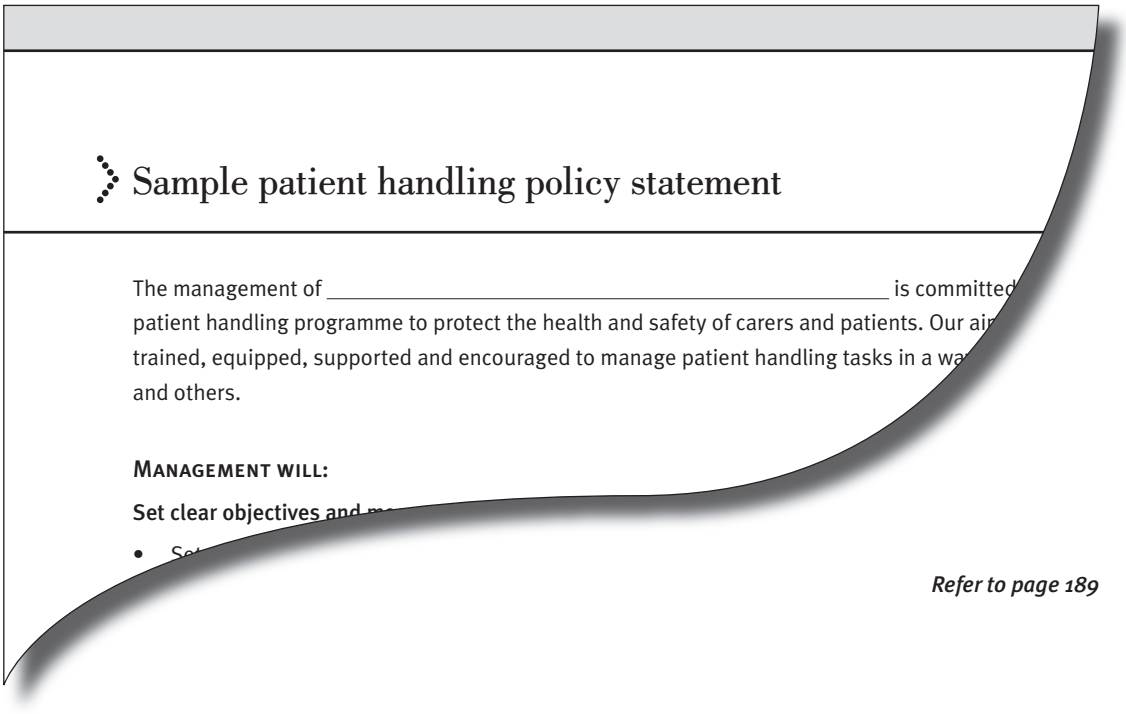
Your policy statement sets out the organisation's commitment to patient handling by defining the standards and approach required. It should encompass, at a high level, all the components required for success – such as guiding principles, roles and responsibilities, organisational review, patient risk assessments and handling procedures, training, equipment, facilities, monitoring and evaluation.

Your plan sets out in detail your objectives, strategies for achieving them, targets and timeframes, and the measures you will use to assess the results. You will also need to consider resources and budgets. This plan should be reviewed and updated each year.

Some things to consider in your policy and plan:

- Roles and responsibilities
- Admission procedures and forms
- Staff recruitment and employment contracts
- Staff training and supervision
- Appraisals and performance measures
- Contractors, suppliers, visitors, volunteers and others
- Timing and approach for programme introduction
- Staff participation and feedback
- Consultation and ongoing communication
- Organisational and ward or unit reviews
- Patient risk assessments, using LITE patient profiles
- Recording and reporting data
- Evaluating, reviewing and reporting progress
- Purchase, use and maintenance of equipment
- Facility design requirements
- Emergency readiness and dealing with exceptions
- Dealing with accidents, near misses and non-compliance
- Managing injuries and conditions that affect staff.

We've included a sample patient handling policy statement and a sample plan in the Forms section. You might also like to check ACC WorkSafe for more suggestions about what you need to consider.



Sample patient handling policy statement

The management of _____ is committed
patient handling programme to protect the health and safety of carers and patients. Our ai
trained, equipped, supported and encouraged to manage patient handling tasks in a wa
and others.

MANAGEMENT WILL:

Set clear objectives and

- Se

Refer to page 189

Sample organisational patient handling plan

This is a high-level plan, and obviously every organisation will have a different a
include the key actions you'll need to cover in your first organisational patien

PROCESS	PEOPLE
MANAGEMENT COMMITMENT	
Ensure a	

Refer to page 191

Managing change

Every organisation is different and there are many ways to approach change. We recommend a special project (or pilot) approach. You may need to build a business case so your board has the facts it needs to be able to allocate resources to the programme.

Building a business case for change

In most organisations it will be necessary to build a business case to justify resources for the change. Here are some things to consider:

- The guidelines are a best practice resource and a practical step for employers to take to protect their workers' safety
- Overseas experience has demonstrated a substantial return on investment
- A comprehensive programme could significantly reduce injuries. However, you may wish to base your initial projections on conservative estimates, of say 15%
- You can use ACC levy calculators to estimate potential savings (see www.acc.co.nz/productslevies/calculatepay-levies).

A good starting point is to seek approval for the resources required to start tracking injury performance, using potential savings to support your case. Once you have collected cost-benefit data you will be able to build a sound business case for your patient handling programme.

A special project approach

Special project committees are very effective at a ward or unit level for assessing requirements and organising training, equipment purchase and facility design. Here are some suggestions for getting started.

- **Choose a suitable target area** – this could be a ward or unit that has shown interest in change and commitment to improvement, has existing resources or is undergoing redesign, or has a high need (such as a high injury rate or high patient dependency).
- **Gain the commitment of area and team leaders** – by involving them in the decision-making and planning process from the beginning.
- **Help them set up a project team** – this may include staff from each shift, team leaders, a union representative, a physiotherapist and an occupational therapist.
- **Help the team set their goals** – for instance "to develop and implement a patient handling programme" or "to control the personal and economic costs of workplace injury".
- **Help the team define the process** – the main steps are to:
  - Collect baseline data against which to measure progress
  - Complete a LITE workplace profile
  - Identify the gaps and develop strategies to reduce them
  - Implement and monitor the controls
  - Measure their effectiveness and work out the return
  - Review the target area – a process of continuous improvement.

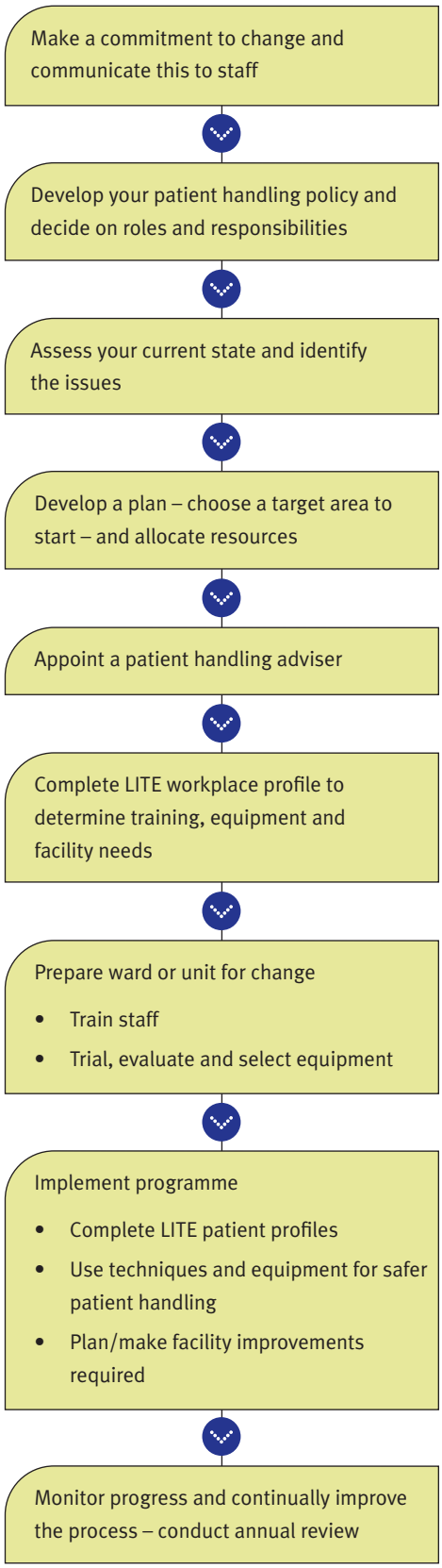
Positive change

Change can be difficult, especially if you are making fundamental changes to the way people work or if the workplace is already under stress. There is usually some resistance to change. One of the resources on our website is a paper called *Patient Handling Guidelines: Managing the Implementation.* This paper suggests ways to build agreement amongst staff and outlines what you can do when conflict arises. It covers topics like:

- Understanding the real issues
- Getting buy-in and building collaboration
- Creating and maintaining good relationships
- Resolving issues and dealing with conflict
- Moving from agreement to commitment.

Steps to implementing change

Introducing a LITEN UP patient handling programme



RISK ASSESSMENT AND CONTROL

Contents

- The LITEN UP approach to reducing risks 29
- Risk assessment and control: an overview 31
- The LITE workplace profile 33
- The LITE patient profile 34
- Completing patient profiles: practical notes for assessors 36
- Unsafe patient handling techniques 40

Support materials

- LITE workplace profile 195
- Control plan 199
- LITE patient profile 200
- Task analysis sheet 202

The LITEN UP approach to reducing risks

The LITEN UP approach is about making patient handling safe for both carers and patients by reducing risk. Risk is assessed using LITE principles and specially developed profiling tools that guide you through the assessment process. They provide the information you need to make decisions about safe patient handling at both the workplace and patient levels.

Our use of the term 'risk' throughout this document refers to:

- 'hazard' as defined in the Health and Safety in Employment Act 1992 OR
- a combination of likelihood and consequence

The control process we use is the same as the one required by the Health and Safety in Employment Act 1992. As this is a 'best practice' approach we also sometimes suggest control measures that may go beyond the requirements of the Health and Safety in Employment Act 1992.

What are the LITE principles?

LITE is a way to remember the key risk factors that must be considered when you are preparing a safe patient handling strategy. It is an acronym for:

	LITE principles
Load	Load means patient characteristics that can affect the handling risk, such as age, gender, diagnosis, dependency, neurological status, size, weight, ability to co-operate, and fall risk.
Individual	Individual mean the capabilities of carers, such as language, education, training, physical limitations, stress and fatigue which can affect their ability to do the job safely.
Task	Task means the nature of the task, what has to be done, how and when. Different tasks have different requirements, each needing assessment and a unique approach.
Environment	Environment means the working environment, and covers factors such as facilities, staffing levels, culture and resources, which all impact on how the task is done.

These risk factors are not necessarily assessed in this order, and not all risk factors need to be completely reassessed in every situation. In most wards or units the main **E**nvironment and **I**ndividual factors can be assessed by the manager (with input from staff and their representatives) and applied to most patient handling situations. Generally the carer will only need to consider **T**ask and **L**oad before selecting a handling technique and any equipment required.

What are the profiling tools?

The profiling tools are support materials specifically developed to help you identify risks and make decisions about patient handling operations. There are two profiles:

- The LITE workplace profile – which applies LITE at the ward or unit level
- The LITE patient profile – which applies LITE at the individual patient care level.

These profiles provide a means to systematically assess and record patient handling risks and controls.

Eliminating risks makes patient handling safer for caregivers. It also promotes patient independence and rehabilitation by making it easier for patients to help themselves.

Risk assessment and control: an overview

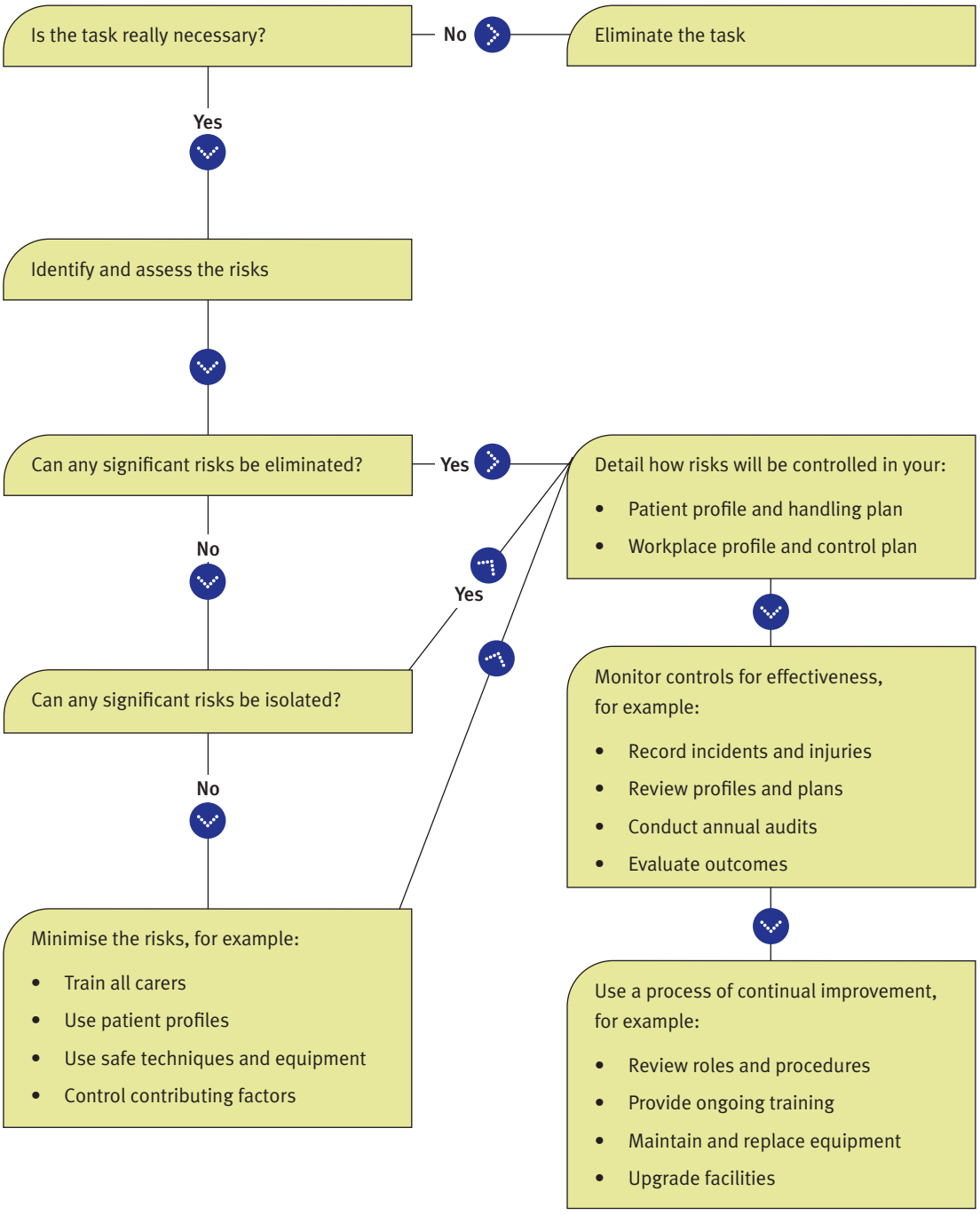
The aim of the risk assessment process is to identify the potential risks involved in patient handling and then control them. The process takes place at two levels – at the workplace level and in relation to the handling of each patient.

The workplace	The patient
Step 1. Identify and assess the risks • Complete LITE workplace profile • Identify risks and prioritise for action	**Step 1. Identify and assess the risks** • Complete LITE patient profile on admission • Use clinical judgement to decide level of risk
Step 2. Plan controls • Decide if risks can be eliminated, isolated or minimised • Make a control plan (an action plan to address risks identified) • Add any new issues as they arise • Decide actions, timeframes and responsibilities and allocate budget and resources • Decide how you will measure results	**Step 2. Plan controls** • Ask if task can be eliminated • Decide if risks can be eliminated, isolated or minimised. • Use clinical judgement to decide techniques, equipment and other controls for each task • Seek specialist advice if required • Complete a safe handling plan (part of the patient profile)
Step 3. Implement controls • Ensure all carers are trained and follow patient handling policy and safe procedures • Ensure appropriate equipment is available, accessible and in good order • Ensure facilities and the care environment are suitable for the tasks being performed • Actively control contributing factors • Use a process of continual improvement	**Step 3. Implement controls** • Ensure all carers consider patient profiles before each handling task • Ensure safe techniques and appropriate equipment are used • Ensure all incidents and issues are reported, recorded and acted on • Encourage carers to early report any health conditions that may affect their capabilities
Step 4. Monitor and review • Regularly review hazard control plan to check progress with resolving issues • Regularly review incident and injury records • Review workplace profile annually or when workplace conditions change or improve • Seek feedback with questionnaire for staff* • Complete annual patient handling audit • Report outcomes to management * Covered in review and evaluation section	**Step 4. Monitor and review** Review patient profile periodically, or whenever: • Patient condition or treatment changes • Environment changes (eg. ward layout) • Patient moves to a different ward or service • There is an incident or injury Also: • Record incidents and injuries with tracker tool • Conduct regular ward or unit reviews

Controlling risks: eliminate ···› isolate ···› minimise... then monitor the controls

The health and safety legislation (Health and Safety in Employment Act 1992) requires employers to take all practicable steps to eliminate hazards or, if this is not practicable, to isolate them. If hazards can't be eliminated or isolated they must be minimised – and the controls monitored for effectiveness.

Identifying and controlling risks: the process

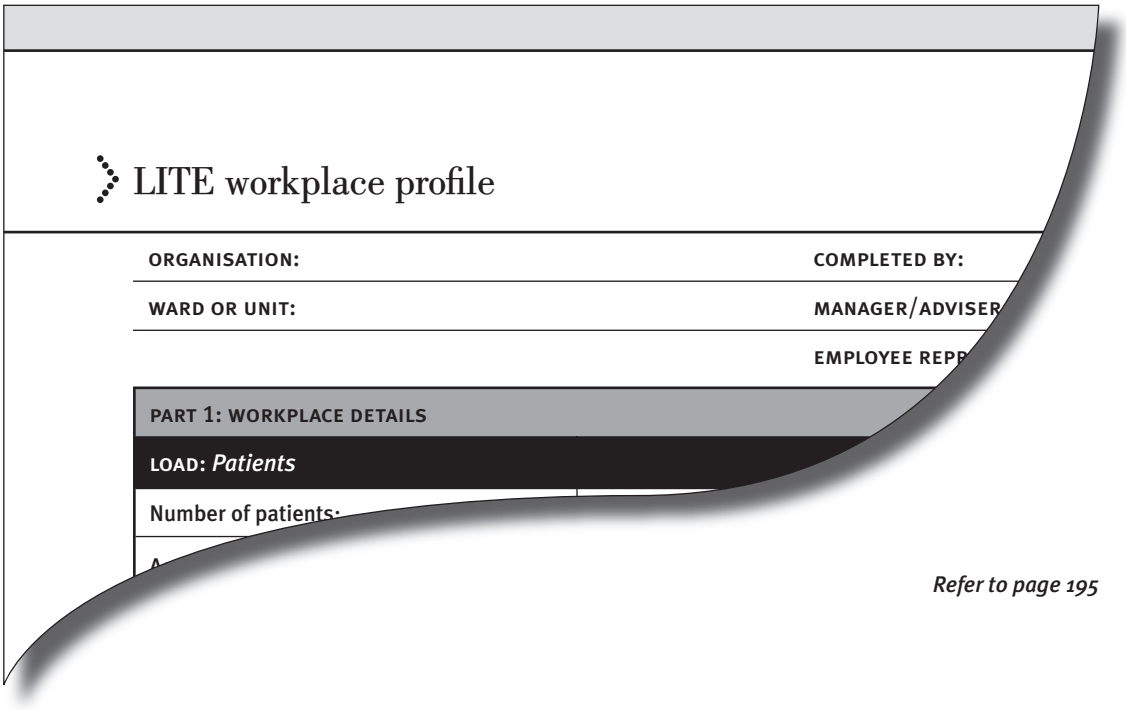


Having a clear and consistent process reduces risks – and helps you meet your legal obligations.

The LITE workplace profile

The LITE workplace profile provides an overview of factors that impact on patient handling and gives you a score to help measure your performance. The profile can be used to:

- Identify and prioritise the areas that need improvement to reduce handling risks
- Establish a baseline against which to measure improvement
- Give you a 'snapshot' of the ward or unit – information that could be useful when you are dealing with consultants, designers, suppliers and technical experts
- Develop information that can be compared with other work units or organisations
- Provide information you need to prepare a control plan
- Provide information you need to prepare an organisational patient handling plan.


LITE workplace profile

ORGANISATION:

COMPLETED BY:

WARD OR UNIT:

MANAGER/ADVISER

EMPLOYEE REPR

PART 1: WORKPLACE DETAILS

LOAD: *Patients*

Number of patients:

Refer to page 195

Who does the profile and when?

The ward or unit manager is responsible for completing the workplace profile and then developing a control plan to address the risks identified. They should work with the patient handling adviser on this, and may also wish to get input from staff. The profile and plan should be done every year – but updated in between whenever there is a significant change or improvement.

What does it involve?

The workplace profile is in two parts:

1. **Workplace Details**. This covers populations, staff numbers, equipment and facilties
2. **Workplace Risk Assessment**. This uses a scoring system to identify issues and prioritise action to build an effective patient handling programme.

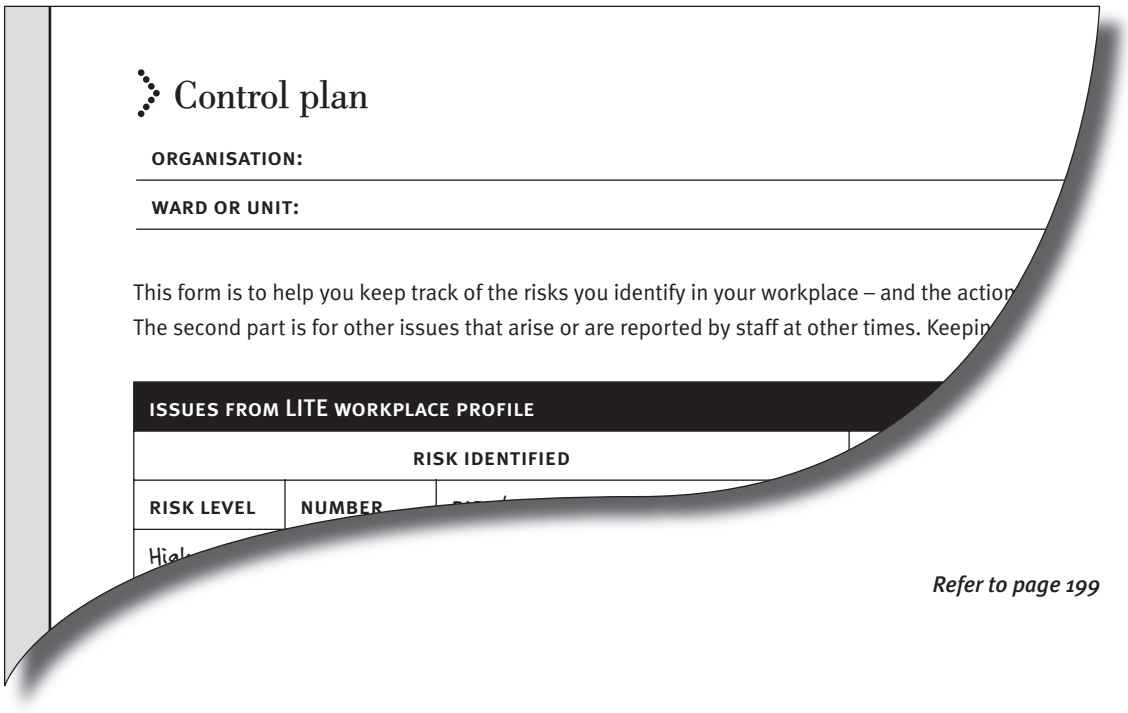
A few of the issues you will need to think about include:

- Do you have the right equipment for the tasks you carry out, do you have enough equipment, what sort of condition is it in and is it readily accessible for staff to use?
- Do you have enough staff, do they know what is expected of them, has everyone done the basic training required and do you have clear policy and procedures to guide them?
- Is there enough space for handling operations, can you improve the layout and remove clutter to improve conditions and can you provide mobility aids to help patients be more independent?

The workplace control plan

A control plan helps you meet your legal responsibilities. It sets out what the issues are, what will be done about them, when they should be actioned and by whom.

It can also be used to record and control risks and other safety issues identified during patient handling. The information you've gained can be fed into your organisational patient handling plan.



Control plan

ORGANISATION:

WARD OR UNIT:

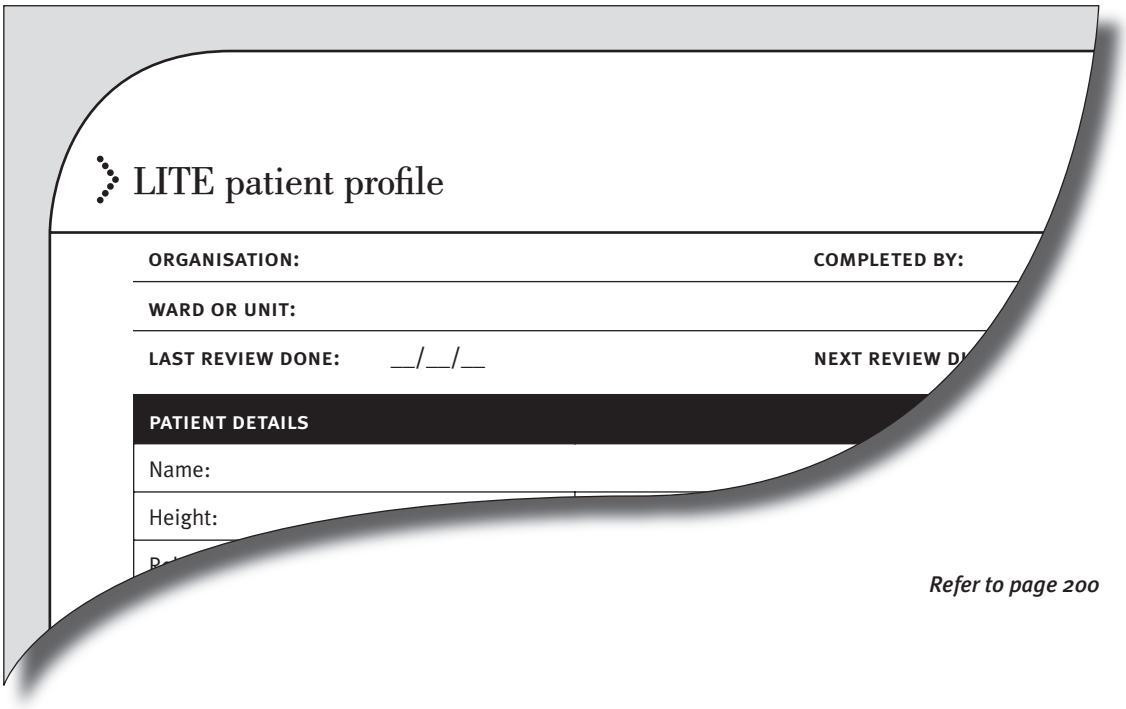
This form is to help you keep track of the risks you identify in your workplace – and the action
The second part is for other issues that arise or are reported by staff at other times. Keepin

ISSUES FROM LITE WORKPLACE PROFILE		
RISK IDENTIFIED		
RISK LEVEL	NUMBER	
Hig		

Refer to page 199

The LITE patient profile

The LITE patient profile focuses on individual patient characteristics and factors that could affect patient handling. It provides information you need to make clinical judgements about the techniques and equipment to be used, and other controls needed to make patient handling safer. It provides a guide for all carers who work with the patient.


LITE patient profile

ORGANISATION: COMPLETED BY:

WARD OR UNIT:

LAST REVIEW DONE: __/__/__ NEXT REVIEW D

PATIENT DETAILS

Name:

Height:

Refer to page 200

Who does the profile and when?

The lead carer completes the patient profile when the patient is first admitted. It should be reviewed periodically to check it is still appropriate – but it should also be reviewed whenever:

- The patient's condition or treatment changes
- Conditions in the ward or unit change – for instance if layout or procedures change
- The patient moves to a different ward or service
- There has been an incident or injury involving the patient.

What does it involve?

The patient profile is a one-page form that can be attached to a clipboard. It summarises the patient's details, capabilities and needs and provides a handling plan. It is composed of two parts:

1. **Patient assessment.** This covers the various factors that can affect patient handling and increase handling risks – such as pain, medication, orthotics, co-operativeness and so on. These factors are recorded on the back of the form and noted on the front for quick reference. If the assessment shows there are any risk factors the second part, the handling plan, must be completed
2. **Handling plan**. This records the techniques and equipment considered appropriate for each handling task. It should be followed by anyone carrying out the task, unless the plan is considered unsafe at the time the handling is to take place. For instance, a change in the patient's condition or medication may have altered their balance or ability to follow instructions.

Not every patient will need a handling plan, but the assessment part of the profile should be done for every patient and regularly reviewed in case things change.

How is the profile used?

The patient profile provides carers with the information they need in a clear and consistent way. It provides a quick overview of the patient's condition and any handling needs. It sets out the techniques and equipment most suitable for each handling task – and provides a quick checklist of the factors carers need to consider before they carry out the task. The patient profile should be:

- Available to everyone who works with the patient
- Considered, and if necessary reviewed, before each handling task is carried out
- Kept with the patient's medication and treatment care plan (at the bedside)
- Sent with the patient if they move to another ward or service.

Explain the benefits to your patient

Patients need to understand what the assessment process is about, why it is being done and how it will be used. Often there is a need for extra diplomacy or sensitivity if you are introducing equipment or suggesting changes, so explaining how it all works and what the benefits are can help you gain the patient's co-operation.

Completing patient profiles: practical notes for assessors

Patient capabilities

One of the aims of the programme is to encourage patient independence. This reduces the need for handling. For example, use your clinical judgement to decide if the patient can support their own weight and for how long, and if they have sufficient balance, stability and co-ordination for the task.

Special handling needs

There are a number of things that can affect patient handling. The form on the back of the profile uses a checklist approach, but in some cases you will need to write brief notes and suggestions. The needs you identify should be noted on the front of the form so carers can see at a glance all the things they need to be aware of before starting the handling task.

Some of the things you will need to consider include:

- Pain and response to pain
- Abnormal or restricted movements and abnormal reflex activity
- Hypersensitive areas or loss of sensation or awareness of body parts
- Impaired or at-risk skin which needs protection during handling
- Wet or slippery skin – extra care may be needed in some settings
- Incontinence, which may mean patients feel rushed and need extra time for the task
- Medical treatments or medications, which can affect capabilities in different ways at different times, so the handling may need to vary
- Post-surgical handling, which may mean the wound must be protected, or movement restricted

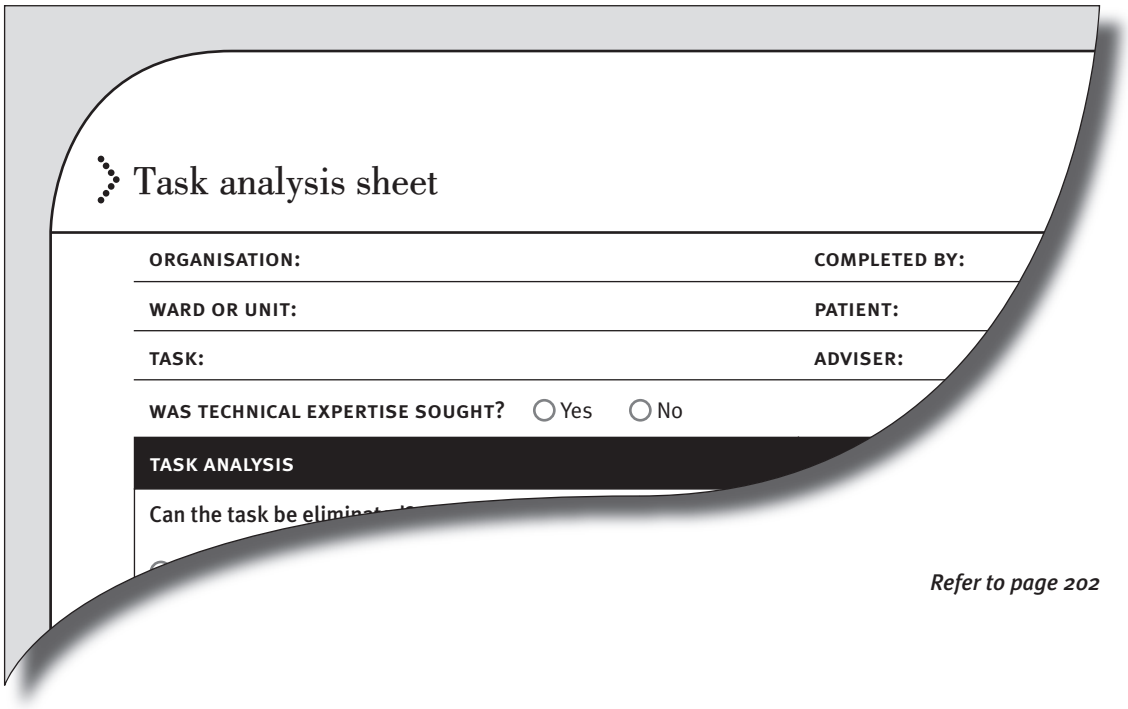
- Medical equipment, such as IV poles, which must be managed during the task
- Aggressive or abusive behaviour, which may need 'calm and restraint' techniques
- The patient's ability to comprehend, co-operate and communicate, which all influence the task
- Any need for visual, hearing or mobility aids
- Whether glasses will help or hinder handling – for instance whether they will distort vision while walking
- Infectious or objectionable patients, who may require different handling
- Religious and cultural factors, which should be respected if it's safe to do so
- Personal preferences, which should be respected if practical and safe to do so
- A risk of falls, in which case a falls risk assessment should be attached to the profile.

Task analysis

You need to assess the tasks and risks involved. First ask yourself if the task can be eliminated – is it really necessary or could it be done without handling the patient? If not, decide how you can reduce the risks during patient handling. Here are some examples:

Controlling risks		In practical terms
If you identify a significant risk first ask if you can eliminate the task – or if not can you eliminate any of the risks?	**1.Eliminate** by removing the risk	First ask if the task really needs to be done. For example, does the patient really have to be seated at the dining table? If the task is essential, can any risks be eliminated? Could you sit the patient at the table in their wheelchair instead to avoid extra handling?
If you can't eliminate the task or significant risks, can you isolate the risks?	**2. Isolate** by avoiding the risk	If the task or risks can't be eliminated, can you isolate any significant risks? For instance, can the patient be moved to where there is more space to carry out the task safely and use lifting equipment?
If you can't eliminate or isolate, decide how to minimise the risks	**3. Minimise** by reducing the risk	If you can't eliminate or isolate the risks, how can you minimise them? Controls such as selecting the right technique and equipment will help reduce risks. Other controls such as staggering bath times can also help
You need to record your decision to eliminate (E), isolate (I) or minimise (M) the risk on the patient profile.		

If you are assessing a task not listed on the profile, analyse the task and seek specialist advice if necessary.



Task analysis sheet

ORGANISATION: COMPLETED BY:

WARD OR UNIT: PATIENT:

TASK: ADVISER:

WAS TECHNICAL EXPERTISE SOUGHT? ◯ Yes ◯ No

TASK ANALYSIS

Can the task be elimin

Refer to page 202

Techniques and equipment

Where practical, you should select the technique that gives the patient the most independence possible while being the safest for the carer. The equipment chosen should be suitable for both the patient and the carer. Some of the things you need to consider include:

- Is the equipment readily available and accessible?
- Does it suit the patient? Consider height, weight and medical restrictions
- Can it be adjusted to eliminate or reduce potential risks? For instance, can the height of the bed or chair be altered?
- Does the equipment suit the handling environment? Consider space and height restrictions
- Is it compatible with other equipment and mobility aids being used?
- Is it in good working order? Has it been well maintained and regularly serviced?
- Are there any special considerations, such as a certain sling that is needed for the patient?
- Are there restrictions on who can use the equipment safely? For instance, can someone working alone operate it safely?

Risk level

The aim of the handling plan is to reduce the potential risk. Once you have assessed the task and selected the technique and equipment to be used, you need to use your clinical judgement to decide what level of risk remains: low, medium or high.

If you consider the potential risk remains medium to high, you need to consider what else can be done to reduce the risk. For instance, could the patient be moved to a different place before the task is carried out? This will create more space, giving the carer the option to seek help, or to use equipment to reduce the risk.

If the risk level still remains medium to high, despite all controls at your disposal, you need to seek specialist advice from the patient handling adviser or technical expert.

Controlling contributing factors – some suggestions	
Load: Patient	• Allow sufficient time for each handling task • Make sure patient profiles are always used – and reviewed when needed • Encourage independence with equipment and fittings such as grab rails • Prepare the environment and check equipment before starting • Explain the task to the patient and helpers before starting • Give clear instructions during the task (eg. "Ready, steady, stand") • Make sure the patient understands – is their hearing aid on? • Make sure the patient can see clearly – do they need their glasses on or off? • Make sure the patient has the mobility aids they need – such as callipers or crutches • Prepare the patient by adjusting their clothing and position – is their skin dry and do they have appropriate clothing and footwear on?
Individual: Carers	• Train carers to identify risks and use equipment and techniques safely • Ensure staff levels are adequate – stress leads to accidents and injury • Make management commitment to health and safety visible • Provide incentives to work safer, not just faster • Encourage staff to report health or other issues which could affect their ability to carry out handling operations safely – provide other duties when necessary • Provide or specify suitable clothing and footwear
Task: Task and equipment	• Provide sufficient space to perform the task and use the right equipment • Reduce repetition by varying and rotating tasks, maybe over different shifts • Provide regular breaks – frequency is more important than length • Select the right equipment for the job and train staff to use it correctly • Avoid the need for squatting, kneeling or crouching • Be aware of the extra risks for night staff and those working alone – for instance, what techniques and equipment can one person use? • Have the right equipment available for the tasks performed and make sure there is enough equipment for the level of handling in your workplace • Make sure all necessary components (such as batteries or slings) are in place • Make sure the equipment is easy to store and retrieve • Ensure equipment can be used within the constraints of the facility – can it be manoeuvred in access ways, through doors, by beds and in toilets and bathrooms? • Ensure all equipment is kept in good order and replaced when required • Involve staff in the trial and selection of equipment
Environment: Facilities	• Ensure lighting is adequate – consider the special needs of night shifts • Ensure floors are non-slip, stable and even – especially in wet areas • Remember carpets may make using equipment more difficult • Replace worn or damaged flooring surfaces in handling areas • Make sure steps and slopes are well designed and properly lit • Remove trip hazards like trailing wires, phone cables, lamp leads and rugs • Reduce noise that may limit or distract communication • Improve layout so the right equipment and techniques can be used – this doesn't have to mean doing alterations, even moving furniture around may help • Ensure walkways are clear and remove clutter from handling areas • Allocate an individual or team to keep handling and access areas tidy • Check furniture surfaces – are they abrasive, slippery, wet or sticky? • Carefully plan handling outdoors – lack of equipment and rain, wind etc add risk • Equip your facilities with securely positioned grab rails • Select furniture that is adjustable, stable and suits the patient's build and weight • Avoid unsupportive furniture that makes it harder for the patient to move

Techniques for safer patient handling

All patient handling carries some risk. One of the main ways you can significantly reduce the risk is by avoiding the need to lift or take the weight of the patient during handling. You can do this by using safer handling techniques and appropriate patient handling equipment.

We have developed 30 techniques for common patient handling tasks such as standing, walking, sitting and repositioning the patient. These techniques are based on safe biomechanical principles and do not require you to take the patient's weight or to hold on to them during handling tasks.

These techniques are a very important part of the LITEN UP approach. They are located at the back of the guidelines, for ease of use, and include general principles for safer handling – as well as detailed descriptions and illustrations for each technique.

Unsafe patient handling techniques

There are a number of unsafe handling techniques still in common use. These need to be eliminated from our workplaces because they can cause significant injuries to carers and patients.

They are unsafe because either they involve lifting and handling weights that exceed the 16 kilo limit, or they don't follow safe biomechanical principles for manual handling. Even when these techniques are combined with patient handling equipment, the risks to patient and carer remain unacceptably high.

The literature does not report test results for some of the unsafe patient handling techniques because they are so obviously outside the safe biomechanical principles for safe handling. So testing is unnecessary – and unethical, as it would be unsafe for those participating in the tests.

The unsafe techniques covered in this section are:

Australian shoulder lift 42
Orthodox lift 44
Underarm drag lift 46
Cross arm lift 48
Front assisted transfers with one carer 49
Through-arm or top and tail lift 51
Three-or-more patient lift 53
Flip turn on bed 54

If you are currently using any of these techniques, you should eliminate them from your workplace. They can cause significant injuries and do not meet best practice standards.

Why lifting a patient is unsafe

- Carers are at risk in all patient lifting.
- It is difficult or impossible for carers to adopt safe handling postures to lift patients.
- Patients are at risk in all patient lifting.
- People usually weigh too much to be lifted manually.
- People are unpredictable and unstable loads to lift.
- There is no therapeutic value for the patient if they are manually lifted.

Australian shoulder lift

This lift is performed by two carers to move a patient up the bed – or to move them from a bed to a wheelchair, commode or armchair. The patient is propped over the carers' shoulders and carers link arms under the patient's thighs to lift them.

Risk factors for patients

- The force under the patient's armpit and chest can cause shoulder injuries and soft tissue damage, and restrict breathing.
- The patient is slumped forward – this is unsuitable for many patients with abdominal or chest conditions.
- The position is also unsuitable for acute care patients, patients with amputations, hip surgery or arthritis in the hip and shoulder, and stroke patients with reduced tone, reduced shoulder mobility and poor balance.
- Carers can't see the patient's response if something adverse happens during the transfer.

Risk factors for carers

- Carers take the patient's full weight.
- The lift is 'intrusive' and patients may resist, increasing spinal stress for the carers.
- Carers' positions are awkward, twisted and flexed during the lift, increasing physical stress.
- Carers' arms are twisted and held awkwardly – this may cause hand, wrist, forearm, elbow or shoulder injuries.
- If patients try to assist, extra force is directed through the carers' bodies, and they may be pushed off balance.

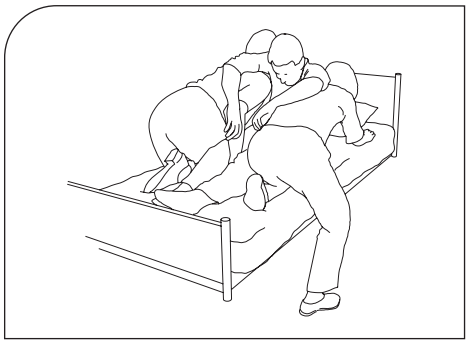


fig 2. Positions are awkward and carers take the patient's full weight

The Royal College of Nursing states the Australian shoulder lift is the leading cause of injury for nurses.

Hazards of Nursing, Personal Injuries at Work (1996), Royal College of Nursing. London.

Evidence-based research and publications that serve as standards

- Gabbett, J. (1998) 'A pilot study to investigate the lifting and sliding of patients up in bed', unpublished MSc dissertation, University of Surrey.
- Scholey, M. (1982) 'The shoulder lift', *Nursing Times*, March 24: 506-7.
- Winkelmolen, G.H.M., Landeweerd, J. and Drost, M.R. (1994) 'An evaluation of patient lifting techniques', *Ergonomics* 37 (5): 921-32.
- Wright, B. (1981) 'Lifting and moving patients: 1. An investigation and commentary', *Nursing Times*, 11 November: 1962-5.
- Wright, B. (1981) 'Lifting and moving patients: 2. Training and management', *Nursing Times*. 18 November: 2025-8.
- Lloyd, P., Fletcher, B., Holmes, D., Tarling, C. and Tracy, M. (1998) *The Guide to the Handling of Patients* (4th edition). National Back Pain Association/Royal College of Nursing.
- Fray, M., Ratcliffe, I., Jones, B., Parker, A., Booker, J., Warren, C. and Rollinson, G. (2001) *Care Handling for People in Hospital, Community and Education Settings. A Code of Practice*. Derbyshire Inter-Agency Group.

Orthodox lift

Also known as the cradle or traditional lift.

This technique involves two carers standing either side of the patient. One arm is placed behind the patient's back and the other arm under their thighs. The patient is then lifted. This lift may be combined with other lifts, or appear different from these illustrations.

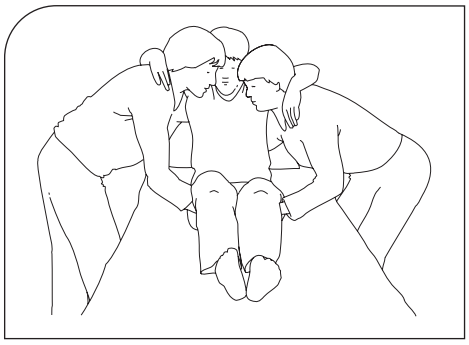


fig 3. Carers lift in a stooped position

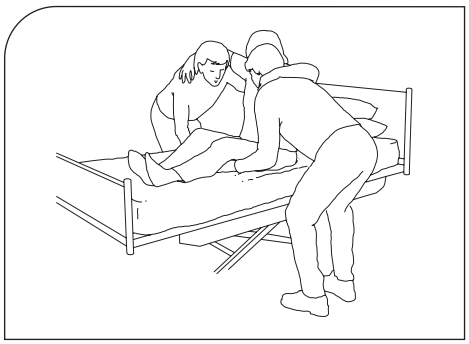


fig 4. Carers lift the patient's entire weight

Risk factors for patients

- The patient's head and limbs are unsupported – this is uncomfortable and may cause injury to susceptible patients.
- Carers are lifting the patient's whole weight, so there is a risk the patient could be dropped or roughly handled.
- The patient's skin may be injured when carers slide their hands into position.
- The patient's skin may be dragged or pulled when they are lifted, especially if a strong grip is needed.

Risk factors for carers

- Carers lift in a stooped position, and twisting is often involved – increasing stress on the spine.
- Carers lift the entire weight of the patient – this places excessive stress on the carers' spines.
- If carers try to support the patient's head and limbs by placing their hands further apart, even greater spinal stress is generated.
- The human body is an awkward load to lift and it is impossible to lift the weight evenly – so carers may lose their balance or lift with a poor posture.

The Royal College of Nursing states the orthodox lift was the second leading cause of injury for nurses.

Hazards of Nursing, Personal Injuries at Work (1996), Royal College of Nursing. London.

Evidence-based research and publications that serve as standards

- Smedley, J., Egger, P., Cooper, C. and Coggon, D. (1995) 'Manual handling activities and risk of low back pain in nurses', *Occupational and Environmental Medicine*.
- Stubbs D.A., Hudson M.P., Rivers P.M. and Worringham C.J. (1980) *Patient Handling and Truncal Stress in Nursing*. Proceedings of the Conference on Prevention of Back Pain in Nursing. Northwick Park Hospital, Harrow. BPA, DHSS 14-27.
- Pheasant, S. and Stubbs, D.A. (1992). 'Back pain in nurses: epidemiology and risk assessment', *Applied Ergonomics* 24 (4): 226-32.
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- Fray, M., Ratcliffe, I., Jones, B., Parker, A., Booker, J., Warren, C. and Rollinson, G. (2001) *Care Handling for People in Hospital, Community and Education Settings. A Code of Practice*. Derbyshire Inter-Agency Group.

Underarm drag lift

The underarm drag lift includes any transfer where the carer hooks their hand or arm under the patient's armpit in order to pull, lift or drag the patient. It may be performed by one or two carers, and could be combined with other lifts, or appear different from the way we've pictured it here.

Risk factors for patients

- Injuries to patients can include dislocated shoulder, soft tissue injury, skin damage due to dragging, and damage to nerves in the armpit.
- The move doesn't allow appropriate movement patterns and discourages independent movement.
- It is hard for the carer to control the transfer and stop the patient from falling.

Risk factors for carers

- The patient relies on the carer for support.
- The forces across the carer's shoulders can cause shoulder and upper back injuries.
- The carer can't get close to the patient's centre of gravity – increasing stress on the carer's spine.
- The carer's spine twists during the transfer – this can damage the spine or strain the structures that support the spine.
- It is awkward to lower a collapsing patient – this can injure both carer and patient.
- The weight of the patient and forces generated often result in carers being pulled off-balance or over reaching, which increases the risk of injury.

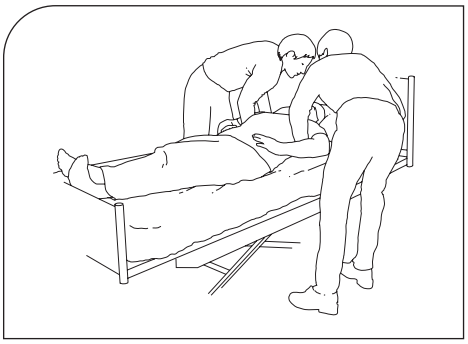


fig 5. The carer's spine twists durng this lift

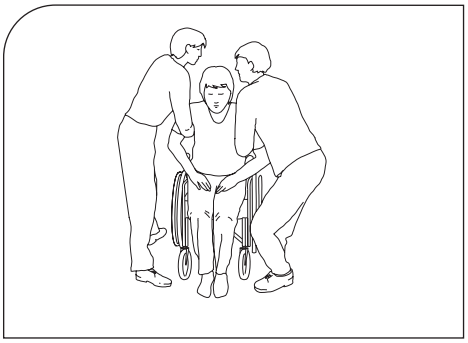


fig 6. The carer's shoulders take the force

The Royal College of Nursing states the underarm drag lift is the fourth leading cause of injury for nurses.

Hazards of Nursing, Personal Injuries at Work (1996), Royal College of Nursing. London.

Evidence-based research and publications that serve as standards

- Khalil, T.M., Asfour, S.S., Marchette, B. and Omachonu, V. (1987) 'Lower back injuries in nursing: a biomechanical analysis and intervention strategy' in Asfour, S.S. (ed.) *Trends in Ergonomics/Human Factors IV*, Holland: Elsevier Science Publishers B.V., 811-21.
- Owen, B. (1999) 'Decreasing the back injury problem in nursing personnel', *Surgical Services Management* 5 (7): 15-21.
- Lloyd, P., Fletcher, B., Holmes, D., Tarling, C. and Tracy, M. (1998) *The Guide to the Handling of Patients* (4th edition). National Back Pain Association/Royal College of Nursing.
- Fray, M., Ratcliffe, I., Jones, B., Parker, A., Booker, J., Warren, and C. Rollinson, G. (2001) *Care Handling for People in Hospital, Community and Education Settings. A Code of Practice*. Derbyshire Inter-Agency Group.

Cross arm lift

In this move, the patient is transferred from bed to chair in a seated position with their arms crossed in front of their chest.

The carers place a sling under the patient then, with one arm under the patient's arms and the other hand gripping the sling, they lift and transfer the patient.

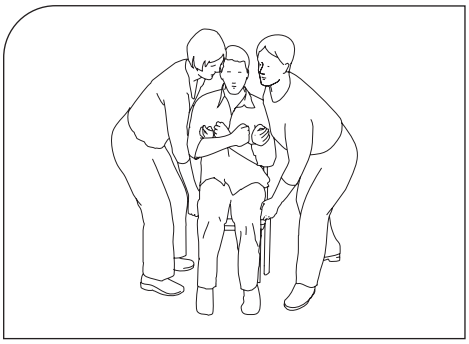


fig 7. Carers take the patient's whole weight and can't maintain an upright posture

Risk factors for patients

- Force is applied under the patient's arm when the patient is lifted – this can result in soft tissue injury or a dislocated shoulder.
- Carers are lifting the patient's whole weight, so there is a risk the patient could be dropped or roughly handled.
- The patient's skin may be dragged or pulled when they are lifted, especially if a strong grip is needed.

Risk factors for carers

- Carers have to stoop and twist – they can't maintain an upright, forward-facing posture.
- Carers lift the entire weight of the patient – increasing stress on the carers' spines.
- The human body is an awkward load to lift and it is impossible to lift the weight evenly – so carers may lose their balance or lift with a poor posture.

Evidence-based research and publications that serve as standards

- Lloyd, P., Fletcher, B., Holmes, D., Tarling, C. and Tracy, M. (1998) *The Guide to the Handling of Patients* (4th edition). National Back Pain Association/Royal College of Nursing.

Front assisted transfers with one carer

Also pivot transfer, bear hug transfer, elbow-lift transfer, rocking-lift transfer and belt holds from the front.

This category covers all transfers where the carer is directly in front of the patient for the transfer (toe to toe). The patient is transferred in a standing or half-standing position and pivoted through a 90° to 180° turn. Many carers believe the technique is safe because it involves a counterbalance between their weight and the patient's.

Risk factors for patients

- The patient can't bring their weight forward and over their toes to centre themselves for stability and balance because the carer is standing directly in front of them.
- If the patient loses strength or collapses, the carer can't easily control the transfer and stop the patient falling.

Risk factors for carers

- Even if the carer is fully upright, there is high spinal force at the start of the transfer.
- The amount of force needed to start the transfer is well beyond safe levels.
- Because the patient can't bring themselves forward to centre themselves, the carer may be pulled off balance.
- If the patient holds on around the carer's neck, upper back or waist, the carer's spine is subject to excessive stress.
- If the patient collapses and the carer tries to support them, the carer's spine is subject to high stress.

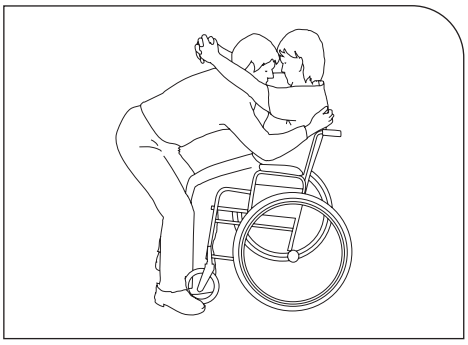


fig 8. The force required to start is unsafe

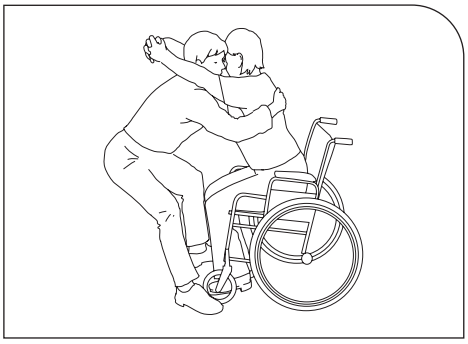


fig 9. The carer's spine is subject to excessive stress

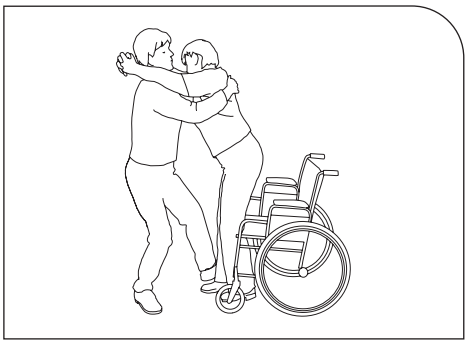


fig 10. Even when the carer is upright, spinal stress is excessive

Evidence-based research and publications that serve as standards

- Marras, W.S., Davis, K.G., Kirking, B.C. and Bertsche, P.K. (1999) 'A comprehensive analysis of low-back disorder risk and spinal loading during the transferring and repositioning of patients using different techniques', *Ergonomics* 42 (7): 904-26.
- Lloyd, P., Fletcher, B., Holmes, D., Tarling, C. and Tracy, M. (1998) *The Guide to the Handling of Patients* (4th edition). National Back Pain Association/Royal College of Nursing.
- Fray, M., Ratcliffe, I., Jones, B., Parker, A., Booker, J., Warren, C. and Rollinson, G. (2001) *Care Handling for People in Hospital, Community and Education Settings. A Code of Practice*. Derbyshire Inter-Agency Group.

Through-arm or top and tail lift

This lift can involve one or two carers. Two common examples are:

- **Repositioning a patient in a chair:**
  One carer leans over the back of the chair, holds the patient under their arms, clasps their forearms and lifts them back into the chair. A second carer may lift the patient under the thighs
- **Moving a patient up the bed:**
  One carer kneels on the bed with one knee on the bed and their other foot on the floor. They put their arms under the patient's arms, clasp the patient's forearms, then lean back and lift the patient up the bed. A second carer may lift the patient under their thighs.

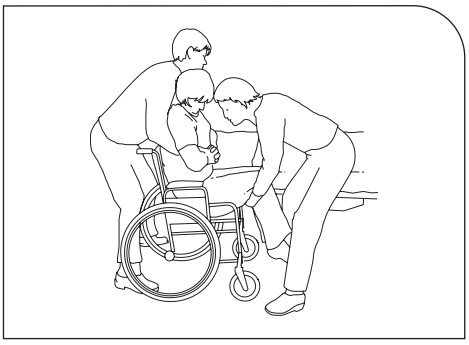


fig 11. The carer lifting the top half takes most of the weight

Risk factors for patients

- The forces the lift generates may injure the patient's shoulder or arm.
- There is likely to be some dragging, which can cause skin abrasions or tears.
- This move often takes place at high speed, and the patient may land hard on their bottom in an uncontrolled manner.

Risk factors for carers

- The carer's shoulders take most of the force – this may cause shoulder or arm injuries.
- The carer may need to stoop when lowering the patient – causing musculoskeletal strains.
- The transfer tends to happen at high speed – increasing the force on the carer's spine.
- The carer lifting the top half of the patient takes about 68% of the weight.
- If the patient tries to help by pushing off it can cause excess asymmetrical force on the carer's body.
- The nature of the human body may make it difficult to co-ordinate the transfer – for instance if the patient is floppy or resistant.

Evidence-based research and publications that serve as standards

- Lloyd, P., Fletcher, B., Holmes, D., Tarling, C. and Tracy, M. (1998) *The Guide to the Handling of Patients* (4th edition). National Back Pain Association/Royal College of Nursing.
- Fray, M., Ratcliffe, I., Jones, B., Parker, A., Booker, J., Warren, C. and Rollinson, G. (2001) *Care Handling for People in Hospital, Community and Education Settings. A Code of Practice*. Derbyshire Inter-Agency Group.

Three-or-more patient lift

Three or more carers stand beside the bed and position their arms underneath the patient. The patient is transferred to the side of the bed, then rolled towards the carers onto their side before being lifted. The shortest route is taken to transfer the patient.

Risk factors for patients

- This move is unsuitable for patients with spinal injuries or frontal wounds as their trunk can flex or extend.
- Carers could drop the patient if the move is not well co-ordinated.
- Carers may damage the patient's skin when they slide their hands under them.

Risk factors for carers

- The patient's weight is not evenly spread so some carers will bear more weight.
- Lifting and lowering the patient increases the musculoskeletal strain, especially if the two surfaces involved are different heights.
- Carers of different heights may have to adopt awkward sustained postures.
- Any difficulties in co-ordinating the lift and moving the patient will increase the strain.
- Patients are unpredictable and unstable loads, so it can be hard to get close to their centre of gravity – this increases the spinal load for carers.

Evidence-based research and publications that serve as standards

- Lloyd, P., Fletcher, B., Holmes, D., Tarling, C. and Tracy, M. (1998) *The Guide to the Handling of Patients* (4th edition). National Back Pain Association/Royal College of Nursing.

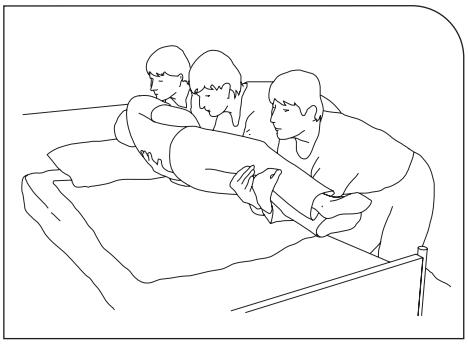


fig 12. Lifting causes musculoskeletal strain

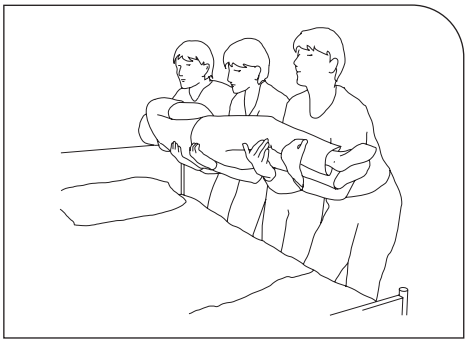


fig 13. Some carers bear more weight

Flip turn on bed

This move is performed by one or two carers. The carers place their arms under the patient, and then pull the patient toward themselves, while lifting and turning them over at the same time.

Risk factors for patients

- The dragging forces needed to move the patient across the bed may cause skin abrasions or tears.
- The patient can roll out of the bed because of the high speed of the transfer.
- The patient's skin may be damaged from carers sliding their hands under the patient.

Risk factors for carers

- The patient's centre of gravity is a long way from the carer's – causing spinal stress for the carer.
- The high speed of the task may increase the loads on the carer's spine.
- The carer may bend forward and extend their reach – and this may cause musculoskeletal strain.

Evidence-based research and publications that serve as standards

- Lloyd, P., Fletcher, B., Holmes, D., Tarling, C. and Tracy, M. (1998) *The Guide to the Handling of Patients* (4th edition). National Back Pain Association/Royal College of Nursing.

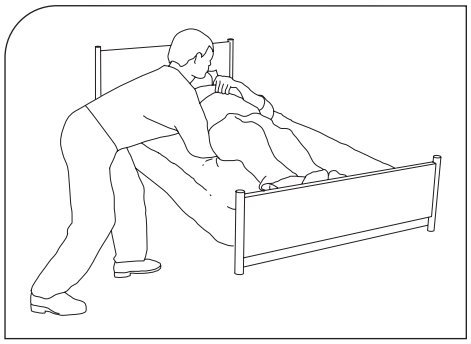


fig 14. Bending and extended reach cause strain stress

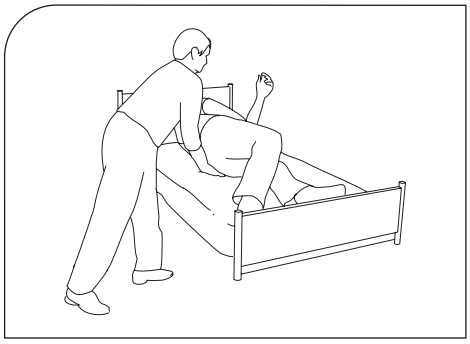


fig 15. The speed of the task increases spinal stress

TRAINING

Contents

- Patient handling training 57
- Core competencies 58
- What's involved in training? 59

Patient handling training

Training is a vital part of implementing safer patient handling practices because it:

- Teaches staff how to identify and assess patient handling risks
- Provides staff with the skills they need to manage the risks
- Supports professional growth by developing staff knowledge and skills
- Encourages staff to take personal responsibility for safety in the workplace
- Helps employers and employees meet their legal responsibilities.

Training on its own cannot bring about change. It must be supported with effective health and safety systems, appropriate equipment and safe workspaces.

What are the legal responsibilities?

The Health and Safety in Employment Act 1992 requires employers to take all practicable steps to ensure the health and safety of employees and others at work. This includes providing sufficient and suitable information, instruction, training and supervision.

Employees have a duty to ensure their own health and safety and that of others at work, so they need to attend training to keep their knowledge and skills up to date.

You can view the legislation on the OSH website at www.osh.dol.govt.nz or www.workinfo.govt.nz

Who should deliver the training?

Your organisation will need patient handling instructors to deliver the training.

Patient handling advisers support the training process by providing advice on training programmes and suitable instructors. They also need to monitor the training to ensure it is effective, and keep records.

What competencies are needed?

Competencies are the skills and knowledge an employee must have to carry out patient handling tasks safely. There are four core areas of competency – organisational and planning issues, operational issues, record keeping and professional development.

The chart on the next page provides details of the skills and knowledge staff should have after completing their patient handling training.

The core competencies are used as a basis for training programmes, to measure learning outcomes, to assess training needs for new staff and as a base for job descriptions.

Carers, advisers and instructors need to show they have the skills and knowledge to carry out these tasks			
Competency	**All carers, advisers and instructors**	**Extra requirements for advisers**	**Extra requirements for instructors**
1. Organisational and planning issues	• Understand their legal responsibilities • Know and follow policy and procedures • Contribute to decision making and reviews	• Help with policy development and implementation • Gain management support to implement safe patient handling processes throughout the organisation • Organise and implement a process to monitor and review patient handling practices • Co-ordinate across the organisation to ensure there is a consistent approach to safe patient handling • Maintain an up-to-date resource of guidelines and publications relating to patient handling • Ensure all employees stay up to date with legislation and guidelines	• Ensure training follows LITEN UP guidelines • Update training as required to reflect latest evidence-based best practice • Ensure training covers policy and procedures
2. Operational issues	• Understand the principles of safe patient handling • Act as an advocate for patient needs • Identify and assess risks using LITE principles • Use safe patient handling techniques and equipment • Seek help with patient handling tasks if required • Report incidents, concerns and unsafe practices or tasks • Suggest improvements • Follow training guidelines	• Mentor and support staff, and supervise their performance • Ensure staff comply with policies and procedures • Promote evidence-based research as a means to improve best practice • Review progress and identify areas for improvement • Manage communication and consultation with staff • Provide, monitor and evaluate solutions for complex handling situations • Monitor training and evaluate outcomes • Identify and eliminate unnecessary/unsafe tasks • Manage the testing and evaluation of new equipment • Help determine facility design needs, manage the design process, and check changes meet needs	• Teach and advise staff and monitor their performance • Attend relevant meetings and pass information to carers through training
3. Record keeping	• Keep accurate and up-to-date records of risk assessments • Report and/or record safety issues on the workplace control plan	• Keep reports of meeting outcomes • Keep a central register of patient handling documents and records, including training records • Ensure adequate equipment and maintenance records are kept	• Keep a training register showing attendees, course content and assessment details
4. Professional development	• Take personal responsibility for continued professional development • Increase skills and knowledge to stay up to date with best practice • Share skills and knowledge with others	• Maintain contact with professional bodies to gain advice and guidance on latest research and best practice	• Take and act on advice from the patient handling adviser

What's involved in training?

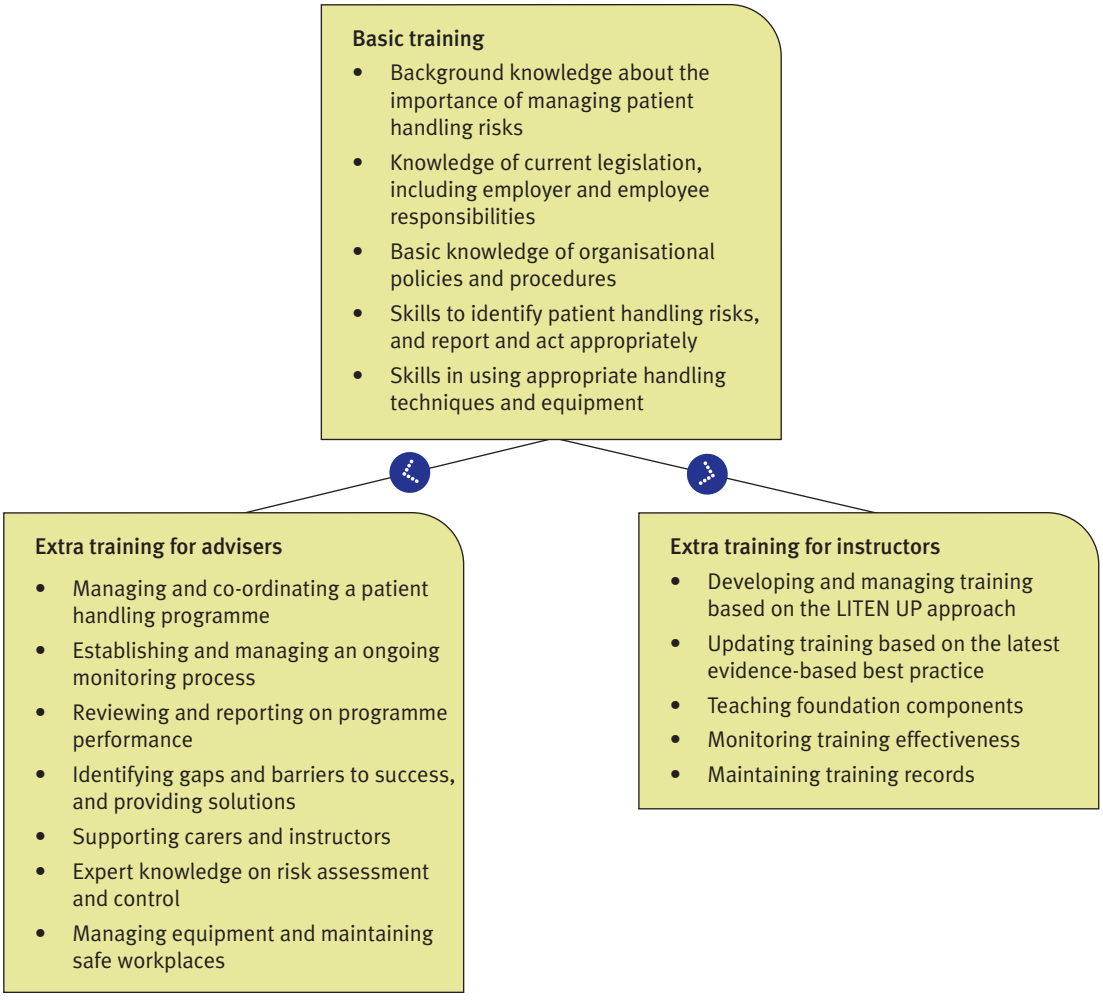
Training needs to be provided before any patient handling tasks are carried out. This means training staff at induction and when new equipment or work practices are introduced.

Like all health care activities, knowledge about patient handling is constantly changing. Patient handling advisers and instructors need to keep up with these changes so they can provide up-to-date advice and guidance. Carers need to attend annual refresher training courses to ensure best practice is maintained.

The patient handling training programme you select should reflect the latest evidence-based best practice. A national approach is important because it helps ensure common standards and transferable skills.

All carers needs to complete basic patient handling training before handling patients. Patient handling advisers and instructors need to complete both basic and extra training.

A SUGGESTED PATIENT HANDLING TRAINING PROGRAMME



EQUIPMENT

Contents

- Introduction 63
- Index of patient handling equipment 65

Support materials

- Pre-purchase or hire equipment assessment 203

Introduction

All patient handling carries some risk. People can be awkward and heavy to move and special consideration must be given to their needs. Where possible, equipment should be used to help move patients. Techniques that involve taking the full weight of the patient without using equipment should be avoided.

It is essential that a LITE patient profile is completed for each patient, and where necessary a handling plan completed that sets out the handling techniques and equipment to be used. The profile and plan must be considered before any handling task is carried out.

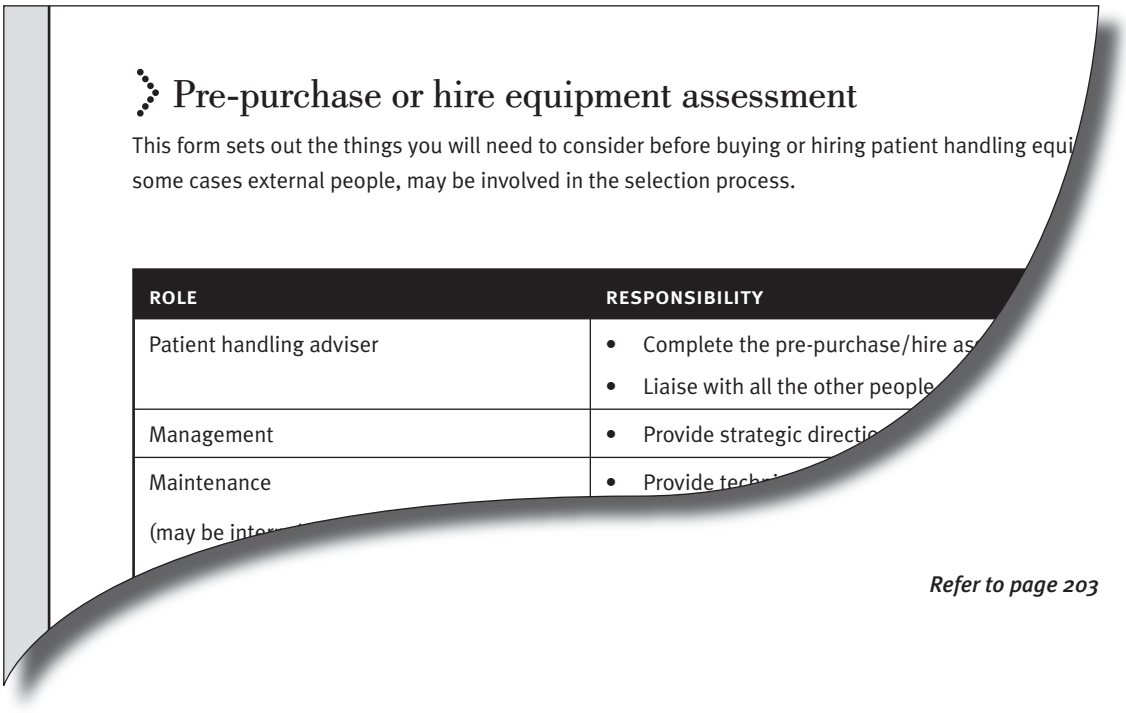
Equipment is a vital part of implementing safer work practices and should be used in conjunction with the techniques for safer handling provided in these guidelines.

Equipment helps take the weight of the patient or reduce the force required so the risk of injury is reduced. But it doesn't remove the risk entirely. Even with a hoist there is still some handling required, for instance to roll the patient onto a sling. With most equipment the carer still needs to use physical effort to move, steady and position the patient. As injury is often cumulative, any steps taken to reduce the risks will have substantial benefits.

What equipment is needed?

This section covers the main types of equipment available. To identify the equipment you need in your workplace you will need to complete a LITE workplace profile, and consider other sources of information such as incident reports and staff questionnaires.

We've included a pre-purchase or hire equipment assessment form on page 203 to help you evaluate the suitability of any new equipment you decide is needed.



Pre-purchase or hire equipment assessment

This form sets out the things you will need to consider before buying or hiring patient handling equi
some cases external people, may be involved in the selection process.

ROLE	RESPONSIBILITY
Patient handling adviser	• Complete the pre-purchase/hire as • Liaise with all the other people
Management	• Provide strategic directi
Maintenance (may be inter	• Provide tech

Refer to page 203

Standardising the range of equipment purchased has several advantages:

- Slings and parts are interchangeable
- Maintenance is easier
- Buying larger quantities usually results in price discounts.

However, it is important to consider the particular requirements of each ward or unit.

Index of patient handling equipment

Hoists **67**

Mobile hoist 69
Mobile standing hoist 70
Ceiling track or gantry hoist 71
Fixed wall hoist 73

Slings **74**

Hammock sling 76
U-shaped sling (divided leg sling) 76
Access or toilet sling 77
Sling for use with a tilting spreader bar 77
Stretcher sling 78
Walking harness sling 78
Amputee sling 78
Band sling 78

Transfer boards **79**

Large transfer or roll board 80

Bath and shower equipment **81**

Bath board 81
Swivel seat 81
Bath seat 82
Bath lift and hoist 82
Wheeled shower chair 83
Mobile shower trolley 83

Bed and chair equipment **84**

Leg lifter (electric and manual) 84
Thigh lifter 84
Turntable and framed turning platform 85
Bed or Hand blocks 86
Bed lever 86
Rope ladder 86
Monkey pole 87
Profiling bed 87
Mattress elevator and pillow lifter 88
Bed and chair raisers 89
Manual seat riser cushion and chair 90
Powered riser chair 90
Standing frame 91
Lateral tilting bed 91

Handling belt **92**

Slidesheets **93**
One-way slidesheet 93
Padded slidesheet 94
Emergency equipment **95**
Combination stretcher and carry chair 95
Backboard 96
Ambulance stretchers **97**
Scoop stretcher 97
Folding emergency stretcher 97

Hoists

Mobile hoists allow patients to be transferred from one point to another. The patient is lifted using the hoist, and the wheels allow the carer to move the hoist.

Hoists are designed for short transfers and should not be used to move patients any distance (from one area to another). They are awkward for carers to move and can be uncomfortable for the patient.

Some mobile hoists can be dismantled if necessary to move to another area. The manufacturer should provide full instructions for this. Frequent dismantling should be avoided, as batteries and motors are usually heavy and the frames awkward to move.

Things to consider

Safety considerations:

- The manufacturer's recommended weight limit must be observed
- Carers must be trained in the use of the hoist and choosing appropriate slings
- Carers must be able to manage the manoeuvring of the hoist
- There must be two or more carers to carry out the hoisting task.

Workplace considerations:

- There needs to be enough space around the furniture from which and to which the patient is being moved, so the hoist does not have to be frequently manoeuvred (this is harder on carers and may cause the patient to swing excessively in the sling)
- If the patient is on the floor and access is restricted, they may need to be moved using a slidesheet to a suitable area where the hoist can be used
- If a hoist is used over a toilet, make sure there is enough space at the front and side of the toilet for the hoist and to allow carers to carry out toileting and hygiene tasks
- Ensure the hoist's legs will pass under the bed – some beds have a deep base that prevents this. Electric beds may need to be raised to fit the hoist underneath
- If the bed is not adjustable, you need to be sure the hoist will raise the patient clear of the mattress
- There must be nearby storage for the hoist – it should not be stored in another ward or unit
- You need level access and suitable floor surfaces for moving hoists. The type and size of wheels affect the ease of movement.

Potential risks:

- Slippery or wet floors – the initial force needed to move a hoist requires a firm grip between the carer's footwear and the floor, or they could slip and fall
- Mats and rugs – these can make it difficult to move a hoist, especially if it has small wheels
- Carpet joins and raised thresholds or lips – these make a ridge for the hoist to pass over which can cause a jerky movement that can harm carers, and cause the patient to swing uncomfortably

- Clutter and narrow access ways – can restrict the movement of carers and equipment and means extra manoeuvring may be required.

A hoist is not always suitable

A hoist is not suitable for all patients. An assessment is needed if the patient:

- Has writhing and uncontrollable movements
- Is violent or aggressive
- Has a frozen shoulder (hammock and u-shaped slings are unsuitable)
- Has had orthopaedic surgery, or has an unstable fracture (hoisting may be possible with a stretcher sling)
- Has any other condition where a special sling may be needed.

Marking and labelling of hoists

The Australian Standard 3581-1988 states hoists must show:

- Serial number and date (year and month) of manufacture
- Safe working load (SWL) in letters at least 15mm high and at the operator's eye level
- Basic operating and maintenance instructions, where appropriate.

All marking must be permanent and able to be read from 0.6 metres away.

Mobile hoist

A mobile hoist consists of a wheeled chassis (the legs), a boom, mast, cross bar and spreader bar. It is used when other patient handling techniques are considered unsuitable.

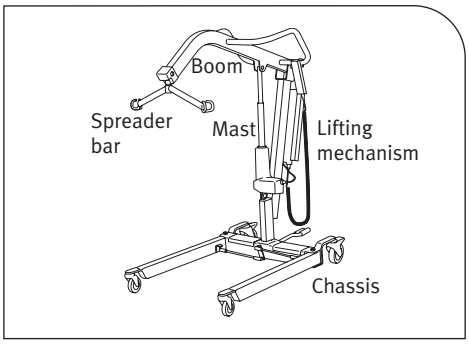


fig 16. Typical mobile hoist

Things to consider

Advantages

Mobile hoists offer a cost-effective solution because:

- They can be easily transported to many locations
- One hoist can be used for a wide variety of tasks.

Disadvantages:

- The carer may need a lot of strength to turn and move the hoist, especially in rooms with thick-piled carpet or through doorways with thresholds
- The patient can't use the hoist independently – at least two carers are needed
- There needs to be enough space in the room to use the hoist
- It can be hard to use a hoist with some types of furniture (eg. will the hoist legs fit under the bed?)
- Some mobile hoists cannot lift high enough to clear beds, especially beds with pressure care mattresses
- Mobile hoists need a lot of storage space
- They need regular charging.

Mobile standing hoist

A mobile standing hoist is suitable for patients who can support most of their own weight while standing. It is used to move the patient from one seated surface to another, such as from a chair to the toilet. Some standing hoists can be supplied with a sitting sling option that allows the patient to sit in a perched or fully seated position. Some also have a seat or commode pan that can be attached.

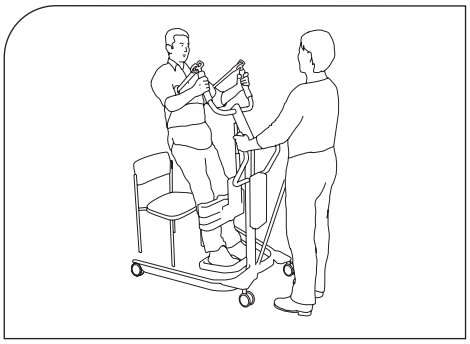


fig 17. Mobile standing hoist

Things to consider
Advantages

- Standing hoists are valuable nursing tools as they allow unrestricted access to the patient's clothing for toileting and personal hygiene.
- They have some therapeutic benefit for the patient because they provide an opportunity to increase weight-bearing tolerance.

Disadvantages

- The way the patient is brought up to stand is not natural. However, a standing hoist may still provide a more natural sit-to-stand movement than many carer-assisted stands and add therapeutic value.
- Extra care needs to be taken for patients with:
  - Osteoporosis
  - Spinal metasteses
  - Low muscle tone
  - Difficulty standing with their feet flat on the ground.

Ceiling track or gantry hoist

A ceiling track hoist is a permanent hoist feature built into a room. A gantry hoist is useful in spaces with limited room – it takes less room than a mobile hoist. They may allow patients to move themselves independently.

There are three types of tracks: straight line, curved, and an X/Y system.

An X/Y system has two parallel tracks fitted to both sides of the room. Running between the two parallel tracks is a moving section. X/Y tracks provide more options for hoisting the patient than a straight line or curved track, which can only hoist the patient from a position directly under the track.

A turntable is a manually operated system that enables a hoist to link to another track without having to install a track with a tight angle. When the ceiling track hoist is positioned on the turntable, a pull cord mechanism releases the hoist and enables it to turn. The patient can then be moved on to a new track in a different direction.

Things to consider
Advantages

- Ceiling track hoists are permanently installed and require less set-up time and effort to use than mobile hoists.
- Ceiling track hoists can reduce the number of transfers required in some situations – for instance between a bed and an ensuite toilet.
- Ceiling track and gantry hoist systems usually lift a large height range from ceiling to floor, so the patient can be hoisted clear of obstacles such as furniture.
- Ceiling track and gantry hoist systems require less space to operate than a mobile hoist and should be considered if access is restricted.

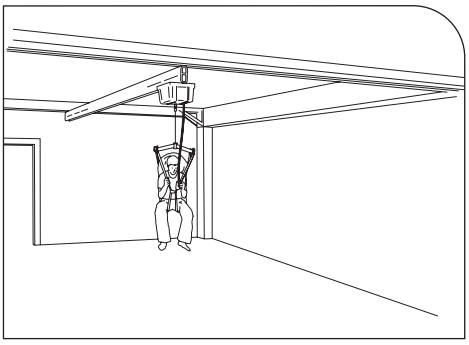


fig 18. Ceiling track hoist

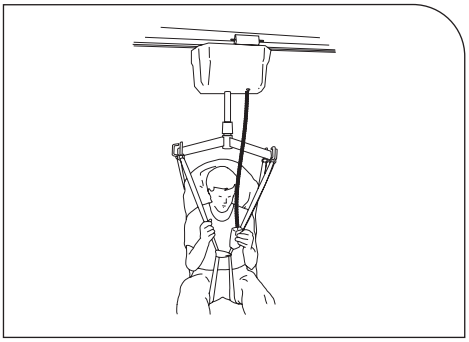


fig 19. Self operation of ceiling track hoist

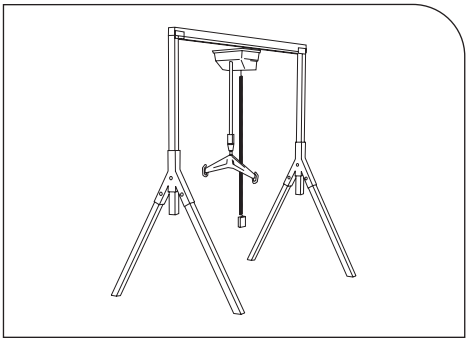


fig 20. Gantry hoist

- The motorised system for ceiling track and gantry hoists is unhooked from the track when not in use and requires a lot less storage space than a mobile hoist.
- Gantry hoists offer similar advantages to ceiling track hoists but are often used where a permanent ceiling track solution is not possible or required.
- Although gantry hoists appear large, the frame is often placed against a wall so access space is not restricted.

Disadvantages

- Ceiling track hoists are permanent fixtures, so the building structure must be suitable.
- Gantry hoists are large and require installation, so must be considered a semi-permanent solution.
- The pick-up and drop-off points of ceiling and gantry hoist systems are limited along the length of the track – however, an X/Y system (two parallel tracks) is more flexible because a patient can be lifted from any point between the tracks.

Fixed wall hoist

Fixed wall hoists are permanent fixtures that can swing 90° to 180° to move the patient from a bed to wheelchair. The brackets for the swinging frames can be fixed in various locations in a hospital or facility so a portable hoist can be attached when needed.

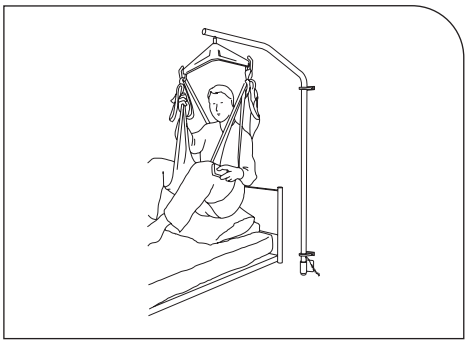


fig 21. Fixed wall hoist

Things to consider
Advantages

- Fixed wall hoists can be located in small rooms where there is not enough room to use a mobile hoist.
- They are useful in nursing or residential homes where hoist use is constantly changing – brackets can be installed in every room and the hoist moved around as needed.
- They provide an alternative if the building structure doesn't allow an overhead track to be installed.

Disadvantages

- Fixed wall hoists are usually more expensive than mobile hoists.
- They are permanently mounted so positioning must be carefully planned to suit the room layout and transfer needs.
- They can only be used for short transfers, for instance from the bed to a bedside commode chair.

Slings

Slings are used to support the patient while moving with a hoist. Choosing the right sling and fitting it correctly can greatly improve comfort, independence and dignity for the patient. It can help the patient overcome any unwillingness to use the hoist. Generally the more material a sling has the greater the comfort and support it provides. The less material the sling has the more physical ability the patient needs (especially upper body strength).

The sling is attached to a hoist's attachment points to provide support for the patient while they are being moved.

Things to consider

Size

- It is essential that the size of the sling is right for the patient.
- The size should be written on a label attached to the sling, or the sling can be colour coded to indicate the size.
- Sling sizes vary from one manufacturer to the next so you need to measure the sling against the patient to be sure the size is correct.

Compatibility

- Some manufacturers state that their slings are only compatible with certain hoists.

Material type

Generally the more fabric a sling has, the more support it will provide. Slings can be made from different types of material:

- Synthetic slings are easy to wash and dry but tend to make the patient sweat
- Mesh material slings are suitable for bathing and showering because they allow the water to drain away
- Sheepskin and quilted slings may provide extra comfort, especially if the patient has to sit or lie on a sling for a prolonged period of time – but they don't provide pressure relief.

Important things to look for

- Check the sling is not damaged before using it. Look for rips, frayed edges, undone seams and cracked clips.
- Slings with several loop adjustments can be easier to adjust. The loop space can be marked with a piece of wool or a pen to identify the 'setting' so the patient is always hoisted in the same position, even with different carers.
- To help control infections, slings should be washed following manufacturers' instructions. The instructions must still be legible after the slings have been washed. Consider using disposable slings if the sling is used in a high-infection-risk area. (See Australia/New Zealand Standard 4146:2000 for more information.)

Labelling standards

All slings should be labelled to the Australian Standard 3581-1998. This requires slings to be marked with:

- The size of the sling – large, medium or small
- The safe working load of the sling
- Washing, drying and sterilisation instructions
- Fitting instructions
- The name of the hoist the sling is designed for, or its model number
- The name of the sling or its model number
- The manufacturer's name or logo, or registered trade name.

Follow sound biomechanical principles

When you position a sling on the patient, you need to use the biomechanical principles of safe patient handling, for instance by adjusting the furniture to a good working height so you are not bending to work.

Hammock sling

This is a rectangular sling. Some have a commode opening.

Advantages

- It is comfortable to use as the body is supported over a large body surface area. There is less likelihood of discomfort or damage to the patient's skin.
- It is suitable for lifting the patient off the floor.

Disadvantages

- It can be difficult to put on or take off when the patient is seated.
- If the patient is lying in bed they will have to be rolled so you can position the sling.
- The patient's clothing has to be removed before hoisting for bathing and toileting tasks.
- There is no access to the patient's body for washing even if the sling has a commode opening.

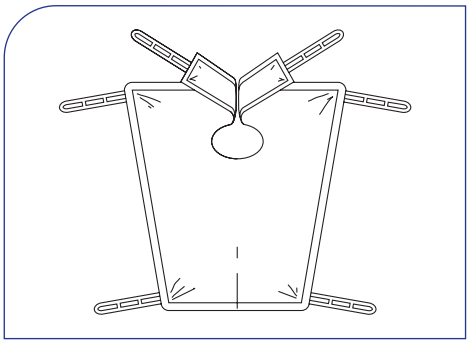


fig 22. Hammock sling

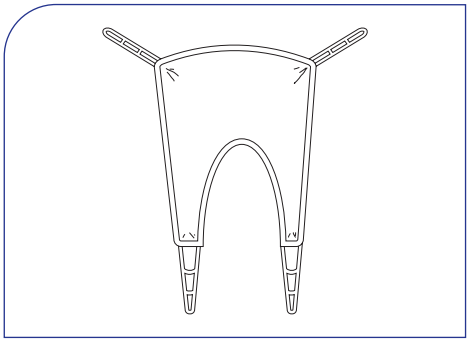


fig 23. U-shaped sling

U-shaped sling (divided leg sling)

A u-shaped sling may or may not have head support.

Advantages

- It's easy to put on when the patient is sitting or lying.
- Leg bands can be used in a variety of ways to suit the patient's needs and the handling task.
- It is reasonably comfortable as it covers a large surface area of the patient's body.
- It can be used to pick a patient up off the floor.
- It's virtually impossible for the patient to fall out of this sling when the leg bands are correctly positioned.

Disadvantages

- The patient's clothing has to be removed before hoisting for bathing and toileting tasks.
- Leg bands can be uncomfortable for the patient, especially if they are not positioned correctly.

Access or toilet sling

This is a combination sling that provides split leg support and upper-mid back support. Some combination slings come with a waist support instead of an upper-mid back support.

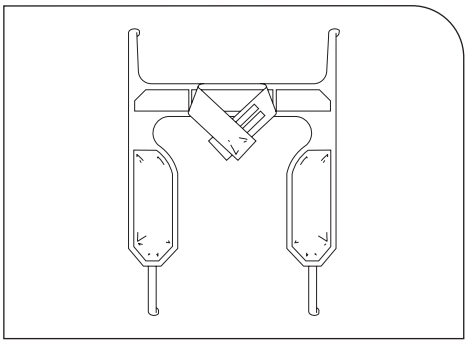


fig 24. Access or toilet sling

Advantages

- It is useful for toileting but only if the patient has some upper limb and trunk control.
- It provides good access for washing as well as toileting.
- Some patients may be able to put this sling on independently.
- The sling can be put on a patient in most positions.

Disadvantages

- The sling doesn't provide great support, and patients with reduced muscle tone may slip through the sling.
- The strap may feel restrictive to some patients.
- The patient must fully co-operate and not raise their arms over their head.

Sling for use with a tilting spreader bar

This sling is attached to a tilting spreader bar with a snap-on clip fastening. You can position the patient between sitting upright and lying backward by adjusting the tilting spreader bar. These slings are easy to put on and the tilting spreader bar mechanism is light to move.

Stretcher sling

A stretcher sling allows you to move a patient in a lying position. The sling may be made of fabric, a body-length rigid scoop frame, or a series of flexible batons that are positioned under the patient and attached to a frame that is assembled around the patient.

Some stretcher slings are made of special material designed for X-rays. Stretcher slings are ideal for spinal and post-operative orthopaedic care as the patient doesn't need to be moved or disturbed during the transfer. Some hoists offer a three-way patient angle adjustment for the stretcher sling: flat, head down (Trendelenburg), and feet down. However, not all hoists can accommodate these slings.

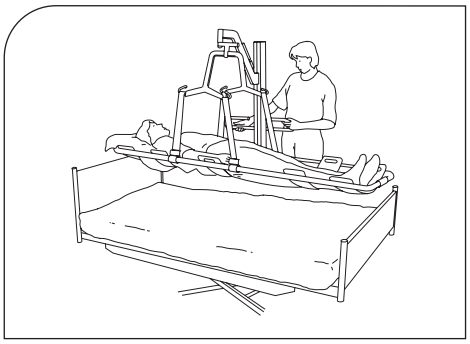


fig 25. Stretcher sling

Walking harness sling

This sling is designed to provide complete or partial support for a patient who is walking. It is mainly used with overhead ceiling track hoists, but is also available with some mobile hoists where the boom can be raised high enough for the patient to stand directly underneath it.

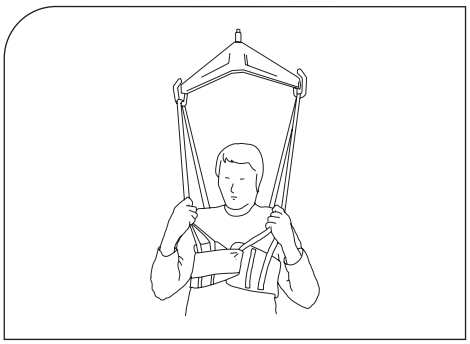


fig 26. Walking harness sling

Amputee sling

An amputee sling is designed to provide extra support for people who have had lower limb/s amputated.

Alternatively, a hammock sling on a standard yoke spreader bar may also be effective. The hammock sling may need to be supplied with extension straps for the legs, particularly if the amputation is high up the upper leg.

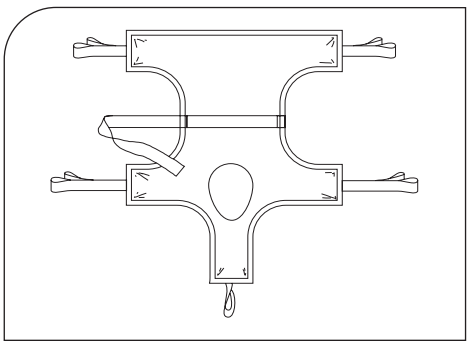


fig 27. Amputee sling

Band sling

A band sling is made from two narrow bands of fabric – one band is fitted under the thighs and the other around the back. This sling is not recommended as it can easily split apart when fitted and may cause the patient to slip through the sling.

Transfer boards

A transfer board is a rigid or semi-flexible board that can be used to move patients from one surface to another at similar height levels. For example, a transfer board placed between a car seat and wheelchair can help a patient transfer into their car.

There are different types of transfer boards that can be used in different ways:

- Some have an attached slidesheet to reduce friction and make sliding across the board easier
- Others are uniquely shaped with strategically placed cut-outs for transferring onto a toilet and can be left in position while the patient uses the toilet
- Some have notches cut into them so the board can be secured to a fixed wheelchair arm to help stabilise the board
- There are also transfer boards that have a rotating disc or round seat that tracks along the transfer board, so the patient can glide laterally on the round seat and rotate 180°. This is particularly useful for transferring patients to and from a wheelchair to a car seat.

Things to consider

Advantages

- Transfer boards are cheap, portable and relatively easy to use.
- They are available in a variety of widths, lengths and shapes designed to stabilise the board during the transfer.

Disadvantages

- The surfaces the patient transfers to and from need to be relatively level, or the transfer board can be unstable.
- The patient needs good sitting balance.
- The edge of the transfer board can sometimes cut into the underside of the patient's thigh.

- Some are quite heavy.
- If the patient has no clothes on, it can be hard for the patient to slide across the board – a towel or cloth may help, talcum powder can also be used, but care is needed as the board may become very slippery.

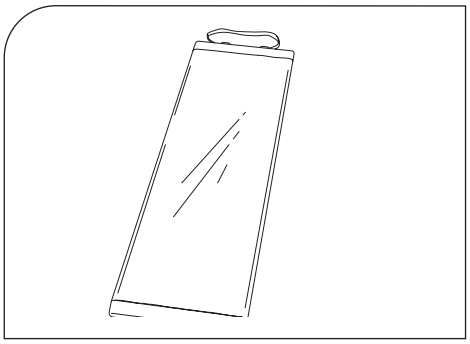


fig 28. Large transfer board

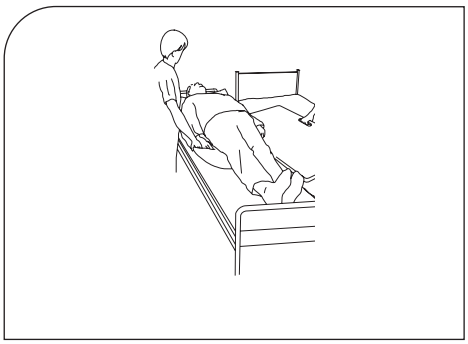


fig 29. Roll board

Large transfer or roll board

Large transfer board

A large transfer board is made of plastic with a low-friction surface on one side and usually a non-slip surface on the other side. It allows the patient to be transferred, while lying down, between surfaces of similar heights, or from a higher surface to a lower one. Some manufacturers produce long transfer boards that are designed to be used with a slidesheet. The slidesheet reduces friction between the patient and the surface of the large transfer board.

Roll board

A roll board is a thin plastic board with a slippery cover. There is a low-friction surface between the inside of the cover and the board, which allows the patient to be transferred. The sliding action occurs between the cover and the board rather than the cover and the patient, which reduces friction.

Note: If the transfer devices are used in an operating theatre it is essential to ensure they are sterilised to meet infection control measures.

Bath and shower equipment

Bath board

Bath boards are used as a platform across the bath so the patient can sit while showering. Alternatively, they can be used to transfer the patient onto a bath seat. The boards can be made from various materials such as wood or plastic, and they may be perforated, slatted or have waterfall edges so water drains away easily.

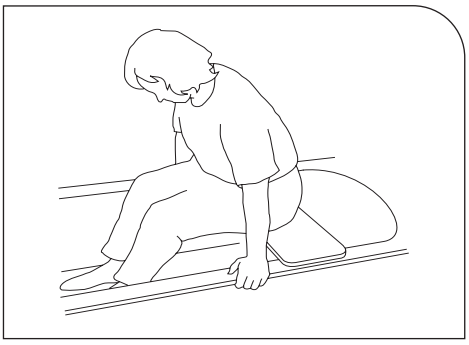


fig 30. Bath board

All bath boards have an adjustable clamp system, usually with brackets on the underside, to clamp the board against the sides of the bath and hold it firmly in place. You'll need to check the weight limit stated by the manufacturer before use. For maximum safety the board must fit securely across the top of the bath and should not extend beyond the rim as it could tip when it takes the patient's weight.

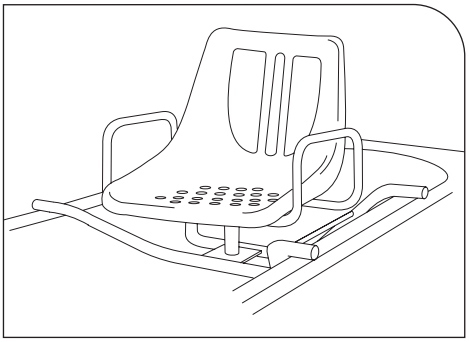


fig 31. Swivel seat

Swivel seat

The swivel seat rests across the rim of a bath and may be preferable to a bath board because it provides back support and can swivel. The seat rotates left and right, and some have a mechanism that locks it into a fixed position so the patient can transfer on and off safely. Some swivel seats also have armrests that can be removed, or are hinged and can be lifted clear of the seat, so the patient can transfer sideways.

Bath seat

Some bath seats can be wedged into a stable position with angled side panels that are fixed to the framework of the bath seat. Other bath seats sit down in the bath but are attached to frames that sit on top of the bath. There are also seats with rubber stoppers or suction cups which attach directly to the bottom of the bath. You'll need to check the weight limit of the seat before using it.

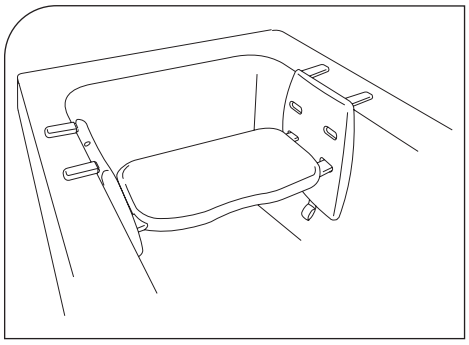


fig 32. Bath seat resting on the top and sides

Bath seats are often used with a bath board. Some patients can progressively move themselves down into the bath using a bath board and bath seat. Others may prefer to sit and wash themselves on the bath seat because getting up from sitting right down in a bath can be difficult.

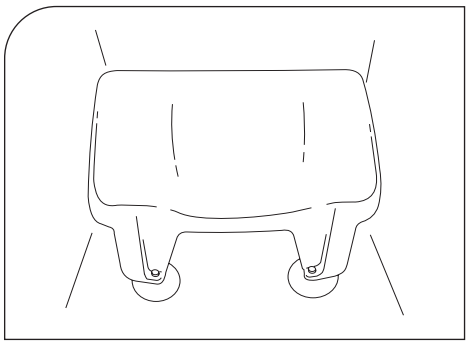


fig 33. Bath seat sitting on the bottom

Bath lift and hoist

There are a variety of bath lifts and hoists that remove the need for a patient to be physically helped in and out of the bath.

Bath lift

A bath lift fits inside the bath and can lift the patient from near the bottom of the bath to the height of the bath rim. It is mains powered with a hand-held control so the patient can independently lower and raise themselves in and out of the bath. The lift has rubber suction pads to secure it to the bottom of the bath, and can be removed when it is not needed.

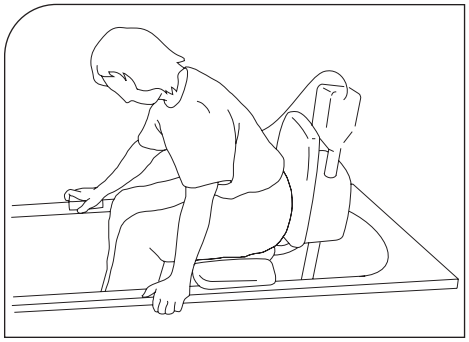


fig 34. Bath lift fitted inside the bath

Bath hoist

A bath hoist is fixed to the floor outside the bath and used to lift the patient into the bath. Some bath hoists are designed to be used with a detachable chair that may be on wheels and have a commode opening. The undercarriage of the detachable chair is removed so that only the seat remains when the patient is being hoisted into the bath. The seat is then lowered into the bath with the patient. Other bath hoists are designed to be used with a sling. Most bath hoists are designed to be operated by carers.

Wheeled shower chair

A wheeled shower chair is designed to transport the patient to and from the shower and can be used in the shower while the patient remains seated. Many wheeled shower chairs have backrests, armrests and footrests that can be removed or lifted out of the way so the patient can transfer safely. Wheeled shower chairs are usually made from perforated plastic to allow water to drain from the seat.

Mobile shower trolley

Mobile shower trolleys are full body length so a patient can be showered in a lying position. This type of trolley can also be used as a changing table.

Shower trolleys tend to be used in shower areas rather than in shower cubicles, as they are often too long for cubicles. Sliding equipment can be used to transfer the patient onto the trolley, or they may be hoisted, depending on the needs of the patient. Many trolleys are height adjustable so that they can be positioned at the correct working height for the carer.

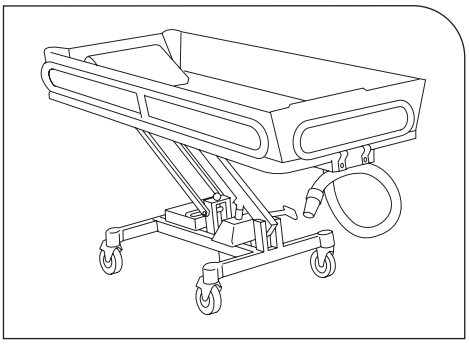


fig 35. Mobile shower trolley

Bed and chair equipment

Leg lifter (electric and manual)

Leg lifters are used to help the patient raise their legs, for instance onto a bed or over the edge of a bath. While lifting a leg may be manageable for a carer, it is best practice for the patient to do this independently. This avoids the need for the carer to stoop to pick up the legs, or to twist to place the legs on a bed or footrest.

An electric leg lifter attaches to the side of a bed, chair or bath. It has a padded platform against which the patient's legs rest. The platform raises from a vertical position to a horizontal position, lifting the legs as it raises. The patient can use a hand-held control to lift their legs independently.

Manual leg lifters are usually made of a webbing strap that is reinforced with a lightweight, flexible rod made of a material like aluminium. At one end of the strap is a handhold and at the other a loop which is designed to hook over the foot. Once the foot is hooked through the loop the carer pulls up on the handhold to raise the leg.

Thigh lifter

The thigh lifter is ideal for repositioning the leg when sitting. It is useful for patients who can't move their legs but who have upper arm strength. It can be helpful for patients with spinal cord injuries, or those lacking the hand strength needed to move their legs.

A thigh lifter has a large padded loop that fits around the patient's thigh and can usually be adjusted with a Velcro fastening. A small padded loop is attached to the larger loop and is grasped by the patient, or it can be fastened around their lower arm if they have limited hand function or strength.

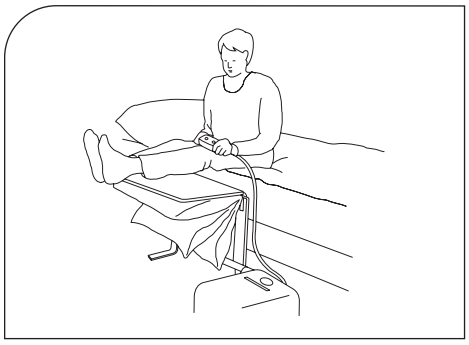


fig 36. Electric leg lifter

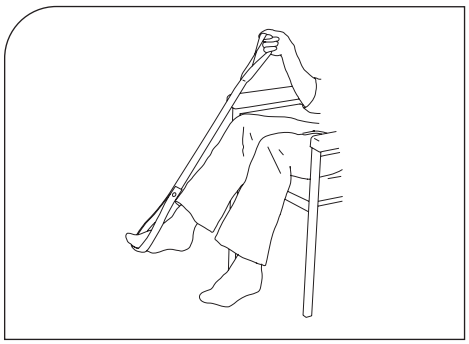


fig 37. Manual leg lifter

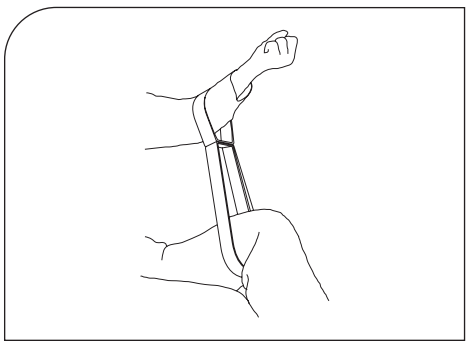


fig 38. Thigh lifter

Turntable and framed turning platform

This equipment is used to help patients move from seat to seat. It is suited to patients who are able to stand and support their own body weight, but who are unable to move and place their feet independently.

Turntable

A turntable can be used to move the patient's foot or feet while they move from one seat to another using a transfer board. It is made up of two circular discs which rotate upon one another usually using a low-friction swivel mechanism.

Framed turning platform

A framed turning platform enables the patient to stand during the move from seat to seat. It is a turntable that is attached to a mast with handholds. The framed turning platform may have cushioned knee pads for the patient to brace against during the move.

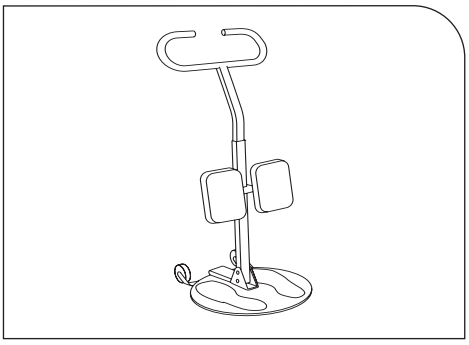


fig 39. Framed turning platform

With a turntable the seated patient places their feet on the turntable while using the transfer board. This ensures the feet move in the direction of the transfer.

With the turning platform the patient puts their feet on the turntable and pulls themselves up to standing using the handholds. The carer then turns the platform and the patient sits down in the new position.

The patient's feet must be placed centrally on the turntable or framed turning platform so the rotation through the transfer is smooth. Care is needed, as these items can rotate unpredictably if not controlled.

Both items have a foot-operated brake that is engaged when the carer steps down on the outer edge of the turntable.

Note: Some turntables may not rotate if the patient weighs more than 80 kilos.

Bed or Hand blocks

Hand blocks have a wide base and handholds. They are used in pairs by patients who are sitting in bed. The patient pushes through the blocks to lift their buttocks off the bed so they can reposition themselves or move up and down the bed, or so equipment such as a bedpan can be placed under them. The patient needs to have dynamic sitting balance and upper limb strength to use hand blocks.

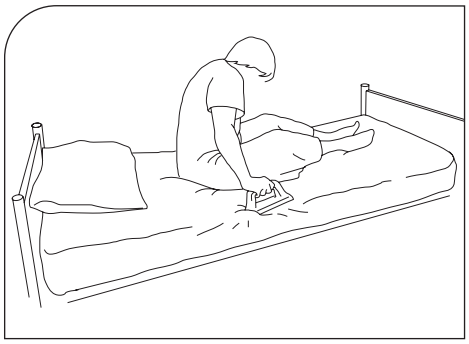


fig 40. Hand blocks

Bed lever

A bed lever is a grab rail the patient can use to help them sit up or turn over in bed. There are various types, which can be fixed to the wall, bed or floor. Some may obstruct part of the bedside, making it difficult for the patient to get in and out of bed, while others are adjustable and can be moved away from the bed.

Bed-fixed levers must be securely positioned and fitted to be safe for use. Some bed-fixed levers have a platform or rail that goes under the mattress, so they are secured in position by the patient's body weight.

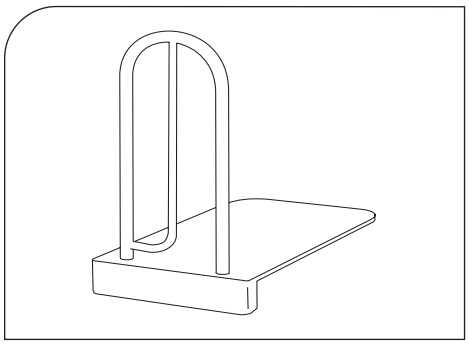


fig 41. Bed lever

Rope ladder

Rope ladders help the patient pull themselves up in bed from a lying position to a sitting position. They have plastic or wooden rungs linked together with rope to form a ladder. The ladder attaches to the foot or base of the bed.

Rope ladders are unstable to pull up on and often need practice to master. The patient needs to have strong upper limbs and abdominal muscles. It is essential that the rope ladder is securely fixed to the bed and the patient can reach the first rung when they are lying on the bed. Rope ladders with plastic rungs may be slippery to hold.

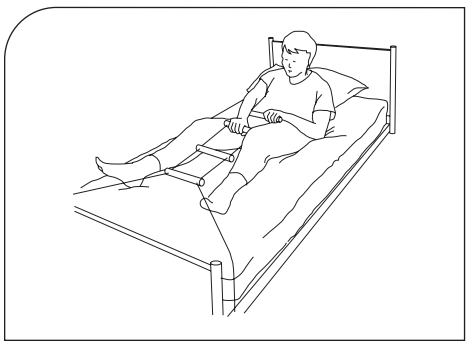


fig 42. Rope ladder

Monkey pole

Monkey poles are used by patients to move themselves up or down, and in and out of, bed – or to lift themselves so a bedpan can be placed under them.

Most monkey poles are made up of a floor-standing cantilever gantry, with a handle hanging from it on a height-adjustable strap. The gantry frame is secured under the bed to stop it tipping.

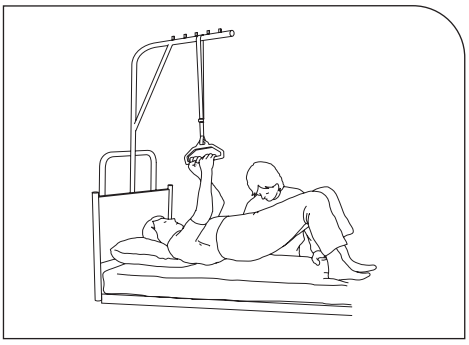


fig 43. Monkey pole

Profiling bed

Using a profiling bed greatly reduces the risk of injury because it means many bed handling tasks are no longer needed.

The bed can be adjusted manually or electrically while the patient is on it. Electric profiling beds enable the patient to sit up or lie down independently with the simple push of a button on a handset. Manually operated beds are adjusted by the carer using a foot pump, a hydraulic or winding mechanism, or a ratchet system.

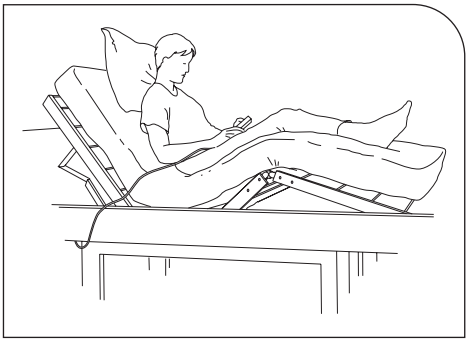


fig 44. Profiling bed

Things to consider

A profiling bed has a base which is divided into sections. It may have three, four or five sections. These sections are adjusted to change the bed's shape or 'profile'. The number of sections determines how the bed can be adjusted:

- A three-section profiling bed raises the patient's knees to form a knee brake – this can help stop the patient sliding down the bed
- A four-section profiling bed is more comfortable and stable for the patient because they can sit on a flat surface with their knees raised to stop them sliding down the bed
- A five-section bed allows the head and backrest section to be adjusted.

The mattress has divisions to match the number of sections on its platform or base.

Note: Most hospital beds have only two sections. Only the head and backrest section can be adjusted to form a backrest for the patient to rest against when sitting up in bed. Because they don't have a section that forms a knee brake, the patient is more likely to slide down the bed. If the patient can't reposition themselves, they may need frequent help from carers.

When carers sit a patient by manually pulling up the backrest, they take the majority of the patient's upper body weight (this is up to 68% of their entire weight), plus the weight of the bed and mattress.

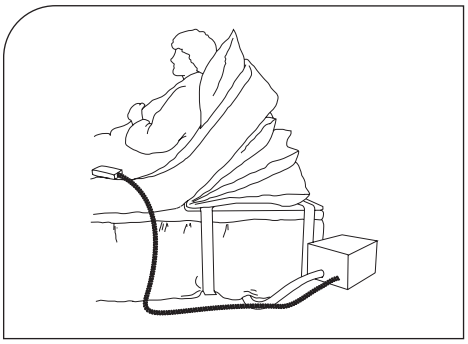


fig 45. Bellows-operated mattress elevator

Mattress elevator and pillow lifter

A mattress elevator or pillow lifter lifts the head and backrest part of the mattress so the patient can sit up and lie down independently in bed. It does not profile the bed.

The mattress needs to be made of foam, or fibre filled like the mattresses used on futon beds. If an inner-sprung mattress is used it must be sectioned so that it will fold. Mattresses with wire edging are not suitable.

The mattress elevator or pillow lifter is secured under the head end of the mattress. It is mains powered and operated by a handset control. The patient can use the handset to control their own head/backrest and remain in an upright position if they choose.

Things to consider

There are different types of mattress elevators. Some mattress elevators use an air compressor unit to inflate a bag that raises the mattress. It can be noisy and may disturb other patients in a shared room. Others work on a hydraulic piston mechanism that tends to be quieter.

Note: Using a mattress or pillow elevator can cause the patient to slide down the bed and need more frequent assistance. A mattress or pillow lifter may not be suitable if the patient can't reposition themselves in bed without help.

Bed and chair raisers

Bed and chair raisers increase the height of the chair or bed, making it easier for the patient to get up.

Bed and chair raisers should normally be used in groups of four so that the furniture is evenly raised. If it is not possible to raise the existing chair, you may need to buy a high seat chair – this has a high, firm seat, stable armrests and a high, supportive backrest.

Some types of raisers

- Block raisers with circular recesses cut into the block – you can get blocks with different-sized recesses to suit different legs.
- Replacement raisers that replace the bed or chair leg altogether – they have a screw or bayonet fitting and some come with castors.
- Screw-in raisers that screw in between the bed or chair leg or castor.
- Round plastic sleeves in which the bed or chair leg sits. The bed or chair is raised by adding inserts that fit inside the sleeve.

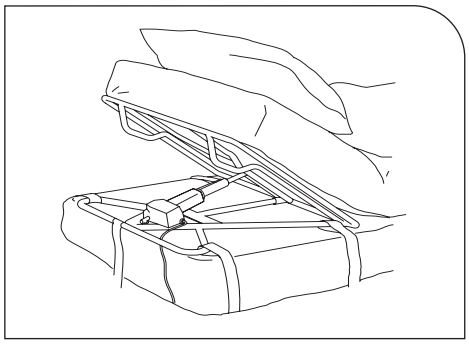


fig 46. Hydraulically operated mattress lifter

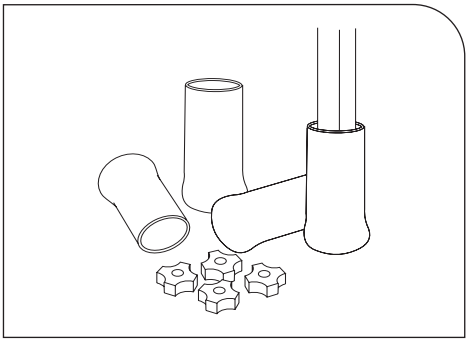


fig 47. Bed and chair raisers

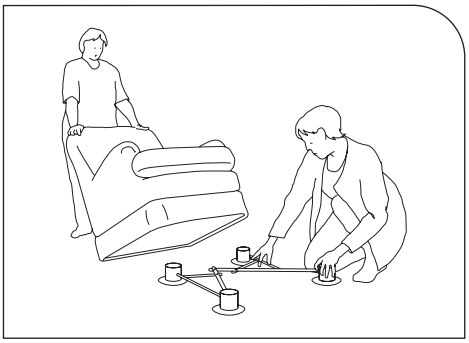


fig 48. Positioning four chair raisers under the chair

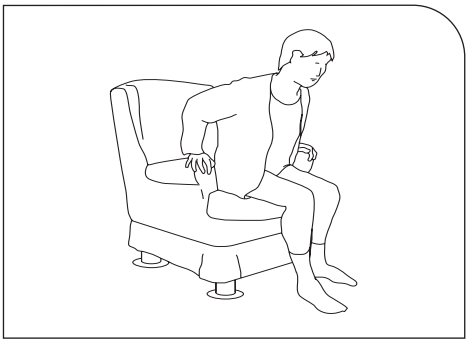


fig 49. The four chair raisers have increased the height of the chair

Manual seat riser cushion and chair

A manual seat riser cushion and chair helps patients who have difficulty getting out of a chair. The patient tilts up the seat using a gas-operated spring mechanism or a hydraulic mechanism.

The mechanism must be correctly adjusted to the patient's weight or the seat could spring up with great force and propel the patient dangerously forward. The chair must also have a mechanism to lock it in the seated position so it won't spring up if the patient unintentionally shifts their weight forward.

The patient must be able to stand independently and have sufficient arm strength to lift their body weight to trigger the mechanism. They must also be able to position their feet securely so they don't lose their balance when the seat rises.

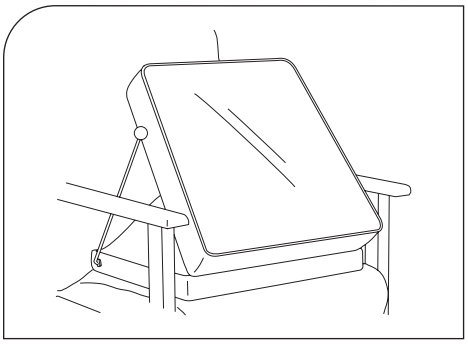


fig 50. Manual seat riser

Powered riser chair

Mains-powered riser chairs also help patients who have difficulty getting out of a chair. They combine a seat lift and tilt to help the patient into a better position to stand. The chair is operated using a handset control. The patient must be able to stand independently, and position their feet securely so they don't lose their balance when the seat rises.

Standing frame

Standing frames provide support for the patient to pull against and hold when they are trying to stand or sit. They adjust in length and width to fit around a chair or sofa and have two handles that extend up from the base.

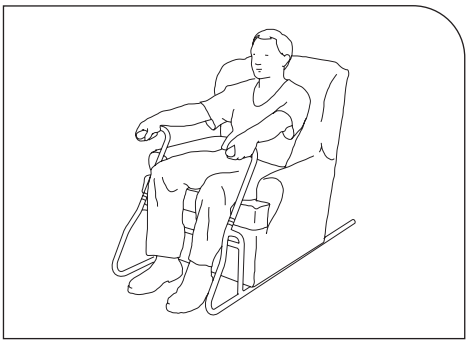


fig 51. Patient gets ready to stand

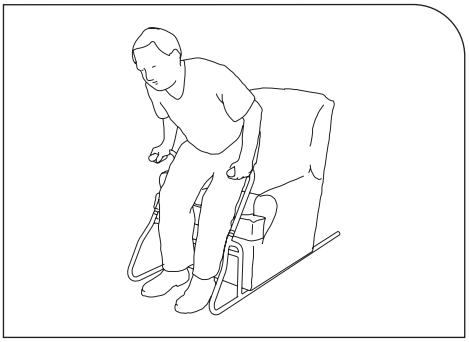


fig 52. Patient stands using standing frame

Lateral tilting bed

The lateral tilting bed is a large bed used mainly in hospitals. It is mains powered and turns the patient from side to side, reducing the need for patient handling.

The carer usually controls the bed from a control panel attached to the foot of the bed, or by foot controls. Some lateral tilting beds can be programmed to carry out a turning cycle automatically – every two, three or five minutes for instance. Some lateral tilting beds can be controlled by the patient in bed.

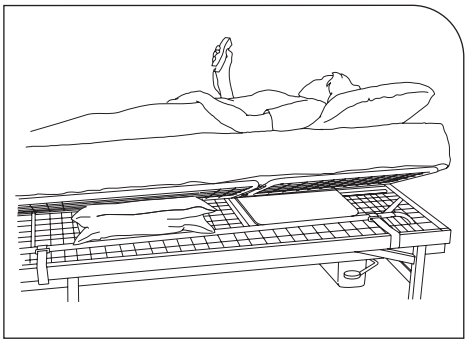


fig 53. Lateral tilting bed

Handling belt

CAUTION – THE HANDLING BELT SHOULD ONLY BE WORN BY PATIENTS, NEVER BY CARERS. IT SHOULD NEVER BE USED TO LIFT A PATIENT. CAREFUL CLINICAL ASSESSMENT IS REQUIRED BEFORE USE.

The main function of a handling belt is to provide the carer with handhold contact to the patient. The belt has vertical or horizontal handholds and is made of fabric or cushioned material. It is secured around the patient's waist and adjusted until it is firm, not tight.

The handling techniques in these guidelines don't require you to hold the patient, so a handling belt should not normally be needed. However, there may be some therapeutic situations where after careful assessment of the patient's capabilities you decide to use a patient handling belt during rehabilitation.

IMPORTANT FOR YOUR SAFETY

It is unsafe to use a handling belt to lift a patient, for instance by pulling on the belt to take some or all of the patient's weight.

The handling belt should only be worn by patients. Carers should never wear the belt to give patients handles with which to pull themselves up.

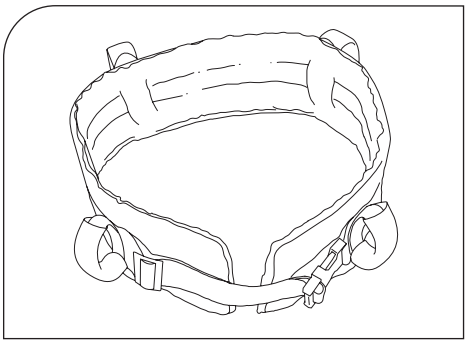


fig 54. Handling/walking belt

Slidesheets

A slidesheet is used to move patients horizontally on beds, trolleys and chairs without lifting or causing friction. It is a relatively inexpensive and useful piece of equipment.

There are several handling techniques in these guidelines that use slidesheets. Often they are used by one or more carers working together, and in some cases by the patient themselves.

Slidesheets are made from lightweight fabric, and have ultra-low-friction surfaces. The fabric is doubled and often sewn together in a loop, or it may be a single sheet the carer folds over to form a double layer. They may or may not have handles, depending on the manufacturer.

It is important that slidesheets are only used according to current best practice – as described in the handling techniques provided with these guidelines, or on the advice of your patient handling adviser. Incorrect use can cause injury to both carers and patients.

To avoid cross infection, slidesheets must be washed before being used for another patient. Follow the manufacturer's instructions for cleaning – but it is essential to check that the instructions meet your infection control policies.

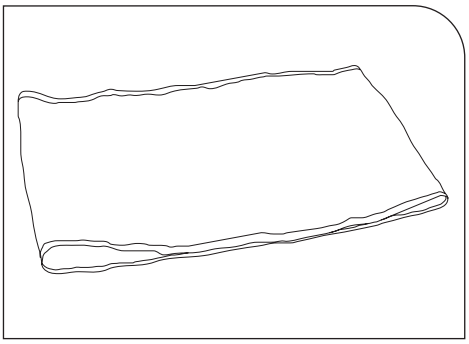


fig 55. Closed loop slidesheet (double fold)

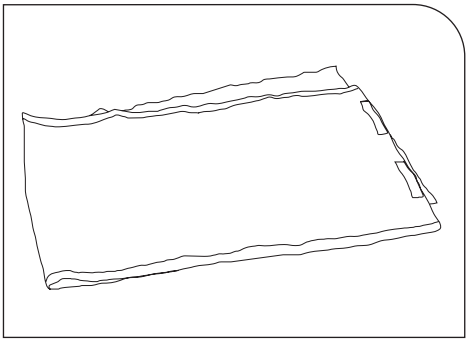


fig 56. Single sheet slidesheet, folded to a double layer for use

One-way slidesheet

A one-way slidesheet is a continuous loop of material designed to move in one direction only. Some are covered with foam and fleece for comfort, while others have a gel pad to offer some pressure relief.

The one-way slidesheet is placed under the patient sitting on a chair, wheelchair or bed so they can slide back into a more upright and comfortable position without being able to slide forward again. The one-way slidesheet is put in

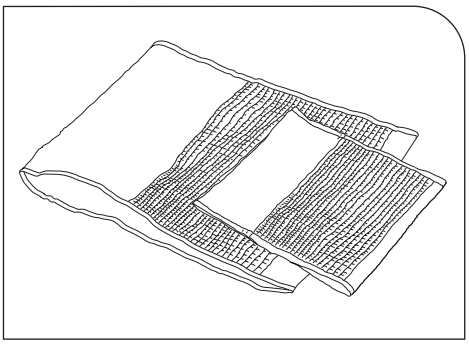


fig 57. A one-way slidesheet allows movement in only one direction

position by the carer/s and stays in place. The patient can then move themselves, or can be helped to move by a carer when needed.

CAUTION – IT IS IMPORTANT TO ASSESS THE PATIENT'S SKIN INTEGRITY BEFORE USE BECAUSE PATIENTS CANNOT EASILY SHIFT THEIR WEIGHT ON A ONE-WAY SLIDESHEET.

PADDED SLIDESHEET

A padded slidesheet is used for patients who need frequent turning in bed. It stays permanently on the bed, between the mattress and the bottom sheet. It looks like a sleeping bag turned inside out and is usually full body length. The outside looks quilted, while the inside has a low-friction material lining.

The padded slidesheet can be used by one or two carers. To roll the patient you position them in the direction of the roll, then untuck the top bedsheet (which is over the padded slidesheet) and pull it over the top of the slidesheet to roll the patient. To stop the patient from slipping back, you then straighten the top sheet and securely tuck it in under the mattress again. A padded slidesheet can't be used with some pressure-relief mattresses. Check with the mattress manufacturer first.

Emergency equipment

The carer faces increased risk of injury in urgent situations, so it's important to have the right equipment on hand. Emergency equipment is ergonomically designed to be easy to use and comfortable for the patient – but any item for carrying patients involves some risk for carers.

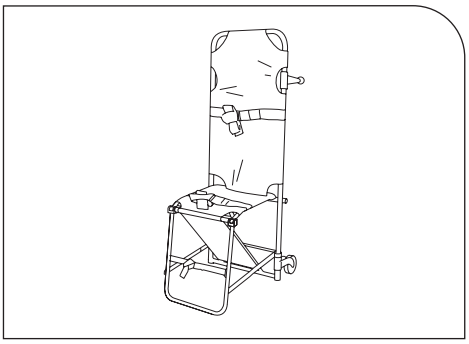


fig 58. Combination stretcher/carry chair

Combination stretcher and carry chair

A combination stretcher and carry chair is used to transport the patient in an emergency. It can be used as a wheeled chair, a stair chair or as a flat stretcher.

It may have the following features:

- Four handles to help move patients short distances
- Folding handles at the ends of the stretcher chair
- Leg supports that fold under the stretcher when not in use
- Foot-end wheels that may fold flat when not in use
- Hinges to fold the chair in half for compact storage
- Wheels at both ends of the stretcher/chair
- Adjustable backrest
- Patient shoulder and feet support
- Restraints for chest and ankles.

Backboard

A backboard is used to immobilise and transport a patient with suspected spinal injury in an emergency. It is a rigid, full-body-length board to which the patient is strapped. A backboard may be made from sheet aluminium with a tubular aluminium frame, wood with a special waterproof coating, or coated plywood board.

It may have the following features:

- X-ray translucent
- A concave surface that cradles the patient and minimises lateral movement
- Multiple handholds to allow carers to select appropriate lifting points
- Tapered foot and head ends for moving in confined areas
- Easy-slide surfaces to allow smooth and efficient movement of the patient
- Clip pins for patient restraints
- Special attachment holes for immobilising the patient's head
- Able to be folded for storage.

Ambulance stretchers

Scoop stretchers enable a patient to be carried in the position they are found, but they require a lot of storage space. Folding emergency stretchers, on the other hand, are compact for transportation.

Scoop stretcher

This is a lightweight stretcher that separates in half lengthwise so it can be placed under the patient without having to roll or lift them.

The patient is supported and immobilised in the position they are found, to reduce the risk of further injury. The patient can then be carried to a location where further medical treatment can be administered.

The stretcher may have a narrow foot-end frame for handling in confined areas. The concave surface cradles and supports the patient, minimising lateral movement. They fold up for storage and have locking length-adjustment latches that snap into place. A typical scoop stretcher has an open centre that allows the patient to be X-rayed while remaining on the stretcher. Some stretchers are adjustable to accommodate all patient sizes.

Folding emergency stretcher

This stretcher is typically made of a lightweight aluminium frame with a vinyl-coated nylon cover. It is usually hinged at the centre so the stretcher can fold in half for more convenient storage. These stretchers may also have trigger-release folding wheels and posts, and adjustable backrests and knee contours. Some can be separated in half so they can be removed from under the patient without moving them.

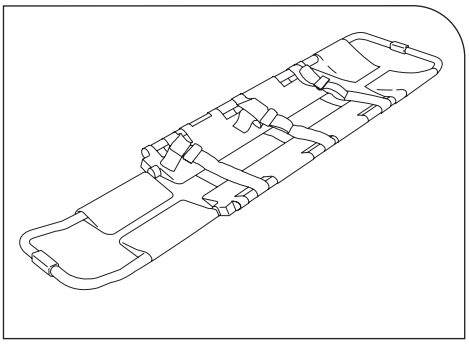


fig 59. Scoop stretcher

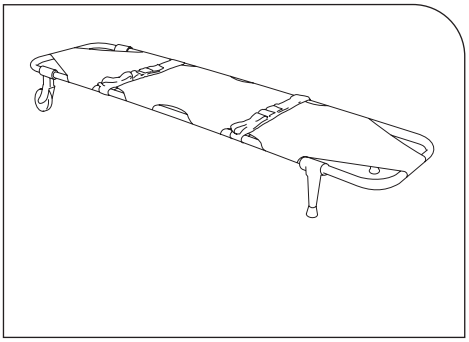


fig 60. Folding emergency stretcher

FACILITY DESIGN

Contents

- Facility design 101
- The facility design process 103
- Steps to an ergonomic facility design 106
- Patient handling areas 107
  - Patient rooms 107
  - Single bedrooms 108
  - Multiple-bed rooms 110
  - Toilets 112
  - Shower rooms 114
  - Combined shower and toilet rooms 116
  - Bathrooms 118
  - Day and dining rooms 119
  - Clinical suites 120
- Access 121
  - Corridors 122
  - Doorways 123
  - Floors 125
  - Minimum passing spaces 126
  - Minimum turning spaces 127
- Handrails and grab rails 129
- Equipment storage 130
- Immediate changes to improve patient handling safety 131

Facility design

These guidelines are based on an ergonomics systems approach. Ergonomic facility design is about designing spaces and arranging furniture and fittings to suit the needs of staff and patients both now and in the future.

The aim is to provide an environment where patient handling can be carried out in an efficient and safe manner to reduce the risk of injuries to both carer and patient. In practical terms this means ensuring that facilities are suitable for the techniques and equipment required for safe handling. It is also important to design facilities in a way that encourages patient independence and reduces the need for handling.

Why do we need these design guidelines?

The various laws and standards for building design do not cover patient handling needs. There is very little specific information available to guide those involved in designing health care facilities. We have developed these recommendations based on consultation with carers and trials conducted in New Zealand.

These guidelines are not intended to be prescriptive. Designers and people involved with patient handling may find other solutions that work equally well. What we have tried to do is provide a starting point for the health care industry, and we expect that over time these guidelines will be added to and refined as part of the process of continual improvement.

How were the recommendations developed?

We conducted an extensive literature review, which revealed a lot of information on design issues and the importance of an ergonomics approach, but very little in the way of specific facility design recommendations for handling spaces, access ways and storage.

We then consulted with carers to understand the issues and get practical input and feedback. We also tested the techniques and equipment covered in these guidelines in a New Zealand hospital to help us work out the space required for handling operations.

Who is the information for?

This section provides practical recommendations to help managers, planners and designers involved in designing or redeveloping health care facilities.

It can also be used by managers and patient handling advisers as a guide when they are periodically reviewing their facilities – for instance when completing the LITE workplace profile or the annual patient handling programme audit.

> Patient handling requirements are an important part of any health care facility design project and need to be considered in the very early planning stages. Making changes and correcting mistakes become increasingly expensive as a project progresses.

What laws do you need to consider?

There are several pieces of legislation that employers and designers must take into account.

The Health and Safety in Employment Act 1992 requires all practicable steps to be taken to ensure there is a safe and healthy workplace. Designers and managers have specific duties set out under the Health and Safety in Employment Regulations 1995.

Building design must comply with the Building Act 1991 and the Building Regulations 1992. The purpose of these laws is to provide controls and to ensure buildings are safe and sanitary and have a means of fire escape. Particularly relevant to patient handling are Clause C concerning fire safety, Clause D concerning access and clause G5 concerning interior environment of the Building Regulations 1992.

New Zealand Standard NZS 4121:2001: *Design for Access and Mobility – Buildings and Associated Facilities*, cited in subsection (3) of section 47A of the Building Act 1991, sets out access and facility requirements for people with disabilities.

What are the main design considerations?

There are four key areas when you're looking at facility design with a patient handling focus.

These are:

- Patient handling areas – there should be enough space around furniture, beds, toilets, showers and baths to allow the use of safe handling techniques and equipment
- Access – corridors and doors should be wide enough, and free of obstructions, so patients, with carers and/or equipment, can move along the route and pass each other
- Handrails and grab rails – these can help patients move independently, but must be placed carefully so they don't obstruct handling operations or the movement of equipment
- Equipment storage – there needs to be good storage close to handling areas, so that equipment is convenient to use and easy to put away after use.

The facility design process

With any facility design project it is important to take an ergonomics approach so the needs of staff and patients are a primary consideration. Here are the steps involved.

Step 1. Strategic planning

The first step is to develop a strategic plan that sets out the project goals and strategies. Your plan should:

- Identify the health care services needed now and in the future
- Define the scope of the project. For instance, are you building a new centre or redesigning an existing one?
- Set out the project goals and your strategies for reaching them
- Set out how you will communicate and consult with staff to gain their commitment
- Define how the patient handling facility design process fits into the overall redesign or build project.

Step 2. Initial consultation

Next you need to gain the commitment of people throughout your organisation, especially those who can influence the outcome of the project – those who make the decisions, control the resources and understand the work processes and issues.

Set up a working group of key personnel including:

- Management
- Key clinical staff
- Designer or architect
- Ergonomist
- Health and safety representative
- Employee representative.

Involving clinical staff and employee representatives is important because they understand the practical issues involved and can provide feedback.

Step 3. Review

Before making any changes, you need to understand the current position and any issues that exist. You can use the LITE workplace profile to help you. Areas you need to consider include patient handling policies, staff and patient needs, equipment use, and the state of the current facilities – including things like workspaces, layout, access ways and storage.

Step 4. Action plans

This step is about setting timelines and action plans so everyone knows their roles and responsibilities, and there is a clear path to follow to achieve the end result. You'll need to:

- Identify and prioritise your objectives
- Delegate responsibilities within the project group

- Decide what information you need and how to gather it (see step 5)
- Develop an initial plan and timeline for your project
- Ensure your plan is incorporated into the overall development plan for the facility.

Step 5. Information gathering

There are several ways to gain useful information to help with the decision-making process, including:

Archives – historical data provides before and after comparisons. Most health care organisations have operational records of patient populations, handling tasks performed and equipment used. Accident and injury data should also be available in some form (perhaps in personnel records). Over time you will also be able to use data from sources such as LITE patient and workplace profiles, staff questionnaires and the tracker tool.

Observations – methods you could use to gain 'working knowledge' include walkthrough audits, video observations, group discussions and questionnaires.

Experiments – you can experiment and model situations, for instance you could use mock-up layouts or computer simulations to gain an idea of space needed.

Step 6. Analysis and evaluation

You need to analyse the data and prepare a report so the project group can review the findings and decide if more information is needed. Once the review is complete, senior management should appoint key people from the working group (including an ergonomist) to develop the design brief. The brief sets specifications for workspaces, layouts, access ways, fixtures and fittings and other features. The project plan may need to be updated at this point.

Step 7. Facility design

There will usually be several design stages, from initial concepts to finished plans. It's important that key people are consulted at each stage. The ergonomist will ensure the design is 'user friendly' and promotes safe patient handling practices. Staff should be asked for feedback, as they will provide a practical view based on daily handling operations.

Step 8. Implementation

This step involves gaining approvals and budget, obtaining prices or tenders, commissioning the work, and monitoring progress to ensure the work is carried out to specifications.

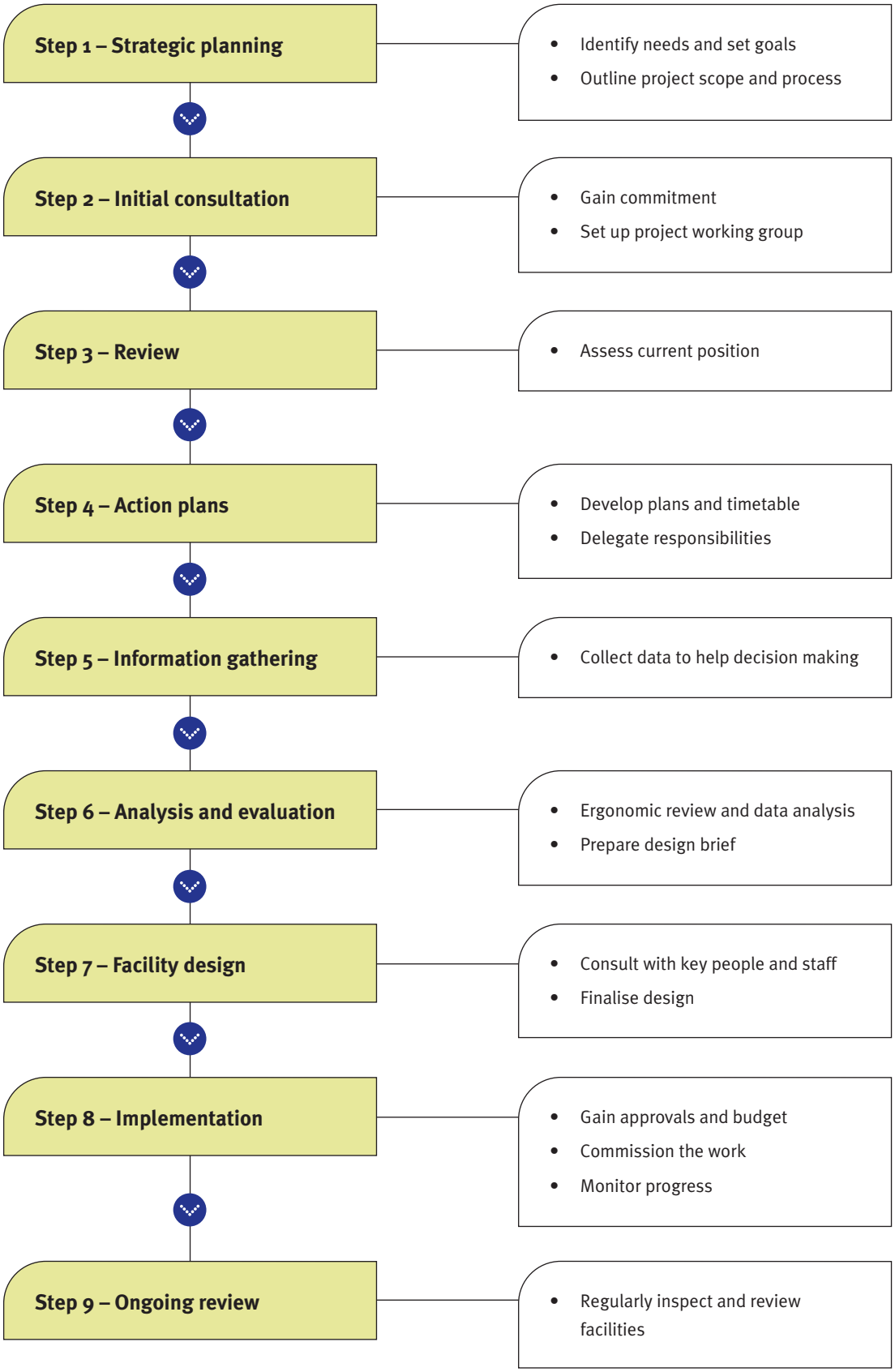
Step 9. Ongoing review

Ongoing and regular review of facilities is needed. Information to assist this process can be obtained from resources such as the audit tool, staff questionnaire and LITE workplace profile – see the Review and evaluation section for more details.

Facility design is not just a one-off project

Reviewing your facilities and identifying safety issues is a critical part of the LITE risk assessment process and should be done at least once a year. Addressing issues and upgrading your facilities should be part of the process of continual improvement.

Steps to an ergonomic facility design



Patient handling areas

All health care facilities must be designed to encourage patient independence and to allow carers to work with patients in a safe and efficient way.

Safe patient handling places extra requirements on facilities. Extra space is needed for carers to work alongside patients and so that suitable equipment can be used. How much extra space is needed depends on the number of carers required, the equipment being used and the method used to move the patient.

The main areas where patient handling tasks take place are patient rooms, toilets, showers and bathrooms, day rooms, dining rooms and clinical suites. Each one has special requirements. Here we give suggested layout and fittings for each type of room.

Patient rooms

Minimum clear areas are needed around beds so:

- Carers can adopt a safe working posture to carry out handling techniques
- Large patient equipment can be placed in position when needed.

Access paths need to be clear so large equipment items can be moved freely between beds and doorways. Furniture should be kept out of these areas – or be easy to move.

Lack of space is not an acceptable reason for unsafe practice because the environment can be altered, for instance the bed could be moved to create sufficient space.

Recommendations for furniture in patient rooms

- Provide beds that:
  - Are adjustable so safe patient handling tasks can be carried out
  - Have an under-bed clearance of at least 150mm to accommodate patient hoists
  - Are on castors so carers can move the bed to make extra space if needed
- Provide chairs with armrests to help patients stand up independently
- Provide furniture on castors so it is easier for carers to move it aside to allow space for large patient handling equipment.

Some general suggestions for all patient areas

- Provide a nurse calling system in as many locations as possible, and within easy reach of patients, so patients and carers can call for help if necessary – the system will need a reassurance light that can only be cancelled at the point of origin.
- Have sufficient electrical outlets in patient areas so trailing power cords are not a problem – it's especially important to keep access ways clear of cords.

Single bedrooms

How much space is needed?

These clearances apply to a typical bed that is 2200mm long by 1000mm wide.

- **700mm beside the bed**
  To allow carers to use small equipment items.
- **1200mm at the foot of the bed**
  So large equipment items (including beds) can be moved from bed to door. This also allows hoists to be positioned and the patient transferred to a chair at the foot of the bed.
- **1200mm on the transfer side of the bed**
  So carers can work with large equipment items, such as mobile hoists. Ceiling track hoists and mobile chairs need less space than this, but allowing 1200mm enables all techniques to be performed effectively.

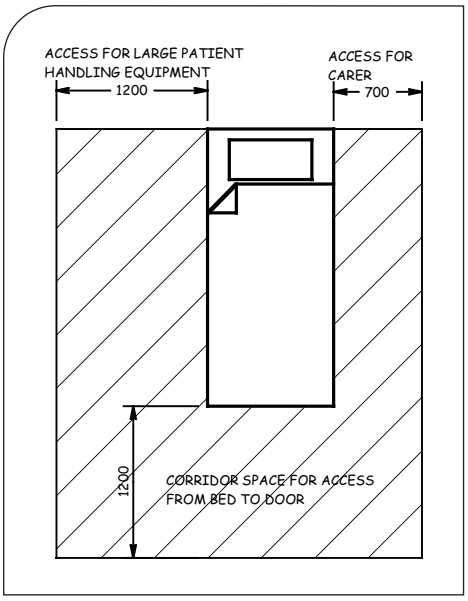


fig 61. Minimum access space around a single bed

Note:

For transfers from bed to a chair using a mobile hoist, the chair should be placed against the wall before the patient is hoisted, as there will be less space for the chair to pass after the patient is hoisted. If this is not possible, the patient can be hoisted to a chair at the foot of the bed, but this will require more turning and manoeuvring of the hoist.

For transfers from a bed to a trolley using a transfer board, you need at least 700mm clear area beside the trolley, so the carer can adopt a safe working posture. The bed may have to be moved to achieve this.

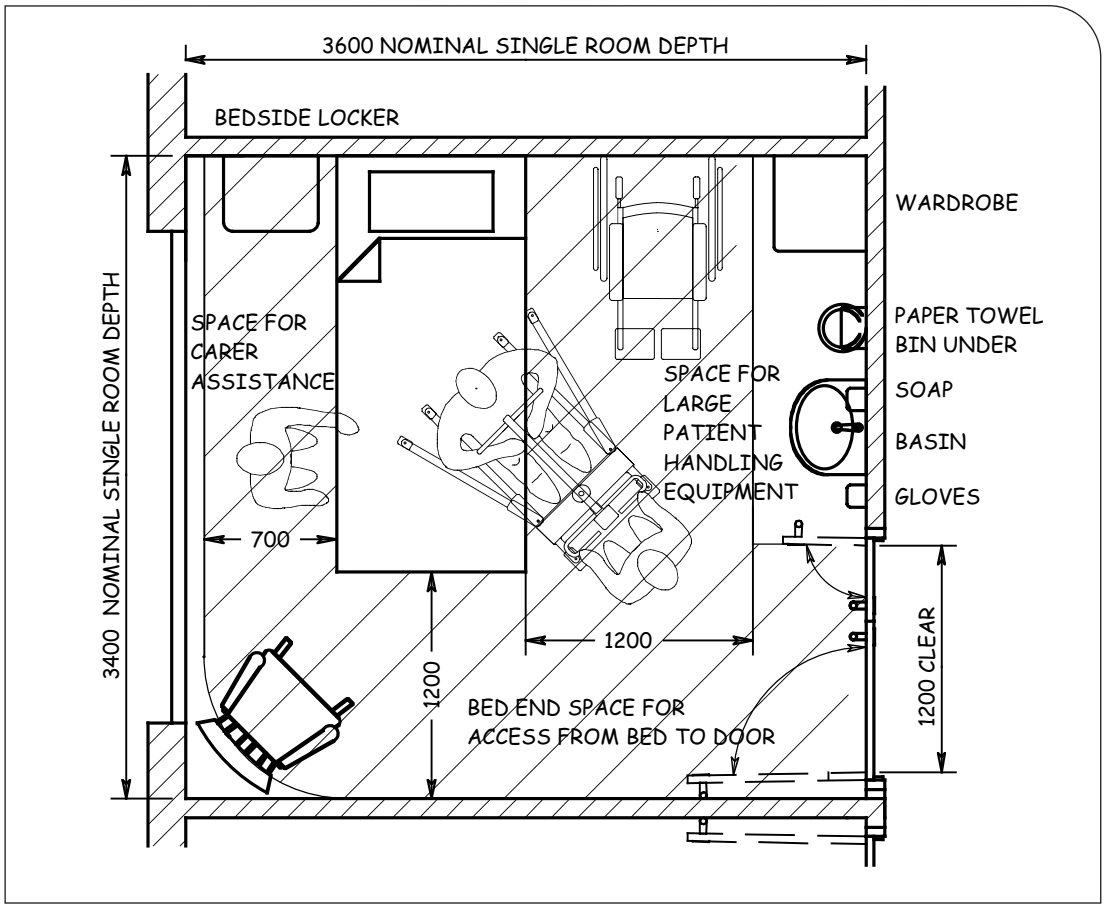


fig 62. Typical single room layout

Multiple-bed rooms

Where a room has multiple beds they can be positioned:

- Side by side with curtains in between
- Foot end to foot end with curtains in between and a central passageway.

You can use the minimum space recommendations for single rooms as a guide for multiple bedrooms. You can reduce the space between beds a little as slight intrusion beyond the curtains during transfers is acceptable.

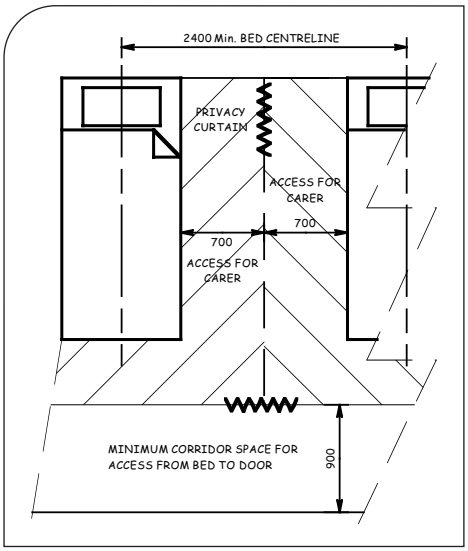


fig 63. Minimum bed separation for carer access

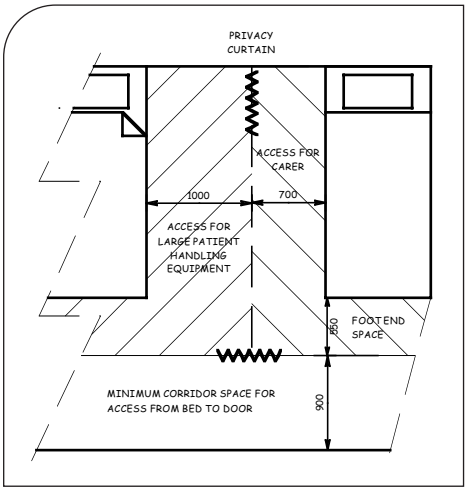


fig 64. Extra access space for large equipment items

How much space is needed?

These clearances apply to a typical bed that is 2200mm long by 1000mm wide.

For beds arranged side by side:

- **2400mm** between bed centrelines
- **700mm** between the bed and the privacy curtain to enable the use of small equipment
- **1000mm** between the bed and the privacy curtain to enable the use of large equipment, such as mobile hoists. Ceiling track hoists and mobile chairs need less space than this, but allowing 1000mm enables all techniques to be performed effectively
- **550mm** clearance between the foot end of the bed and the privacy curtain
- **900mm** wide corridor space between the foot end privacy curtain and the wall for access between the bed and the door
- **Extra space** can be achieved by slight intrusion beyond the privacy curtain.

For beds arranged foot end to foot end:

- **2000mm** clearance between bed foot ends
- **550mm** clearance between the base of the bed and the privacy curtain
- **900mm** wide corridor between foot end curtains for access between the bed and door
- **Extra space** can be achieved by slight intrusion beyond the privacy curtain.

Note: For transfers from a bed to a trolley using a transfer board, you need at least 700mm clear area beside the trolley, so the carer can adopt a safe working posture. The bed may have to be moved to achieve this.

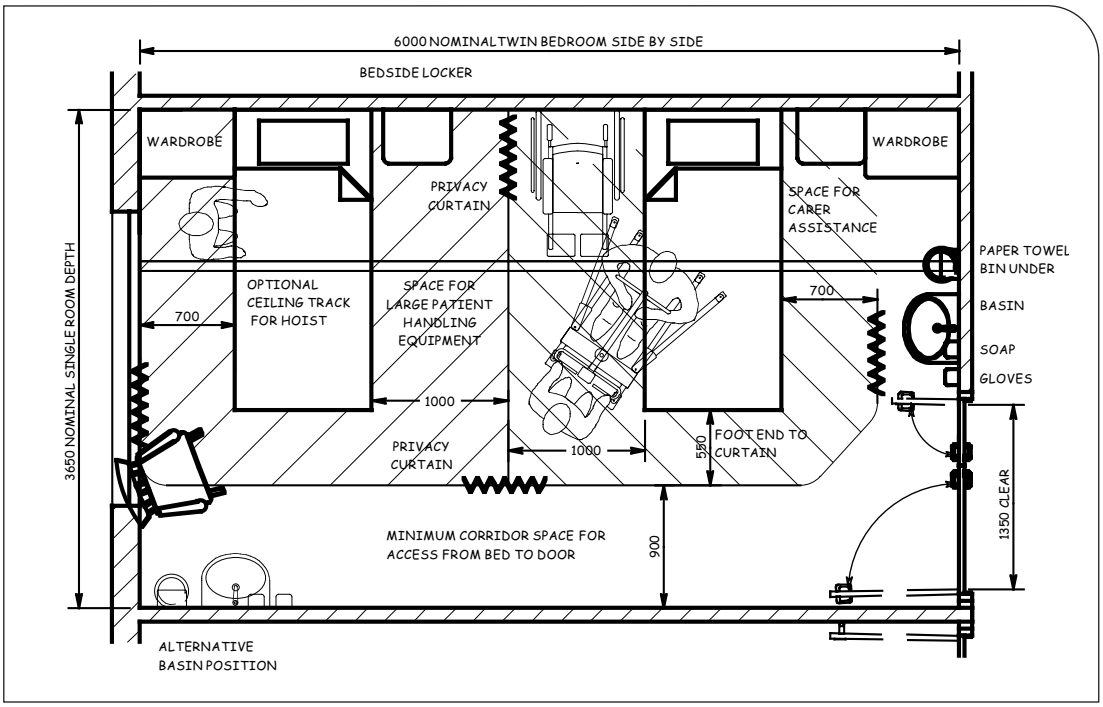


fig 65. Typical twin bedroom arranged side by side

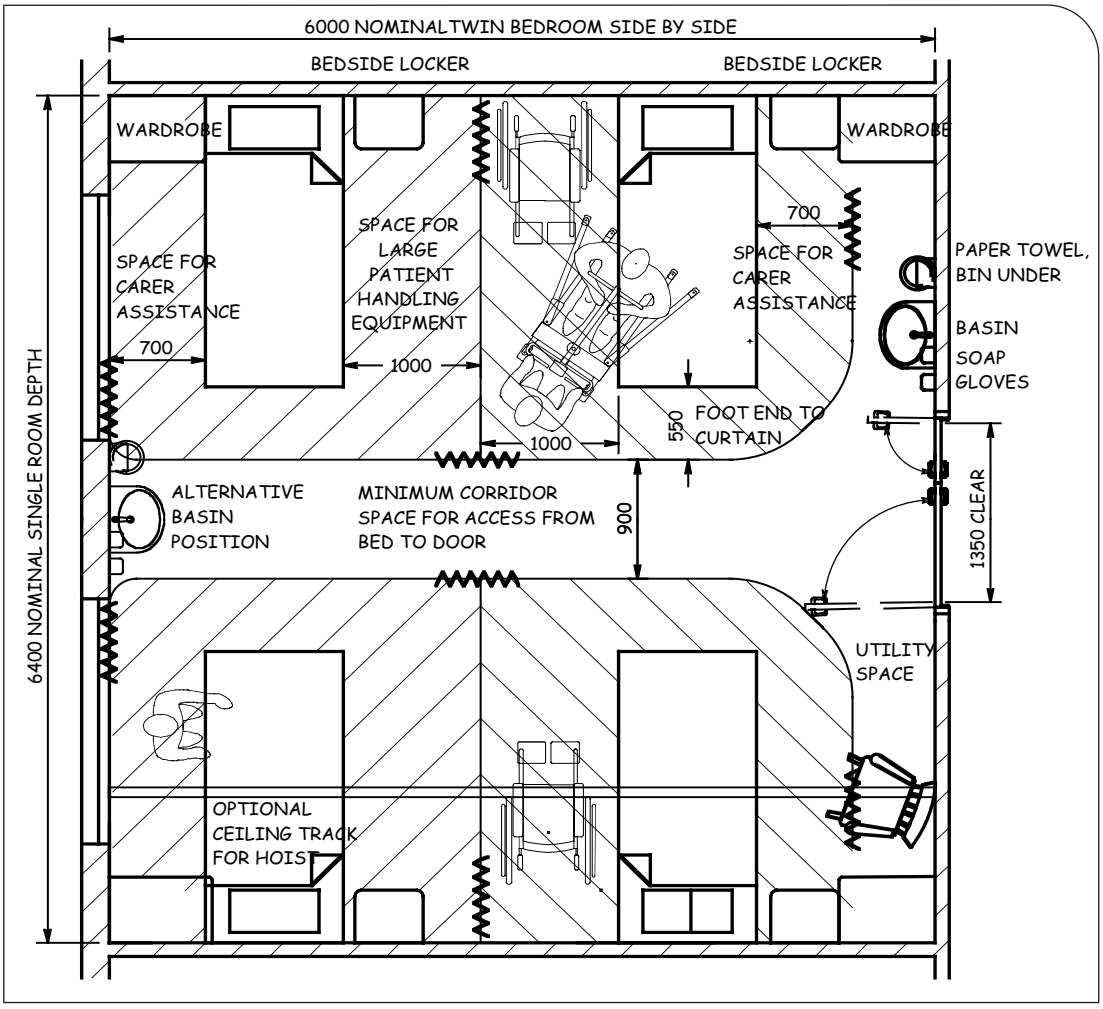


fig 66. Typical four-bedroom layout with beds side by side and end to end

Toilets

Toilets need adequate space around toilet bowls and sinks, plus clear passage ways, to allow carers to assist patients and use large equipment if needed. At least one all-gender accessible toilet should be provided in each ward or unit.

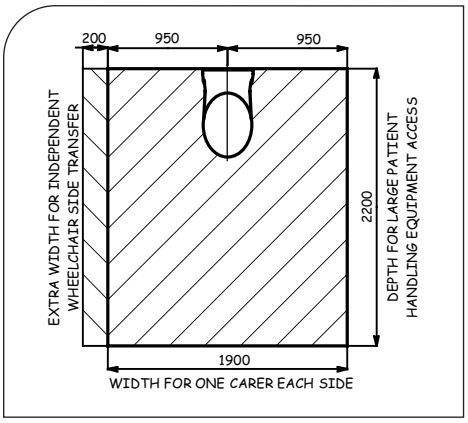


fig 67. Space needed for toileting with one carer and equipment

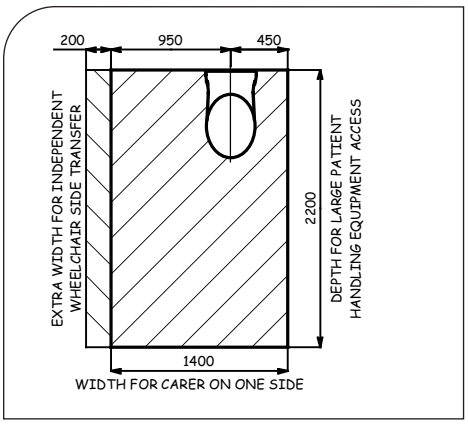


fig 68. Space needed for toileting with two carers and large equipment

How much space is needed?

The amount of space required depends on how many carers are involved and the equipment used. Variations include transfers from a wheelchair or commode chair (either side on or front on), patients walking with frames, and use of lifting equipment.

These are the minimum recommended clear spaces required, allowing for carers and equipment:

- Door opening – minimum 900mm clear width
- Depth of room – minimum 2200mm from opening
- Space from toilet bowl to wall:
  - For one carer: minimum 950mm on one side and 450mm on the other side (from toilet bowl centre) plus 200mm extra for independent disabled side transfers
  - For two carers: minimum 950mm on each side (from toilet bowl centre) plus 200mm extra on one side for independent disabled side transfers.

There's more about toilets in New Zealand Standard NZS 4121:2001: *Design for Access and Mobility – Buildings and Associated Facilities*.

Recommendations for toilet room fittings

Toilet bowl

- A stable and secure toilet seat is important – it makes it easier to transfer patients.
- The toilet bowl height needs to be set according to the equipment that will be used – for instance so you can fit the type of commode chair you use over the bowl.
- The front of the toilet seat needs to be 700-750mm from the back wall.

Grab rails

- Grab rails can help patients move on and off the toilet. Horizontal drop-down grab rails are the most suitable and can be folded away while the patient is being moved.

Basins

- The centre of the basin should be at least 400mm from any adjacent wall, so the basin can be used by a patient in a chair.
- There should be at least 675mm clear space under the basin, so it can be used by a patient in a chair – make sure pipes and waste outlets don't reduce this.
- There needs to be clear space at least 800mm wide by 1200mm deep in front of the basin, to allow equipment access.
- There should be a clearance of 50-60mm between the taps and any obstruction or wall.

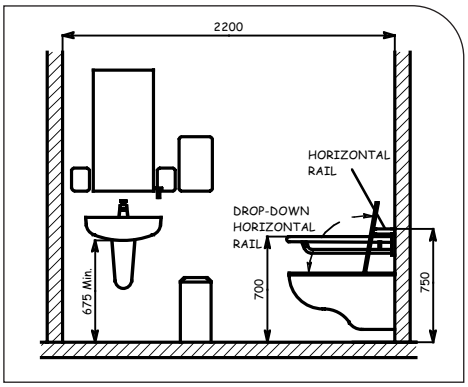


fig 69. Typical toilet layout allowing for carers and large equipment

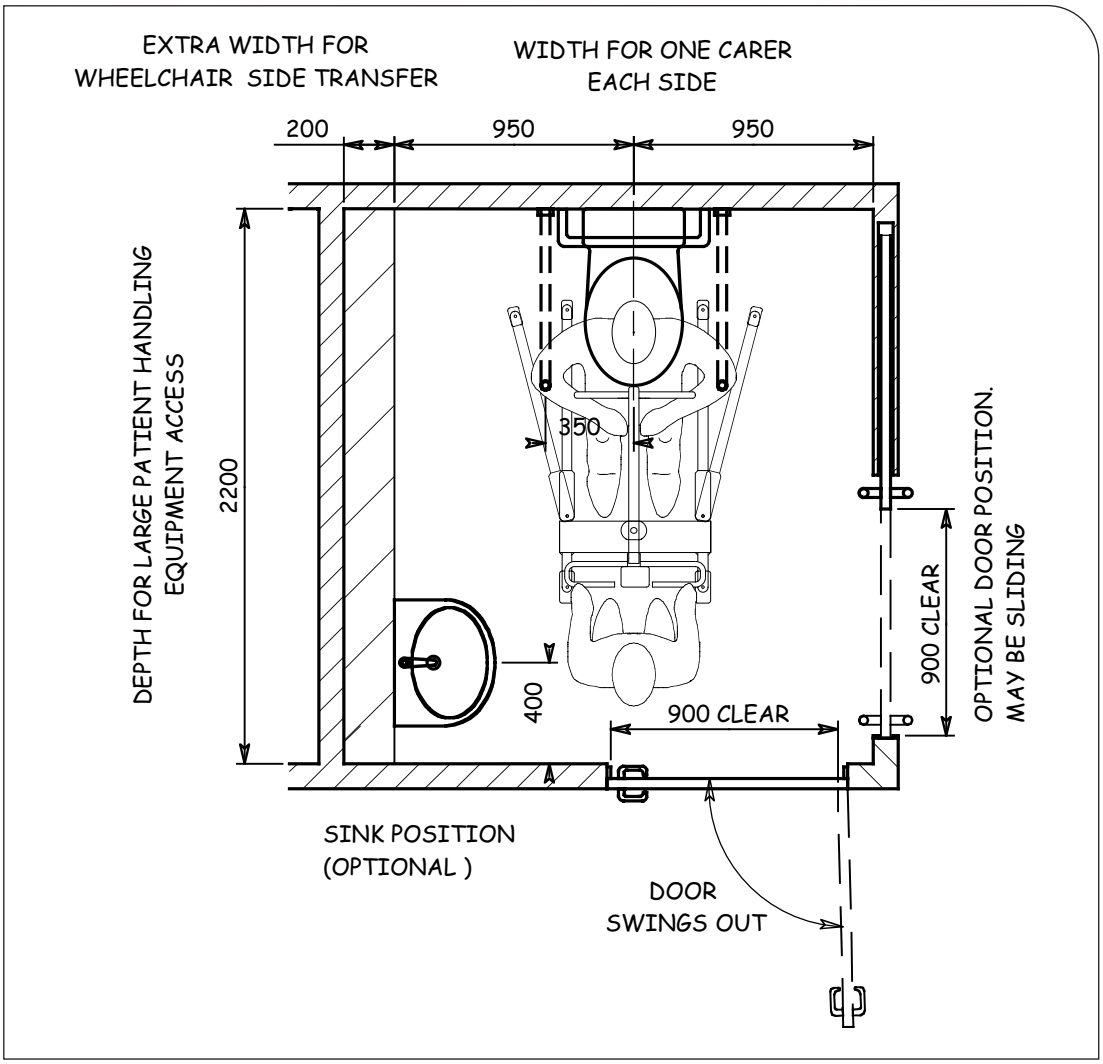


fig 70. Typical toilet layout allowing for carers and large equipment

Shower rooms

Adequate space is needed in wet area shower rooms so carers can assist patients to shower, dry, move and transfer, and to allow access of large patient handling equipment such as wheelchairs and commode chairs.

There should be no plinth, kerb or other obstacle in the shower unit that may limit wheelchair access. All floors need to be designed with a fall to stop water from pooling, with increased fall in the curtained-off shower cubicle.

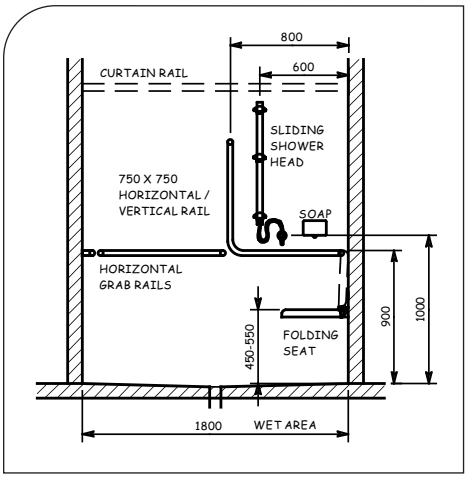


fig 71. Typical shower room fittings

How much space is needed?

Shower rooms need enough space for carers and equipment in both wet and drying areas.

Here's the minimum space needed:

- Drying space – 1800mm by 1800mm or 2200mm by 2200mm if large mobile shower trolleys are used
- Wet shower areas – 1800mm by 1000mm.

Note: Mobile shower trolleys vary in size and are usually 600-750mm wide and 1500-2200mm long. The drying space needs to be at least 2200mm by 2200mm to move most shower trolleys into position. Smaller rooms may be possible by using a smaller shower trolley.

Recommendations for shower room fittings

- A hinged drop-down seat in the shower cubical that is at least 600mm wide can help patients be independent. The seat can be hinged out of the way for patients who are walking or using a commode chair.
- A fixed horizontal/vertical grab rail near the shower seat can help patients to stand.
- The shower should have a detachable, height-adjustable shower head and a hose at least 1500mm long close to the shower seat (see figure 71). If a shower trolley is used, the hose needs to be at least 2000mm long.

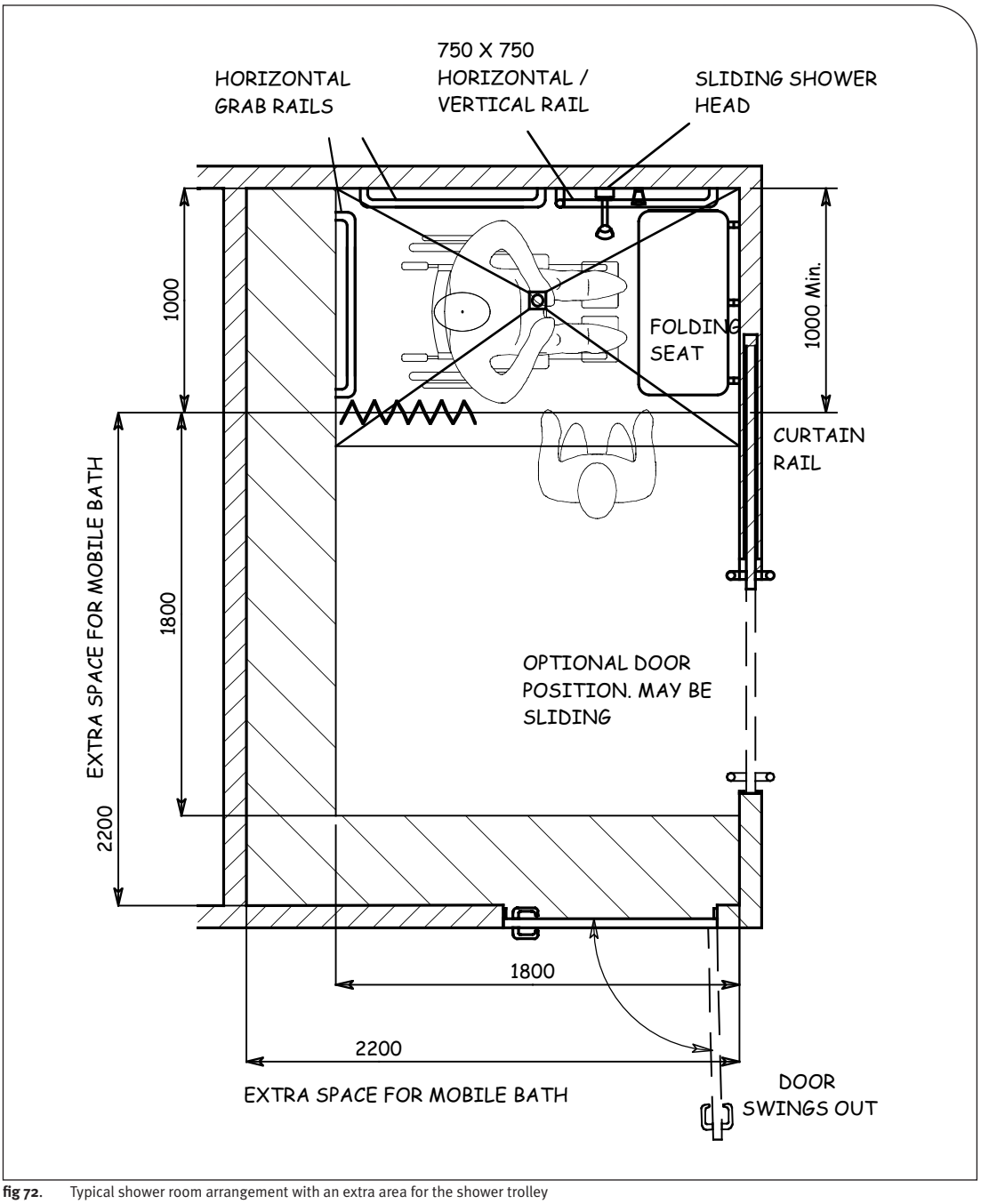


fig 72. Typical shower room arrangement with an extra area for the shower trolley

Combined shower and toilet rooms

Combined shower and toilet rooms can be useful to carers, because they provide immediate access to a toilet if the patient needs one while showering. A ceiling track hoist will help carers move patients between the shower and toilet more easily. There are different ways to lay out a combined shower and toilet room. The most important thing is to allow adequate space in showering and drying areas so carers can use large equipment items if required.

The minimum space required for the single and shared entry options is shown in figures 73 and 74. If the combined shower and toilet room is shared between rooms, extra space will be needed for another door as shown in figure 74.

Recommendations for fittings

The requirements for combined shower and toilet room fittings are shown in figure 74.

Please refer to New Zealand Standard NZS 4121: 2001: *Design for Access and Mobility – Buildings and Associated Facilities*, when designing showers or combined shower and toilet areas for independent disabled patients.

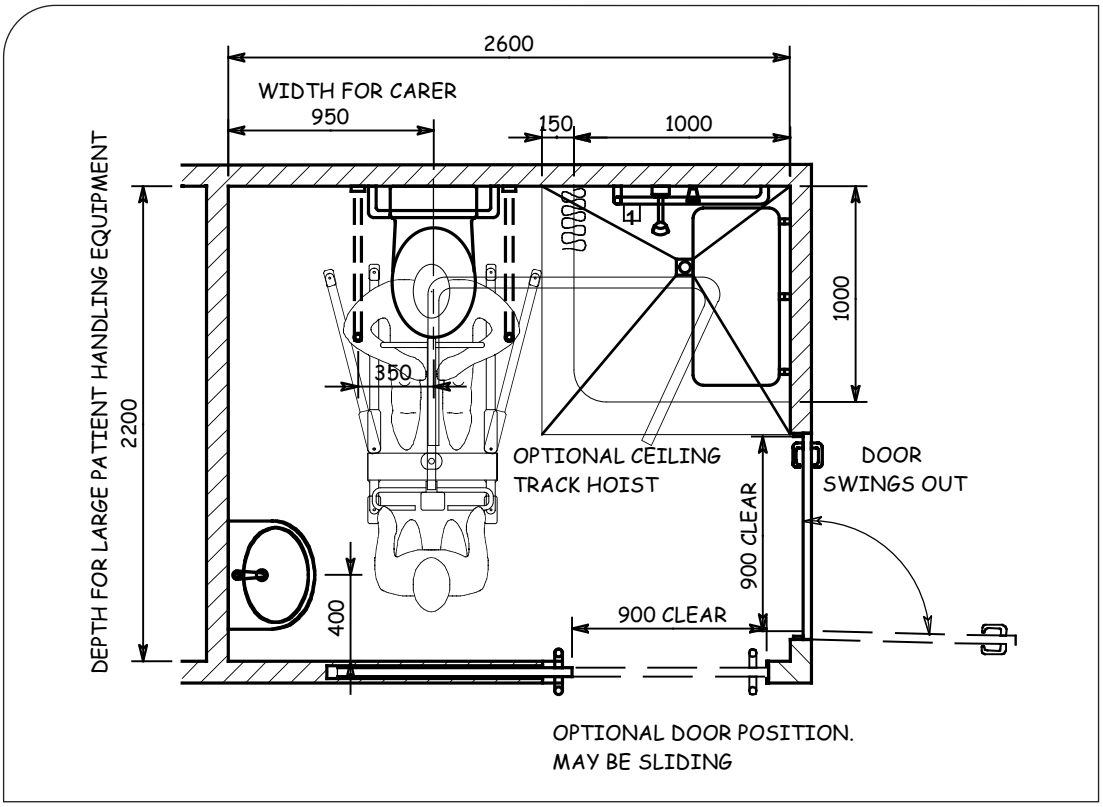


fig 73. Typical combined shower and toilet room, single entry

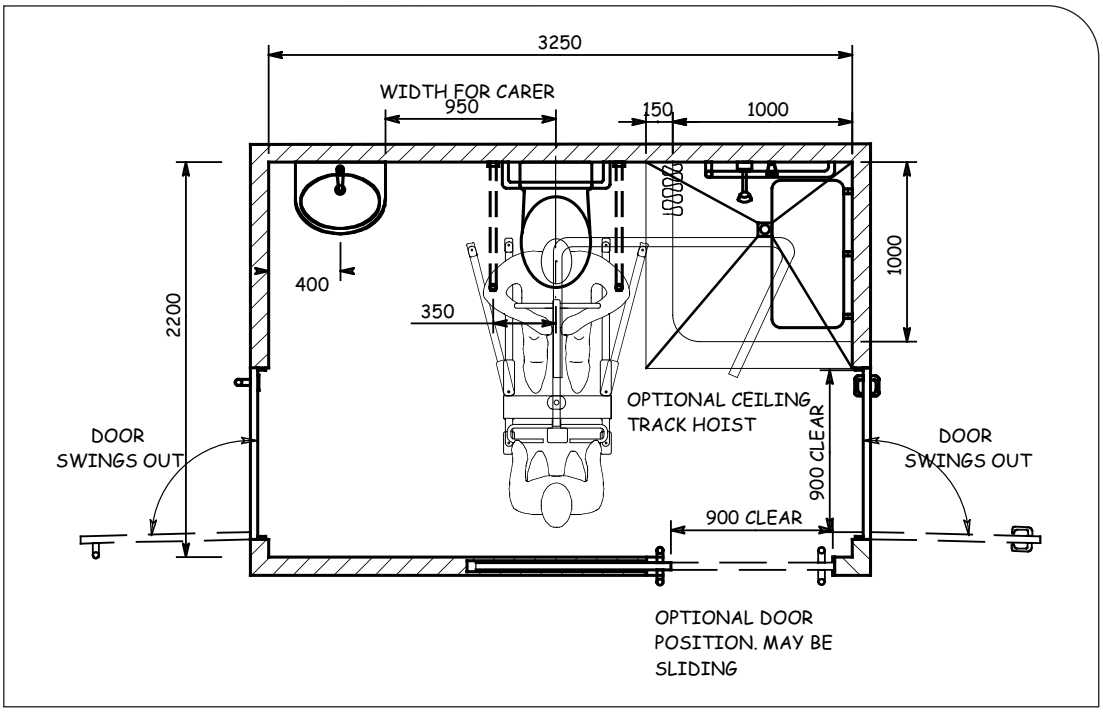


fig 74. Typical combined shower and toilet room, shared entry

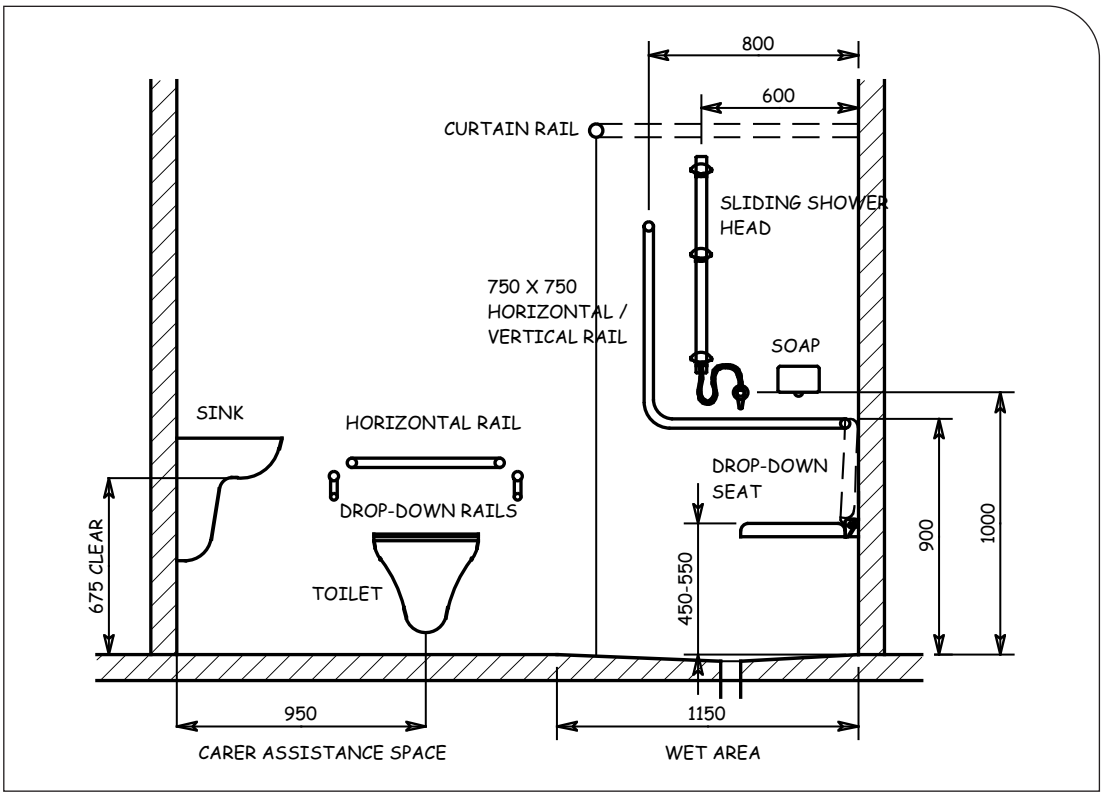


fig 75. Typical combined shower and toilet room fittings

Bathrooms

Recommendations for laying out a patient bathroom

- Carers need adequate space around the bath to move a patient from their wheelchair to the bath using a mobile hoist.
- Carers need to be able to access both sides of the bath with a wheelchair or hoist.
- The bath should be designed to suit mobile hoists, with at least 150mm clear space underneath so a hoist can be positioned over the bath.
- Installing a ceiling track hoist can make it easier to move patients between the bath and toilet.

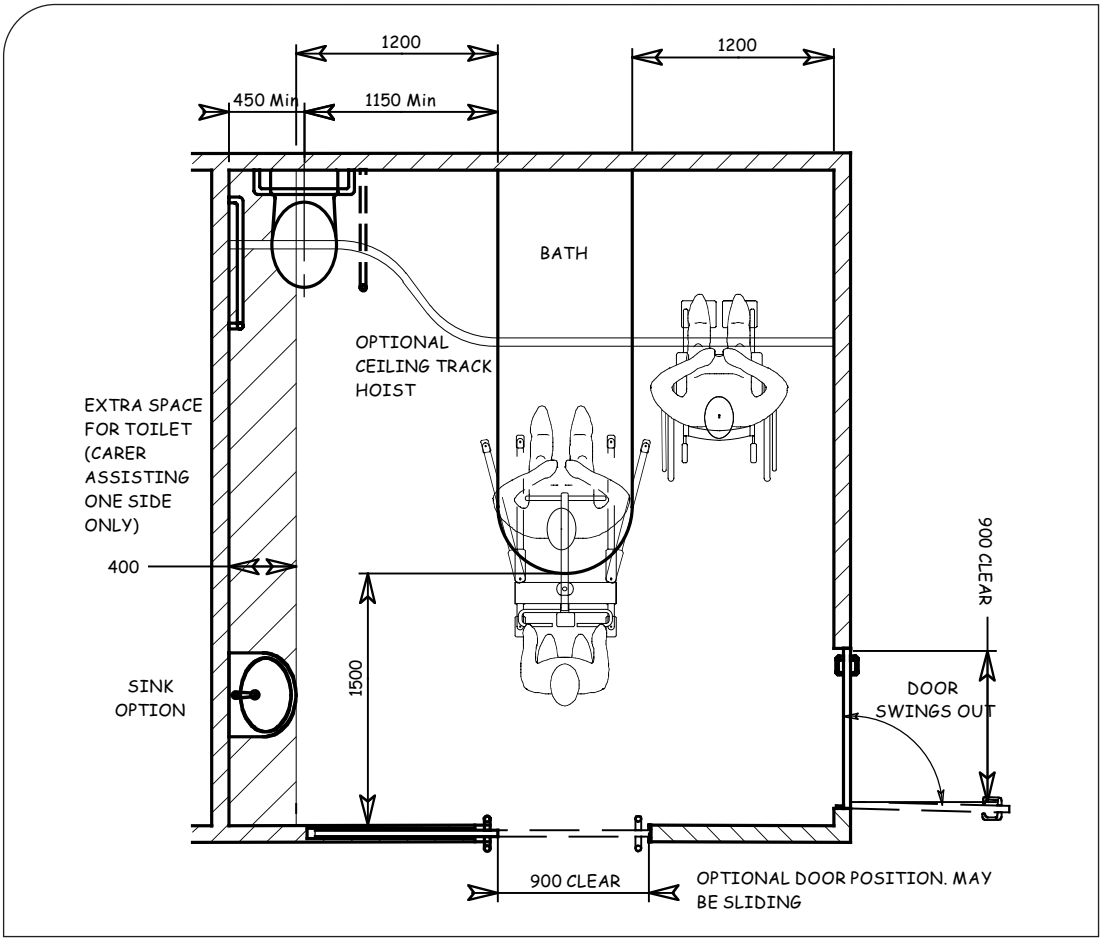


fig 76. A typical bathroom layout. The unshaded area is the minimum recommended space required around a bath. The shaded areas show the extra space required if a toilet is added

Day and dining rooms

Recommendations for laying out day rooms and dining rooms

- Try to locate patients who need to be assisted with large equipment (such as wheelchairs) near day or dining rooms, to minimise the distance they have to travel.
- Allow adequate space around chairs and dining tables so patients using mobility aids and wheelchairs can access the furniture more easily.
- Make sure the access area between the entrance doorway and seating areas is at least 1500mm wide so patients and their carers have space to move and pass.
- Provide extra space for temporary storage of equipment, such as walking aids and wheelchairs, while it is not being used.

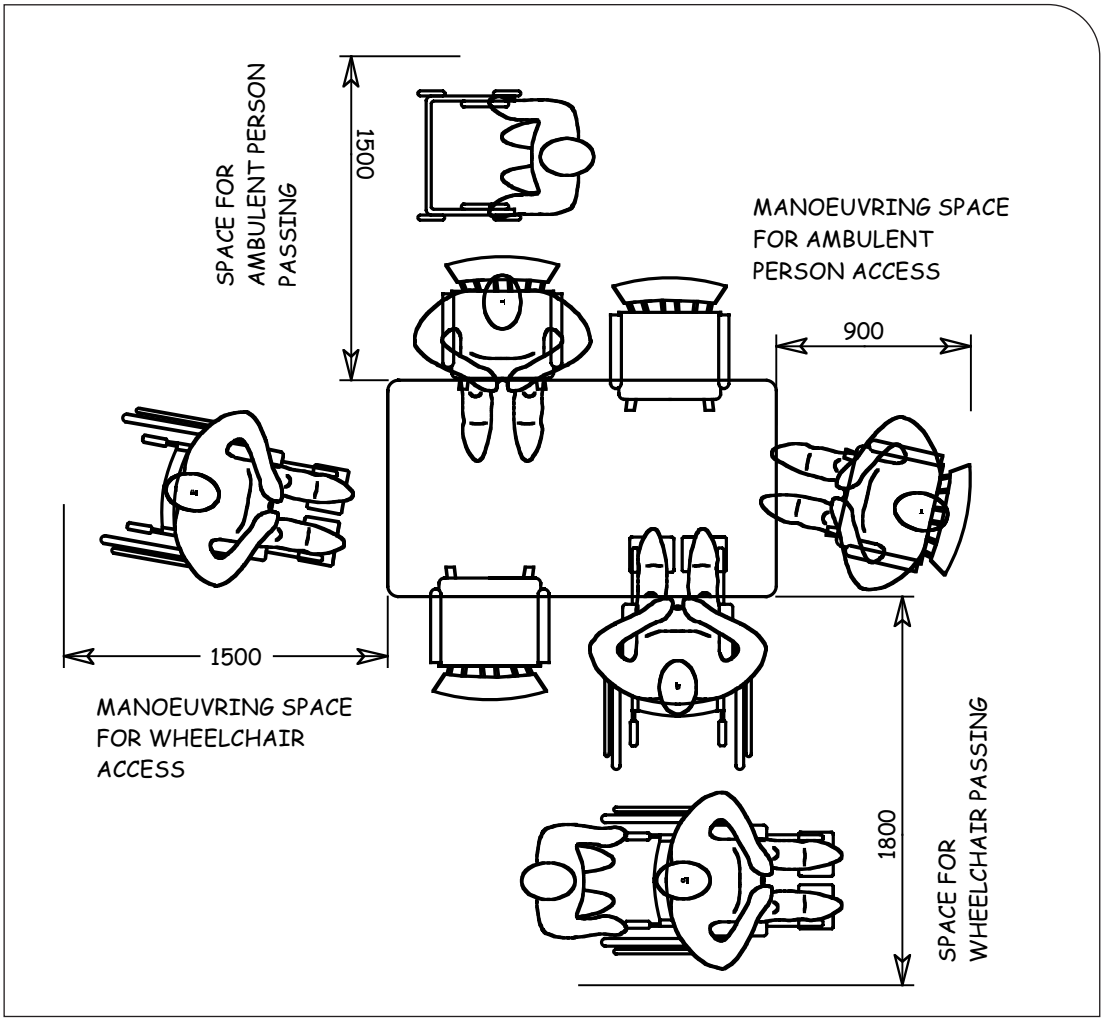


fig 77. Manoeuvring spaces needed around furniture

Clinical suites

The layout of clinical suites needs special consideration, as beds are surrounded by surgical equipment and can't easily be moved if more space is needed for handling tasks.

Clinical suites include:

- Medical imaging suites
- Obstetric delivery suites
- Operating suites
- Mortuary and autopsy suites.

How much space is needed?

Here are some suggestions about the clear areas and spaces required for clinical suites:

- Allow a 1200mm space on both sides of the bed to accommodate large patient handling equipment and transfer trolleys. If this is not practical, 700mm on one side of the bed and 1200mm on the other may be sufficient
- Clinical suites should have double-opening doors – doorways need to be at least 1350mm wide to allow for large equipment items
- Make sure the pathway from the door to the main care area is at least 1500mm wide
- Allow at least 1200mm clear space at the foot of the bed
- Keep all equipment away from clear spaces, or put it on castors so it can be easily moved.

Note: The spaces needed around beds in **pre- and post-medical rooms** are similar to those required around beds in typical unit or ward patient rooms.

Access

Patient access between the various functional areas of your health care facility is largely limited by corridor, door, flooring and handrail detail.

This section provides practical recommendations for the width of access ways, and the turning and passing spaces required, with drawings showing suggested design details.

These recommendations are based on movement of patients assisted by carers who may need to use large items of patient handling equipment to transfer the patients – such as beds or trolleys, hoists and wheelchairs.

Corridors

Corridors are expensive to build and maintain, so recommended minimum widths reflect a balance between use requirements and cost. Main considerations include where the corridor is located, how frequently it is used by staff and patients, the equipment that is used (such as beds, trolleys, wheelchairs, hoists and other handling equipment) and whether the passing of people and equipment is critical or non-critical.

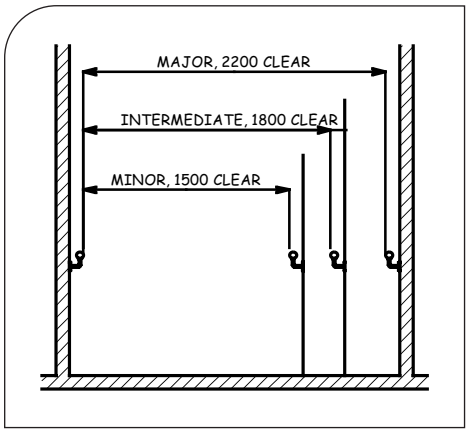


fig 78. Clearance widths required for corridors

- **Critical passing** is where unrestricted movement of patients is important, and usually applies to emergency evacuation routes and high-frequency-use corridors.
- **Non-critical passing** is where immediate clear passage for patient movement is not critical, and usually applies to lower-frequency-use corridors.

Minimum widths

These are the recommended minimum widths so staff can safely move patients as part of their normal daily tasks as well as during emergency evacuation. These widths must be clear and unobstructed. Fixed or portable items such as handrails, basins, trolleys and furniture must not be placed where they reduce the clear width.

Minimum clear widths for:
Major corridors – 2200mm clear

- Main inter-departmental and public routes.
- Corridors within wards where patients are frequently moved in large equipment (such as beds) and where critical passing is required.

Intermediate corridors – 1800mm clear

- Corridors within wards where patients are moved with large equipment items and are often assisted by carers.
- Corridors where patient passing may be critical but bed passing is non-critical.

Minor corridors – 1500mm clear

- Corridors within wards where patients may need help from carers, and where passing is non-critical.

Lesser widths may be acceptable in an existing building, but congestion and emergency evacuation must be considered. Regular passing bays, large enough for beds to pass, may alleviate some issues.

Corridors also need to comply with:

- The Building Act 1991 and the Fire Safety and Access Route provisions of the Building Regulations 1992
- New Zealand Standard, NZS 4121:2001: *Design for Access and Mobility – Buildings and Associated Facilities*.

Doorways

These recommendations refer to the dimensions of the clear space in the doorway when the door is fully open, and applies to both swinging and sliding doors.

The minimum doorway height is 2030mm, to enable equipment to be moved. Here are the minimum doorway widths:

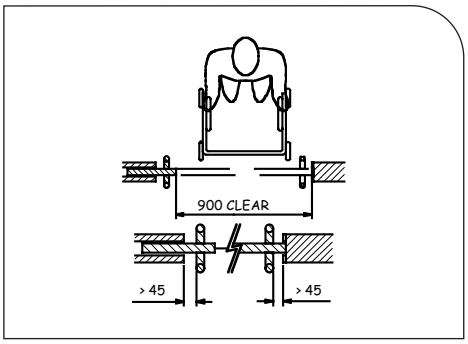


fig 79. Sliding door minimum opening

Corridors

The ideal minimum door opening in major corridors is 1800mm (double opening swinging doors with a 900-900mm split). If this is not possible, a minimum door opening of 1500mm (double opening swinging doors with a 750-750mm split) may be sufficient.

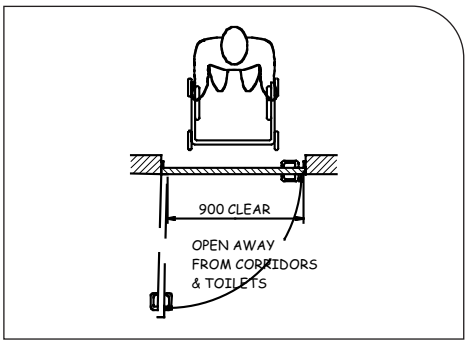


fig 80. Swinging door minimum opening

Patient rooms where patient may be moved in large equipment (excluding beds)

The ideal minimum door opening for patient rooms where large patient handling equipment could be used is 1350mm. If this is not possible, then a minimum door opening of 900mm may be sufficient.

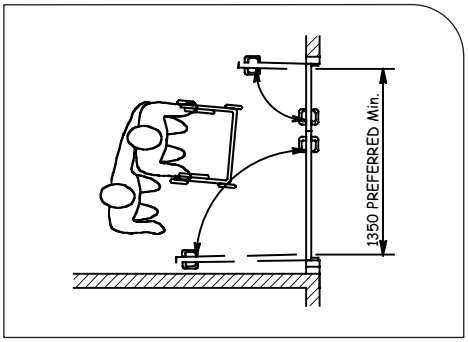


fig 81. Preferred minimum door opening with 900-450 split

Toilets, showers and bathrooms

The minimum door opening for toilet and shower rooms is 900mm. Sliding or swinging doors are acceptable.

Patient rooms with beds

The minimum door opening for patient rooms that contain beds is 1350mm (double opening swinging doors with a 900-450mm split).

Some important points

- Sliding doors can be used in patient toilets, showers and bathrooms.
- Doors in corridors need to swing towards the exit.
- Doors that swing into corridors must not reduce the corridor width below the minimum clear width.
- Doors must not swing into toilets.

Door openings also need to comply with New Zealand Standard NZS 4121:2001: *Design for Access and Mobility – Buildings and Associated Facilities*.

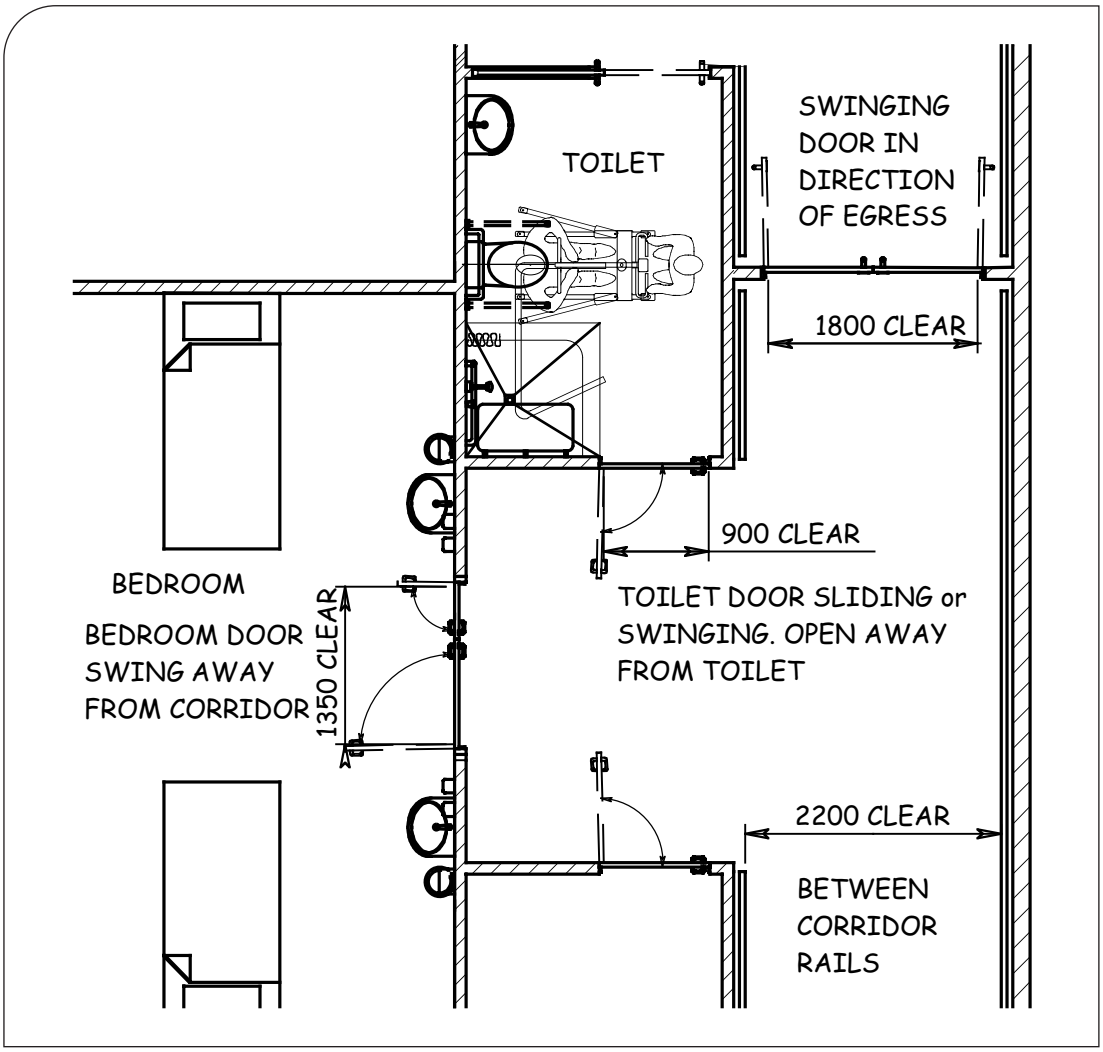


fig 82. A typical bedroom, ensuite, corridor arrangement showing door swinging direction and minimum door opening clearances

Floors

The quality and type of flooring are important for the safety of patients and their carers. Having enough floor space to move patients and equipment is also very important. Here are some suggestions.

Recommendations for safe flooring

- Floor coverings must be tightly fitted so patient and carer footing is assured.
- Joints in the floor material must be permanently sealed together to avoid gaps and loose edges that may cause tripping or restrict the movement of large patient handling equipment.
- In wet areas:
  - Make sure the flooring is non-slip when wet
  - Lap the flooring up shower walls at least 150mm, and up the walls of dressing areas at least 75-100mm to avoid leaks
  - Slope the floor four ways with a minimum fall of at least 1:50 to stop water pooling.
- Where large patient handling equipment is used, use hard floor coverings such as vinyl instead of carpet to make moving equipment easier.
- If carpets are used in handling areas, choose low-profile, high-density, wear-resistant carpet so there is less friction when moving equipment.
- Ensure edging strips in flooring are bevelled and not more than 10mm above the floor.
- Where carpet overlaps vinyl, install a graduated transition strip.

Floors in your facility also need to comply with fire safety requirements and Australian and New Zealand Standard AS/NZS 3661-1993: *Slip Resistance of Pedestrian Surfaces*.

Note: Carpet can improve walking confidence and is appropriate in some settings, particularly if large patient handling equipment is not often used.

How much floor space is needed?

Over the next few pages are guidelines to the minimum clear floor space needed for passing and turning large items of patient handling equipment.

Minimum passing spaces

For patient beds

- Minimum space for critical passing
  Width = 2200mm
- Minimum space for non-critical passing
  Width = 1800mm

For large patient handling equipment

Large patient handling equipment includes mobile hoists, mobile stand hoists, wheelchairs, commode chairs and trolleys, but excludes beds.

- Minimum space for critical passing
  Width = 1800mm
- Minimum space for non-critical passing
  Width = 1500mm

For patients assisted by carers

- Minimum space for critical passing
  Width = 1800mm
- Minimum space for non-critical passing
  Width = 1500mm

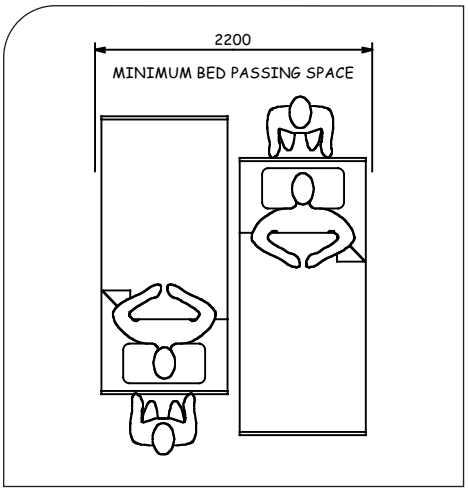


fig 83. Minimum critical bed passing space

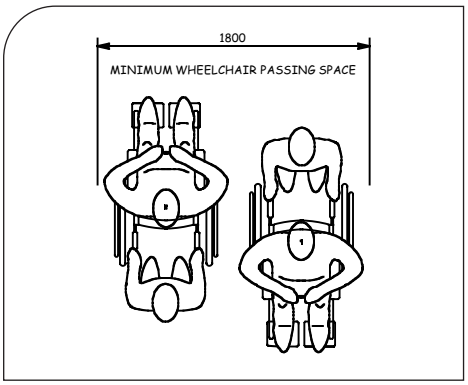


fig 84. Minimum critical wheelchair passing space

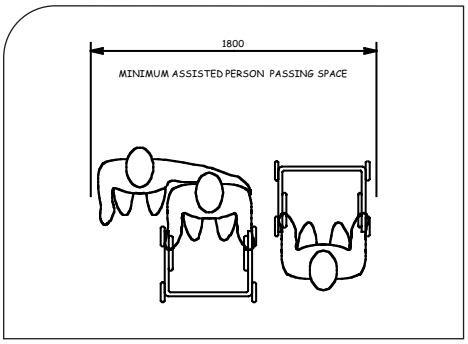


fig 85. Minimum critical space for patients assisted by carers

Minimum turning spaces

For turning wheelchairs, commode chairs and walking frames

- Minimum turning space for carers to rotate chairs with patient
  Circle diameter = 1800mm
- Minimum turning space for people using self-propelled chairs and walking frames
  Circle diameter = 1500mm

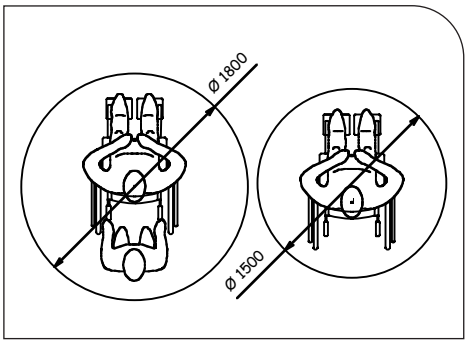


fig 86. Turning space for carer assisted and independent wheelchair users

For turning beds when entering or leaving a room

- Minimum corridor width for a carer to turn bed 90° when entering or leaving a room
  Width = 1800mm

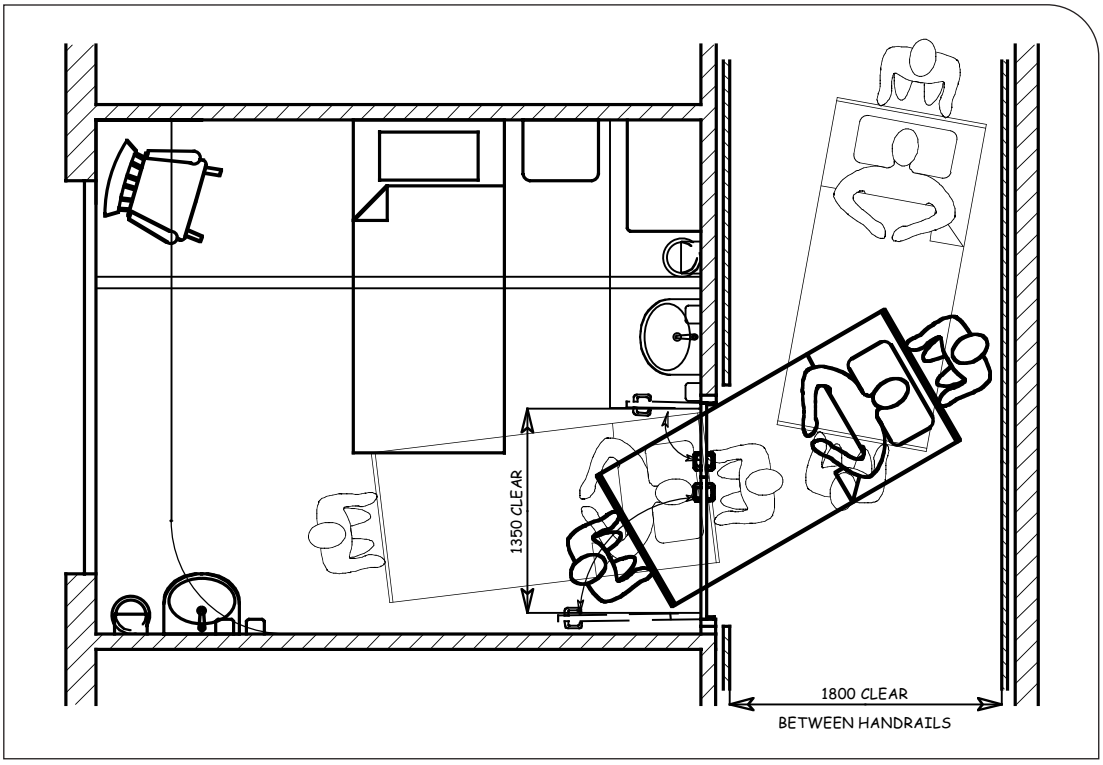


fig 87. Minimum corridor and door width to enable a carer to turn a bed 90°

For turning chairs or hoists when entering or leaving a room

- Minimum corridor width for a carer to turn a wheelchair, commode chair or hoist with patient through 90° when exiting or entering a room
  Width = 1500mm

Note: Hoists should only be used to transport patients over short distances, preferably forwards or backwards, onto wheeled equipment such as a wheelchair, commode chair or trolley. A mobile hoist is difficult to turn while carrying a patient. Turning is likely to result in the carer twisting their spine, which may cause injury.

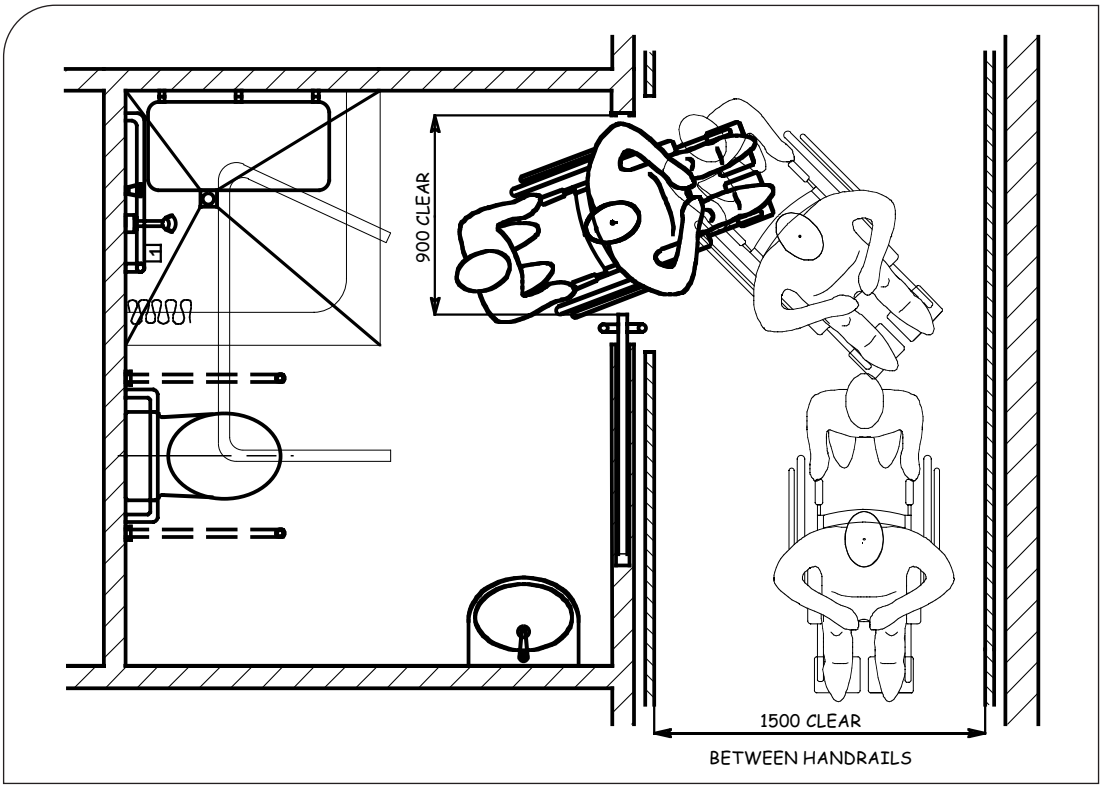


fig 88. Minimum corridor and door width to enable a carer to turn a wheelchair or hoist 90°

Handrails and grab rails

Handrails and grab rails have different functions.

A handrail is used for general support and may occasionally take a patient's full weight if they trip or fall. An example is handrails along either side of corridors.

A grab rail is a stronger support that can take a patient's full weight during handling operations, for instance a combined horizontal/vertical grab rail fitted adjacent to a toilet to help a patient stand.

You can find standards for handrail and grab rail designs in New Zealand Standard NZS 4121:2001: *Design for Access and Mobility – Buildings and Associated Facilities*.

Equipment storage

The number of storage areas and where they are located depend on the layout of the ward – and on the type and amount of patient handling equipment required.

Here are some things to consider when you are planning your storage areas:

- Allow space for both large and small items of equipment
- The storage areas need to be located in the ward or unit, preferably within 20 metres of handling areas, and within 10 metres of the nurses' station
- Storage areas shouldn't block or reduce access ways
- Storage doorways need to be at least 900mm wide
- The clear corridor width between storage areas for large equipment and the handling areas where it will be used must be at least 1500mm.

How much space is needed?

The amount of space needed for storing equipment depends on what equipment is needed and how many items there are. Each ward or unit is likely to have different requirements, depending on the equipment it uses – LITE workplace profiles can help you identify storage needs. Designers and planners should refer to equipment manuals for specific size details.

Immediate changes to improve patient handling safety

Patient rooms

- Keep rooms tidy and free of clutter.
- Create a permanent clear passage from the foot of the bed to the door, so there is always clear access to move equipment from the door to the bed.
- In small rooms, and where space is at a premium, attach castors to the furniture so it can be easily moved out of the way during patient handling tasks.
- Make sure beds are height adjustable.
- Make sure chairs have armrests to help patient transfers.
- Try to locate patients who need to be assisted with wheelchairs as near to day or dining rooms as possible, to minimise the distance they have to travel.
- Provide plenty of electrical sockets, to prevent trailing leads.

Toilets, showers and bathrooms

- If toilets are small, inaccessible and difficult places in which to perform patient handling tasks safely, consider using other toileting methods such as commodes, pans or bottles.
- If the shower or bathroom is too small and inaccessible for large patient handling equipment, consider:
  - Bed bathing the patient until an alternative is found
  - Using a shower chair that can be pushed into the shower or bathroom.

Corridors, doors and flooring

- Check corridors and access routes are free of items that restrict minimum recommended widths.
- Check that:
  - Corridor doors swing in the direction of the exit
  - Door swings do not restrict recommended minimum corridor widths
  - Toilet doors do not swing inwards
  - Items are not stored behind doors that can restrict them fully opening.
- Check floor coverings are tightly fixed to the floor, and permanently seal all gaps and loose edges.
- Check carpet edging strips are bevelled and not more than 10mm above the floor.

Patient handling equipment

- Ensure patient handling equipment is well maintained, and repaired or replaced when damaged.
- Use temporary ramps for wheeled equipment to eliminate the risks associated with lifting equipment over thresholds.
- Install grab rails in toilets, showers and bathrooms to encourage patients to stand and sit independently.
- Install continuous handrails along corridors and stairs.
- Consider installing ceiling tracks and wall-hung or gantry hoists because these require less room to move patients than mobile hoists.

Storage

- Ensure your storage area is well organised with clearly defined areas for patient handling equipment.
- Locate storage areas in the ward or unit, preferably within 20 metres of handling areas and within 10 metres of the nurses' station.

Techniques for safer patient handling 135

- The 16 kilo limit 135
- The principles of safer patient handling 136
- Some terms explained 138

Task 1: Standing and sitting the patient 139

Technique 1 Independent sit to stand 140

Technique 2 Sit to stand with one or two carers 140

Technique 3 Sit to stand with a stand hoist 141

Technique 4 Independent stand to sit 142

Technique 5 Stand to sit with one or two carers 142

Task 2: Walking with the patient 143

Technique 6 Independent walking with or without walking aids 144

Technique 7 Assisted walking with one or two carers 144

Task 3: Rolling the patient in bed 145

Technique 8 Independent rolling 147

Technique 9 Independent rolling with equipment 147

Technique 10 Rolling the patient with one carer 148

Technique 11 Rolling the patient with two carers using a slidesheet 149

Task 4: Sitting the patient up in bed 151

Technique 12 Independent sitting up in bed 152

Technique 13 Equipment to help the patient sit up in bed 153

Technique 14 Sitting the patient up with two carers 154

Task 5: Moving the patient in bed 155

Technique 15 Independent movement up the bed 156

Technique 16 Independent movement in bed using equipment 156

Technique 17 Two carers move the sitting or lying patient up the bed 157

Task 6: Sitting the patient to the edge of the bed 159

Technique 18 Independent sitting to the edge of the bed 160

Technique 19 One or two carers sit the patient to the edge of the bed 161

Task 7: Sitting to sitting transfers 163

Technique 20 Independent transfer 164

Technique 21 Transfer with the help of one or two carers 165

Task 8: Non-weight-bearing transfers 167

Technique 22 Non-weight-bearing transfer with one carer 168

Task 9: Repositioning the patient in a chair 169

Technique 23 Independent repositioning in a chair 170

Technique 24 One carer repositioning the patient in a chair 170

Technique 25 Repositioning the patient in a chair using a hoist 171

Technique 26 Repositioning the patient in a chair using a slidesheet 172

Task 10: Assisting a fallen patient 173

Technique 27 Assisting a fallen patient who is conscious and uninjured 175

Technique 28 Assisted transfer or hoisting from the floor with two carers 176

Technique 29 Assisting a fallen patient in an area difficult to access 177

Task 11: Transferring a patient from lying surface to lying surface 179

Technique 30 Transferring a patient from lying surface to lying surface using equipment 180

These techniques have been developed to help make handling tasks safer for carers and patients. They are suitable for males and females, but everyone is different and should work within their own capabilities and limitations. You should never attempt one of these techniques if:

- You have not completed the recommended patient handling training
- You are uncertain about the technique or feel it is beyond your capability.

There is always some risk with patient handling, so you should look for ways to reduce this if possible. Always consult the LITE patient profile before starting a handling task and check it is still appropriate. Ask yourself if the task can be eliminated or done in a way that doesn't require handling. Seek advice if you need it, and encourage patients to help themselves as much as possible.

Training and equipment won't remove all the risks, nor can we cover every situation in these guidelines. Employers should ensure carers have access to a technical expert when needed.

The 16 kilo limit

Patient handling involving any weight over 16 kilos increases the risk of injury to carer and patient. The 16 kilo limit is a best practice approach adopted by New Zealand. It is based on numerical guidelines developed in the United Kingdom in 1992. These are not safety limits. They are a filter to screen out straightforward cases and set a boundary within which patient handling is unlikely to cause harm. In most cases the handling task will fall outside these limits. A risk assessment using the LITE patient profile should be done for all patients and a handling plan completed if any risk is identified.

Maximum limits

As the chart shows, the maximum limits are 25 kilos for men and 16.6 kilos for women, but only when:

- The handling is done in a suitable environment
- Carers maintain good posture and spinal alignment
- The load is held close to the mid-body range between elbow and knuckle height.

The limits drop significantly in other positions.

The United Kingdom Numerical Guidelines

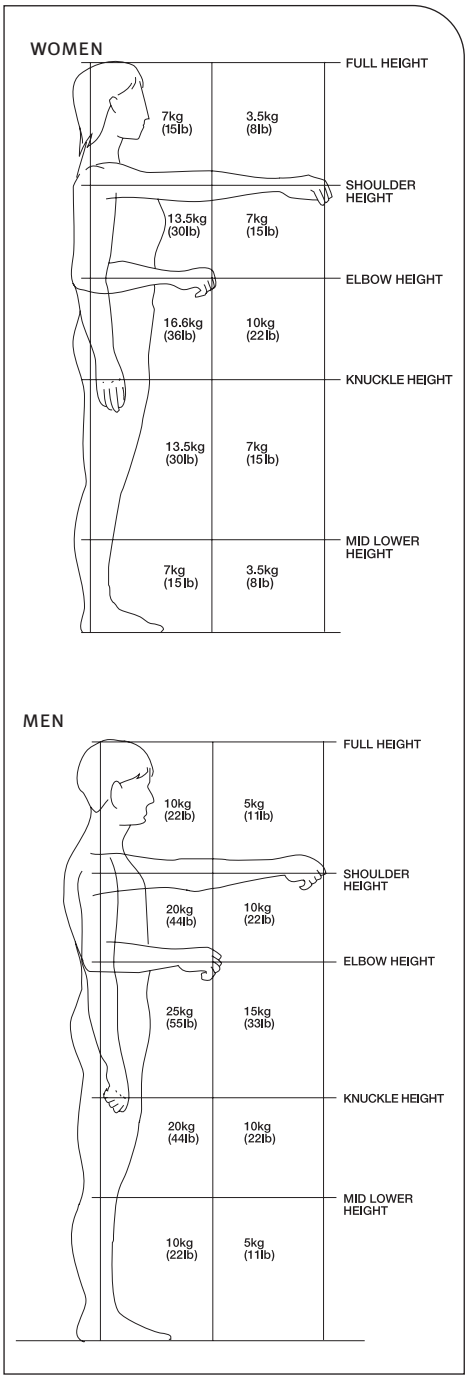


fig 89. The UK Numerical Guidelines. These charts form part of the UK Manual Handling Operations Regulations 1992 and were reproduced with the permission of the Health and Safety Executive

The principles of safer patient handling

You should apply these principles to any patient handling technique you use, whether it's from these guidelines or another source. No technique is safe if you are handling most of the patient's weight.

Before the task:

- **Wear the right clothes:** Make sure your clothing and footwear are appropriate – clothes should allow free movement and shoes should be non-slip, supportive and stable
- **Never lift:** Never plan to lift manually – always use a hoist to lift a patient
- **Know your limits:** Know your own capabilities and don't exceed them – for instance, if you need training in the technique to be used, tell your manager
- **Do one thing at a time:** Don't try to do two things at once – for instance, don't try to adjust the patient's clothing during the transfer
- **Prepare for the task:** Make sure everything is ready before you start – for instance, check other carers are available if needed, equipment is ready and the handling environment is prepared
- **Choose a lead carer:** The lead carer checks the patient profile and co-ordinates the move. You should also try to match the height of carers if possible to avoid awkward postures
- **Apply safe principles:** Always use safe biomechanical principles – and use rhythm and timing to aid the task.

Caution – High risk. The patient shouldn't hold on to you or your clothing, because it is difficult for you to disengage and the patient could pull you off balance. It is unsafe for carers and patients.

Safe biomechanical principles

Applying safe biomechanical principles and maintaining the natural curve of your spine to handling tasks minimise the force on your joints and discs. Here's the safe way to hold your body:

- **Stand in a stable position:** Your feet should be shoulder distance apart, with one leg slightly forward to help you balance – you may need to move your feet to maintain a stable posture
- **Avoid twisting:** Make sure your shoulders and pelvis stay in line with each other
- **Bend your knees:** Bend your knees slightly, but maintain your natural spinal curve – avoid stooping by bending slightly at the hips (bottom out)
- **Elbows in:** Keep your elbows tucked in and avoid reaching – the further away from the body the load is, the greater the potential for harm
- **Tighten abdominal muscles:** Tighten your abdominal muscles to support your spine
- **Head up:** Keep your head raised, with your chin tucked in during the movement
- **Move smoothly:** Move smoothly throughout the technique and avoid fixed holds.

Carrying out the task:

- **Check patient profile:** Decide if the task is still necessary and that the handling plan is still appropriate. Check it still matches the clinical pathway and physician's orders
- **Seek advice:** Talk to your manager or the patient handling adviser if you need advice on the techniques and equipment you should be using
- **Check equipment:** Ensure equipment is available in good order with all components in place and ready to use (eg. batteries charged). Always follow the manufacturer's instructions
- **Prepare handling environment:** Position furniture correctly, check route and access ways are clear, and check the destination is available
- **Explain the task**: Explain the task to the patient and other carers who will be helping
- **Prepare the patient:** Ensure the patient's clothes and footwear are appropriate for the task, and they have any aids they need. Adjust their clothes, aids and position – for instance, encourage the patient to lean forward
- **Give precise instructions:** The lead carer directs the move and gives clear instructions, eg. "Ready, steady, stand". This helps carer/s and patient work together.

Ready, steady, stand...

A clear command of "Ready, steady, stand" is better than counting "1, 2, 3 go". If you use numbers some carers may start on the count 3, and others on the word go. Numbers also have less functional meaning to the patient. So giving a clear command helps co-ordinate everyone in their moves and makes the task safer.

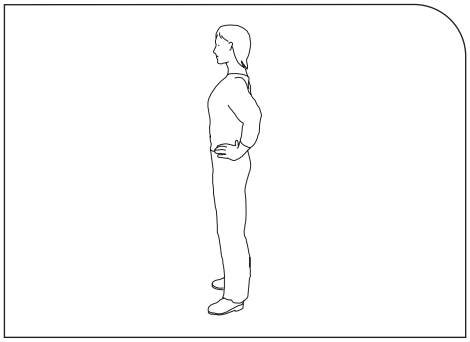


fig 90. Align your spine – chest open, shoulders back with abdomen braced

After the task:

- **Correct your posture:** Stand up straight to correct your spinal alignment. Hold your chest open, shoulders back and abdominal muscles in so your lower body aligns properly with your upper body
- **Re-evaluate the task:** Could the task have been done better? How? Mark the patient profile with your comments
- **Report any issues:** If you identify issues that affect patient handling, report them to your manager and add them to the workplace control plan for action.

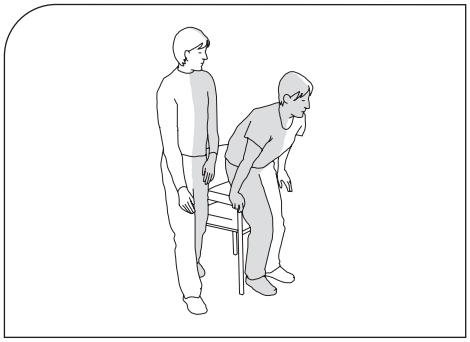


fig 91. The shaded area depicts the 'inside' of patient's arms and carer's bodies

Some terms explained

Inside and outside

We've used the terms **'inside'** and **'outside'** to describe where arms and legs are positioned for the techniques we describe:

- The carer's inside arm or leg is the one closer to the patient
- The carer's outside arm or leg is the one further away from the patient.

The same description is used for the patient's limbs. Their inside arm or leg is the one closer to the carer and their outside limb is the one further away from the carer.

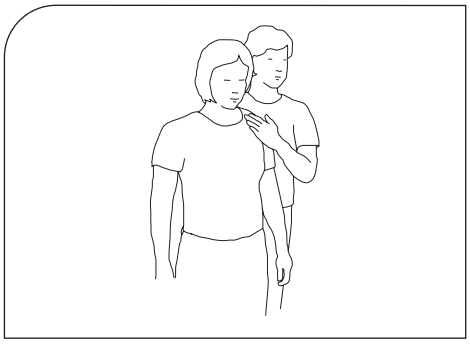


fig 92. Palm to shoulder guidance

Open palm

An open palm placed on the patient's forearm, shoulder, elbow, hip or at the base of their spine can be used to guide the patient's movement. The open palm means there is less chance of injury to both carer and patient because it stops you 'holding' the patient while you are carrying out a technique – so there is less load involved in the transfer.

Standing in a stable position

A stable stance is where you stand upright with feet shoulder distance apart and with one foot slightly forward of the other. This stance is used in most of the techniques. It provides you with a stable base and, where required, allows you to step back smoothly to execute the technique, or to shift your weight if you need to hold firm or shift your balance.

Task 1: Standing and sitting the patient

Injuries, to both carers and patients, often happen when a patient is helped to stand from a seated position because:

- The carer lifts the patient to a standing position and supports them to remain standing
- The patient can't stay upright and collapses back, and the carer attempts to hold them up.

When developing the LITE patient profile it is essential to be clear about what the statement 'the patient can stand' means. Does it mean the patient is fully independent and can stand without help – or does it mean they need help to stand from a seated position and can then remain standing without help?

All patient handling tasks must be clearly documented to prevent confusion for carers. The LITE patient profile should have information about the patient's current capability to:

- Transfer and weight-bear
- Help with patient handling tasks
- Tolerate basic activity
- Balance and be stable.

Before helping the patient stand, check:

- Is the patient willing to stand – and physically able to stand?

  You may need to check the patient's capabilities with others who have been involved with the patient's care and rehabilitation
- Does the patient use a walking aid or prosthetic device?

  Make sure they have any mobility aids they need – but do not use mobility aids as a device for the patient to pull themselves up to a standing position
- Is the patient's footwear non-slip and securely fitted?
- Is the space where the patient is going to stand clear?

The right seating makes standing easier

Standing from a chair is easier if the seat dimensions suit the patient. The correct seat height and depth allow the patient to sit with their feet flat on the floor. The armrests should ideally be positioned forward of the seat. This encourages the patient to bring their weight forward, making it easier to stand by bringing their centre of gravity over their base of support (their feet).

Techniques for standing and sitting the patient:

Technique 1 – Independent sit to stand
Technique 2 – Sit to stand with one or two carers
Technique 3 – Sit to stand with a stand hoist
Technique 4 – Independent stand to sit
Technique 5 – Stand to sit with one or two carers

SIT TO STAND

Technique 1
Independent sit to stand

Only suitable if the patient can manage ALL the steps.

Steps:

1. Ask the patient to put their hands on the armrests of the chair, or the firm surface of the furniture on which they are sitting
2. Ask the patient to put their feet flat on the floor – the feet should be apart and tucked back under the chair
3. Ask the patient to lean forward in the chair and shuffle their bottom to the edge of the seat
4. Ask the patient to lean forward while still sitting so their upper body is above and over the top of their feet – 'nose over toes'
5. If needed, gently rock the patient back and forward to build up momentum to help them stand
6. The patient pushes themselves up to a standing position using the armrests or surface on which they were sitting.

Note: Hand or Bed blocks may provide support for a patient who is standing up from a bed or other firm surface.

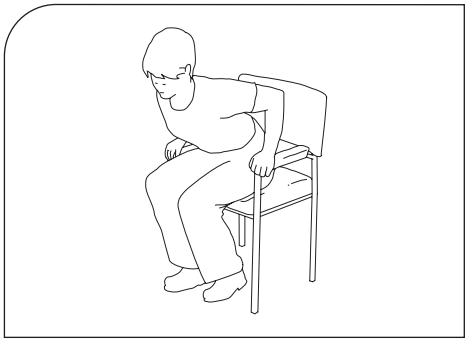


fig 93. Independent sit to stand

Technique 2
Sit to stand with one or two carers

Before helping the patient stand, check there is enough space around the chair for carers to help.

Steps:

This technique uses the same steps outlined in Technique 1, but in addition carers should:

1. Stand to the side of the chair and face the same way as the patient (in the direction of the transfer)
2. Bend their knees and hips slightly (bottom out) – feet should be shoulder distance apart, with the outside leg forward in the direction of the transfer
3. Put their outside palm on the front of the patient's inside shoulder to help right the trunk and stabilise the patient
4. Put their inside palm at the base of the patient's spine to help the patient bring their upper body over their feet to get ready for the move
5. Stay as close as they can to the patient throughout the transfer, so the patient's centre of gravity stays as close as possible to their own centre of gravity.

Note: The lead carer should say "Ready, steady, stand", then lead and coach the patient through the transfer.

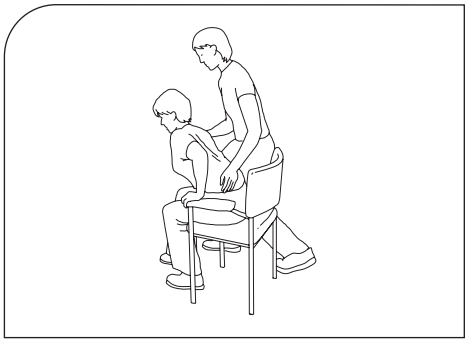


fig 94. Sit to stand with one carer

Technique 3
Sit to stand with a stand hoist

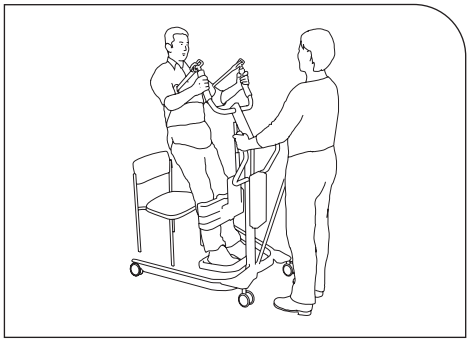


fig 95. Using a stand hoist to help a patient to sit

When is a stand hoist suitable?

A stand hoist is only suitable if the patient can:

- Weight-bear through both legs (but has difficulty trying to stand and needs extra help)
- Co-operate and understand how the stand hoist will enable them to stand
- Balance and control their upper body
- Place their feet on the footplates, rest their knees against the kneepads and grasp the handholds or frame of the hoist.

Steps:

1. Explain to the patient how the stand hoist will help them stand – and preferably demonstrate how it works (this will also help reassure them it is safe)
2. Place the sling well down the patient's back so it doesn't ride up under their armpits when the stand hoist is raised. If the sling rides up different equipment may be needed – see note below
3. Wheel the stand hoist into position, take the brakes off and adjust the legs to fit around the furniture
4. Position the hoist's 'arms' so they are level with the seated patient's sternum
5. Ask the patient to put their feet on the footplates, brace their knees against the kneepads and grasp the handholds or frame of the stand hoist
6. If the hoist's kneepads are adjustable, adjust them to suit the patient
7. Attach the sling to the stand hoist
8. Raise the stand hoist
9. Lower the stand hoist once the patient is positioned over the seating surface.

Note: If the sling is properly positioned and still rides up, it indicates the patient doesn't have the strength to hold themselves up in a standing position. This technique should not be used – use a mobile hoist instead.

There are also riser chairs and seat units which can tilt (and in some cases lift) to help the patient stand up.

STAND TO SIT

Technique 4
Independent stand to sit

Steps:

1. Check the patient can feel the edge of the seat or bed on the backs of their legs or knees
2. If the patient is sitting on a bed before lying down, ensure they sit near the head of the bed so they don't have to be repositioned after they lie down
3. Ask the patient to reach behind and take hold of the armrests or feel for the firm surface of the furniture on which they are about to sit
4. Ask the patient to lean forward ('nose over toes') and, at the same time, bend at the knees and hips to lower themselves onto the furniture.

Note: All movements should be slow and controlled by the patient. You should discourage them from collapsing back onto the furniture from a height.

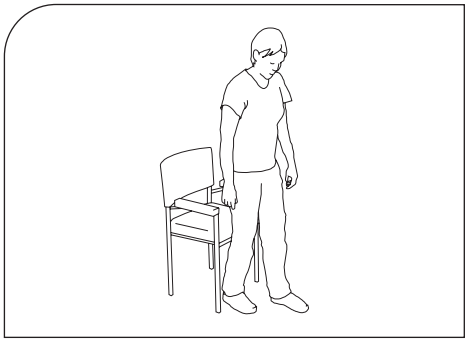


fig 96. The patient feels the chair edge

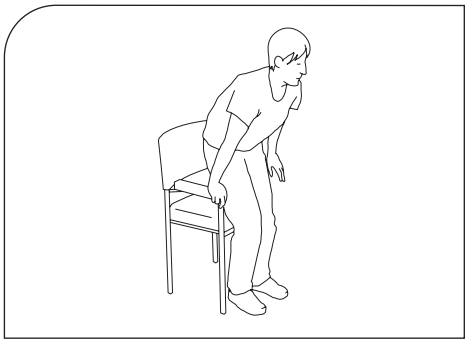


fig 97. The patient leans forward

Technique 5
Stand to sit with one or two carers

Steps:

This technique uses the same steps outlined in Technique 2 but in addition carers should:

1. Stand to the side and if possible behind the standing patient
2. Put their outside palm on the front of the patient's shoulder
3. Put their inside palm on the patient's outside hip or lower back
4. Ask the patient to reach behind to support themselves with both hands on the armrests or firm furniture surface
5. The lead carer should say "Ready, steady, sit", then lead and coach the patient through the transfer.

Note: If the patient is being sat on a bed so they can lie down, but can't do this independently, you will need to use a profiling bed or patient handling equipment. The patient can use a leg lifter to transfer their legs onto the bed.

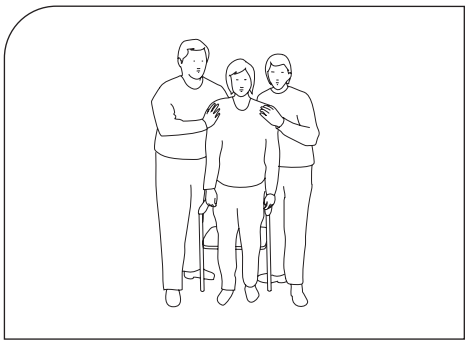


fig 98. Carers put their outside palms on patient's front shoulders

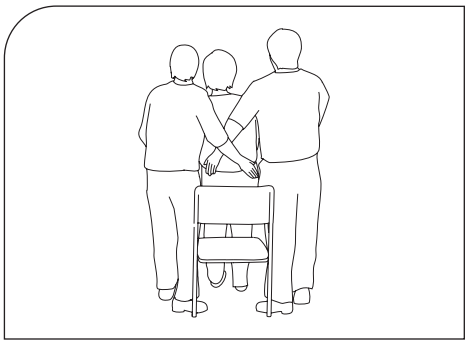


fig 99. Carers put their inside arms on patient's outside hip or lower back

Task 2: Walking with the patient

It is essential to consider the condition of the patient each time they are supervised or assisted to walk. Some days the patient may be able to walk independently and the next they may feel weak or unsteady on their feet. The LITE patient profile must take into account the fluctuating nature of the patient's condition. For example, some patients may need their medication to take effect before they can walk safely and independently.

Before helping the patient to walk, check:

- Is the patient physically able to walk?

  Can they weight-bear and step effectively through? You may need to check with others who have been involved with the patient's care and rehabilitation
- Is the patient able to co-operate and understand what is expected?
- Is the patient wearing appropriate footwear?

  Both patient and carer should wear flat, supportive, non-slip footwear
- Is the walking pathway clear?

  This is especially important if, for example, the patient has to walk with a portable IV pole
- Is the facility to which the patient is walking, such as the toilet or shower, available?

  This is especially important if the patient has limited walking tolerance
- Is there plenty of time so the patient is not rushed, or does not feel they're being rushed?

  For instance, make sure there is plenty of time to reach the toilet
- Is the patient disoriented or tired?

  Some patients may be disoriented, especially at night. If you're helping a patient who has been wandering, remember they may be fatigued and at more risk of falling
- Does the patient use a walking aid – and is it appropriately adjusted for them?

  For instance, a walking frame 'borrowed' from another patient may not be the right height, or may have wheels that move the frame too rapidly for the patient
- Are there adequate opportunities for the patient to rest during the walk?

  For instance, are there seats the patient can use along the way?

Techniques for walking the patient:

Technique 6 – Independent walking with or without walking aids

Technique 7 – Assisted walking with one or two carers

WALKING WITH THE PATIENT

Technique 6
Independent walking with or without mobility aids

If the patient is able to walk, the aim is to help them regain their confidence. You can help them walk independently with verbal prompts such as "Feet further apart", "Bigger steps" and so on.

Steps if a mobility aid is required:

1. Select the right mobility aid – the aim is to select one that encourages maximum independence. If you are not sure which is the right aid you may need to consult a physiotherapist
2. Adjust the mobility aid to the right height for the patient – if you are not sure of the right height, or how to adjust it, consult a physiotherapist
3. Coach the patient – once the patient is standing and has their balance, position the mobility aid and coach them to walk.

Note: There are a number of mechanical aids which will stand and help the patient walk. It is essential to follow the manufacturer's instructions and adjust the aid to meet the patient's requirements.

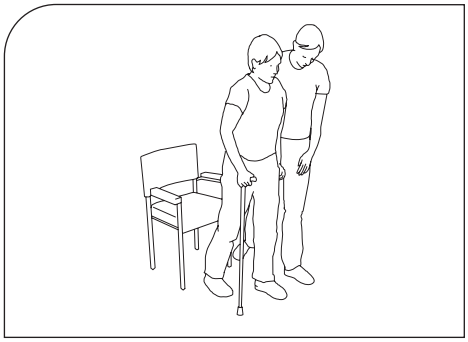


fig 100. Coaching the patient to walk with a walking stick

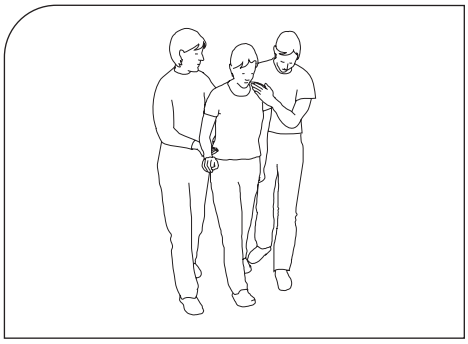


fig 101. Position for guiding the patient to walk

Technique 7
Assisted walking with one or two carers

Steps:

1. Position yourself close, behind and slightly to the side of the patient to avoid extended reach
2. Place your inside palm on the patient's outside hip or lower back
3. Place your outside palm on the front of the patient's inside shoulder, arm or elbow
4. Your position will guide and reassure the patient.

Note: If the patient requires more help than this, do a reassessment and consider the need for a mobility aid.

Task 3: Rolling the patient in bed

All patient handling tasks on the bed must be performed with the bed positioned to the correct working height – this is approximately the carer's hip level. Always roll the patient towards you. Direct the roll with your hands on the patient's outside shoulder and hip – these are the key points of contact.

Temporary measures if the bed is not height adjustable

Best practice is to perform these techniques on a height-adjustable bed. As an interim measure only, if a bed is not height adjustable, some of the techniques for safe handling can be modified. In these cases the carer puts their knee on the bed, making sure their other foot stays on the ground. This prevents the carer from using an extended reach or bending too far forward for the roll transfer.

Automatic tilting beds can eliminate manual rolling

To eliminate manual rolling, electric lateral tilting beds may be used to turn the patient from side to side. These beds are programmed by the carer via a control panel at the end of the bed. The patient can be automatically turned at regular time intervals depending on their needs.

Slidesheets make repeated rolling easier

Slidesheets are useful for rolling the patient several times during one task, such as a bed bath. They reduce friction so less force is needed to roll the patient. Slidesheets are for temporary use and must not be left under the patient as they are usually nylon and can make the patient sweat, which may lead to skin breakdown and pressure sores. If a patient must be frequently turned and you need something that can be left in place, you can use a padded roll sheet instead. This is made of low-friction material and can be permanently positioned between the mattress and the bottom sheet. For more details see the Equipment section.

Before rolling the patient, check:

What is the patient's condition? Consider extra measures if they:

- Are confused, agitated or unco-operative
- Have multiple injuries or pathology
- Are attached to medical equipment
- Have frail shoulder, hip or knee joints
- Are obese.

Have they had recent hip surgery? If so, immobilise the hip joint with strategically placed pillows.

Slidesheets are practical and effective

A slidesheet makes rolling a patient easier. In combination with Technique 11, which helps the rolled patient stay in the centre of the bed, it can reduce the number of handling operations as well.

Techniques for rolling the patient in bed:

Technique 8 – Independent rolling

Technique 9 – Independent rolling with equipment

Technique 10 – Rolling the patient with one carer

Technique 11 – Rolling the patient with two carers using a slidesheet

INDEPENDENT ROLLING

Technique 8
Independent rolling

Steps:

Encourage the patient to roll using verbal prompts.

Ask them to:

1. Turn their head in the direction of the roll
2. Move their inside arm out from the side of their body, or lift it above shoulder height and rest it on the pillow, or place it across their chest to stop them rolling onto it
3. Flex their outside knee (or both knees) so they're ready to push off with their foot in the direction of the roll
    a. If they can't flex their knee/s they can cross their legs at ankle level
    b. If they can't push off with their foot, they can position their knee/s in the direction of the roll
4. Put their outside arm across their chest in the direction of the roll, so they're ready to reach over or hold on to the edge of the mattress
5. Roll over by pushing with their outside foot, while reaching across their body or holding on to the mattress with their outside hand.

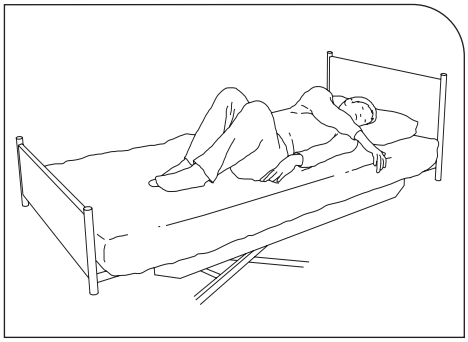


fig 102. Start position for rolling

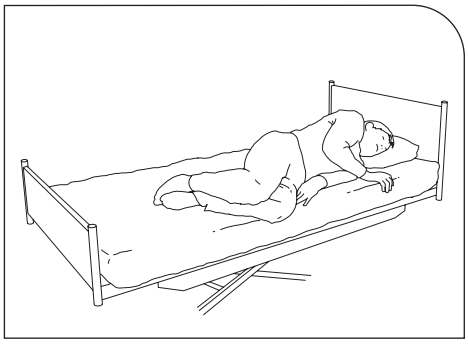


fig 103. Holding mattress to aid roll

Technique 9
Independent rolling with equipment

Steps:

Encourage the patient to roll using verbal prompts.

Ask them to:

1. Turn their head in the direction of the roll
2. Move their inside arm out from the side of their body, or lift it above shoulder height and rest it on the pillow, or place it across their chest to stop them rolling onto it
3. Flex their outside knee (or both knees) so they're ready to push off with their foot in the direction of the roll
    a. If they can't flex their knee/s they can cross their legs at ankle level
    b. If they can't push off with their foot, they can position their knee/s in the direction of the roll
4. Put their outside arm across their chest ready to reach over and take hold of a bed lever or grab rail
5. Roll over by pushing off with their outside foot and pulling on the equipment with their outside hand.

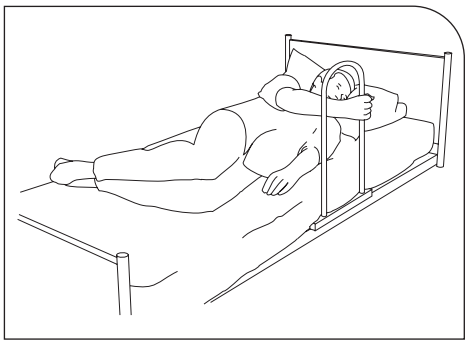


fig 104. Using a bed lever for rolling

Rolling with help from carers

Technique 10
Rolling the patient with one carer

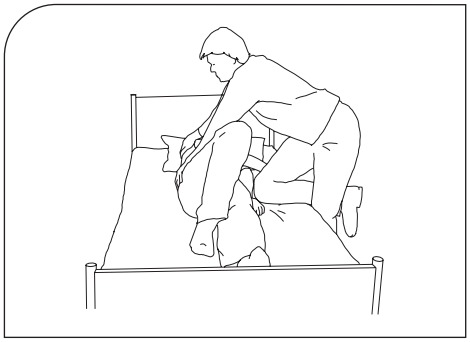


fig 105. Carer's position for rolling the patient when bed is not height adjustable

Steps:

1. Adjust the bed to the correct working height
2. Stand on the side of the bed towards which the patient will roll
3. Turn the patient's head in the direction of the roll
4. Position the patient's inside arm out from the side of their body, or lift it above their shoulder and rest it on the pillow, or put it across their chest to stop them rolling onto it
5. Help the patient flex their outside knee (or both knees) so they're ready to push off with their foot in the direction of the roll
    a. If the patient can't push off with their foot, position their knee/s in the direction of the roll
    b. If the patient can't flex their knee/s, cross their legs at ankle level
6. Position the patient's outside arm across their chest ready for the roll
7. If the bed is not height adjustable, place your knee on the bed so you can perform this technique safely – this helps prevent you from using an extended reach or bending too far forward
8. Place one open palm behind the patient's shoulder blade and the other on their hip
9. Clearly give the command "Ready, steady, roll" so the patient can hear and assist if possible
10. If you have your knee on the bed, transfer your weight backwards and remove your knee from the bed in one co-ordinated movement on the command "roll"
11. Roll the patient towards you.

Do you need extra help?

If you decide the patient should be pushed from behind to roll, you'll need help from another carer.

1. Get the patient ready (steps 1-8).
2. The second carer places their open palms behind the patient's top shoulder and hip.
3. The first carer rolls the patient towards them, while the second carer pushes the patient in the direction of the roll.
4. If the bed is not height adjustable both carers have one knee on the bed and the other on the floor – you both remove your knees on the "roll" command.

Technique 11
Rolling the patient with two carers using a slidesheet

This is the only technique that helps the rolled patient stay in the centre of the bed.

The technique uses two carers. The lead carer uses the slidesheet to roll the patient away from them, while the other carer helps guide the patient in the direction of the roll.

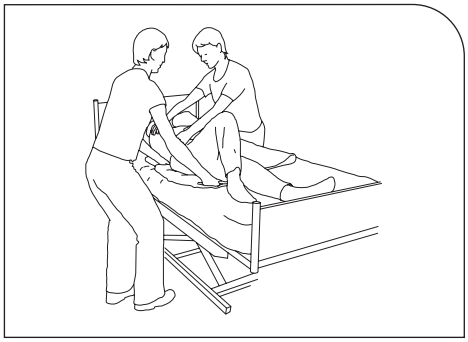


fig 106. Positioning the patient to roll with a slidesheet

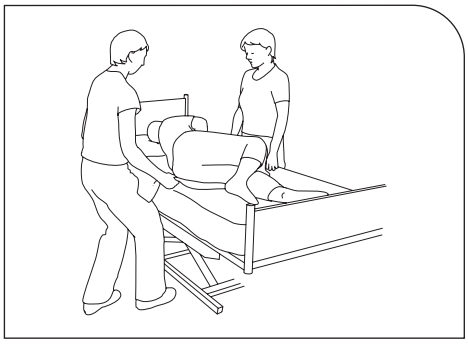


fig 107. Rolling the patient

TO POSITION THE PATIENT:

1. Turn the patient's head in the direction of the roll
2. Position their inside arm out from the side of their body, or lift it above their shoulder and rest it on the pillow, or place it across their chest so they don't roll onto it
3. Help the patient flex their outside knee (or both knees) ready to push off with their foot in the direction of the roll. If they can't flex their knee, cross their legs at ankle level. If they can't push off with their foot, position the knee in the direction of the roll
4. Place the patient's outside arm across their chest ready for the roll.

TO POSITION THE SLIDESHEET:

5. Carers stand on either side of the bed
6. Adjust the bed to a working height – if the bed is not adjustable each carer places one knee on the bed
7. Position the patient to roll them so the slidesheet can be put in place – the lead carer positions the slidesheet, the other puts their open palms behind the patient's shoulder and hip
8. Gather half the slidesheet in folds behind the rolled patient, roll the patient back onto their back, then reposition them and roll them the other way to straighten the slidesheet out.

TO ROLL WITH THE SLIDESHEET:

9. Once the slidesheet is in place, reposition the patient so they are ready to roll
10. The lead carer grasps the top layer of the slidesheet and establishes a stable stance – feet shoulder distance apart, with the inside foot slightly in front of the other
11. The other carer places their open palms behind the patient's top shoulder and hip
12. The lead carer gives the "Ready, steady, roll" command clearly so the patient can hear and assist if possible
13. On the "roll" command, the lead carer smoothly pulls on the slidesheet, pulling back and slightly up, to roll the patient away from them, while the other carer rolls the patient towards them
14. If you have your knees on the bed, transfer your weight backwards and take your knees off the bed in one co-ordinated movement on the command "roll".

TO REMOVE THE SLIDESHEET:

15. Reach under the patient (using their natural body hollows) and firmly grasp the top layer of the far edge of the slidesheet

IMPORTANT CHECKS...

The slidesheet must be placed about 15cm above the patient's shoulder and at least 15cm below the gluteal crease, so there are no friction points (the main friction points are the shoulders and hips). There should be equal amounts on each side of the patient.

The slidesheet should always be removed afterwards because it could cause the patient to sweat, leaving them prone to skin damage.

16. Gently pull the slidesheet out – the pull should be in line with the bed not upwards (or the patient may accidentally move)
17. If the slidesheet gets stuck, reach underneath the patient, find another part of the slidesheet and gently pull again – or roll the patient so you can remove it.

Task 4: Sitting the patient up in bed

It is difficult for most able-bodied people to sit straight up from lying down if their legs are extended in front of them. The upper body represents approximately 68% of the entire body weight and the hip flexors and abdominal muscles need to be very strong to sit up from this position. There are mechanical and non-mechanical aids that can help the patient sit up in bed (see the Equipment section).

Techniques for sitting the patient up in bed:

Technique 12 – Independent sitting up in bed

Technique 13 – Equipment to help the patient sit up in bed

Technique 14 – Sitting the patient up with two carers

Technique 12
Independent sitting up in bed

Steps:

Ask the patient to:

1. Bend at the hips and knees
2. Roll onto their side by turning their head in the direction of the roll, placing their outside arm across their chest and rotating their flexed knees over in the direction of the roll
3. Push themselves up into a side-sitting position using their arms
4. Straighten up from the side-sitting position by pushing through their elbows and/or arms
5. When sitting, position their arms behind their back to prop themselves up
6. Shuffle (or 'hip hitch') their bottom up the bed until they find a comfortable sitting position.

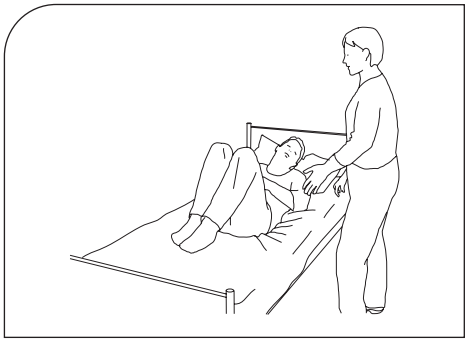


fig 108. Patient bends hips and knees

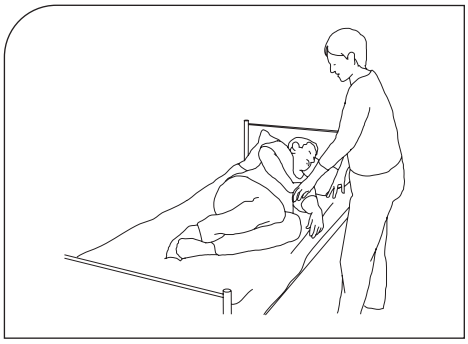


fig 109. Patient rolls onto their side

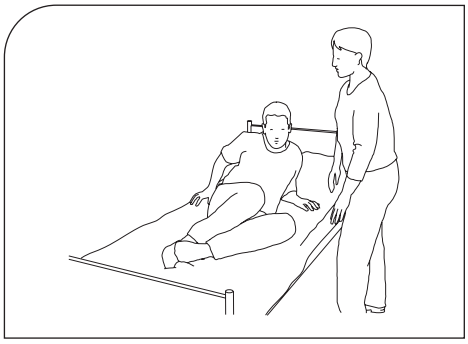


fig 110. Patient props themselves up

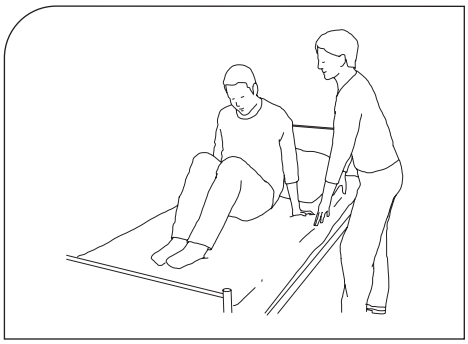


fig 111. Patient shuffles up the bed

Technique 13
Equipment to help the patient sit up in bed

Mechanical beds and lifters

You can eliminate the need for handling to sit patients up in bed with mechanical profiling beds, mattress elevators or pillow lifters. These items sit patients up with the push of a button.

Non-mechanical aids

Non-mechanical aids include bed rails, bed levers and rope ladders:

- Bed levers and rails provide a stable lever the patient can use to help them sit up. They can sit up with their legs straight – or if they don't have enough abdominal strength for this, they can also use Technique 12 with the equipment
- With a rope ladder the patient 'walks' up the rungs to help them sit. The ladder is ideal for some patients, but can be difficult for patients with weak upper limbs and abdominal muscles.

Hoists to help the patient sit up

Steps:

If you use a hoist to sit patients up:

1. Select the right sling for the patient and the task, eg. mesh sling for bathing
2. Put the patient into position so they can be rolled onto the sling (rolling Technique 10)
3. Gather up half the sling lengthwise behind them – the rolled-up bit is next to the body
4. Roll them back the other way, so now they're on one half of the sling
5. Unroll the rest of the sling and roll the patient back onto their back
6. Adjust leg pieces
7. The sling is now ready for hoisting
8. Position the hoist over the bed and lower it so the spreader bar is just above the patient's chest
9. Attach the shoulder straps on the shortest position and the legs straps on the longest position (this may vary depending on the patient's size and how upright they can sit)
10. Raise the hoist to sit the patient up.

caution – Hoists should only be used by carers with appropriate training.

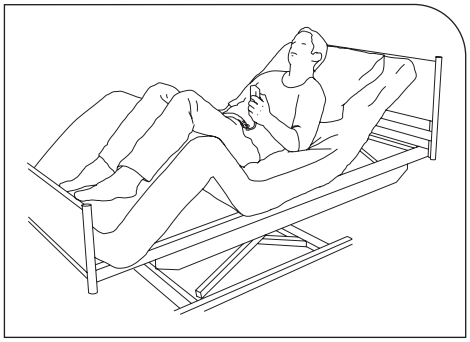


fig 112. A profiling bed helps patients sit up in bed at the push of a button

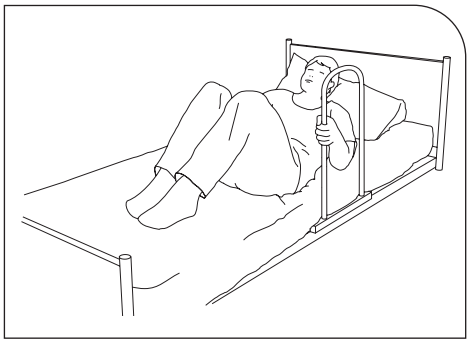


fig 113. A bed lever can help patients sit themselves up

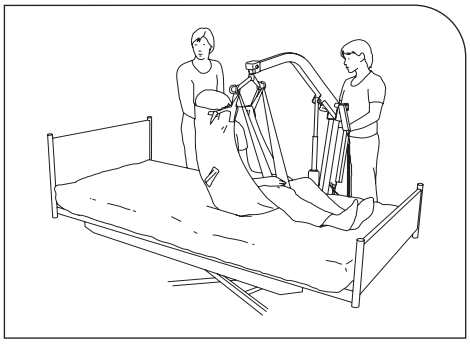


fig 114. Sitting a patient up using a hoist

IMPORTANT CHECKS...

There are many different types of hoists, slings and other equipment. It is essential before using any equipment to have the proper training – and to always follow the manufacturer's instructions.

Technique 14
Sitting the patient up with two carers

CAUTION – SITTING A PATIENT WHO CAN'T SIT THEMSELVES UP IS VERY HEAVY WORK WITHOUT MECHANICAL EQUIPMENT. THIS TECHNIQUE SHOULD ONLY BE PERFORMED IN AN EMERGENCY SITUATION.

The head and trunk of the patient make up about 68% of the patient's entire body weight. Performing this technique with most patients is high risk and will exceed acceptable weight limits. The best option is to eliminate the task. Best practice is to use an electric profiling bed that brings the head of the bed into an upright position.

STEPS:

1. The carers stand on either side of the bed facing the patient
2. The lead carer asks the patient to flex their knees. A pillow can be used to support this position
3. Roll the bottom sheet around the patient to form a hammock and support the patient's head
4. Adjust the bed to the correct working height and stand in a stable position – with feet shoulder distance apart, and the inside foot slightly in front of the other
5. **Or** if the bed is not adjustable, each carer kneels with their inside knee on the bed at the patient's hip level (do not sit on your heel) – with their other foot on the floor, and their outside arm on the bed to act as a strut (figure 115)
6. Both carers firmly grasp the sheet edge at the patient's shoulder level
7. Ask the patient to cross their arms over their chest and tuck their chin in
8. The lead carer commands "Ready, steady, sit"
9. Both carers step back with their inside foot while firmly holding the sheet. This sits the patient up
10. **Or** if the carers' knees are on the bed, they sit back on their heels while firmly holding the sheet – this sits the patient up.

Note: If the patient has impaired head control the sheet must support the head (like a hood). A small rolled towel behind the patient's neck may provide extra support. If the patient has adequate head control, the sheet can be rolled up and gathered around the patient's shoulders.

CAUTION – THE SHEET MUST BE IN GOOD CONDITION, OR IT COULD RIP. A SECOND SHEET CAN BE USED AS A REINFORCEMENT. PUT THIS INTO PLACE USING THE SAME TECHNIQUE YOU USE TO POSITION SLIDESHEETS.

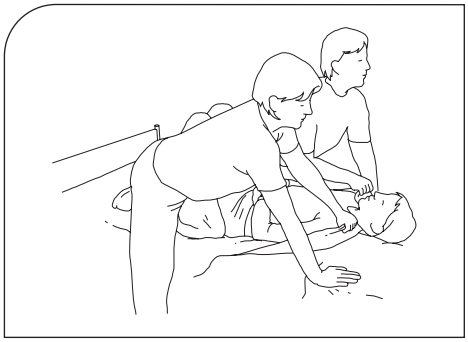


fig 115. Start position to sit patient

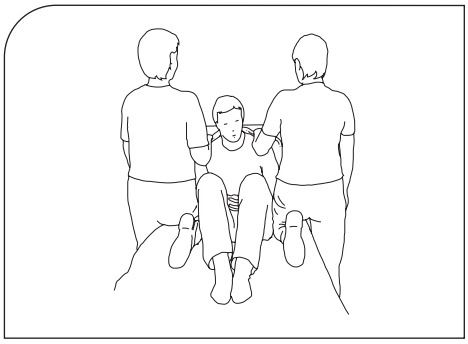


fig 116. Position of carers

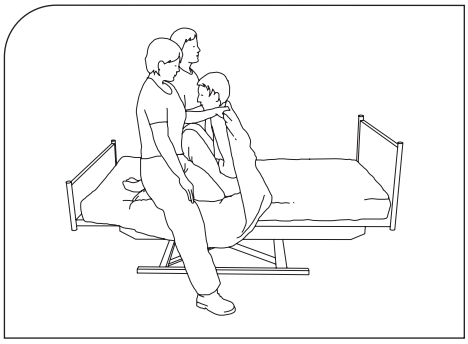


fig 117. Carers sit back on their heels while firmly holding the sheet to sit patient up

Task 5: Moving the patient in bed

There are a number of ways to help eliminate or reduce patient handling on the bed. Here are some things to consider:

- Discourage patients from wearing nightwear made of slippery material, such as satin and nylon, because it can mean the patient will have to be frequently repositioned
- Ask the patient to sit well up the bed, to avoid the need for repositioning once they lie down
- Position the patient carefully to avoid the need for frequent handling. Use pillows to support and prop the patient and to help stop them becoming uncomfortable
- Encourage the patient to move up the bed by 'hip hitching'
- Profiling beds can eliminate patient handling because they can be adjusted at the push of a button, or by winding a handle
- Slidesheets reduce friction so less force is needed to move someone in bed. But any part of the body which is to move must be on the slidesheet, or it will stop the slide. There's more about slidesheets in the Equipment section
- One-way slidesheets can reduce handling because they only allow movement in one direction. For instance, they can help someone sit up, then prevent them slipping down.

CAUTION – PATIENTS CAN'T EASILY SHIFT THEIR WEIGHT ON A ONE-WAY SLIDESHEET, WHICH CAN LEAD TO SKIN PRESSURE PROBLEMS. IT IS VERY IMPORTANT TO ASSESS THE PATIENT'S SKIN INTEGRITY BEFORE USE.

Hip hitching

With hip hitching, the patient 'walks' up the bed on their buttocks. They gently rock to one side, lifting the other buttock and moving it up the bed – then they repeat the action on their other side. This technique is especially useful for people who can't easily weight-bear on their arms.

Techniques for moving the patient up in bed:

Technique 15 – Independent movement up the bed

Technique 16 – Independent movement in bed using equipment

Technique 17 – Two carers move the sitting or lying patient up the bed

If these techniques are unsuitable, a hoist must be used to move the patient.

Technique 15
Independent movement up the bed

CAUTION – THIS TECHNIQUE IS ONLY SUITABLE FOR PATIENTS WITH ADEQUATE UPPER LIMB STRENGTH AND TRUNK STABILITY.

STEPS:

1. Ask the patient to sit up in bed using Technique 12
2. Ask them to make their hands into closed fists and put their fists just behind their hips
3. Ask them to bend their knees and dig their heels into the bed ready to push themselves up the bed
4. Ask them to push themselves up by pushing through their heels and fists at the same time, to lift and move their bottom up the bed.

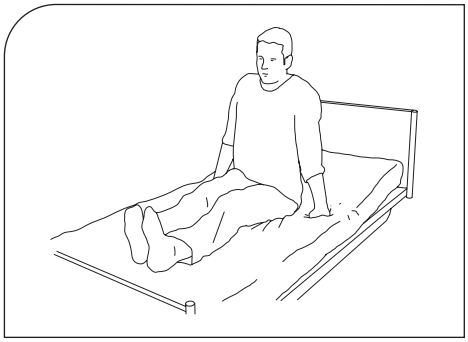


fig 118. Patient sits with closed fists by hips

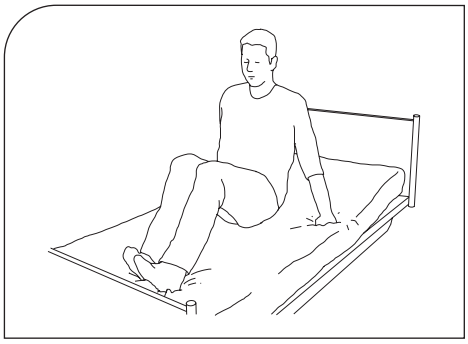


fig 119. Patient bends knees and digs heels into bed

Technique 16
Independent movement in bed using equipment

Slidesheets and hand blocks may help the patient move up the bed independently.

USING A SLIDESHEET:

The patient is lying down for this technique:

1. Ask the patient to 'bridge' by pushing their hips off the bed
2. Position the slidesheet – see note below
3. If the patient can't 'bridge', use rolling Technique 10 or 11 to roll them onto the slidesheet
4. Make sure the patient's whole body, except their feet, is on the slidesheet
5. Ask the patient to bend their knees and dig their heels into the bed ready for pushing
6. Hold their ankles so their feet can't move as they push
7. Ask the patient to push themselves, using their feet and legs, up the bed – the slidesheet helps them move
8. Remove the slidesheet – see note below.

Note: For more details about positioning and removing slidesheets, see Technique 11 on page 149.

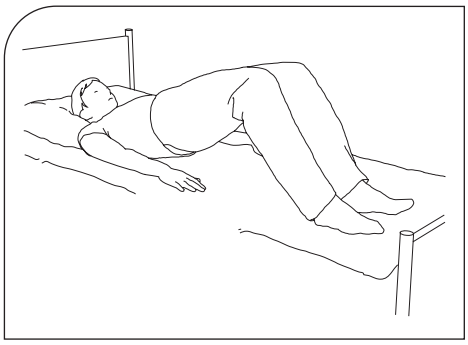


fig 120. Patient 'bridges' by pushing hips off the bed

Using hand blocks

The patient sits for this transfer. It is the same as Technique 15, but the patient uses hand blocks to gain leverage instead of closed fists. The blocks should be positioned just behind the patient's hips. Using a slidesheet may also help.

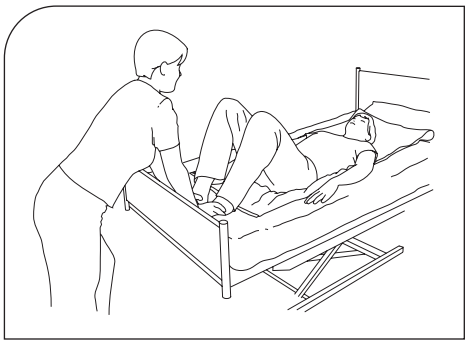


fig 121. Carer holds patient's ankles to help them slide with a slidesheet

Technique 17
Two carers move the sitting or lying patient up the bed

Caution – Check the weight limit for the bed to make sure it can safely take the weight of the patient and carers.

This technique uses a slidesheet. You may need more than one slidesheet for the transfer. It's best if the patient is lying down because there is less friction, but the technique can also be used for sitting patients.

Before you start, clear the bed of pillows or bedding that could restrict the slide.

If the bed is height adjustable:

1. Adjust the bed to the correct working height
2. Carers stand each side of the bed, facing the foot of the bed
3. Ask the patient to 'bridge' by pushing their hips off the bed
4. Position the slidesheet – see note below
5. Place your feet shoulder distance apart with your outside foot well forward of the other
6. With your inside arm, grasp the top layer of the slidesheet close to the patient's hip and pull it taut
7. The lead carer gives the "Ready, steady, slide" command
8. On the "slide" command, both carers step back while firmly holding the slidesheet – this slides the patient up
9. Repeat steps 6-8 if required
10. Remove the slidesheet straight away to stop the patient sliding back down the bed – see note below.

If the bed is NOT height adjustable:

1. Carers stand each side of the bed, facing the foot of the bed, and place their inside knees on the bed
2. Your knee must be under the slidesheet, with your knee and ankle aligned and outside foot on the floor
3. Lean forward, supporting your body with your outside arm
4. With your inside arm, grasp the top layer of the slidesheet close to the patient's hip and pull it taut
5. The lead carer gives the "Ready, steady, slide" command
6. On the "slide" command, both carers sit back together while firmly holding the slidesheet – this slides the patient up
7. Repeat steps 4-6 if required
8. Remove the slidesheet straight away to stop the patient sliding back down – see note below.

Note: If the patient cannot 'bridge' use Technique 11 to roll them on to the slidesheet.

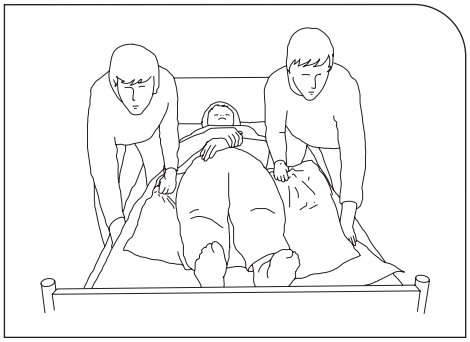


fig 122. Carers' position for a bed that is not height adjustable

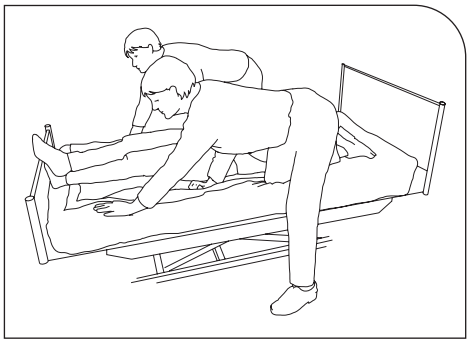


fig 123. Carers lean forward, using arms for support

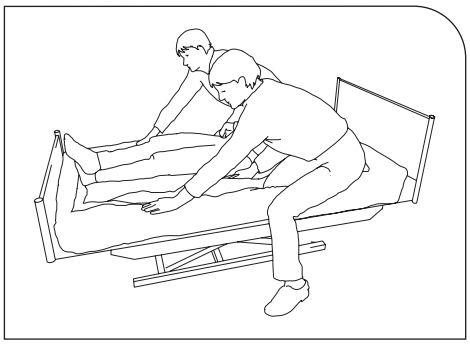


fig 124. Carers sit back to move patient up the bed

IMPORTANT CHECKS...

The slidesheet must be positioned so it can continuously slide up the bed as the patient moves.

Ensure the patient's whole body is on the slidesheet, or it will prevent the slide.

Move smoothly, or you can cause injuries. Being too vigorous may move the patient too far so they hit their head.

Task 6: Sitting the patient to the edge of the bed

Before moving the patient, check:

- Does the technique suit the clinical pathway and physician's orders?
- Is the patient able to sit up – do they have enough strength and sitting balance?
- Can they use their arms to help push or pull themselves up, perhaps with a bed lever?
- Are they co-operative and can they follow simple commands?
- Can they sit up safely – will it interfere with medical equipment such as IVs and catheters?

Techniques for sitting the patient to the edge of the bed:

Technique 18 – Independent sitting to the edge of the bed

Technique 19 – One or two carers sit the patient to the edge of the bed

Technique 18
Independent sitting to the edge of the bed

Before starting, adjust the bed if possible, so the patient's feet can touch the floor when they're sitting.

Steps:

Ask the patient to:

1. Bend their knees and put their outside arm across their chest
2. Roll onto their side by turning their head and rotating their flexed knees in the direction of the roll
3. Push their feet towards the edge of the bed
4. Push themselves up into a side-sitting position by using their arms and put their legs over the side at the same time

Equipment:

- A slidesheet could help the patient move their feet to the edge of the bed at step 3
- A bed lever could help them push themselves up to sitting at step 4.

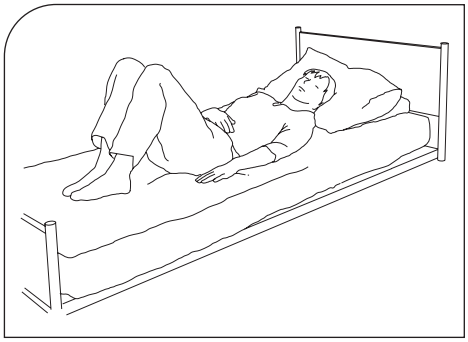


fig 125. Patient gets into position with knees bent and arm over chest

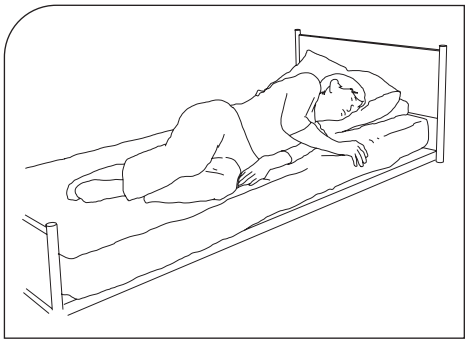


fig 126. Patients rolls over by flexing knees in direction of roll

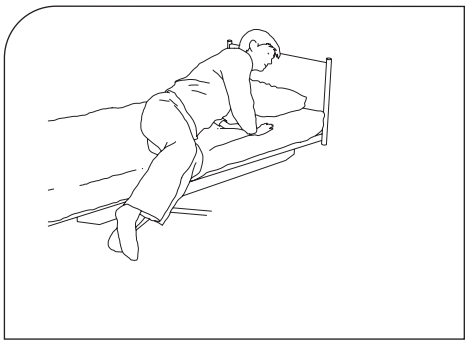


fig 127. Patient pushes up to a side-sitting position

Technique 19
One or two carers sit the patient to the edge of the bed

Caution – For this technique the patient must have the strength to push most of their weight up. You must not take the bulk of their weight – or hold their legs to lower them to the ground.

Steps:

1. Adjust the bed to the correct working height for carers
2. Ask the patient to roll onto their side (see Technique 8) and push their feet to the near edge of the bed
3. The lead carer stands next to the bed at the patient's chest level, with feet shoulder distance apart
4. Ask the patient to sit using Technique 18
5. At the same time the lead carer helps guide the transfer by pushing down through the patient's upper hip
6. If there is a second carer, they can help the patient bring their legs over the edge of the bed if required.

Note: A slidesheet can be useful with this technique. It can be used to help the patient move their feet to the edge of the bed, and to bring their feet over the edge of the bed.

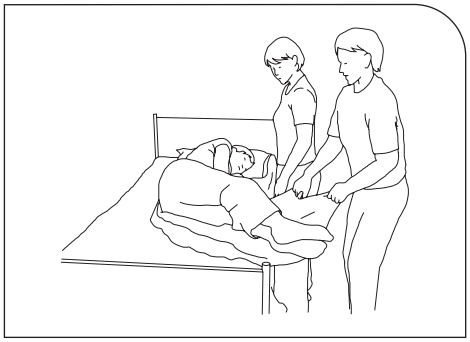


fig 128. Patient moves their feet to side of bed – here a slidesheet is used

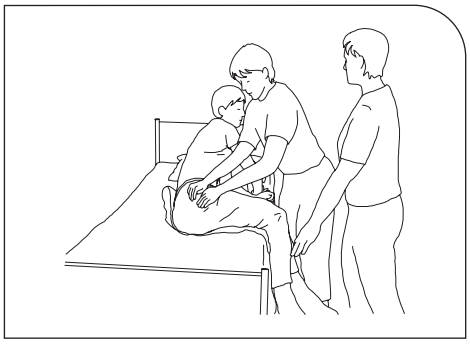


fig 129. Help the patient by pushing down through their hip

Task 7: Sitting to sitting transfers

Before moving the patient, check:

- Does the technique suit the clinical pathway and physician's orders?
- Does the patient have enough strength and sitting/standing balance for the transfer?
- Do they have enough muscle control for the entire task, for example to get into the start position and then to shuffle from one surface to another?
- Can the use of equipment, for example a riser chair, grab rails or a standing frame around a chair, help the patient and minimise the risks?
- Can the furniture or equipment be better positioned or adjusted to minimise the risks, for example removing or lowering armrests so a transfer board can be used?

The positioning of chairs, commodes and wheelchairs is important. Seating surfaces should be close together and at the right height for the patient – low chairs are hard to stand up from.

Techniques for sitting to sitting transfers:

Technique 20 – Independent transfer

Technique 21 – Transfer with the help of one or two carers

Technique 20
Independent transfer

Generally the patient should lead from their stronger side, if they have one (for instance if a stroke has affected one side).

Steps:

Make sure the item to which the patient is moving, is close by then ask the patient to:

1. Position themselves with their arms on the armrests and their feet flat on the floor, shoulder distance apart
2. Lean forward in the chair and shuffle their bottom to the edge of the seat
3. Lean forward so their upper body is over their feet – 'nose over toes'
4. Put their leading foot in the direction they're going
5. Reach over and take the far arm of the other chair with their leading arm
6. Push up through their arms and legs, then shuffle across or step around to sit in the other chair.

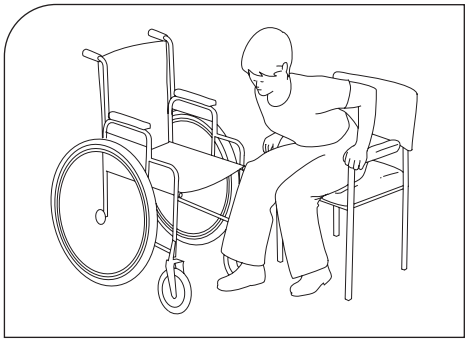


fig 130. Patient leans forward in the chair

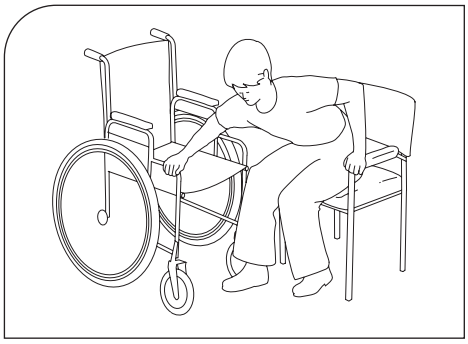


fig 131. Patient puts their leading arm across to the other chair

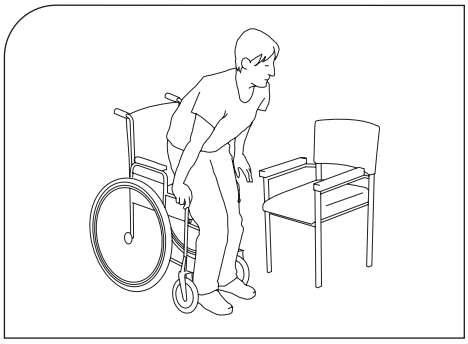


fig 132. Patient pivots and shuffles into the other chair

Technique 21
Transfer with the help of one or two carers

Caution – This technique should only be used if the patient can step independently from one seat to another. The carer must stay upright the whole time.

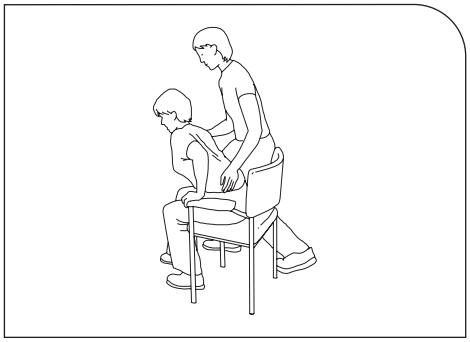


fig 133. Helping the patient stand with Technique 2

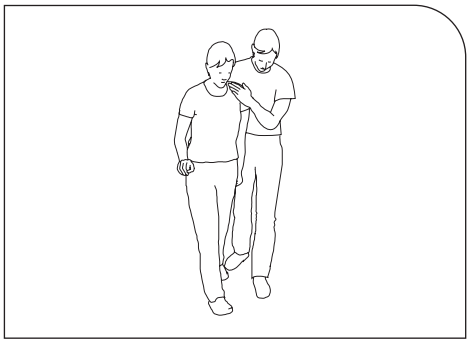


fig 134. Helping the patient walk with Technique 7

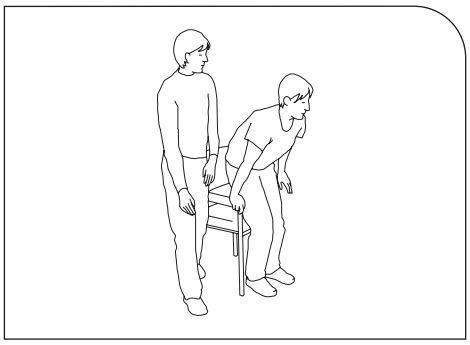


fig 135. The patient sits independently with Technique 4

Steps:

1. Position the furniture so the carer can be at the patient's side the whole time
2. Make sure the item to which the patient is moving is close by
3. If using a wheelchair, the brakes should be on and the footplates removed
4. Help the patient stand up using Technique 1 or 2
5. Pause to allow the patient to get their balance
6. Walk with the patient using Technique 6 or 7
7. Seat the patient using Technique 4 or 5.

Page references:

- Sit to stand Techniques 1 and 2 are on page 140
- Stand to sit Techniques 4 and 5 are on page 142
- Walking Techniques 6 and 7 are on page 144.

Transferring to a toilet or commode?

You need to consider how the patient's clothes will be adjusted for toileting before you start the transfer. For instance, you might ask the patient to support themselves, using toilet handrails or commode armrests, so your hands are free to adjust their clothing. However, if the patient can't support themselves with rails or armrests, you may need to consider using another technique.

Task 8: Non-weight-bearing transfers

Before starting, check:

- Are seat surfaces a similar height? Using a transfer board is unsafe if the difference is large. If the differences are small you can use non-slip matting (such as Dycem) to stop the transfer board moving, but transfer uphill is difficult and you may need another technique
- Are seat surfaces close enough? The transfer board must bridge the gap comfortably
- Are you using a wheelchair? You need to put the brakes on and remove footplates and armrests
- Would a turntable help? Using a turntable under the patient's feet can help ensure the patient's feet and legs move in the direction of the transfer.

Technique for non-weight bearing transfers:

Technique 22 – Non-weight-bearing transfer with one carer

Technique 22
Non-weight-bearing transfer with one carer

CAUTION – IF THE TRANSFER CAN'T BE CARRIED OUT WITH ONE CARER AS DESCRIBED HERE, A HOIST SHOULD BE USED.

This technique uses a transfer board and turntable. The patient should lead from their strongest side.

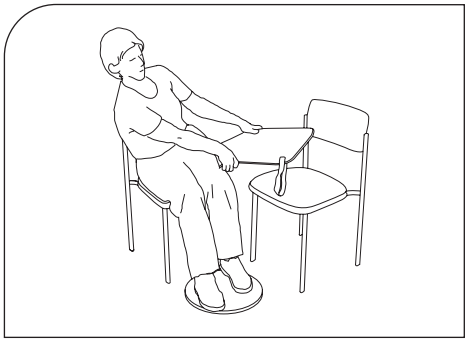


fig 136. The position of the transfer board before moving

STEPS:

1. Position the transfer board
2. Stand in the gap behind the patient and the two pieces of furniture
3. Ask the patient to get ready by:
   a. Putting their feet flat on the turntable
   b. Leaning forward over their base of support
   c. Putting their leading arm in the direction of the transfer
4. Ask the patient to put some weight on their leading arm to start the transfer
5. Coach the patient with prompts such as "Slide across, move your hand, keep going..."
6. If the patient needs support and guidance:
   a. Put your open outside palm on their outside hip
   b. Put your inside palm on their inside shoulder
   c. Stand with feet shoulder distance apart, with one foot forward in the direction of the transfer
   d. Move along with the patient without twisting, stooping or holding onto the patient
7. Remove the transfer board when the move is complete.

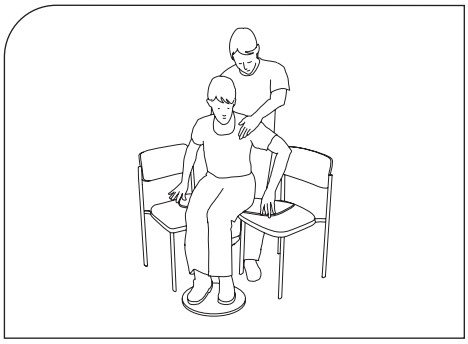


fig 137. The patient slides across the transfer board

Task 9: Repositioning the patient in a chair

If the patient repeatedly slips in a chair you could consider using:

- A chair with a base that slopes backwards or a chair that tilts backwards, like a recliner
- A wedge to raise the front edge of the seat base, so the seat base slopes backwards
- A one-way slidesheet – providing a careful assessment is done first.

If a one-way slidesheet is used, the patient must be well supported to prevent pressure sores. Please note sheepskin slidesheets do not relieve pressure, but some other types of slidesheets have gel packs and air cells that may help.

Preventing falls

If the patient slips forward in a chair they may be at risk of falling to the floor.

Here are some risk factors to check for:

- Does the patient have sufficient balance or trunk control to sit unsupported?
- Is the patient wearing slippery clothes?
- Is the seat surface slippery – or does the seat slope forwards?
- Has the patient been sitting for too long? They may be trying to move because they are uncomfortable
- Is the chair suitable for the patient? It may not be a suitable depth, size or shape
- Are the patient's feet unsupported? Feet should reach the floor or be supported by a footstool
- If a hoist was used, was the patient positioned well back in the chair?

Techniques for repositioning the patient in a chair:

Technique 23 – Independent repositioning in a chair

Technique 24 – One carer repositioning the patient in a chair

Technique 25 – Repositioning the patient in a chair using a hoist

Technique 26 – Repositioning the patient in a chair using a slidesheet

Technique 23
Independent repositioning in a chair

Steps:

Ask the patient to:

1. Put their feet flat on the floor – the feet should be apart and tucked under the chair
2. Lean forward and bring their 'nose over toes' so their upper body is over their feet
3. Stand up and sit back down with their bottom as far back into the seat as possible, or
4. Shuffle their bottom back into the seat by pushing back using the armrests and their feet – this won't work if the chair is too high for the patient to get their feet firmly on the ground.

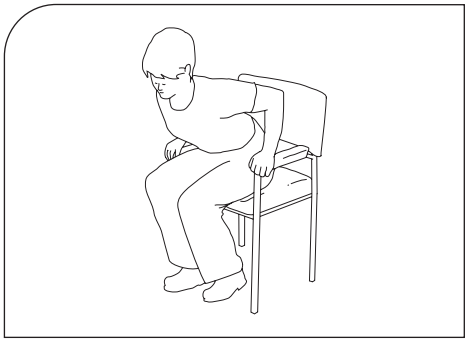


fig 138. The patient brings 'nose over toes'

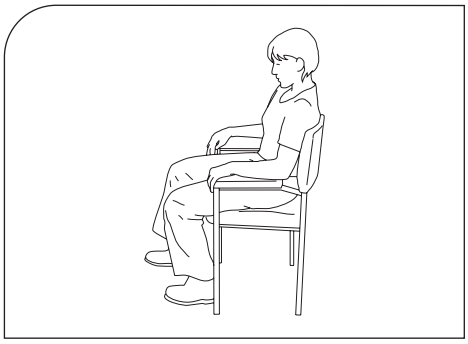


fig 139. The patient pushes back well into the chair

Technique 24
One carer repositioning the patient in a chair

The following technique may be used to move the seated patient forward or backward in their chair.

It is not suitable for patients with painful knee or hip joints.

Steps:

1. Kneel, crouch or squat in front of the seated patient
2. Ask the patient to lean to one side and hip hitch backwards or forwards, lifting one buttock at a time and using the armrests for support
3. Place your open palm on the side of the buttock that the patient is 'lifting' and your other hand on the knee on the other side of the patient's body to help guide the movement
4. Repeat on the patient's other side until they are positioned comfortably in the chair.

caution – You must not try to support or lift the patient's weight – and you must take care not to flex forward or twist your spine while helping the patient.

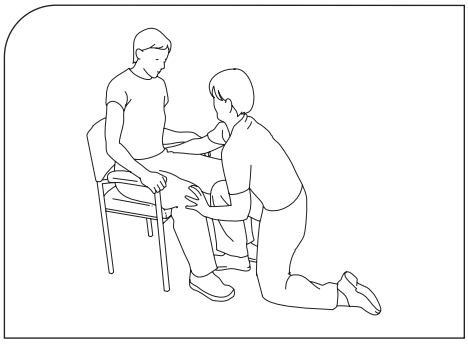


fig 140. The patient is now more upright

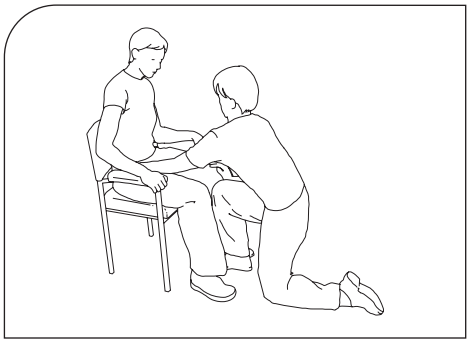


fig 141. Repeat the movement on the patient's other side

Technique 25
Repositioning the patient in a chair using a hoist

You can use a mobile hoist or a mobile standing hoist to reposition the patient in their chair. This technique needs two carers – one to operate the hoist and another to make sure the patient is lowered into a comfortable position. Always check the manufacturer's instructions before using equipment.

Steps:

1. Position the hoist and adjust the legs to fit around furniture
2. Lower the boom over the patient's sternum
3. Fit the shoulder straps on the shortest position and the leg straps on the longest position – this may vary depending on the patient's size and how upright they can sit
4. Raise the hoist so the patient can be moved into the chair
5. Lower the hoist and at the same time guide the patient into a comfortable position by:
    a. Standing behind the chair and using the handles on the sling (if available), or
    b. Standing in front or to the side of the patient and pushing against their knees
6. **Or** if the hoist has a tilting spreader bar, adjust it to tilt the patient into an upright position before you lower them into the chair
7. Detach the sling from the hoist – and remove the sling if required.

Note: Make sure the patient is sitting upright in the sling to eliminate, or reduce the need for, further repositioning.

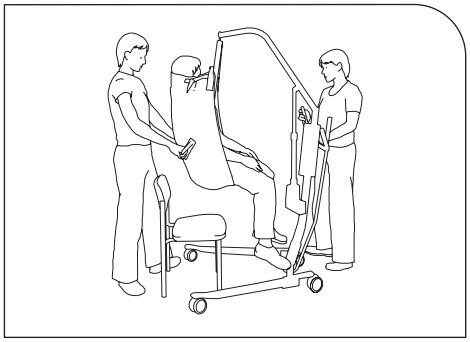


fig 142. Raise the hoist and guide the sling using the handles

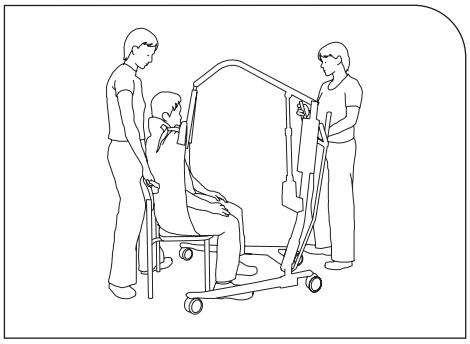


fig 143. Reposition the patient well back in the chair

Technique 26
Repositioning the patient in a chair using a slidesheet

CAUTION – THIS TECHNIQUE IS NOT SUITABLE FOR PATIENTS WITH PAINFUL KNEE OR HIP JOINTS.

This technique requires two or three carers. One kneels or squats in front of the patient for the whole move, to stop them slipping forwards. The other/s performs the technique.

WITH TWO CARERS:

1. One carer kneels or squats in front of the patient while the other one rolls up half the slidesheet – the rolled half goes under the patient's bottom
2. Ask the patient to lean to one side, lifting their buttock so you can put the rolled half of the slidesheet under them
3. Ask them to lean the other way, lifting their other buttock, so you can unroll the slidesheet from the other side of the chair
4. Ask the patient to lean forward and push back in the seat using their feet and pushing on the armrests
5. Remove the slidesheet straight away to stop the patient slipping forward again – see note below.

The person kneeling in front can help by applying gentle pressure through the patient's knees while the patient is pushing backwards.

WITH THREE CARERS:

Two carers stand one on each side of the patient, and the third carer kneels or squats in front.

The standing carers:

1. Roll and position the slidesheet – see steps 1-3 above
2. Stand with feet shoulder distance apart with one foot forward of the other in a 'walk stance' – always maintain the natural curve of your spine
3. Grasp the upper layer of the slidesheet at the side front
4. Step back gently while firmly holding the slidesheet – this slides the patient back in the chair (figures 145 and 146)
5. Remove the slidesheet straight away – see note.

Note: To remove the slidesheet, hold the top layer on one side at the front then slide the sheet back behind the patient. Repeat on the other side. When the sheet is behind the patient, pull it sideways out of the chair.

USING THE SLIDESHEET

The slidesheet slides back as the patient pushes back – so the open sides of the 'loop' should be at the sides of the chair seat. If your slidesheet is not a continuous loop, fold it in half and place the folded edge at the front of the chair. Most of the slidesheet should be under and behind the patient.

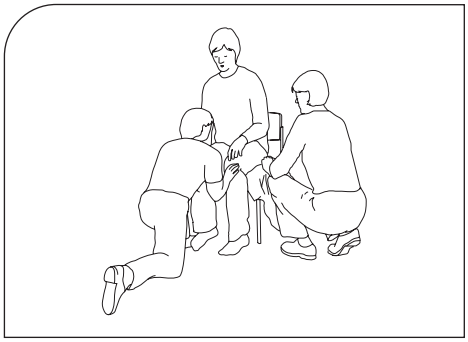


fig 144. Putting the slidesheet in place

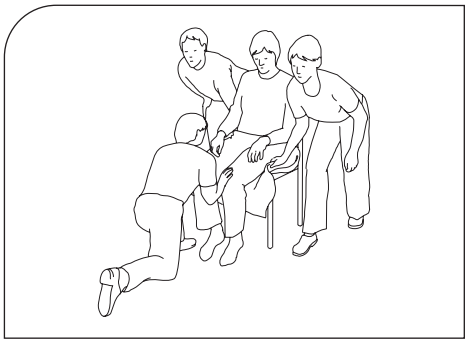


fig 145. Start position – carers step back, and slidesheet moves back with them

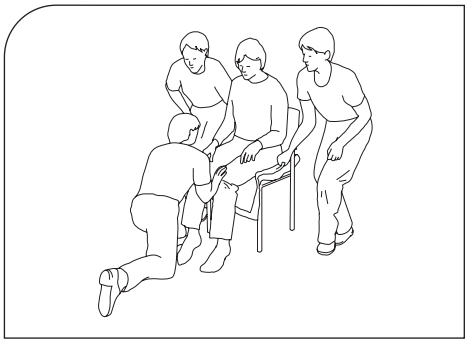


fig 146. End position – the patient is sitting upright, well back in the chair

Identifying fall risk

Preventing falls is far more effective than trying to manage a fall in progress – or managing the after-effects. So the priority is to prevent falls by identifying any risks and then implementing controls to eliminate, isolate or minimise them.

The risk of falling depends on many factors. Many health care organisations have a falls prevention programme that helps them identify patients at risk so they can develop appropriate strategies.

If you have a falls prevention programme in place, the fall risk and brief details of the care plan should be noted on the LITE patient profile.

Some of the risk factors for falls and patient handling are the same. So the two programmes are complementary, and you need to decide how you can best integrate them to avoid duplication.

For more about falls prevention please visit www.acc.co.nz

Reducing the risk – it works both ways

Falls prevention and patient handling programmes work well together. By creating strategies to reduce the risk of falls, for instance by reviewing medication that causes dizziness, strengthening weak muscles, improving balance and correcting visual problems, you also reduce the risk of patient handling injuries.

Managing a fall in progress

There is always a risk that a patient could fall during a handling task, so every health care organisation needs to have procedures to cope with this risk.

There are a number of techniques for managing a falling patient. These are designed to support and guide a patient as they are falling, but they are only suitable if the carer is in the right place at the right time and the patient can be guided towards them.

Often these techniques will not be safe to use and the ethical dilemma is whether to catch the falling patient or not. Either way there is a high risk of injury to either the patient or the carer and each health care organisation needs to develop a policy suited to its care situation.

These guidelines can't provide an answer to the dilemma. Our recommended approach is to take all practicable steps to prevent falls through identifying and controlling the risks.

Managing the fallen patient

Carers should never try to lift a fallen patient off the floor unless there is an emergency or life-threatening situation. Give the patient time to get calm and then either coach them to get up or help them with a hoist, or a powered device like a lifting cushion.

It's important that patients know your patient handling policy on lifting, and understand the reason for it, so they don't expect to be lifted by the carer after a fall.

If you find a fallen patient, you need to assess the situation carefully to ensure the patient isn't injured further while you are trying to help them. This affects the method you use to help them – and the choice of equipment.

To assess the fallen patient:

- Make sure the area around the patient is safe and that no further harm can occur, for instance clear any spills or objects away
- Call for help – and ask for the patient's care plan and LITE patient profile
- Assess the patient's airway, breathing and circulation, and maintain according to CPR guidelines and the patient's care plan
- Continue the assessment as needed, using approved First Aid procedures, and decide if the patient can be moved
- If there is a possibility the patient is injured, do not move them, make them comfortable on the floor and seek further medical advice
- Stay with the patient and stay calm – don't hurry them to get up. This will help the patient stay calm and relaxed
- Choose the right technique to help them up, explain the procedure and talk with them throughout the move to provide reassurance
- Remember, the patient can't fall any further and acting without assessing the situation carefully could cause injury to you and the patient.

Caution – Carers must never lift a fallen patient up from the floor unless there is a life-threatening situation or emergency.

Powered lifting devices like lifting cushions can be very helpful, especially in cases where the patient is regularly on the floor, for instance to exercise or play with children. To use these devices the patient must have sitting balance and not be prone to slumping to one side. Careful assessment is needed to ensure the device suits the patient and the situation. Always follow the manufacturer's instructions.

Techniques for assisting a fallen patient:

Technique 27 – Assisting a fallen patient who is conscious and uninjured

Technique 28 – Assisted transfer or hoisting from the floor with two carers

Technique 29 – Assisting a fallen patient in an area that is difficult to access

Technique 27
Assisting a fallen patient who is conscious and uninjured

Caution – If a patient can't get up off the floor using this technique you will need to use a hoist, or a powered device like a lifting cushion.

Steps:

Place a pillow under the patient's head, cover them with a blanket if appropriate, and insist they wait until they are calm and feel ready to get up. Place a chair or stable low piece of furniture near the patient – they will use this to push themselves up.

When the patient is ready ask them to:

1. Bend their knees up and roll onto their side – see Technique 8
2. Push themselves up into a side-sitting position – see Technique 12
3. Move into a four-point kneeling position
4. Put their inside hand on the chair and bring their outside leg up ready to push themselves into a kneeling position
5. Push themselves up with their outside hand on their outside knee and their inside hand on the chair
6. Swing their hips around and sit on the chair.

Page references:

- Independent rolling Technique 8 is on page 147
- Sitting up Technique 12 is on page 152.

This technique can be taught to some patients who regularly fall to reassure them they can get up from the floor independently. They will need to crawl to a stable piece of furniture that they can use to push themselves up.

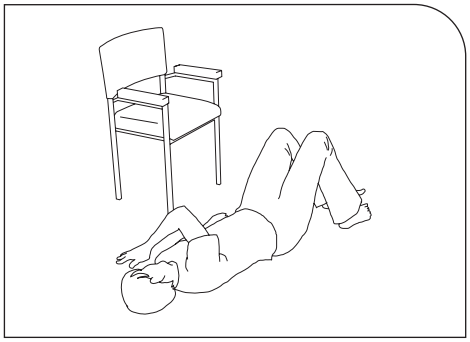


fig 147. Get ready to roll

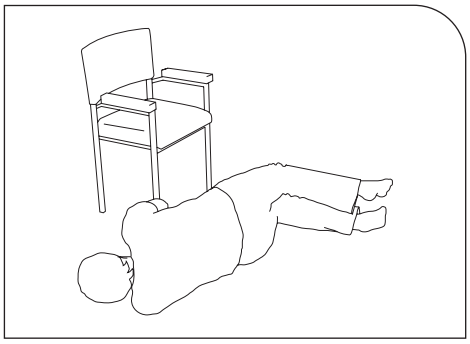


fig 148. Roll onto side

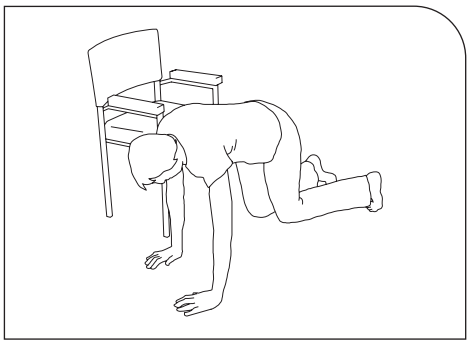


fig 149. Kneel on four points

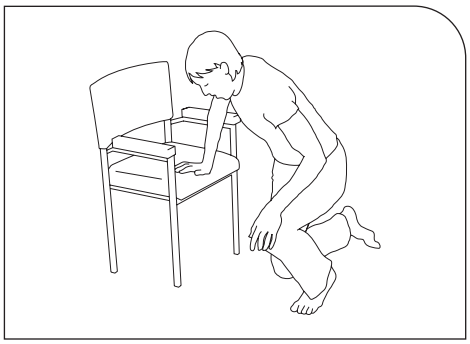


fig 150. Push up using a chair

Technique 28
Assisted transfer or hoisting from the floor with two carers

CAUTION – CARERS WORKING AT FLOOR LEVEL MUST BE CAREFUL NOT TO TWIST OR STOOP, FOR INSTANCE WHEN THEY MOVE THE PATIENT ONTO A SLING.

This technique uses a hoist and a sling. The hoist must be designed to lift patients from the floor. An 'access' or toileting sling is not suitable for hoisting a patient off the floor.

BEFORE YOU START:

1. Place a pillow under the patient's head and cover them with a blanket if appropriate
2. Select the correct sling – for instance, the patient's head may need supporting.

POSITIONING THE SLING:

3. Position the patient ready to be rolled
4. Gather up half the sling lengthwise behind them – the rolled-up section is next to the patient's body
5. Roll the patient back the other way, so now they're on one half of the sling
6. Unroll the rest of the sling and then roll the patient back onto their back
7. Check the patient is correctly positioned on the sling
8. The sling is now ready for hoisting.

PREPARING THE HOIST:

9. Move the hoist into position – you need to get it close enough to attach the sling
10. There are different ways to position the hoist – you may be able to place it to one side of the patient. The patient's knees are bent up and one of the hoist legs is positioned underneath. Check the manufacturer's instructions
11. One carer positions the hoist – the 'nose' of the boom should be above the patient's chest and in its lowest position so it's easy to attach the sling
12. Secure the sling attachments to the hoist.

MOVING THE PATIENT:

13. Make sure a bed or chair is ready for the patient and there is nothing to obstruct the hoist
14. Raise the patient from the floor and position them on a bed or chair
15. Remove the sling.

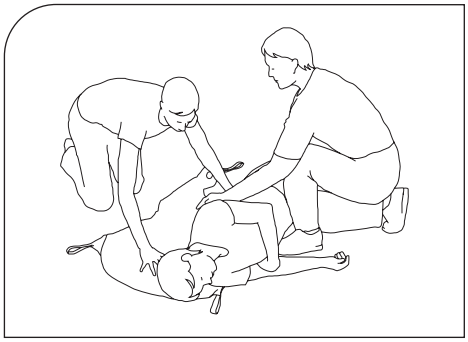


fig 151. Roll the patient onto the sling

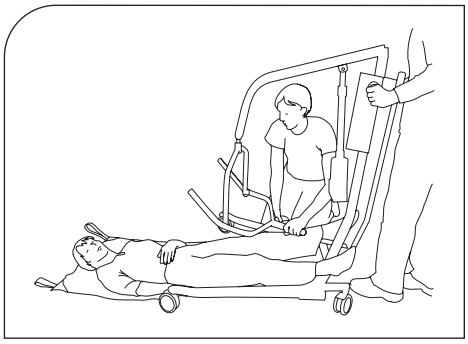


fig 152. Position the hoist and lower boom to attach sling

Have you got the correct position?

The sling must be positioned so that equal parts are on either side of the patient. It should be far enough down their back so the leg supports can be positioned under the middle of the patient's thigh.

A stretcher sling may be needed, depending on the patient's condition or injuries. To position a stretcher sling follow the manufacturer's instructions.

IMPORTANT CHECKS...

There are many different types of hoists and slings. It is essential before using any equipment to have the proper training – and to follow the manufacturer's instructions.

Technique 29
Assisting a fallen patient in an area difficult to access

If a patient falls in an area where you can't use a hoist, for instance between a toilet bowl and wall, the only option is to slide them to an area where you can use a hoist.

You need at least two carers for this technique and two slidesheets, preferably single slidesheets with long handles.

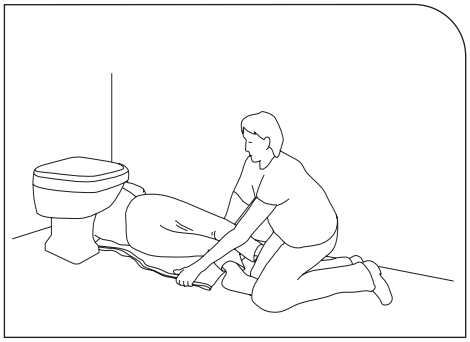


fig 153. Position the slidesheets under the patient

Steps:

1. Assess if the patient can move themselves at all
2. Put the two slidesheets on top of each other
3. Position the slidesheets under the patient by:
    a. Rolling the patient onto the slidesheets, or if you can't do this
    b. Unrolling the slidesheets under the patient from head to foot
4. Carers stand with feet shoulder distance apart, with one foot slightly forward of the other
5. Both pull the top sheet back with the long handles – see note below
6. Move the patient just far enough to allow you to use a hoist.

Note: If the slidesheet doesn't have long handles, you need to adopt an upright kneeling position and slide the patient out by pulling the top slidesheet. Take care to maintain a good posture with spinal alignment.

Task 11: Transferring a patient from lying surface to lying surface

If you are transferring a patient from a bed to a trolley, for example, you need to use a large transfer board to bridge the two surfaces. Some transfer boards can be used with a slidesheet. It is best if the slidesheet has long handles.

Extra measures may be required for patients who:

- Are attached to medical equipment, such as drains
- Have poor skin integrity or pressure sores
- Are large or obese
- Have confirmed or suspected spinal fractures
- Have weak, brittle bones.

If the patient can't shuffle across or roll to get to the other surface, the following technique can be used.

Technique for transferring a patient from lying surface to lying surface:

Technique 30 – Transferring a patient from lying surface to lying surface using equipment

Technique 30
Transferring a patient from lying surface to lying surface using equipment

You can use a large transfer board with full length slidesheet, or a roller board, for this technique. You will need at least three carers – two to pull the slidesheet and one to push the patient from the other side. Other carers may be needed to control the patient's head or feet, or to manage attached medical equipment.

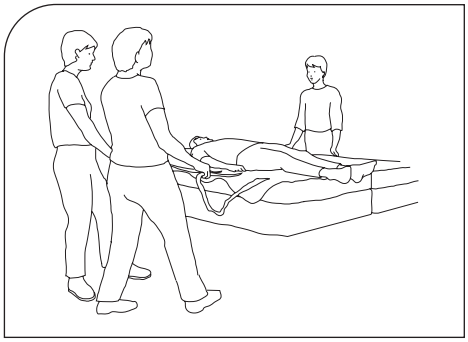


fig 154. Transferring a patient from lying surface to lying surface with equipment

Steps:

1. Roll the patient onto their side
2. Position the transfer board and slidesheet under them – follow the manufacturer's instructions
3. Position the second bed/trolley next to the bed/trolley on which the patient is lying – it should be the same height or slightly lower than the surface on which the patient is lying
4. Make sure both beds/trolleys have their brakes on
5. Make a bridge between the two surfaces with the transfer board
6. Carers take up their positions with feet shoulder distance apart and one foot forward:
    a. Two carers stand on one side of the adjoined beds to pull the slidesheet handles or top layer
    b. One carer stands on the other side to push the patient's hip and shoulder
    c. Other carers may be needed to manage the patient's head, feet or medical equipment
7. The lead carer gives the "Ready, steady, slide" command
8. On the "slide" command carers smoothly move the patient in the direction of the transfer
9. Remove the slidesheet and transfer board by rolling the patient.

caution – Pull the slidesheet steadily, smoothly and in stages. Jerky movements may cause injuries to the patient or carers. Vigorous movements may cause the patient to move too far.

Note: Large transfer boards are often used without slidesheets. In these cases the transfer board is positioned under the bedsheet on which the patient is lying, and bridges the two surfaces. The patient is transferred by carers pulling the bedsheet over the top of the large transfer board – but you need to be sure the bedsheet is strong enough for the transfer.

Forms

Contents

- Are you ready? – checklist 183
- LITE staff questionnaire 185
- Sample patient handling policy statement 189
- Sample organisational patient handling plan 191
- Patient handling roles and responsibilities 194
- LITE workplace profile 195
- Control plan 199
- LITE patient profile 200
- Task analysis sheet 202
- Pre-purchase or hire equipment assesment 203

Are you ready? – checklist

DATE: __/__/__

ORGANISATION: **COMPLETED BY:**

WARD OR UNIT:

How ready is your organisation to introduce a LITEN UP patient handling programme? This simple checklist is based on the information provided in these guidelines. Score each question using a sliding scale – with 1 representing no action taken and 5 being completely ready. Your answers will help you determine where you have capacity and where you might need to build infrastructure before launching your programme.

REVIEW AND EVALUATION		NO ACTION ⇐ ⇒ READY				
1.	Have you set up systems to record injuries and costs?	1	2	3	4	5
2.	Can you record data on:					
	a. Patient handling incidents (frequency and severity)?	1	2	3	4	5
	b. Injury costs (direct and indirect)?	1	2	3	4	5
	c. Programme costs?	1	2	3	4	5
3.	Have you planned for regular reviews? (at least annually)	1	2	3	4	5
4.	Have you decided on your performance targets?	1	2	3	4	5
5.	Have you set up systems to communicate results to staff?	1	2	3	4	5
POLICY AND PLANNING		**NO ACTION ⇐ ⇒ READY**				
6.	Do you have a patient handling policy statement?	1	2	3	4	5
7.	Have you defined everyone's roles and responsibilities?	1	2	3	4	5
8.	Have you consulted with staff about your patient handling policy?	1	2	3	4	5
9.	Does everyone know the policy and understand their role?	1	2	3	4	5
10.	Do you have a communication and feedback plan?	1	2	3	4	5
11.	Have you identified a target area to start your programme?	1	2	3	4	5
12.	Have you made a patient handling plan with clear objectives?	1	2	3	4	5
13.	Have you involved staff in the planning process?	1	2	3	4	5
14.	Is someone designated as the programme co-ordinator?	1	2	3	4	5
15.	Have you appointed a specialist patient handling adviser?	1	2	3	4	5
16.	Have you allocated sufficient resources to carry out the plan?	1	2	3	4	5
17.	Have you decided how you will measure your results?	1	2	3	4	5
18.	Does your plan cover these key areas:					
	a. Patient admissions and records?	1	2	3	4	5
	b. Risk assessment for all patients (LITE patient profile)?	1	2	3	4	5
	c. Patient handling and emergency procedures?	1	2	3	4	5
	d. Staff induction, training, supervision and appraisals?	1	2	3	4	5
	e. Purchase, use and maintenance of equipment?	1	2	3	4	5
	f. Assessing and updating facility design and layout?	1	2	3	4	5

continued ...

RISK ASSESSMENT AND CONTROL		NO ACTION ⟵ ⟶ READY				
19.	Are risk assessments (LITE patient profiles) completed for all patients?	1	2	3	4	5
20.	Are safe handling plans done for all patient handling tasks where a risk is identified?	1	2	3	4	5
21.	Do you have procedures for using and reviewing patient risk assessments and handling plans?	1	2	3	4	5
22.	Are risk assessments (LITE workplace profiles) completed for all wards/units?	1	2	3	4	5
23.	Do wards/units prepare and maintain control plans to manage risks effectively?	1	2	3	4	5
24.	Do you have procedures for staff to report patient handling issues and concerns?	1	2	3	4	5
TRAINING		**NO ACTION ⟵ ⟶ READY**				
25.	Have you allowed time and budget for all staff to be trained?	1	2	3	4	5
26.	Have you allowed time and budget for refresher training?	1	2	3	4	5
27.	Can you provide modified work for staff with limiting conditions?	1	2	3	4	5
28.	Have you reviewed all employment and related contracts?	1	2	3	4	5
29.	Have you included patient handling performance measures in staff appraisals?	1	2	3	4	5
30.	Do you have procedures for non-compliance?	1	2	3	4	5
EQUIPMENT		**NO ACTION ⟵ ⟶ READY**				
31.	Have you reassessed your current equipment and needs?	1	2	3	4	5
32.	Do you regularly check, repair and replace equipment?	1	2	3	4	5
33.	Do you get staff input and arrange trials before acquiring new items?	1	2	3	4	5
34.	Have you allocated sufficient resources to buy or hire new items?	1	2	3	4	5
35.	Does your policy outline training and procedures for using equipment?	1	2	3	4	5
FACILITY DESIGN		**NO ACTION ⟵ ⟶ READY**				
36.	Have you reviewed your facility requirements and constraints?	1	2	3	4	5
37.	Do you have a plan and timetable to make required changes?	1	2	3	4	5
38.	Have you allocated sufficient resources to make changes?	1	2	3	4	5
39.	Have you considered alternatives, such as new layouts and routines?	1	2	3	4	5
40.	Do you seek expert design and ergonomics advice on changes?	1	2	3	4	5
41.	Do you seek staff input before and after making changes?	1	2	3	4	5

LITE staff questionnaire

DATE: __/__/__

ORGANISATION: **YOUR NAME:** *(not compulsory)*

WARD OR UNIT:

The aim of this questionnaire is to gain your feedback on how well the patient handling programme is working, and your comments and suggestions on areas that still need development.

Policy and planning

1. Does your ward or unit have a 'no lift' patient handling policy? ◯ Yes ◯ No ◯ Not sure
2. Does your ward or unit have an up-to-date patient handling plan? ◯ Yes ◯ No ◯ Not sure
3. Were your input and feedback sought for the policy and plan? ◯ Yes ◯ No ◯ Not sure
4. Would you like to be more involved in patient handling planning? ◯ Yes ◯ No ◯ Not sure
5. Does your workplace have a patient handling adviser? ◯ Yes ◯ No ◯ Not sure

   Do you have any comments or suggestions?

Risk assessment

6. Have you seen the LITE workplace profile for your ward or unit? ◯ Yes ◯ No ◯ Not sure
7. Does every patient have a LITE patient profile? ◯ Yes ◯ No ◯ Not sure
8. Do you refer to the LITE patient profile before a handling task? ◯ Yes ◯ No ◯ Sometimes

   If no/sometimes, please explain:

9. Do you find the LITE patient profile useful? ◯ Yes ◯ No ◯ Sometimes

   If no/sometimes, please explain:

10. Are there procedures to report patient handling incidents and concerns? ◯ Yes ◯ No ◯ Not sure
11. Do you feel appropriate action is taken when you report a problem? ◯ Yes ◯ No ◯ Sometimes

    If no/sometimes, please explain:

12. Are problems and issues addressed quickly? ◯ Yes ◯ No ◯ Sometimes
13. Are there procedures for complex handling situations? ◯ Yes ◯ No ◯ Not sure

    Do you have any comments or suggestions?

Patient handling techniques

14. Does the LITE patient profile usually include a handling plan? ◯ Yes ◯ No ◯ Sometimes
15. Do you find the handling plan useful? ◯ Yes ◯ No ◯ Sometimes

    If no, please explain:

16. Do you use the recommended techniques and equipment? ◯ Yes ◯ No ◯ Sometimes

    If no, please explain:

17. Do you ever have to lift most or all of a patient's weight? ◯ Yes ◯ No ◯ Not sure

    If yes, how often? ◯ Quite often ◯ Not very often

    Do you have any comments or suggestions on techniques?

continued ...

Training

18. Did you get patient handling training when you started working here? ◯ Yes ◯ No ◯ Not sure
19. Have you received patient handling training in the last 12 months? ◯ Yes ◯ No ◯ Not sure
20. Would you like more patient handling training? ◯ Yes ◯ No ◯ Not sure

If yes, in what area/s would you like more training?

- ◯ Handling techniques
- ◯ Use of handling equipment
- ◯ Completing LITE patient profiles and handling plans
- ◯ Risk assessment and control plans
- ◯ Other – please state: _____

Do you have any comments or suggestions?

_____

Patient handling equipment

21. Does your workplace have the handling equipment you need to do your job? ◯ Yes ◯ No ◯ Some

If no/some, what equipment do you think is needed?

◯ Mobile hoists	◯ Standing hoists	◯ Range of slings	◯ Slidesheets
◯ Bath lift/hoists	◯ Bath seats/boards	◯ Shower seats	◯ Shower trolleys
◯ Height-adjustable beds	◯ Tilting/turning beds	◯ Profiling beds	◯ Mattress/pillow elevators
◯ Bed and chair raisers	◯ Riser chairs	◯ Transfer boards	◯ Turntables/standing frames
◯ Leg/thigh lifters	◯ Bed levers	◯ Hand/Bed blocks	◯ Emergency stretchers

◯ Other – please describe: _____

22. Is the handling equipment you need available when you need it? ◯ Yes ◯ No ◯ Some is
If no/some, please explain:

_____

23. Is the patient handling equipment easy to get to when you need it? ◯ Yes ◯ No ◯ Some is
If no/some, please explain:

_____

24. Is the patient handing equipment easy to use? ◯ Yes ◯ No ◯ Some is
If no/some, please explain:

_____

25. Do you have everything you need to use the equipment? (eg. slings) ◯ Yes ◯ No ◯ Sometimes
If no/sometimes, please explain:

_____

26. Is the patient handling equipment in good order? ◯ Yes ◯ No ◯ Some is
If no/some, please explain:

_____

27. Is equipment repaired or replaced, when necessary, in a timely way? ◯ Yes ◯ No ◯ Some is
If no/some, please explain:

_____

continued …

28. Are you asked to trial new equipment before it's bought? ◯ Yes ◯ No ◯ Sometimes
29. Would you like to be more involved in the selection of equipment? ◯ Yes ◯ No ◯ Not sure

Do you have any comments or suggestions?

Facility design

30. Is there enough space to use safe handling techniques and equipment:

In patient bedrooms? ◯ Yes ◯ No In patient day/dining rooms? ◯ Yes ◯ No

In showers/bathrooms? ◯ Yes ◯ No In toilets? ◯ Yes ◯ No

31. Do any of the following cause access problems when assisting patients to move?

Doorway widths ◯ Yes ◯ No Corridor widths ◯ Yes ◯ No

If yes, please explain:

---

32. Do the type and condition of flooring cause any access problems? ◯ Yes ◯ No

If yes, please explain:

---

33. Do you have enough storage for patient handling equipment? ◯ Yes ◯ No ◯ Not sure

If no, please comment:

---

34. Do you feel any of the facilities could be modified to make them easier? ◯ Yes ◯ No ◯ Not sure

If yes, please explain:

---

35. Is the equipment you need conveniently located? ◯ Yes ◯ No ◯ Some is

If no/some, please explain:

---

36. Are you asked for input or feedback on changes to facilities? ◯ Yes ◯ No ◯ Sometimes
37. Would you like to be more involved in planning for facilities? ◯ Yes ◯ No ◯ Not sure

Do you have any comments or suggestions?

General working conditions and practices

38. Do you feel there are enough carers for the number and capabilities of patients on your ward or unit? ◯ Yes ◯ No ◯ Sometimes

If no/sometimes, please comment:

---

39. Do you feel your workload is manageable? ◯ Yes ◯ No ◯ Sometimes

If no/sometimes, please comment:

---

40. Do you feel enough time is allowed for patient handling tasks? ◯ Yes ◯ No ◯ Sometimes

If no/sometimes, please explain:

---

41. Are handling tasks rotated and/or do you take breaks in between? ◯ Yes ◯ No ◯ Sometimes
42. Do you think some tasks could be modified to make them easier? ◯ Yes ◯ No ◯ Not sure

If yes, please explain:

---

continued …

43. Do you feel management support the patient handling programme? ○ Yes ○ No ○ Sometimes
44. Are other carers generally supportive? ○ Yes ○ No ○ Sometimes
45. Is help readily available if you have patient handling issues? ○ Yes ○ No ○ Sometimes

Do you have any other comments or suggestions?

THANK YOU FOR YOUR TIME AND FEEDBACK.

Sample patient handling policy statement

The management of _____ is committed to providing and maintaining a LITEN UP patient handling programme to protect the health and safety of carers and patients. Our aim is to create an environment where staff are trained, equipped, supported and encouraged to manage patient handling tasks in a way that reduces the risk of injury to themselves and others.

Management will:

Set clear objectives and measures

- Set patient handling objectives and performance criteria for all managers and work areas
- Define and document roles and responsibilities for all management, staff and contractors
- Prepare an annual patient handling plan and carry out annual reviews
- Promote a system of continuous improvement.

Consult and communicate

- Encourage employee consultation and participation in all matters to do with patient handling
- Set up formal and informal ways to keep staff informed of progress and gain feedback
- Inform patients and families about patient handling and their rights and responsibilities.

Provide the resources needed

- Allocate sufficient resources to implement and continuously improve the programme
- Contract a recognised patient handling adviser to provide advice to management and staff
- Provide the resources to record and report patient handling incidents
- Provide resources for training, acquisition of equipment and review of facilities in a timely manner for the implementation and maintenance of the patient handling programme.

Commit to maintaining best practice standard

- Follow a 'no lift' approach to patient handling
- Adopt the **LITEN UP** approach, or better, as the organisation's operating standard
- Complete LITE patient profiles for all patients, and handling plans for tasks over the threshold
- Ensure all profiles and plans are completed by trained staff
- Ensure staff carry out tasks in a manner that is safe for themselves and others
- Eliminate unsafe patient handling practices
- Plan and implement controls to eliminate, isolate or minimise patient handling risks
- Promptly investigate all patient handling incidents and provide appropriate remedies.

Train and support staff

- Ensure all staff are aware of the risks and how they can be reduced or eliminated
- Ensure all staff are trained and can carry out patient handling tasks in a safe manner
- Provide comprehensive training by accredited trainers, and evaluate it for effectiveness
- Actively encourage staff to report and record any incidents and concerns
- Encourage staff to report changes in their capabilities
- Provide staff with safe work alternatives.

Provide and maintain the equipment needed

- Provide the equipment needed for safe patient handling
- Establish processes to identify needs, and to trial and select appropriate equipment
- Ensure all equipment is repaired, maintained and replaced as required
- Ensure staff are trained in the safe use and maintenance of equipment
- Evaluate equipment needs annually.

continued ...

Review and update facilities

- Review facilities in relation to patient handling requirements, consulting with staff and technical experts
- Establish a consultation group, including staff representatives, to oversee any changes.

Everyone has a role to play

Everyone in the workplace has a role to play, and a responsibility to support the programme.

Every manager and supervisor has a responsibility for the health and safety of those working under their direction.

Each employee (or contractor) is expected to play a role in implementing and maintaining the patient handling programme by:

- Attending training and demonstrating competency
- Knowing the patient handling policy and procedures
- Following the policy and procedures in their work
- Demonstrating competency in patient handling
- Using **LITE** principles to identify, avoid and reduce risks
- Using safe handling techniques and avoiding unsafe practices
- Ensuring all equipment is safe before using it
- Reporting all incidents and concerns
- Reporting any change in their own capability to perform handling tasks
- Contributing to reviews and other processes to improve the programme.

SIGNED BY: *(CEO or general manager)*

DATE:

Sample organisational patient handling plan

DATE: __/__/__

This is a high-level plan, and obviously every organisation will have a different approach to planning. So we've tried to include the key actions you'll need to cover in your first organisational patient handling plan.

PROCESS	PEOPLE	BUDGET	DATE
MANAGEMENT COMMITMENT			
Ensure all senior managers attend information sessions on patient handling	Chief executive		
Consider patient handling issues at all senior managers' meetings	Senior managers		
Prepare policy statement and consult with staff	Senior managers		
Define roles and responsibilities, build into job descriptions and performance appraisals	Senior managers Ward/unit manager		
Appoint patient handling adviser and contract technical experts as required	Senior managers Ward/unit manager		
REVIEW			
Undertake initial assessment of readiness	Ward/unit manager		
Collect data – use tracker tool	Ward/unit manager Staff		
Review plans and progress, and make recommendations, consulting with staff	Senior managers Ward/unit manager Patient handling adviser		
PLAN			
Identify priority area to pilot programme, develop specific plans, targets and performance measures	Senior managers Ward/unit manager Patient handling adviser		
Link patient handling plan to overarching health and safety plan	Patient handling adviser Health and safety adviser		
Link patient handling plan to other business planning	Senior managers		
Develop communication plan	Senior managers Ward/unit manager		

continued ...

Sample organisational patient handling plan continued …

PROCESS	PEOPLE	BUDGET	DATE
ACTION – RISK ASSESSMENT AND CONTROL			
Complete LITE workplace profile to identify potential patient handling risks	Ward/unit manager Staff Employee representatives Patient handling adviser Technical experts		
Develop and implement control plan to eliminate, isolate or minimise hazards	Ward/unit manager Staff Patient handling adviser		
Develop and implement processes to ensure all accidents, incidents and near misses are reported and recorded	Ward/unit manager Staff Patient handling adviser		
Investigate all incidents and implement remedies, report to senior management	Senior manager Ward/unit manager Staff		
Review and update emergency plan, hold regular drills – three monthly	Ward/unit manager Staff		
Develop and implement process to ensure LITE patient profiles and handling plans are completed for all patients	Ward/unit manager Staff Patient handling adviser		
ACTION – STAFF TRAINING AND PARTICIPATION			
Develop training for induction, ongoing training and annual refresher courses	Patient handling adviser Ward/unit manager Staff		
Evaluate training effectiveness	Patient handling adviser Ward/unit manager		
Develop and implement a process to involve staff in planning and reviews	Ward/unit manager Staff		
Elect staff representatives for committees and patient handling issues/incidents	Ward/unit manager Staff		
Ensure patient handling is part of all weekly staff meetings	Ward/unit manager Staff		
Contractor agreements	Patient handling adviser		
ACTION – PATIENT EDUCATION AND ADMISSIONS			
Develop patient handling information for patients and families – display publicly	Senior managers		
Review admission process and develop patient handling clause for admission forms	Senior managers		
Develop process for informing patients and dealing with non-consent	Senior managers and patient handling advisers		

continued …

PROCESS	PEOPLE	BUDGET	DATE
ACTION – EQUIPMENT			
Review current equipment and assess equipment needs	Ward/unit manager Staff Patient handling adviser		
Trial and evaluate new equipment, ensure staff participation, make recommendations	Ward/unit manager Staff Patient handling adviser		
Prepare and implement a process for regular equipment checks and maintenance	Senior manager Ward/unit manager		
ACTION – FACILITIES			
Review facility requirements and constraints	Ward/unit manager Staff Patient handling adviser		
Establish design consultation group	Senior manager Ward/unit manager Patient handling adviser Technical experts Staff representatives		

PERFORMANCE MEASURES	TARGETS
Number of action points implemented	By __/__/__ all actions in current plan implemented
Patient handling injuries reduced	By __/__/__ patient handling injuries reduced by ___% compared with the previous year (note overseas hospitals report up to 50% reductions)
Number of accidents, incidents and near misses reported	By __/__/__ incident reporting increased by 50% compared with previous six months

Patient handling roles and responsibilities

	Board and senior management	Unit or ward managers	Patient handling advisers	Staff and contractors
Review	• Prepare and review annual plan • Involve staff in review process • Incorporate recommendations and law changes into annual plan • Check policies and procedures • Review progress against objectives • Review staff performances	• Use tracker tool and review data • Complete workplace reviews • Review findings and make recommendations • Ensure staff feedback and input to plans, reviews and trials • Gain feedback and input from employee representatives	• Work with the ward/unit manager to collect and report statistics • Conduct annual audit with ward/unit manager • Review objectives and performance indicators • Recommend improvements	• Take part in activities designed to evaluate the programme • Provide feedback and input • Trial new equipment
Plan	• Ensure policy and procedures are written and communicated to staff • Make a copy available to all staff, patients and visitors • Appoint and support a patient handling adviser and contract extra expertise as required • Delegate roles and responsibilities and set performance measures	• Know and follow policy and procedures • Communicate roles and responsibilities to staff • Monitor and evaluate staff	• Review policy and plans and make recommendations • Help with policy development and implementation • Organise and implement a process to monitor and review patient handling practices • Co-ordinate across the organisation to ensure there is a consistent approach to safe patient handling • Ensure all patient handling resources are up-to-date	• Know and follow policy and procedures • Contribute to development of policy and procedures
Action	• Allocate sufficient resources for the programme to operate • Ensure all handling risks are identified, assessed and controlled • Ensure policies and procedures are in use, with regular inspections and audits • Ensure everyone knows their role • Ensure workplace profile and control plan are completed and any issues addressed • Ensure patient profiles are done and safe handling plans used • Ensure all staff are properly trained and their performance monitored • Ensure training is done by accredited trainers and is evaluated • Ensure required equipment is supplied and well maintained • Ensure facility design issues are addressed in consultation with users • Ensure there is an emergency plan and regular drills • Ensure all incidents, issues and near misses are recorded, reported and prevention strategies put in place	• Lead and support staff • Complete workplace profile – and control plan to address issues • Ensure patient profiles and, if required, handling plans are done for all patients by trained staff • Ensure patient profiles are regularly reviewed • Ensure correct application of patient profiles, equipment and handling techniques • Ensure training, equipment and staffing levels support safe practices • Seek advice for challenging situations • Arrange special equipment and training if needed • Provide modified/alternative work for staff if required • Create emergency procedures and conduct drills • Conduct audits and inspections, take follow-up action • Investigate and report on all incidents and take follow-up action • Co-ordinate, supervise and evaluate training, and maintain a training register • Arrange and evaluate equipment trials, ensure staff participation and feedback, make recommendations • Ensure there is sufficient and appropriate equipment and that it is well maintained • Assess facilities, determine needs, ensure staff participation and feedback, recommend changes • Co-ordinate with design consultation group and inspect changes to ensure they meet needs • Periodically review facility needs	• Mentor staff • Provide, monitor and evaluate solutions for complex situations • Evaluate risk assessment process and recommend improvements • Advise on training programmes and instructors • Monitor and evaluate training outcomes, and keep training records • Help determine equipment needs, participate in trials, assess equipment and make recommendations • Help determine facility design needs, work with designers and take part in consultation group • Inspect facility changes to ensure they meet needs ***Training instructors train staff, keep a training register and evaluate training effectiveness***	• Take part in training • Ensure LITE patient profiles are done for all patients • Check patient profiles before any handling task • Follow safe patient handling plans • Report all incidents, issues and concerns • Add safety issues to control plan • Report any health conditions which limit their handling capability • Avoid patient handling risks and seek advice for challenging situations ***Employee organisations are expected to support the creation of safer workplaces by understanding everyone's roles and actively working in partnership with management and staff.***

Suppliers, designers and manufacturers have a legal responsibility to ensure equipment and facilities are fit for the purpose – and for supplying clear instructions on use and maintenance.

LITE workplace profile

DATE: __/__/__

ORGANISATION:	**COMPLETED BY:**
WARD OR UNIT:	**MANAGER/ADVISER:**
	EMPLOYEE REPRESENTATIVE:

PART 1: WORKPLACE DETAILS

LOAD: *Patients*

Number of patients:	**Staff-patient ratio:**	**Ward or unit speciality:**	
Age range:	◯ Neonates	◯ Paediatric	◯ Adult (16-64) ◯ Geriatric (65+)
Type of care:	◯ Acute	◯ Long-term	◯ Residential ◯ Community

Number needing specialised handling: _____ % *(for example due to weight beyond equipment tolerances, medical condition or other)*

Special programmes in place:

◯ Calm and restraint ◯ Falls ◯ Specialised communications ◯ Other _____

INDIVIDUAL: *Caregivers*

STAFF NUMBERS	ACTUAL	IDEAL		ACTUAL	IDEAL
Senior staff New graduates Nursing assistants			Permanent staff Casual staff Agency staff Other		

TASK: *Task and equipment*

Build an inventory of equipment available for the tasks performed in your ward or unit.
If the results indicate a full equipment audit is needed, please refer to the Equipment section.

TASK	LIST EQUIPMENT AVAILABLE	NO. REQUIRED	COMPONENTS REQUIRED	CONDITION	ACCESSIBILITY	STORAGE
Standing and sitting				◯ Good ◯ Poor	◯ Good ◯ Poor	◯ Good ◯ Poor
Walking				◯ Good ◯ Poor	◯ Good ◯ Poor	◯ Good ◯ Poor
Rolling in bed				◯ Good ◯ Poor	◯ Good ◯ Poor	◯ Good ◯ Poor
Sitting up in bed				◯ Good ◯ Poor	◯ Good ◯ Poor	◯ Good ◯ Poor
Moving in bed				◯ Good ◯ Poor	◯ Good ◯ Poor	◯ Good ◯ Poor
Sitting to edge of bed				◯ Good ◯ Poor	◯ Good ◯ Poor	◯ Good ◯ Poor
Sitting to sitting transfers				◯ Good ◯ Poor	◯ Good ◯ Poor	◯ Good ◯ Poor
Non-weight-bearing transfers				◯ Good ◯ Poor	◯ Good ◯ Poor	◯ Good ◯ Poor
Reposition in chair				◯ Good ◯ Poor	◯ Good ◯ Poor	◯ Good ◯ Poor
Assisting fallen patient				◯ Good ◯ Poor	◯ Good ◯ Poor	◯ Good ◯ Poor
Transfer – lying to lying surfaces				◯ Good ◯ Poor	◯ Good ◯ Poor	◯ Good ◯ Poor
Other tasks				◯ Good ◯ Poor	◯ Good ◯ Poor	◯ Good ◯ Poor

ENVIRONMENT: *Facilities*

Number of beds per unit	Type of flooring		
Number of bath/shower rooms	Adequate access for equipment?	◯ Yes	◯ No
Number of toilets	Adequate storage for equipment?	◯ Yes	◯ No
SPECIALISED FACILITIES:			

DATE: __/__/__

ORGANISATION:	COMPLETED BY:
WARD OR UNIT:	MANAGER/ADVISER:
	EMPLOYEE REPRESENTATIVE:

PART 2: WORKPLACE RISK ASSESSMENT

In this part of the profile, the questions help you rate your current position and identify issues and priorities for action. Please score each question on a sliding scale with 1 being the lowest risk (always done or action completed) and 5 the highest risk (never or no action taken).

LOAD: *Patients*		ALWAYS DONE ⟵ ⟶ NO ACTION				
1.	Do all patients (and families) receive information on patient handling?	1	2	3	4	5
2.	Do your admission procedures cover safe patient handling?	1	2	3	4	5
3.	Is your patient handling policy displayed in the ward or unit?	1	2	3	4	5
4.	Are LITE patient profiles and safe handling plans completed?	1	2	3	4	5
5.	Are copies of LITE patient profiles/handling plans available to all carers?	1	2	3	4	5
6.	Do the LITE patient profiles accompany patients when moved?	1	2	3	4	5
7.	Can carers communicate with patients in languages other than English?	1	2	3	4	5
Notes:		*Sub-totals*				

INDIVIDUAL: *Carers*		ALWAYS DONE ⟵ ⟶ NO ACTION				
8.	Do you always have a full complement of staff?	1	2	3	4	5
9.	Do staff have a comprehensive level of clinical experience?	1	2	3	4	5
10.	Do carers take regular breaks?	1	2	3	4	5
11.	Are workloads manageable and the pace of work reasonable?	1	2	3	4	5
12.	Do all staff know the policy and follow the defined procedures?	1	2	3	4	5
13.	Are patient handling responsibilities included in employment contracts?	1	2	3	4	5
14.	Are patient handling performance measures included in appraisals?	1	2	3	4	5
15.	Do you have procedures for non-compliance?	1	2	3	4	5
16.	Do you have procedures for emergency situations?	1	2	3	4	5
17.	Have all carers completed basic patient handling training?	1	2	3	4	5
18.	Do you provide extra training for specialised needs?	1	2	3	4	5
19.	Do new carers receive basic patient handling training during induction?	1	2	3	4	5
20.	Do all carers attend annual refresher training?	1	2	3	4	5
21.	Do you have access to a patient handling adviser?	1	2	3	4	5
22.	Do all carers know where to get advice on complex handling situations?	1	2	3	4	5
23.	Do carers wear suitable clothing that doesn't restrict movement?	1	2	3	4	5
24.	Do carers wear suitable non-slip footwear?	1	2	3	4	5
25.	Are carers involved in planning and feedback for patient handling?	1	2	3	4	5
26.	Are all carers able to communicate clearly in and understand English?	1	2	3	4	5
27.	Do you record and review all incidents and injuries?	1	2	3	4	5
28.	Do you encourage early reporting of conditions that limit handling ability?	1	2	3	4	5
29.	Do you provide modified work for carers with limiting conditions?	1	2	3	4	5
Notes:		*Sub-totals*				

continued …

TASK: *Task and equipment*		ALWAYS DONE ⟵ ⟶ NO ACTION				
30.	Do carers always consider patient profiles before starting handling tasks?	1	2	3	4	5
31.	Are only approved safe patient handling techniques used for tasks?	1	2	3	4	5
32.	Do you always have enough carers to carry out handling tasks?	1	2	3	4	5
33.	Do you stagger handling tasks? eg. bathing patients over different shifts	1	2	3	4	5
34.	Is sufficient time allowed to carry out handling tasks?	1	2	3	4	5
35.	Do you rotate handling tasks between carers?	1	2	3	4	5
36.	Do you have procedures for preparing patients before handling tasks?	1	2	3	4	5
37.	Are patient self-help techniques used to reduce handling requirements?	1	2	3	4	5
38.	Do all carers know how to check and use the equipment properly?	1	2	3	4	5
39.	Do carers routinely check equipment and components before use?	1	2	3	4	5
40.	Do you regularly reassess your equipment needs?	1	2	3	4	5
41.	Do you have sufficient equipment for the staff and tasks in your work area?	1	2	3	4	5
42.	Is equipment easy to store and retrieve – do you have enough storage space?	1	2	3	4	5
43.	Do you regularly check, repair and replace equipment and components?	1	2	3	4	5
44.	Do you get staff input and arrange trials before acquiring new equipment?	1	2	3	4	5
45.	Do you have sufficient resources to buy or hire new items when required?	1	2	3	4	5
Notes:		*Sub-totals*				
ENVIRONMENT: *Facilities*		**ALWAYS DONE ⟵ ⟶ NO ACTION**				
46.	Is there sufficient space in handling areas to perform tasks and manoeuvre equipment around beds?	1	2	3	4	5
47.	Are there good lighting and clear visibility for tasks?	1	2	3	4	5
48.	Have you made special lighting provisions for night staff?	1	2	3	4	5
49.	Are floors non-slip, stable and even?	1	2	3	4	5
50.	Are floor surfaces in handling areas in good order?	1	2	3	4	5
51.	Do all wet areas have non-slip flooring?	1	2	3	4	5
52.	Can equipment be easily moved over flooring?	1	2	3	4	5
53.	Are steps and slopes well lit and properly designed?	1	2	3	4	5
54.	Are work areas free of trip hazards? eg. trailing cords, rugs	1	2	3	4	5
55.	Are noise levels controlled so clear communication isn't hindered?	1	2	3	4	5
56.	Are walkways clear and free of clutter?	1	2	3	4	5
57.	Are your facilities equipped to encourage patient independence?	1	2	3	4	5
58.	Is furniture stable, suitable and adjustable to suit different patients?	1	2	3	4	5
59.	Do furniture surfaces and coverings facilitate safe handling?	1	2	3	4	5
60.	If changes are needed, do you have a plan and timetable to make the changes?	1	2	3	4	5
61.	Do you seek expert design and ergonomics advice on changes?	1	2	3	4	5

continued …

62.	Do you seek staff input before and after making changes?	1	2	3	4	5
63.	Have sufficient resources been allocated to make changes?	1	2	3	4	5
64.	Do you have procedures for patient handling in specialised conditions? eg. outdoors in varied climates, or in high traffic and pedestrian areas	1	2	3	4	5
Notes:		*Sub-total*				
	Total score					

How did you score?

There are two parts to your score – the ranking you gave each question and the total combined score.

1. The ranking for each question

The ranking for each question identifies areas where you could take action to improve patient handling in your organisation. The lower the score the better in terms of managing patient handling risks.

- A ranking of 1-2 indicates a lower level of risk.
- A ranking of 2-3 indicates a medium and possibly important risk.
- A ranking of 3-5 indicates a higher and possibly substantial risk.

2. The total score

Your total score gives an overall picture of your current position. It is a simple measure, but covers the issues important to building an effective patient handling programme.

IMPORTANT

Even if your total score is low, any individual item ranked 3-5 should be addressed immediately.

This risk assessment and score is a guide only. Testing on reliability and validity will be undertaken in conjunction with the health care industry.

Suggested next step. Complete the control plan, to track and address the issues identified.

Control plan

DATE: __/__/__

ORGANISATION: **COMPLETED BY:**

WARD OR UNIT: **MANAGER/ADVISER:**

EMPLOYEE REPRESENTATIVE:

This form is to help you keep track of the risks you identify in your workplace – and the actions you take to control them. The first part is for issues identified from the LITE workplace profile. The second part is for other issues that arise or are reported by staff at other times. Keeping clear records helps you meet your legal obligations.

ISSUES FROM LITE WORKPLACE PROFILE

RISK IDENTIFIED			ACTION REQUIRED	TO BE COMPLETED BY		
RISK LEVEL	NUMBER	RISK/ISSUE		PERSON	DATE	DONE?
High		Basic training and induction	All staff should complete basic training during induction	Adviser	21/7/03	√

OTHER ISSUES RAISED

RISK LEVEL	DATE RAISED	ISSUE IDENTIFIED	ACTION REQUIRED	PERSON	DATE	DONE
Medium	21/7/03	Hoist hard to move	Maintenance check/repair	P Smith	22/7/03	√

LITE patient profile

DATE: __/__/__

ORGANISATION: **COMPLETED BY:**

WARD OR UNIT:

LAST REVIEW DONE: __/__/__ **NEXT REVIEW DUE:** __/__/__

PATIENT DETAILS

Name:		Preferred name:
Height:	Weight:	Date of birth:

Relevant medical conditions – *past and current:*

Capabilities – Patient:

◯ Can move normally ◯ Can weight bear ◯ Can assist with task ◯ Can balance
◯ Is stable ◯ Can tolerate basic activity

PATIENT HANDLING RISKS *(complete checklist overleaf first)*

◯ 1. Falls risk ◯ 5. Skin at risk ◯ 9. Medical equipment ◯ 13. Vision needs
◯ 2. In pain ◯ 6. Incontinence ◯ 10. Co-operation issues ◯ 14. Hearing needs
◯ 3. Impaired movement ◯ 7. Medical needs ◯ 11. Communication issues ◯ 15. Footwear needs
◯ 4. Loss of sensation ◯ 8. Surgical needs ◯ 12. Barriers ◯ 16. Mobility aids used

HANDLING PLAN REQUIRED ? ● NO ● YES ⇢ COMPLETE

TASK	ELIMINATE, ISOLATE OR MINIMISE? CIRCLE ONE	TECHNIQUE TO BE USED	EQUIPMENT REQUIRED	SUITS CARE PLAN	NOTES
Standing and sitting	**E I M**			◯ Yes ◯ No	
Walking	**E I M**			◯ Yes ◯ No	
Rolling in bed	**E I M**			◯ Yes ◯ No	
Sitting up in bed	**E I M**			◯ Yes ◯ No	
Moving in bed	**E I M**			◯ Yes ◯ No	
Sitting to edge of bed	**E I M**			◯ Yes ◯ No	
Sitting to sitting transfers	**E I M**			◯ Yes ◯ No	
Non-weight-bearing transfers	**E I M**			◯ Yes ◯ No	
Reposition in chair	**E I M**			◯ Yes ◯ No	
Assisting fallen patient	**E I M**			◯ Yes ◯ No	
Transfer – lying to lying surfaces	**E I M**			◯ Yes ◯ No	
Other tasks	◯ No ◯ Yes ⇢ *attach task analysis sheet*				

CHECKLIST

Before starting task check:

- **Lighting:** Is lighting adequate?
- **Floors:** Are floors non-slip, stable, no trip hazards?
- **Equipment:** Is it in good working order?
- **Equipment:** Are all components in place and working?
- **Access:** Are route and access ways clear?
- **Destination:** Is it unoccupied/ready? eg. toilet/bath
- **Clutter:** Is there enough clear space for the task?
- **Noise:** Is clear communication possible?
- **Assistance:** Are all carers ready and available?
- **Weather:** Will rain, wind etc have an impact?
- **Any changes:** Is handling plan still appropriate?

IMPORTANT: ***If you identify risks or safety issues during care you must report them and add them to the control plan for action.***

continued ...

		NO EFFECT ON MOBILITY	POSSIBLE EFFECT ON MOBILITY *(Please complete – then note brief details on front of form)*
1.	Falls	◯ No risk	◯ Falls risk management
2.	Pain	◯ Pain free	◯ In pain – describe
3.	Movement	◯ Normal	◯ Impaired muscle strength ◯ Impaired muscle tone ◯ Abnormal reflex ◯ Decreased activity tolerance ◯ Unstable ◯ No balance ◯ Joint needs protection ◯ Other:
4.	Sensation	◯ Normal	◯ Loss of sensation or body awareness ◯ Hypersensitive areas: ◯ Other:
5.	Skin	◯ Normal	◯ Integrity impaired ◯ At risk of impairment ◯ Wet/slippery skin likely ◯ Wound needs protection
6.	Continence	◯ Continent	◯ Continent with frequent toileting ◯ Incontinent Management:
7.	Medical treatments or medications	◯ No/no effect	Treatments or medications affect: ◯ Perception ◯ Activity tolerance ◯ Proprioception ◯ Balance
8.	Surgical intervention	◯ No/no effect	◯ Protection of wound required ◯ Restricted movement required Describe location, severity and implications for mobility:
9.	Medical equipment	◯ None	◯ IV catheter ◯ Oxygen ◯ Monitors ◯ Drain ◯ Chest tube ◯ Traction ◯ Other:
10.	Co-operation	◯ Co-operative	◯ Unwilling/unable to co-operate ◯ Aggressive ◯ Abusive ◯ Refuses equipment/best practice
11.	Comprehension	◯ Good	◯ Reduced hearing ◯ Difficulty following simple commands
12.	Barriers	◯ None	◯ Isolation – chemical biological hazards ◯ Behavioural ◯ Poor hygiene ◯ Cultural/religious ◯ Family/friends ◯ Obese Management:
13.	Vision	◯ Good	◯ Needs glasses ◯ Impaired vision but won't wear glasses ◯ Totally impaired and uses devices
14.	Hearing	◯ Good	◯ Uses hearing aid ◯ Impaired hearing but won't wear hearing aid ◯ Uses sign language
15.	Footwear	◯ Good	◯ Specialised footwear ◯ Inappropriate footwear
16.	Mobility aids	◯ None	◯ Orthotics/prosthetics ◯ Walking frame ◯ Walking stick ◯ Standing frame ◯ Grab rail ◯ Wheelchair ◯ Hip protector ◯ Crutches ◯ Other:

HANDLING EQUIPMENT NEEDED

◯ Slidesheet ◯ Transfer board ◯ Profiling bed ◯ Hoist
◯ Other:

Task analysis sheet

DATE: __/__/__

ORGANISATION:	**COMPLETED BY:**
WARD OR UNIT:	**PATIENT:**
TASK:	**ADVISER:**

WAS TECHNICAL EXPERTISE SOUGHT? ◯ Yes ◯ No

TASK ANALYSIS	
Can the task be eliminated? ◯ Yes ⇢ no further action required ◯ No ⇢ complete next section	
WHAT ARE THE RISK FACTORS? ***Please tick***	**HOW CAN THE RISK BE CONTROLLED?** ***Eliminate ⇢ Isolate ⇢ Minimise***
◯ Repetition required	
◯ Long duration of task	
◯ Static posture required – such as supporting a limb or patient	
◯ Awkward posture required – such as twisted or bent postures due to space constraints or equipment in use	
◯ Requires extended reach – for example reaching over a bedrail	
◯ Performed over distance – for example from bed to chair in another room	
◯ Lack of space for task and equipment	
◯ Staff fatigue or stress – for example due to staff shortages or emergencies	
◯ Hazardous weights	
◯ Unpredictable movements likely	
◯ Restrictions of protective gear – such as gloves, surgical gown or booties	
◯ Inflexibility – for instance inflexible schedules that cause time pressures	
◯ Other contributing risks – please describe:	

TECHNIQUE TO BE USED	**EQUIPMENT REQUIRED**	**COMMENTS**

Attach completed task analysis to patient profile

Pre-purchase or hire equipment assessment

This form sets out the things you will need to consider before buying or hiring patient handling equipment, or furniture to be used by patients. Different people across your organisation, and in some cases external people, may be involved in the selection process.

ROLE	RESPONSIBILITY
Patient handling adviser	• Complete the pre-purchase/hire assessment • Liaise with all the other people who need to be involved, including carers
Management	• Provide strategic direction and allocate budget
Maintenance (may be internal or external)	• Provide technical advice • Service and maintain equipment in safe working order • Develop maintenance schedules and keep maintenance records • Keep a list of service companies • Maintain warranty information
Cleaning (may be internal or external)	• Maintain and document infection control protocols and cleaning protocols
Supply department	• Purchase equipment and furniture at competitive or bulk prices • Work within the organisation's purchasing plan and procedures • Keep a record of suppliers for purchase or hire • Document purchases and hire contracts
Clinical staff	• Provide technical expertise • Trial and use equipment and furniture • Document requests for equipment needed • Report issues with maintenance, supply, engineering or cleaning

Note: Some parts of the assessment may not apply to all items of equipment or furniture. You may also need to adapt the 'Who needs to be involved?' columns of this assessment to suit the way you delegate responsibilities within your organisation.

continued ...

Pre-purchase or hire equipment asessment continued …

DATE: __/__/__

ORGANISATION:	COMPLETED BY:
WARD OR UNIT:	MANAGER/ADVISER:
EQUIPMENT OR FURNITURE ITEM:	EMPLOYEE REPRESENTATIVE:

WHAT DO YOU NEED TO CONSIDER?								
		WHO NEEDS TO BE INVOLVED?						
PRE-TRIAL CHECKS	COMMENTS	ADVISER	MGMT	MAINT	ENG	CLEAN	SUPPLY	CLINICAL
What is the lifespan? Up to 5 years ◯ 5-10 years ◯ Over 10 years ◯								
Are information and instructions available? ◯ Yes ◯ No								
SERVICING Is back-up service available? ◯ Yes ◯ No Does the item have a warranty? ◯ Yes ◯ No Does the item have a replacement warranty? ◯ Yes ◯ No Is the item covered by a contract for regular service and maintenance? ◯ Yes ◯ No Can the item be serviced on site? ◯ Yes ◯ No Are parts readily available in New Zealand? ◯ Yes ◯ No Can the item/parts be recycled? ◯ Yes ◯ No	Give details, including contract details and duration:							
STANDARDS What standard does the item meet? Is documentation available? ◯ Yes ◯ No	Standard: Document maintained in:							

continued …

WHAT DO YOU NEED TO CONSIDER?									
PRE-TRIAL CHECKS			COMMENTS	WHO NEEDS TO BE INVOLVED?						
				ADVISER	MGMT	MAINT	ENG	CLEAN	SUPPLY	CLINICAL
FLEXIBILITY OF USE Can equipment parts be mixed and matched?	◯ Yes, permitted ◯ Not permitted		List items that can be mixed:							
Is the item suitable for uses other than those for which it was designed?	◯ Yes	◯ No	Specify use:							
Does the manufacturer/supplier recommend limitations on use?	◯ Yes	◯ No	Limitations:							
Will the manufacturer modify or adapt the item for site use?	◯ Yes	◯ No	Customisation:							
Do buildings need to be modified to use the item? Are modifications feasible?	◯ Yes ◯ Yes	◯ No ◯ No	Modifications required:							
Does the item include all accessories required for use?	◯ Yes	◯ No	Accessories required:							
Are additional accessories available?	◯ Yes	◯ No	Additional accessories:							
Can other components owned by the organisation be used with this item? (eg. battery packs, chargers, wheels)	◯ Yes	◯ No	List components that can be used:							
Can components be upgraded?	◯ Yes	◯ No	List components that can be upgraded:							
Is there a range of sizes for clinical use?	◯ Yes	◯ No	Sizes available:							

continued ...

WHAT DO YOU NEED TO CONSIDER?								
		WHO NEEDS TO BE INVOLVED?						
PRE-TRIAL CHECKS	COMMENTS	ADVISER	MGMT	MAINT	ENG	CLEAN	SUPPLY	CLINICAL
CLINICAL REFERENCES Who uses this item locally? What problems/issues have been identified? What do they like about the equipment/furniture?	References and feedback:							
TRAINING AND USE Is the item easy to use? ○ Yes ○ No Is training available with the item? ○ Yes ○ No Is training included in the price? ○ Yes ○ No	Training offered by:							
SAFETY FEATURES What features are required for safe use? ○ Double insulation ○ Safety in wet areas ○ Brakes ○ Ability to lock out controls ○ Manual back-up ○ Manual override ○ Emergency stop ○ Warning devices ○ Low flammability								
LABELLING Is the item (and accessories) labelled with: Manufacturer's details? ○ Yes ○ No Standards? ○ Yes ○ No Safe working loads? ○ Yes ○ No Cleaning and disinfection? ○ Yes ○ No Safe use instructions? ○ Yes ○ No								
COSTS AND RETURNS What is the full cost of this item? What is the return on investment?	Cost to purchase $ _____ Cost to hire $ _____ Return on purchase $ _____ Return on hire $ _____							
Are there alternatives to using this item? ○ Yes ○ No	Alternatives:							

continued ...

WHAT DO YOU NEED TO CONSIDER?										
TRIAL CHECKS *– for patient safety*			**COMMENTS**	**WHO NEEDS TO BE INVOLVED?**						
				ADVISER	**MGMT**	**MAINT**	**ENG**	**CLEAN**	**SUPPLY**	**CLINICAL**
PATIENT USE										
Will the item meet patient needs?	○ Yes	○ No								
Is the item:										
Safe for patients to use?	○ Yes	○ No								
Easy for patients to use?	○ Yes	○ No								
Comfortable for patients to use?	○ Yes	○ No								
Acceptable to patients?	○ Yes	○ No								
Will it promote patient independence?	○ Yes	○ No								
SAFETY										
Is the item:										
Electrically safe?	○ Yes	○ No								
Mechanically safe?	○ Yes	○ No								
Free of trapping points?	○ Yes	○ No								
Stable?	○ Yes	○ No								
Non-flammable?	○ Yes	○ No								
TRIAL CHECKS *– for carer safety*										
Does the item reduce the risk of injury and fatigue for the carer?	○ Yes	○ No	Explain:							
CARER USE										
Is the item:										
Safe for carers to use?	○ Yes	○ No								
Easy for carers to use?	○ Yes	○ No								
Effective – does it do what it is designed to do?	○ Yes	○ No								
Functional – can it be used as intended?	○ Yes	○ No								
Reliable – does it perform consistently?	○ Yes	○ No								
Practical – can it be used with other items?	○ Yes	○ No								
Will the item:										
Reduce the risk of carer injury and fatigue?	○ Yes	○ No								
Reduce patient injuries during handling?	○ Yes	○ No								

continued ...

WHAT DO YOU NEED TO CONSIDER?										
TRIAL CHECKS *– for carer safety continued ...*			COMMENTS	WHO NEEDS TO BE INVOLVED?						
				ADVISER	MGMT	MAINT	ENG	CLEAN	SUPPLY	CLINICAL
SAFETY										
Is the item:										
Electrically safe?	◯ Yes	◯ No								
Mechanically safe?	◯ Yes	◯ No								
Free of trapping points?	◯ Yes	◯ No								
Stable?	◯ Yes	◯ No								
Non-flammable?	◯ Yes	◯ No								
Are noise levels acceptable?	◯ Yes	◯ No								
Do wheels move freely?	◯ Yes	◯ No								
Are edges rounded?	◯ Yes	◯ No								
Are controls accessible?	◯ Yes	◯ No								
Are controls easy to see?	◯ Yes	◯ No								
Is the item lightweight?	◯ Yes	◯ No								
Does the item have:										
Warning devices?	◯ Yes	◯ No								
Brakes?	◯ Yes	◯ No								
Emergency manual override?	◯ Yes	◯ No								
Other safety features? (describe)	◯ Yes	◯ No								
STORAGE			Requirements:							
What are the storage requirements?										
Is the item easily accessible?	◯ Yes	◯ No								
TRANSPORT			Explain any issues:							
Is the item transportable?	◯ Yes	◯ No								
Is the item manoeuvrable?	◯ Yes	◯ No								
Can it be used in the space available?	◯ Yes	◯ No								

continued ...

WHAT DO YOU NEED TO CONSIDER?								
TRIAL CHECKS *– for carer safety and ability to provide clinical care*	**COMMENTS**	**WHO NEEDS TO BE INVOLVED?**						
		ADVISER	**MGMT**	**MAINT**	**ENG**	**CLEAN**	**SUPPLY**	**CLINICAL**
CLEANING Are cleaning/infection control requirements consistent with organisational practice? ○ Yes ○ No Are new or special cleaning/infection control procedures required? ○ Yes ○ No	Describe control requirements and costs:							
MAINTENANCE What is the preventive maintenance schedule? Will maintenance be done: ○ Internally? ○ Outsourced?	Give details including frequency, costs and name of maintenance provider:							
CLINICAL AND COST BENEFITS								
What are the clinical benefits?								
What are the quality of life benefits for patients and carers?								
What are the total costs involved in purchasing or hiring this equipment/furniture?	Total cost of purchase $ _____ Total cost of hire $ _____							
Decision:								

Further resources

visit → www.acc.co.nz

or call → 0800 THINKSAFE (0800 844 657)