

TOOL 2



Safe use of bed rails

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Introduction

Bed rails were developed as a safety device and have been commonly and routinely used in Australia. However, in some circumstances bed rails on both sides of the bed can be a risk to consumer safety and can be considered to be mechanical restraints.

Purpose

This tool accompanies the SA Health Fall Injury Prevention and Management Clinical Guideline. It is intended to assist SA Health staff to:

- identify when the use of bed rails can be avoided
- identify situations when the use of bed rails is the least restrictive and least harmful option for ensuring that a consumer and others are safe
- implement risk control measures to minimise any potential harm
- identify unsafe or inappropriate use of two full length bed rails on hospital beds, barouches, trolleys and similar
- identify when the use of bedrails is restraint, and therefore requires reporting into Safety Learning System (SLS) as a patient safety incident.

Intended readers include staff who are providing direct care to consumers, managers and staff involved with procurement and provision of equipment in inpatient facilities.

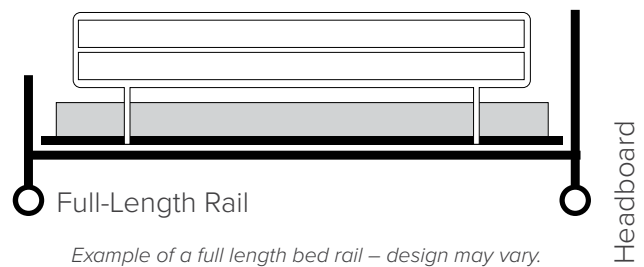
This should be read in conjunction with ‘Safety with hospital and treatment beds’ Safe Work Procedure 2014 (WFS SWP504) and relevant SA Health WHS policies.

What are bed rails?

The recommendations in this document relate to the use of two full length bed rails that are attached to the frame of an adult hospital bed, barouche, trolley, treatment table or similar, or one bed rail and the bed is in contact with a wall on the opposite side.

The term ‘bed rail/s’ refers to adjustable metal or rigid plastic bars or panels that are available in a variety of shapes and sizes from full to half, one-quarter and one-eighth in lengths. They may also be called cot sides; side rails; side bars; grab bars; or safety rails. The use of part rails is not covered by this document.

A full length bed rail is a continuous rail that extends along the side of the bed from the head to the foot section and is fixed to the bed frame.



Bed rails as a form of restraint

Restraint is the intentional restriction of an individual’s voluntary movement or purposeful behaviour by physical, chemical, mechanical or other means.

Bed rails are considered to be a restraint or restrictive practice when they are used primarily with the intention of limiting a consumer’s freedom of movement.

The use of two bed rails or one plus a wall may be restraint in some situations. If the risk to safety is immediate and serious, and alternative strategies have failed to maintain safety, bedrails may be the least restrictive way to maintain safety for the consumer and/or others. The use of any restraint is always a last resort after other strategies have been unsuccessful. Bed rails may be a less restrictive form of restraint than, for example, a jacket type restraint.

Bed rails have more impact as a physical barrier or restraint for a person who has limited mobility. For some people they are a visual and emotional barrier.

Use of any restrictive practices, including restraint, is potentially harmful, and is not therapeutic. The application of any restrictive practice is an infringement of a person’s right to free movement and decision-making.

In SA Health, restrictive practices must not be used as a punishment or for the convenience of others, or as an alternative to adequate surveillance, sufficient staff or resources to provide safe care, or an environment suitable for the individuals’ appropriate care.

The use of restraint, and the care and monitoring provided while restraint is applied, must be:

- documented in the medical record
- in accordance with SA Health Minimising Restrictive Practices in Healthcare Policy Directive, the National Safety and Quality Health Service Standards and the SA Chief Psychiatrist Standards
- reported into the Safety Learning System (ie use of restraint).

Bed rail use that is not restraint

During transport, bedrails are a safety measure.

It is not considered to be restraint when a consumer who has decision making capacity has requested that the bed rails are used, or consented to their use. However, in these situations the consumer must be able to call for and receive immediate assistance if needed.

Risk assessment

The decision to use bed rails should be made as part of the consumer's assessment, and based on the principles of safe care and restraint minimisation, or least restrictive care.

Assessment by the consumer's health care team will identify:

- the presenting problem (why bed rails are being considered), and alternative strategies
- the potential risk(s) of harm to the individual consumer if a bed rail is used
- the care required to reduce harm if a decision is made to proceed with the use of bed rails.

Steps for risk assessment and planning care should include:

1. Use Table 1 to identify the presenting safety problem(s) that bed rails may help with:
 - risk of rolling off the bed
 - difficulty turning over, or moving around in the bed
 - risk of falls or injury when the consumer is attempting to get up from bed
 - risk from challenging behaviour, such as wandering or intrusive behaviour.
2. Assess mobility, falls risk, sedation/consciousness, dementia, delirium, behaviour, wandering or agitation, continence, sleep pattern.
3. Discuss with the consumer (or their Substitute Decision Maker [SDM]), family or carers. Provide information about potential harm and alternatives to using bed rails.
4. Use the Bed rail decision matrix to identify risk of bedrails for that individual.
 - If bedrails are used, monitor use
 - If bedrails are not recommended or should only be used with caution, try alternatives to bed rail use, guided by what is considered best practice for the presenting problem(s). (See alternative strategies in Table 2 and below).
5. Use Table 2 to plan care with the multidisciplinary team and consumer, carer to minimise risk of harm if bedrails used. Document care plan.
6. Monitor the consumer frequently while the bedrail(s) is in use, in accordance with the Minimising Restrictive Practices Policy Directive
7. Review the need for the bedrail, the consumer's mental and physical status.

Alternative strategies

Some alternative strategies are listed in Table 1. Alternative strategies to address particular risks are also described in relevant guidelines such as:

- For those at risk of falls, refer to:
 - Falls and Fall Injury Risk Factor Assessment (MR58 or equivalent) Table 1 – Recommended actions for consideration.
 - Table 3 Alternatives to bedrail use for falls risk.
 - SA Health Fall Injury Prevention and Management Clinical Guideline and toolkit.
- For those at risk of wandering, refer to guidelines relating to dementia care.
- For those at risk of challenging behaviour refer to:
 - [Preventing and responding to challenging behaviour guide](#) and toolkit.
 - Minimising Restrictive Practices [Policy Directive](#) and toolkit.
 - National Safety and Quality Health Service Standards.
 - A Better Way to Care program resources (ACSQHC).

Consumer or family concerns about bed rail use

If consumers or family request using bed rails, health care providers should:

- encourage consumers or family to talk to staff to determine whether or not bed rails are indicated
- reassure consumers and their families that in many cases the consumer can sleep safely without bed rails.

Consumers can request bed rails to help to turn in bed, or to hang call bell etc. Alternative bed mobility aids are available. Assessment by occupational therapist or physiotherapist is recommended for these, where practicable.

Table 1 Safety concerns and alternative strategies

Type of risk, or problem identified	Who, and when is risk greatest?	Alternative strategies
Risk of rolling off the bed	Intentional, eg when leaning or reaching.	<ul style="list-style-type: none"> • Ensuring that personal items are within reach. • Use of overway for personal items.
	Unintentional, for example: <ul style="list-style-type: none"> • when turning/rolling over and sedated or drowsy • when there are uncontrolled movements or muscle spasms such as during a seizure (unless the risk of injury from hitting the rails is greater) • being cared for on a narrow barouche, trolley • during transport or while wheeling bed from place to place. 	<ul style="list-style-type: none"> • Use of foam bumpers or concave mattresses (as long as these are removed when the person is able to, and wanting to, get up from the bed). • Review of sedation, medication. • Use beds that can be lowered to floor level or near. • Move onto hospital bed as soon as possible. • Belts or harnesses that the consumer can undo.
Difficulty turning or moving around in bed	People with limited physical mobility.	Other bed mobility aids, such as overhead grab bars, or handles attached.
Risk of falls or injury when the consumer is attempting to get up from or out of bed	Bedrails or any other forms of restraint are not recommended in either SA Health policy or national guidelines as a falls prevention strategy. There are many other strategies recommended to reduce the risk of falls and/or injury. This transfer involves lying to sitting to standing. There are balance, strength and blood pressure adjustment requirements.	Falls prevention strategies to reduce the fall risk factors that have been identified during assessment. Examples include: <ul style="list-style-type: none"> • Physiotherapy assessment of mobility, aids and/or correct bed height for consumer to safely getting up. • Walking aids, footwear and glasses within reach. • Anticipate the reasons consumers get out of bed such as hunger, thirst, going to the bathroom, restlessness and pain. Meet these needs by regularly offering food and fluids, pain relief, toileting, and providing calming interventions, distractions or activities. • Hourly rounding. • Alarms to alert staff when a consumer is moving. However these require a speedy response to prevent a fall. Risk of injury from falls can be reduced by wearing hip protectors, limb protectors, helmets, and/or shock-absorbing crashmats beside the bed (with care not to increase the risk to staff and others from tripping).

<p>Risk from challenging behaviour</p> <ul style="list-style-type: none"> • Unintentional self-harm 	<ul style="list-style-type: none"> • Wandering means ambulation or mobility that appears to be lacking in purpose or intent, associated with dementia. • Consumers with cognitive impairment who are restless, confused about where they are, and attempting to go home. • A consumer is at risk if they are unable to find their way back, unable to recall where they are, or may go to a dangerous area. 	<ul style="list-style-type: none"> • Effective strategies are documented in SA Health policies and in guidelines for care of cognitive impairment, brain injury, dementia, delirium and mental illness. • Anticipate the reasons consumers wander such as boredom, need for social contact, hunger, thirst, going to the bathroom, restlessness and pain. • Meet these needs and provide reassurance, distraction and calming interventions. • Wandering/ambulation per se may maintain activity levels and occupy a consumers time, relieving boredom.
<p>Risk from challenging behaviour</p> <ul style="list-style-type: none"> • Absconding, leaving care or leaving the area 	<p>Risk of leaving care:</p> <ul style="list-style-type: none"> • contrary to a legal order, or • when there is risk to the person’s health or safety. 	<ul style="list-style-type: none"> • Communication with consumer and carer. • Consumers with decision-making capacity can choose to leave care. Encourage them to complete forms as required. • Consumers under legal orders (Mental Health, Guardianship or other) can be prevented from leaving.
<p>Risk from challenging behaviour</p> <ul style="list-style-type: none"> • To protect staff and/or other people present 	<p>Risk of:</p> <ul style="list-style-type: none"> • intrusive or physically aggressive behaviour • in an emergency situation raising bed rails can create a temporary barrier between a violent or aggressive consumer and staff to allow planning of other strategies. 	<ul style="list-style-type: none"> • Reassess and provide alternative strategies to prevent challenging behaviours. • Strategies to minimise the use of restrictive practices. • Least restrictive practices, for example doorway barriers.

Bed rail decision matrix (for the use of two full length bed rails)

Use this to assist clinical reasoning when there are concerns for patient/consumer safety in bed.

Instructions for use: Find the point where the consumer's level of mobility (rows) and cognitive/mental state (columns) intersect.

For more detail refer to Fact Sheet – Safe Use of bedrails and Safety with hospital and treatment beds 2014 – WHS Safe Work Procedure (WFS SWP504).

		Level of mobility, activity		
		Unable to mobilise or hoist-dependant	Requires assistance to mobilise	Independently mobile
Decision-making capacity	Cognitive/mental state		<i>Note: Ensure bed is left at the correct height for the consumer – usually hips a little higher than knees with feet flat on floor.</i>	
No	Delirious, confused, disoriented, agitated, restless, unpredictable poor memory.	Consider bed rails, with caution.	Bedrails not recommended. Use alternative strategies.	Bedrails not recommended. Use alternative strategies.
Uncertain	Drowsy/sedated/ impaired consciousness.	Consider bed rails, with caution.	Try alternative strategies, and only use bed rails as last resort. Frequent monitoring required.	Try alternative strategies, and only use bed rails as last resort. Frequent monitoring required.
Yes	Orientated and alert.	Bedrails may be considered if consumer consents or requests them.	Bedrails may be considered if consumer consents or requests them. Ensure they can summon help.	Bedrails not required. Can be requested by consumer.

- Consider risk of functional decline, falls, injury, entrapment and psychological harm in your decision-making (bed rails can be a form of restraint).
- For consumers with involuntary movement (eg spasms) bed rails, if used may need to be padded, but caution this may increase entrapment risk.
- Monitoring means visual checking of the consumer by a qualified staff member.

KEY	Bedrails not recommended. Risk of using is generally higher than risk of not using. Use alternative strategies.	Carefully consider risk vs benefits and try alternative strategies or less restrictive care. Discuss with consumer and carer, and with clinical team. Frequent visual checking and monitoring required. Table 2 suggests risk minimisation strategies.	Discuss with consumer and carer, and with clinical team. Table 2 suggests risk minimisation strategies. If consumer with decision-making capacity consents, bed rails are not a form of restraint. One bed rail or other bed mobility aids may assist bed mobility eg after a stroke, other injury.

Based on Resources for reviewing or developing a bedrail policy with kind permission Frances Healey, NHS National Patient Safety Agency, 2007, UK.

Potential risks and care required to mitigate risk if bed rails are used

Bed rail use can be harmful. If a decision is made to use bed rails, assessment and review will identify the potential risk(s) of harm to the individual consumer and how to optimize bed safety (Table 2).

When bed rails are intentionally used as a restraint, there are monitoring and review requirements that are outlined in the SA Health Minimising Restrictive Practices Policy and Guideline.

Strategies include:

- regular visual monitoring of the consumer
- ongoing assessment of the consumer's physical and mental status
- having the call bell in easy reach so the consumer can call for assistance readily
- monitoring consumers who are not able to use the call bell or be relied on to call for assistance at least every 15 minutes by visual checking
- teamwork and team communication – documentation in the care plan and medical record, and, included in handover
- monitoring and review of the need for, and safety of the bed rails if the consumer's mobility or cognitive status changes or they exhibit signs of distress, or their condition improves.

Required documentation in the medical record includes:

- alternative strategies attempted, but failed
- results of discussion with consumer and carer or SDM
- an agreed care plan to reduce harm while bed rails are used.

Table 2 includes types of risk from bed rail use, which consumers may be most vulnerable, include, and suggested strategies to reduce or control risk. Types of risk include:

- bodily trauma
- falls
- functional decline
- distress or psychological harm
- entrapment of limbs or head
- equipment failure.

Additional strategies to reduce risk of harm

Provide staff training to all staff working in areas where this equipment is present, including, but not limited to:

- the risk assessment process
- alternatives to bed rails
- the safe and appropriate use of bedrails
- the risks and risk control measures for bed rail use, including installation, monitoring for wear and tear
- the use of the decision matrix to support clinical reasoning.

Table 2 Types of risk associated with bedrails, and control measures

Type of risk	Consumers most at risk of harm from bed rails	Suggested control measures to reduce risk
<p>Bodily trauma</p> <p>Skin and soft tissue injury can result from collision with the bed rail.</p>	<ul style="list-style-type: none"> • People with fragile skin, malnourishment, and who are anticoagulated or have indwelling devices. • People who are agitated or aggressive. • People who experience large uncontrolled or involuntary movement, for example muscular spasm, epileptic seizure. 	<ul style="list-style-type: none"> • Limb or head protection devices. • Medication or other therapy to reduce spasm, involuntary movement. • Padding or covers over bed rails should be used with caution as they may create risk of asphyxiation or entrapment.
<p>Falls</p> <p>Serious falls can occur when attempting to get out of bed and climb over or around bed rails, or a limb or clothing get caught in the bedrails. The extra height of a fall over bed rails increases the severity of the injury.</p>	<ul style="list-style-type: none"> • People with a combination of impaired mobility and cognition or consciousness or mental status. • People with osteoporosis, on anticoagulant therapy or coagulopathy, or fragile skin. 	<ul style="list-style-type: none"> • Fall Prevention strategies. • Injury minimisation strategies. • Refer to Alternatives to bed rail use for falls risk. • Half length bed rail(s).
<p>Functional decline</p> <p>Bedrail use limits activity, mobility and independence, leading to functional decline and risk from pressure injury.</p> <p>Deconditioning can lead to an increased risk of falls, through muscle weakness and unsteadiness.</p>	<ul style="list-style-type: none"> • People who are reluctant to mobilise, frail, passive or withdrawn. 	<ul style="list-style-type: none"> • Encourage regular activity and mobilising. • Physiotherapy and/or Occupational Therapist assessment.
<p>Distress</p> <p>The consumer may feel trapped, isolated, unnecessarily restricted, or a passive recipient of care.</p> <p>Carers may also feel distressed, and that the bed rail is a barrier to contact with their loved one.</p>	<ul style="list-style-type: none"> • People with a history of trauma, or dementia. • The use of physical restraints may be contraindicated for consumers at risk of, or with delirium as it may increase agitation and the chance that they will try to climb out of bed. This includes people with a cognitive impairment from dementia or other causes. 	<ul style="list-style-type: none"> • Lower bed rails when there are staff or visitors with the consumer. • Other strategies to reduce distress, such as family photos.

<p>Entrapment of limbs or head</p> <p>Entrapment is an incident in which a consumer, or their head or limb, is caught, trapped, or entangled in the spaces in or about the bed rail, mattress, or hospital bed frame. Entrapment can result in serious injury or death.</p>	<p>People who move about the bed or try to exit the bed, and:</p> <ul style="list-style-type: none"> • have reduced cognition and/or consciousness • have condition(s) that cause them to have uncontrolled body movement or limited mobility • have symptoms such as agitation, delirium, confusion, pain, hypoxia, faecal impaction, and acute urinary retention. <p>The risk of entrapment is also associated with:</p> <ul style="list-style-type: none"> • absent or inadequate care such as timely toileting, position change, symptom management and frequent nursing observation • physical factors such as design of bed, mattress and the bed rail, including: <ul style="list-style-type: none"> – mismatch between the size and shape of the mattress and the bed rails, such that there are spaces that can allow entrapment – loose or poorly fitted bed rails, or – bed rails with spaces that allow limbs or heads to pass through. 	<ul style="list-style-type: none"> • The correct rails for the bed should be used, and they should be installed correctly according to manufacturer's instructions. • Ensure the mattress is compatible with the bed and bed rails. • Ensure there are no gaps that could pose an entrapment risk to the occupant. For adult beds, gaps between bars/rails must be less than 120mm. Head/footboard to bed rail gaps must be less than 60mm or greater than 250mm. • Bed rails designed for adults should not be used for children. • Ensure that staff who install rails are aware of measuring for entrapment risk.
<p>Equipment failure</p> <p>Incorrectly fitted or damaged bed rails or ones that are of insufficient strength for the weight of the consumer, carry a risk of entrapment, collapse when leaned/pulled on, or injury to staff or consumer/consumer from faulty raising, lowering mechanisms etc.</p>	<ul style="list-style-type: none"> • Bariatric consumers. • Equipment and/or maintenance issues. 	<ul style="list-style-type: none"> • Schedules of maintenance. • Establish systems to ensure bed rails are regularly examined for wear and tear and maintained.

Table 3 Alternatives to bedrail use for falls risk

For further information refer to Falls and Fall Injury Risk Factor Assessment (MR58 or equivalent), and:

- Table 1 – Recommended actions for consideration.
- Guidelines for patient environment set-up.

Patient characteristic	Suggested alternatives to bedrails
<p>1. A history of falling, or previous fall from bed.</p>	<ul style="list-style-type: none"> • Establish contributing causes in previous bed-related falls, and care plan to manage and modify identified risk factors • Engage patient in falls prevention (SA Falls and Fall Injury Prevention – Fact Sheet 5: Keeping safe and independent in hospital) and use of call bell, if able to.
<p>2. The patient is at increased risk of injury or harm, should a fall occur.</p> <p>Risk factors for harm include:</p> <ul style="list-style-type: none"> • osteoporosis and/or existing fracture • existing wounds and/or poor skin healing • anticoagulant therapy • indwelling lines, devices • low Body Mass Index (BMI) 	<ul style="list-style-type: none"> • Soft hip protectors • Helmet • Limb/skin protectors • Provide patient information • Increase supervision, rounding • Move items of furniture that may cause harm in the event of a fall • When indicated, use padded bed rails for individuals with an active seizure or movement disorder.
<p>3. Condition(s) affecting patient/consumer behaviour, cognitive state, risk-taking, judgment or insight into own physical ability.</p> <p>For example, delirious or confused, intoxicated.</p>	<ul style="list-style-type: none"> • Increased supervision, rounding • Repeat orientation, use signs • Reduce background noise, clutter and distractions • Screen for delirium and treat reversible causes. Establish environment to reduce delirium – reduce sleep deprivation, immobility, dehydration, vision and hearing impairment • Provide opportunities for supervised mobility • Encourage family to visit often and stay as long as possible • Bed, chair alarms • Routine toileting • Leave bed in low position if there is a risk of rolling out of bed • Provide pain relief as appropriate • Treat constipation and urinary retention.
<p>4. Medication(s) that can affect reaction times, motor function, cause dizziness, postural drops in BP or drowsiness.</p> <p>For example, sedated, drowsy, semi-conscious, recovering from anaesthetic.</p>	<ul style="list-style-type: none"> • Medications review • Increase supervision, rounding • Bed, chair alarms • Provide patient information • Call bell within reach • Minimize use of medications that alter cognitive state • Dispense diuretics at a time when staff will be able to provide rapid response to toileting requests.
<p>5. A condition(s) or disability that affects patient's/consumer's ability to mobilise safely in bed and/or transfer steadily and safely.</p> <p>For example, muscle weakness, visual impairment, seizures or spasms, partial paralysis, obesity.</p>	<ul style="list-style-type: none"> • Bed mobility aids such as a bed stick or overhead bed aid • Physiotherapy/Occupational Therapist assessment • Bed, chair, commode heights and proximity • Use of one bedrail • Promote mobility and fitness.
<p>6. Consumer is afraid of falling out of bed and requests bedrails.</p> <p>OR Consumer requests bed rail to assist with bed mobility eg stroke patients.</p>	<ul style="list-style-type: none"> • Bed mobility aids such as bed stick or overhead bed aids (gooseneck /monkey bar) • Use of one bedrail or half rail.

SA Health policies, guidelines and publications

- Fall Injury Prevention and Safe Mobility Clinical Directive with SA Health Fall Injury Prevention and Management Clinical Guideline and toolkit.
- Minimising restrictive practices in health care Policy and Guideline.
- Preventing and Responding to Challenging Behaviour Policy and toolkit.
- Safety with hospital and treatment beds 2014 - WHS Safe Work Procedure (WFS SWP504).
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For more information

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