Enable NEW ZEALAND®

Complex Lateral Turning Equipment

Clinical Best Practice to Optimise Pressure Care and Safety

Presented by:

Dheshini Naidoo, Jolene Young, Pauline Lazarus and Lisa Brown
Clinical Service Advisors, Enable New Zealand

Karakia timatanga

Kia hora te marino	May peace be widespread
Kia whakapapa pounamu te moana	May the sea be like greenstone
Hei huarahi mā tatou i te rangi nei	A pathway for us all this day
Aroha atu, aroha mai	Let us show respect for each other
Tātou i a tatou katoa	For one another
Hui e, Tāiki e!	Bind us all together!

Enable NEW ZEALAND

Introductions

Jolene Young

Occupational Therapist
Wheelchairs, seating, equipment and housing
Phone: (03) 740 3912
Email: jolene.young@enable.co.nz

Lisa Brown

Occupational Therapist
Housing and equipment
Phone: (03) 740 3911
Email: lisa.brown@enable.co.nz

Pauline Lazarus

Clinical Services Advisor
Physiotherapist
Phone: (07) 843-9181

Dheshini Naidoo

Clinical Services Advisor
Occupational Therapist
Phone: (07) 981 1369

Objectives

- Build confidence in prescribing complex turning equipment.
- Share current international guidelines, and findings from our literature review.
- Provide clinical insights from recent equipment requests.
- Apply the Internal Classification of Function (ICF) framework (WHO, 2001) to guide assessment and analysis .
- Discuss clinical reasoning processes to support equipment prescription.
- Present a comparison chart with available equipment options.
- Facilitate a forum for discussion and Q&A.

Enable NEW ZEALAND

Turning Systems Available in Aotearoa

Automated	Requires x1 carer support
TurnAll (Levabo) (Active Healthcare n.d) 	TurnAid (Cubro n.d) 
Toto (Cubro n.d) 	Vendlet (Cubro n.d) 
Sapphire Comfort Turn (Arjo n.d) 	

Enable NEW ZEALAND

International Guidelines

(International Guideline, 2025)

Positioning the individual in bed - Implementation Considerations

Some full body support surfaces offer **automated lateral turning**. These are available in integrated bed/mattress systems or as devices that can be positioned on an existing full body support surface.

There is **limited evidence on the efficacy of these devices on PI occurrence**; however, they **may be appropriate** for individuals **requiring frequent repositioning** (e.g., in critical care settings) or for individuals who have **limited access to assistance to reposition** (e.g., in home care settings) (23, 88, 89).

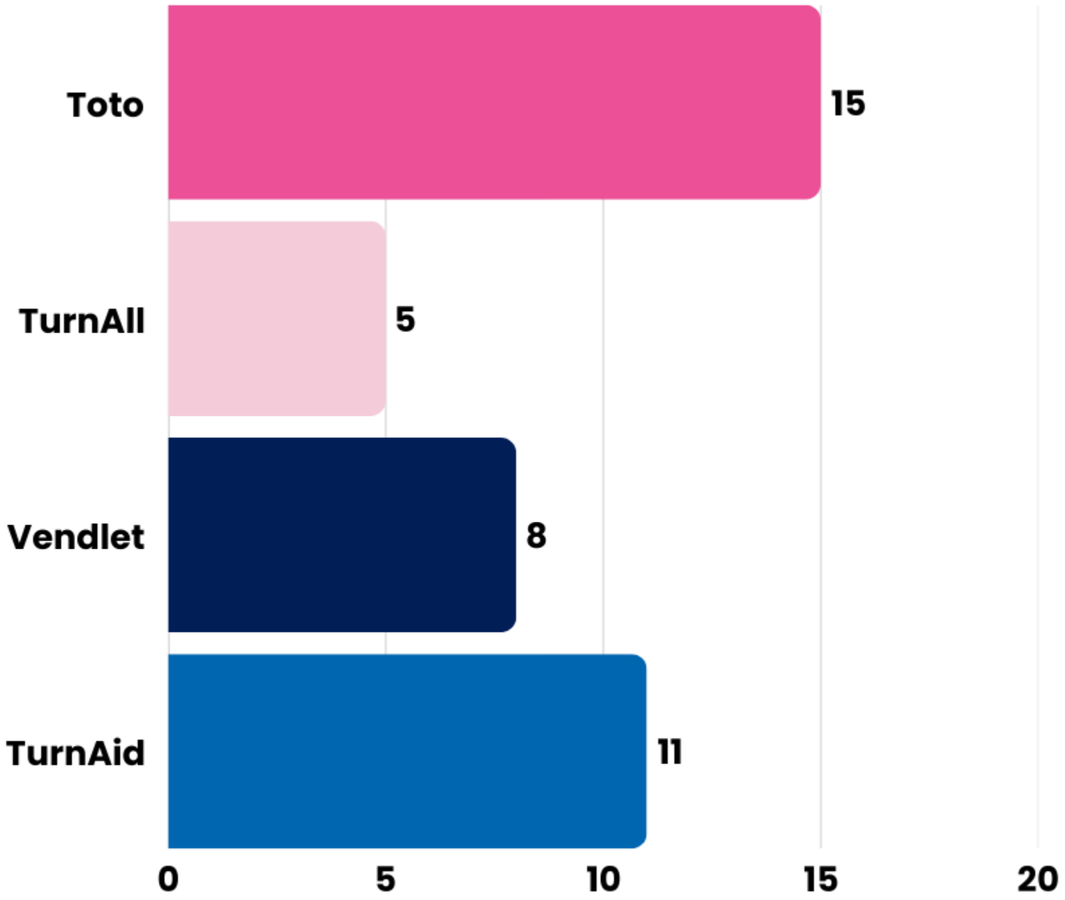
Enable NEW ZEALAND®

Our Literature Search

Journal Article	Type of research & participants	Intervention	Outcome	Limitations
An automatic repositioning system to prevent pressure ulcers: a case series *Knibbe et al 2017* *British Journal of Nursing*	• Case series • Residents in 2 Residential Care Facilities.	• 4 weeks use of **Vendlet** V5. • Re-positioning protocol was individualised for each person. Measurements - • Skin checks 2x/week. • Self-report of carer musculoskeletal symptoms	• **Only 1 nurse** was required to reposition using the Vendlet. • **Fewer carer musculoskeletal symptoms** were reported. • The authors indicated that no new PIs developed and that 4 pre-existing PI's healed during the experiment.	• **n = 13** residents • **Potential for bias** as no blinding, randomisation and control group. • Outcome measures not proven to have reliability or validity.
Real-world experience of using the **ToTo** Lateral Turning System in a busy spinal unit: benefits and tips in practice. *Rebecca Warren and Gemma Kerr 2019, Wounds UK*	• Product evaluation at Rehab centre (15 acute and 31 rehab beds). • Used with patients unable to independently turn. • Not used if there was an existing PI.	• Use of **Toto** lateral turning system as standard practice for reducing risk of pressure damage. • Used for suitable and willing patients**.**	• Overall **positive feedback** by patients and staff. • Toto much **less disruptive on sleep** vs manual repositioning. • Sometimes improved **comfort.** • **Reduces staff time** taken to reposition people.	• Article is a narrative/**opinion**. • The authors indicate the Toto turning system is clinically effective, however they have **not referenced** this statement.

Review of Solutions Proposed

Request Number



Diagnoses & situation

TurnAll & Toto:

- Recent C3/4 Spinal Cord Injury (SCI)
- SCI years ago, on bed rest due to a pressure injury.
- DSS Funding - predominantly neurological conditions and 50% had an active pressure injury.

Vendlet & TurnAid:

- Clients fully dependent for cares, bed mobility & transfers
- Diagnoses usually Tetraplegia, Brain Injury or other neurological condition.

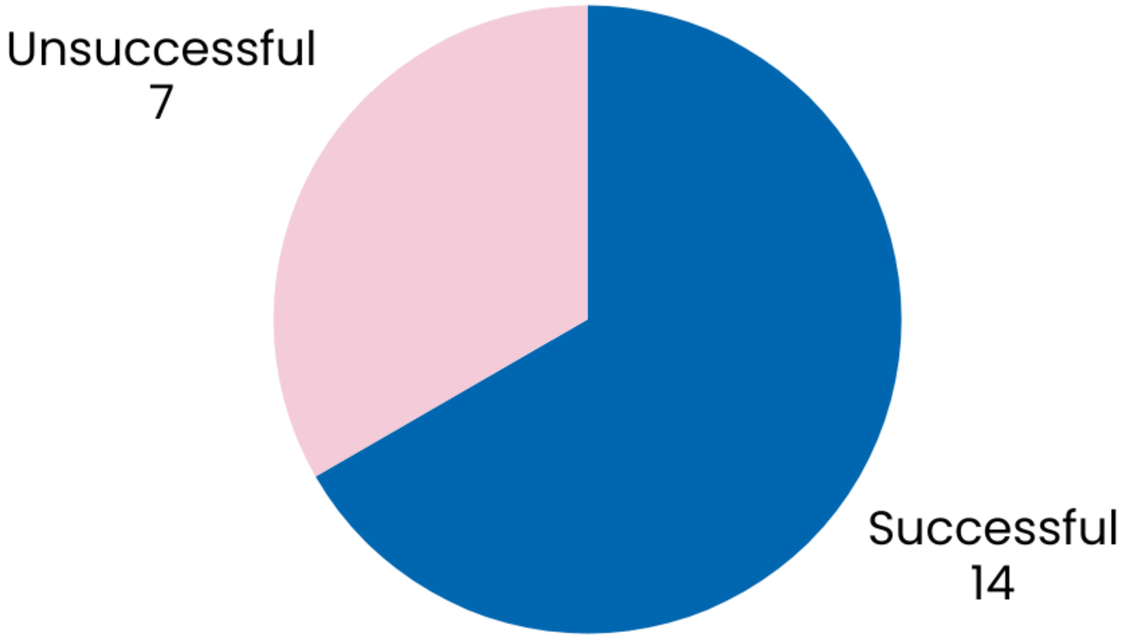
Enable NEW ZEALAND

Goals When Prescribing Equipment

TurnAll/Toto	Vendlet/TurnAid
Night pressure redistribution/offload PIs(15)	Reduce demand on carers (9)
Reduce need for manual handling and carers overnight (14)	More comfortable than manual repositioning (5)
Reduce sleep disturbance & improve sleep (4)	Meet repositioning needs (2)
Avoid shear (2)	Repositioning with just 1 carer (1)
	Reduce shear (1)

Enable NEW ZEALAND

Outcomes of trial – TurnAll & Toto



Successful

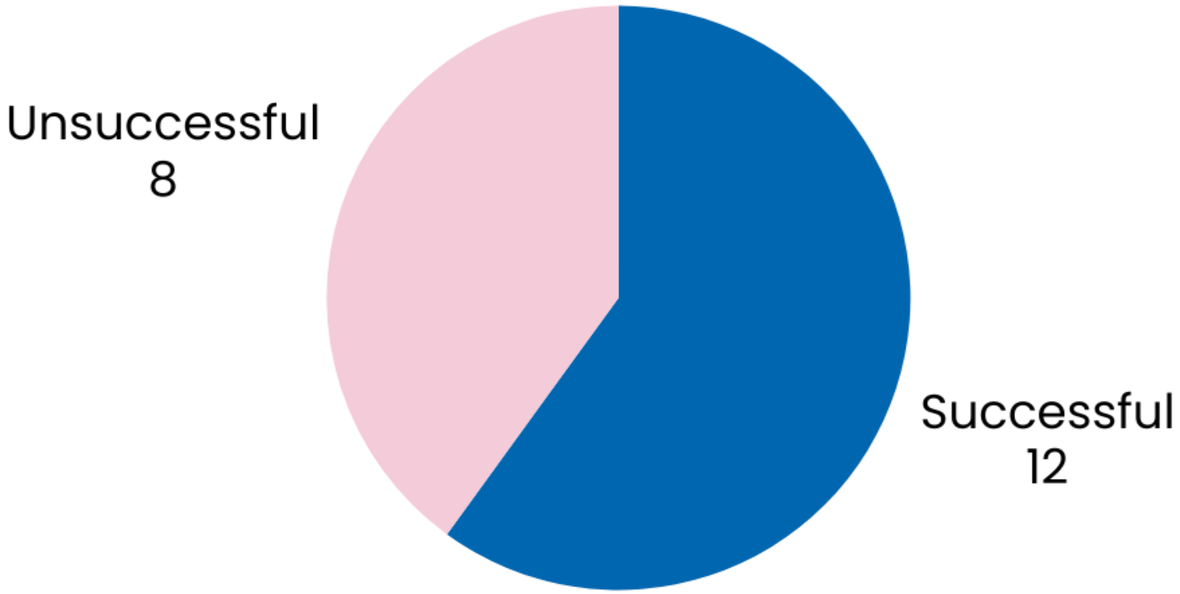
- No longer waking for repositioning
- Improved sleep
- Pressure injuries improved
- effective for individuals with low body weight
- effective for individuals with shoulder pain affecting bed mobility.

Unsuccessful

- Body weight over 120kg - felt unsafe and unable to use the whole mattress
- Did not tolerate the mattress movement
- Did not want to sleep in supine.

Enable NEW ZEALAND

Outcomes of trials – Vendlet & TurnAid



Successful

- Turnaid more robust than Vendlet
- Reduced carer reach using Vendlet
- Vendlet - can lower rail at one end and leave it up at the other end
- worked for people with higher body weight.

Unsuccessful

- Vendlet motor hits floor if used on ultra low beds.

Enable NEW ZEALAND

Our Review - Summary

- Lateral turning devices could also be considered when pressure injuries are not resolving.

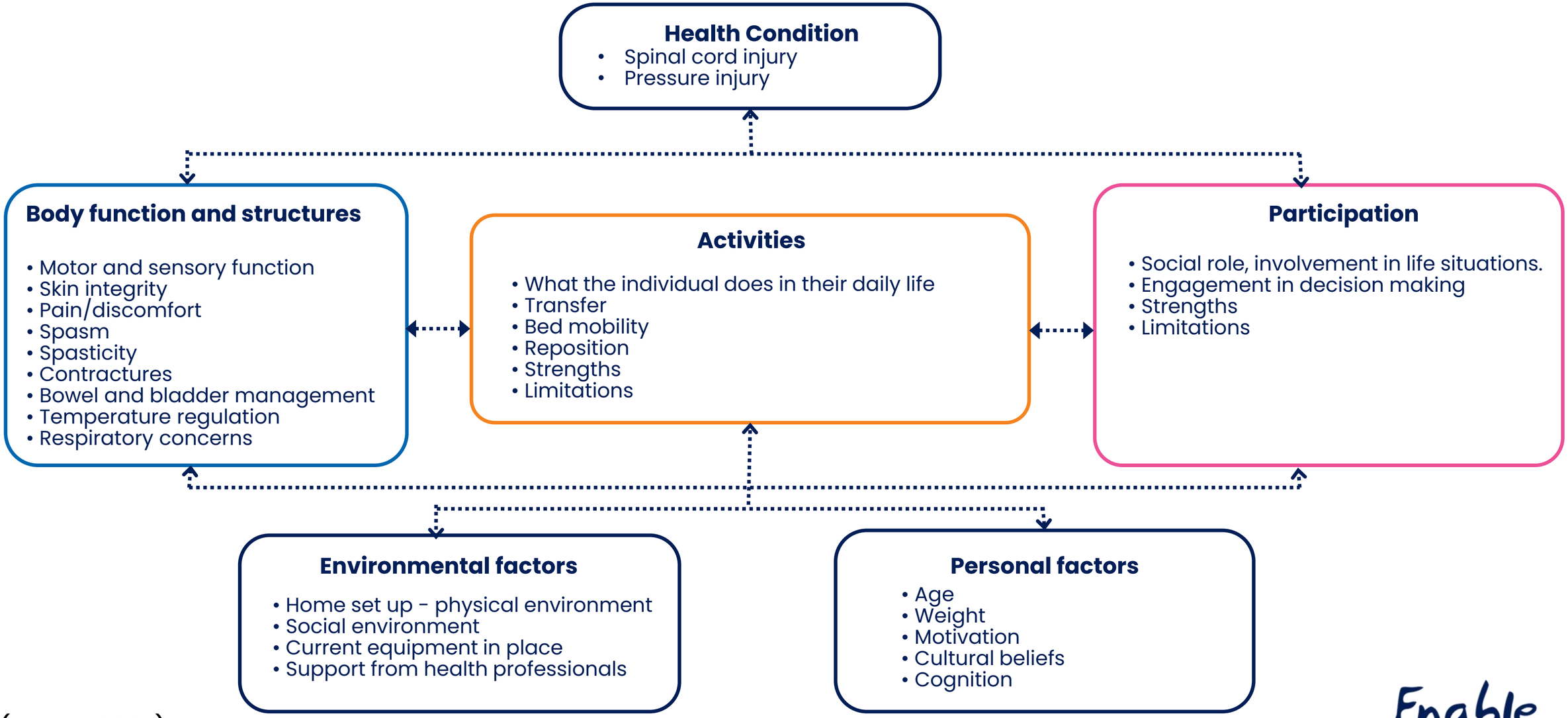
- The TurnAll and Toto may also improve the persons sleep, assist with their nighttime comfort, and allow their carers to sleep through the night.

- The TurnAid and Vendlet may reduce overnight carers from 2 to 1 person, reduce carer musculoskeletal strain and improve the persons comfort when being re-positioned.

- Ongoing skin checks remain essential if equipment is put in place long term

Enable NEW ZEALAND

Assessment using the ICF framework



(WHO, 2001)

Enable NEW ZEALAND

Clinical Reasoning

- What are the client and whānau/carer goals?
- What am I aiming to achieve or improve for the client?
- What are the clients current challenges/barriers?
- What supports and equipment have been considered and discounted?
  - supports within the home
  - low cost equipment
  - is the current mattress meeting their need.
- Proposed equipment – How will the complex lateral turning equipment benefit the client, and what positive changes will it bring?
- Does the solution meet an essential need and represent value for money?

Enable NEW ZEALAND

Comparison Chart

Product name	Image	Safe working load (kg)	Supplier and Product Details
TurnAll (Levabo)		225kg Bariatric mattress: 300kg	Supplier: Active Healthcare Product Details: • To be used between the bed base and mattress • 30 degrees of lateral tilt with 5 degrees opposite side support • Cycle time: 30min, 60min and 90min intervals • Side isolation: Can isolate turning to just one side via an adapter (separate item in quote) Dimensions: • W850mm x L2000mm • Bariatric mattress: W1100mm x L2000mm Website link: https://activehealthcare.co.nz/products/pressure-care/pressure-relief-aids/turnall/ Active Healthcare video link: https://activehealthcare.co.nz/webinar/ (password: active)
Toto Lateral Turning System		250kg	Supplier: Cubro Product Details: • To be used between the bed base and mattress • 25 degrees of lateral tilt • Cycle time: 30min, 60min, 120min, 180min, 240min • Side isolation: turning can be isolated to a single side if required • Recommended to be used with side rails

Enable NEW ZEALAND

Future Reseach and Clinical Questions

The Guideline Governance Group noted the following future clinical questions for potential/future address in the guideline:

- *Should an automated repositioning device (e.g. lateral tilt device) versus manual repositioning be used to prevent pressure injury occurrence in individuals at risk?*

- *Should repositioning turn systems versus not using a turn system be used to prevent pressure injury occurrence in individuals at risk?*

(International Guideline, n.d.)

Enable NEW ZEALAND

Key Points

- The International Guidelines state limited evidence of the efficacy of automated lateral turning device on pressure injury occurrence and highlights the need for further research in this area.

- Our review of complex turning equipment demonstrated effectiveness in pressure injury management, reducing carer burden, and improving comfort and sleep.

- A comprehensive assessment and sound clinical reasoning are essential.

- Refer to the new 2025 PI clinical practice guideline for latest evidence-based practice.

Enable NEW ZEALAND

Feedback

Help us to support you with education opportunities you want and need

These presentations are to support your learning and development.

We want to hear what areas you would like to explore.

We welcome any comments or feedback about today's session.

https://www.surveymonkey.com/r/QP56PBC

Scan the QR code or click the link to answer

Enable NEW ZEALAND

Questions / Contact details

Email to gain clinical input: -

ACC Assessors: acc.advisor@enable.co.nz

DSS Assessors: CSA@enable.co.nz

Email for general queries -

enable@enable.co.nz

Phone - 0800 362 253

Enable NEW ZEALAND

Closing Karakia

Kia whakairia te tapu

Kia wātea ai te ara

Kia turuki whakataha ai

Kia turuki whakataha ai

Haumi e, Hui e, Tāiki e!

Restrictions are moved aside

So the pathways are clear

To return to everyday activities

Enable NEW ZEALAND

References

- Active Healthcare. (n.d.). TurnAll pressure relief aid. https://activehealthcare.co.nz/products/pressure-care/pressure-relief-aids/turnall/
- Arjo. (n.d.). Sapphire Comfort Turn. https://www.arjo.com/en-gb/products/pressure-ulcer-prevention---pup/alternating-pressure/sapphire-comfort-turn/
- Arjo. (n.d.). Pressure injury/ulcer prevention: Understanding the science of support surfaces [Webinar]. Arjo. https://www.arjo.com/en-au/knowledge/global-webinars/pressure-injuryulcer-prevention-understanding-the-science-of-support-surfaces/
- Cubro. (n.d.). Cubro healthcare solutions. https://www.cubro.co.nz/
- International Guideline. (2025, February 25). Repositioning for pressure injury prevention. https://internationalguideline.com/repositioning#s2_info
- International Guideline. (n.d.). Future research. https://internationalguideline.com/future-research
- Knibbe, H., et al. (2017). An automatic repositioning system to prevent pressure ulcers: A case series. British Journal of Nursing, 26(15), S6–S12.
- Warren, R., & Kerr, G. (2019, October 31). Real-world experience of using the ToTo Lateral Turning System in a busy spinal unit: Benefits and tips in practice. Wounds UK, 15(5). https://wounds-uk.com/journal-articles/real-world-experience-of-using-the-toto-lateral-turning-system-in-a-busy-spinal-unit-benefits-and-tips-in-practice/
- World Health Organization. (n.d.). International classification of functioning, disability and health (ICF). https://www.who.int/standards/classifications/international-classification-of-functioning-disability-and-health

Enable NEW ZEALAND