

Organisational models for chronic wound management in NSW

An evidence summary

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At a glance

The provision of wound care by health professionals can vary significantly across local health districts in NSW. This report summarises the research and experiential evidence around organisational models to deliver chronic wound care and prevention.

A chronic wound is one that has failed to heal in a timely manner, despite standard care. A chronic wound can have a serious impact on a person's health and wellbeing.

Types of chronic wounds include arterial ulcers, venous ulcers, pressure injuries (bed sores), ulcerated and fungating malignant wounds and infected wounds (including surgical site infections).

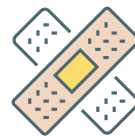
Improving key priority areas



Risk identification and prevention



Ongoing holistic assessment



Treatment and management plan



Enablement and partnerships

Organisational models for wound care across different health settings

Home-based	Community	Primary care	Hospital care	Residential aged care	Across settings and health system
Home-based telemedicine	Outpatient wound clinics	GP wound clinics	Nurse-led care	Local champions	Informal carers
Hospital-in-the-home	Nurse-led care	Primary care centred model	Multi-disciplinary care	Advanced practice nursing	Integrated, holistic diabetic foot care
	Social model of care		Specialist vascular services		
			Patient-centred surgical wound care		
			Local champions		

Legend

- Research literature
- Experiential evidence
- Both evidence sources

Key findings

Evidence has been collated from three main data sources.

1. A rapid review of the literature based on searches of PubMed, Google, Google Scholar, Cochrane Library and ClinOwl.
2. An online questionnaire completed by health professionals who provide wound care.
3. Interviews and focus groups with healthcare consumers and carers.

What works according to the research literature	What consumers and carers report works best for them	What health professionals say promotes healing
<ul style="list-style-type: none"> • Models of care identified in peer-reviewed literature reported clinical efficacy, including improved wound healing, reduced risk of amputation, injury, mortality rates and pain • Community-based models of care, including social groups and nurse-led care, also reported improvements in quality of life, patient satisfaction and cost-effectiveness • Expert guidance draws on international recommendations. These include: <ul style="list-style-type: none"> – organisation and delivery of integrated wound care – collaborative approach – transdisciplinary care – wound clinics – upskilling clinicians – patient-centred delivery of care, using best practice – implementing a standardised approach across districts and networks 	<ul style="list-style-type: none"> • A multidisciplinary care approach that is sensitive to the trauma experienced by a person with a chronic wound • Primary care focused wound care and dressings in the home • Continuity and consistency of care flowing through in-patient settings to the community, including general practice and local pharmacies • Access to quality products at low cost • Assessment of mental health, wound-related pain, grief and daily life impacts • Information and resources to guide self-management in a holistic way 	<ul style="list-style-type: none"> • Multidisciplinary approach with rapid access to specialist wound care • Community nurse-led approaches and wound champion models • Continuity across settings and roles supported by written and visual documentation of wound history, progress and treatment • Access to quality products

Models of care in the research literature

Overview

- **Home-based telemedicine for wound care**, including remote telemonitoring and teleconsultations (real-time medical consultation between a patient and a healthcare professional using an electronic network, such as the internet).
- **Community-based social model of care**, specifically The Lindsay Leg Club, a community-based social model of care for chronic leg wounds in 30 locations, predominantly in the United Kingdom (UK).
- **Nurse-led wound care in various care settings**, including in the community, wound centres, residential aged care and hospitals.
- **Multidisciplinary wound care team**. This lacked a standard definition in the peer-reviewed literature. In the studies included in this review, multidisciplinary team refers to at least two healthcare professionals from different disciplines caring for patients and using a coordinated approach.
- **Care delivered by informal carers**. This was found to be infrequently represented in wound care research. The experience of informal carers, who made significant contributions to patient care in relation to wounds, comprised only a small component of findings.
- **Hospital-in-the-home care compared to in-patient care**. The available evidence was of poor quality.

Table 1: Summary of peer-reviewed evidence on effective models of wound care

Care setting	Models	Population and wound type	Outcomes		
			Clinical efficacy	Quality of life, patient and carer experience	Cost effectiveness
Home-based	Home-based telemedicine	Chronic wounds (unspecified)	Reduces risk of amputation		Reduced costs
	Hospital-in-the-home care*	Diabetic foot ulcers	Reduced mortality rates significantly		
Community-based	Social model of care (UK)	Chronic leg wounds	Improved ulcer healing Reduced recurrence and pain	Improved mood, sleep, quality of life Viewed positively by patients and nurses	Cost effective
	Nurse-led wound care		Improved wound healing Reduced pain	High level of client satisfaction	Cost effective
Residential aged care	Advanced practice nursing	Pressure injury	Reduced presence of injury or incidence		
Hospital setting	Multidisciplinary wound care team	Diabetic foot ulcer	Reduced major amputations Improved outcomes for severity of amputations, death rates, length of hospital stay and ulcer healing	Improved quality of life	
	Multidisciplinary specialist vascular limb salvage services	Peripheral arterial disease and infection	Reduced major amputations Non-significant changes in minor amputations and mortality rates		
	Nurse-led care	Pressure injury	Reduced risk		
All	Care delivered by informal carers*				

*Inconclusive evidence on effectiveness due to lack of, or poor-quality, evidence.

Expert guidance

International guidelines and recommendations on the prevention and management of chronic wounds favour a patient-centred, holistic and integrated approach that is responsive to the needs of patients and families. Guidance was provided by international, Australian, New Zealand, Canadian and United Kingdom organisations on the following models and approaches to chronic wound management and care. (Table 2).

Table 2: Guidance from expert organisations on models of wound care and management

Chronic wound (unspecified)			
Australia and New Zealand	UK	Canada	International
<ul style="list-style-type: none"> • Telemedicine for people who live outside of metropolitan areas • Transdisciplinary outpatient clinics • A general practice-based wound clinic • A stepped-care approach for wound management, upskilling general practitioners and practice nurses • Wound management in primary healthcare, with general practice at its core, as a priority • Champions for Skin Integrity (local champions) • An overarching model of care across all districts and networks that is responsive to patient and family needs • Standardised integrated wound management, based on evidence-based, collaborative and comprehensive care and assessment 	<p>A social model of care addressing broader influences on health</p>	<p>Patient-centred wound care using a customised plan for the prevention and management of wounds</p>	<ul style="list-style-type: none"> • Home-based wound care using the Chronic Care Model for self-management support for patients and carers • Implementing a team approach to wound care within all clinical settings
Diabetic foot and leg			
Australia and New Zealand	UK	Canada	International
	<p>A framework for the development of local care-delivery plans including evidence-based care and workforce training</p>		<ul style="list-style-type: none"> • Integrated care combining regular foot care and examination by an adequately trained professional, structured education and adequate footwear • Integrated care using a multidisciplinary footcare team and patient footcare education • A well-organised, multidisciplinary team that uses a holistic approach • A patient-centred approach that encompasses the entire patient surgical journey

How to meet the needs of consumers with chronic wounds

Consumers described how a chronic wound impacts every part of their lives. When movement and mobility became increasingly difficult, it affected employment, health, relationships and leisure. Most consumers identified the importance of assessing how this impacted their mental health, wound-related pain, grief and daily life.

Consumers identified the need for, and benefits, of:

- a multidisciplinary and trauma-informed approach
- primary care-focused wound care and dressings in the home.

They also identified the importance of continuity and consistency of care starting from an in-patient setting and flowing through to the community, including general practice and local pharmacies.

Consumers also outlined how they engage with the community pharmacist in care planning. Pharmacists help to review contraindicated medications, assist with pain relief, suggest vitamins and supplements to enhance healing and oversee the correct use of wound care products.

The following seven themes were identified by consumers as important, regardless of the model:

1. Continuity and consistency of care
2. Impact on life
3. Mental health impacts
4. Wound-related pain
5. Consumer information for wound management
6. Comorbidities
7. Access to wound care.

Quotes from consumers

“I was a good golfer but I won’t play golf again. I don’t walk much now. The paper shop is a six-minute walk and I can’t walk there. Now, I watch too much TV and I eat cheese and biscuits. I’m putting weight on. I’ve never been, and don’t want to be obese, but I can’t walk.”

“The wound nearly healed and then the community nurse would change and the treatment would change ... [the nurse would say] we won’t do that anymore. Every week there would be a change with little evidence as to why.”

“I was actually quite depressed at times because things add up. It’s the little things, like you couldn’t get into a nice, long shower and enjoy it because I was constantly checking that the dressing was intact and no water was getting in.”

“Amputation is not an equal option for good wound treatment. Better wound care and pain relief could improve wound care and overall quality of life.”

“We meet every Friday down at the club and we chit chat ... about depression, wounds, weight. I look for information to share with the group. If you don’t look and research, you won’t learn. It’s difficult to get information.”

What health professionals need to improve the treatment of chronic wounds

Health professionals described several models for wound management, including:

- multidisciplinary and interdisciplinary teams
- wound care clinics
- specialist care
- primary care
- community nurse-led approaches
- wound champion models.

Health professionals identified a cohesive multidisciplinary team that communicates effectively across all care settings as essential to improving the outcomes for chronic wounds. These multidisciplinary teams may draw on the expertise of a range of health professions, including:

- nursing (tertiary and community)
- medical, surgical and general practice
- nutrition and dietetics
- psychology
- occupational therapy
- physiotherapy
- social work
- podiatry
- pharmacy
- Aboriginal health.

Some health professionals suggested that using telehealth could remove barriers to patients accessing specialist wound care. It would also improve collaboration between disciplines.

The following components of quality wound management were identified regardless of the model:

- rapid processes for diagnosis, referral and triage
- comprehensive assessment
- coordinated treatment
- access to quality products.

Photographs of the wounds were considered a useful addition to written documentation as they assisted with diagnosis and monitoring of progress.

Access to quality products, the correct use of products and the cost of products are common challenges to wound management.

Quotes from health professionals

“Centralised service wound clinic patients to be triaged by clinical experts and referred to relevant specialities if required will prevent over-servicing in some instances and more timely access to expert wound management advice to achieve the patient’s goals.” Nurse

“It is not enough to ‘fix’ wound management in hospitals as the majority of chronic wound management is occurring outside of the hospital.” Doctor

“We have worked hard on our handover and clinical communication over the last months to provide more continuity of care for our clients. Many of our staff are part time, so information was being lost, though now we have significantly picked up our game.” Nurse

References

For more information and the reference list please see the following detailed reports.

- ACI Organisational models of care for chronic wound - evidence check; experiential evidence: healthcare consumers and carers. aci.health.nsw.gov.au/_data/assets/pdf_file/0004/658687/ACI-Evidence-Check-Chronic-Wound-Experiential-Consumers.pdf
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Acknowledgements

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The Agency for Clinical Innovation (ACI) is the lead agency for innovation in clinical care.

We bring consumers, clinicians and healthcare managers together to support the design, assessment and implementation of clinical innovations across the NSW public health system to change the way that care is delivered.

The ACI's clinical networks, institutes and taskforces are chaired by senior clinicians and consumers who have a keen interest and track record in innovative clinical care.

We also work closely with the Ministry of Health and the four other pillars of NSW Health to pilot, scale and spread solutions to healthcare system-wide challenges. We seek to improve the care and outcomes for patients by re-designing and transforming the NSW public health system.

Our innovations are:

- person-centred
- clinically-led
- evidence-based
- value-driven.

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