

STANDARD 8: DIGITAL PLATFORMS AND TECHNOLOGIES

Digital platforms and technologies are used to facilitate the delivery of evidence based wound prevention and management.

Rationale

Digital health platforms and technologies are rapidly advancing. This includes physical technologies that are used to perform wound assessment, prevention and management, as well as technologies that transmit and broadcast wound-related information on a one-to-one basis (e.g., telehealth consultations) or more broadly (e.g., social media). It is important that wound care practitioners and wound service providers navigate the moral, ethical and social responsibilities associated with using digital technologies, as well as attain proficiency in using new technologies as they emerge.

Criteria for wound care practitioners

To meet the criteria for the *Digital Platforms and Technologies Standard*, the wound care practitioner:

8.1. Accesses and delivers telehealth in a manner consistent with professional standards and regulatory requirements.

Evidence criteria

- 8.1.1. Assesses the individual and the clinical situation to determine the appropriateness of using a digital telehealth platform.¹⁻⁴
- 8.1.2. Implements digital wound care consultations in a way that enables consent, privacy, confidentiality and data security.^{1, 4-8}
- 8.1.3. Documents telehealth care using a structured approach that promotes integrity of data.^{1, 4-6}

8.2. Delivers telehealth in a manner consistent with best practice in wound assessment, prevention and management.

Evidence criteria

- 8.2.1. Uses telehealth platforms in a way that promotes evidence-based wound assessment, prevention and management.²
- 8.2.2. Integrates telehealth consultations with in-person wound care to achieve optimal clinical outcomes.^{2, 4, 5}

8.2.3. Delivers telehealth in a manner that promotes collaborative and therapeutic relationships.^{2-5,9}

8.3. Implements digital technologies (e.g., photography) in a manner consistent with performing effective wound assessment, prevention and management.

Evidence criteria

8.3.1. Evaluates safety and efficacy of new technologies before implementing them in wound assessment, prevention and treatment.⁴

8.3.2. Undertakes training before using digital devices/technologically advanced equipment.^{4,6}

8.3.3. Considers the consent, dignity and privacy of the individuals when undertaking digital recording, photography.⁶

8.3.4. Performs digital photography/recording in a manner consistent with achieving a repeatable and comparable image for initial assessment and ongoing monitoring.⁶

8.3.5. Records and stores the digital wound assessment accurately.⁶

8.3.6. Uses a consistent method to assess a wound via digital record, particularly when the wound was not also evaluated in-person (e.g., when comparing serial wound photographs or assessing wounds documented via telehealth).¹⁰

8.4. Uses social media and other digital platforms in a professionally responsible manner.

Evidence criteria

8.4.1. Protects the privacy of patients, their family carers, colleagues and employers when using social media and other digital platforms.^{7,11-13}

8.4.2. Observes ethical and professional boundaries and obligations when using social media and other digital platforms.^{7,11-14}

Criteria for wound service providers

To meet the criteria for the *Digital Platforms and Technologies Standard*, the wound service provider:

8.5. Facilitates access to telehealth when it is appropriate to enable access to wound assessment, prevention and management.

Evidence Criteria

8.5.1. Has policies and procedures outlining the context in which telehealth will be used and procedures outlining its implementation.^{1,5,15}

8.5.2. Maintains technology systems that ensure that telehealth can be delivered securely, privately and confidentially.^{1,2}

8.5.3. Provides access to technology support services.³⁻⁵

8.5.4. Facilitates education on delivery of telehealth, including use of supportive digital technologies (e.g., cameras).^{1-3,5}

8.6. Facilitates use of digital technologies to enable accurate wound assessment, prevention and management.

Evidence Criteria

8.6.1. Supports the use of evidence-based digital technologies in the wound service.^{4,6}

8.6.2. Provides access to reliable photographic and recording equipment.⁶

8.6.3. Facilitates education and training when introducing new digital technologies to the wound service.⁴

8.7. Promotes responsible use of social media and other digital platforms.

Evidence Criteria

8.7.1. Provides guidance on the use of personal devices, social media and other digital platforms within the wound service.

Related resources

Australian Nursing Federation, Telehealth Standards: Registered Nurses. 2013, Australian Nursing Federation: Australia	S
Ahpra and National Boards, Social media: How to meet your obligations under the National Law. 2019, Ahpra: https://www.ahpra.gov.au/Publications/Social-media-guidance.aspx	P
Chen L, Cheng L, Gao W, Chen SD, Wang C and Ran X. Telemedicine in chronic wound management: Systematic review and meta-analysis. JMIR Mhealth Uhealth,2020; 8 (6): p. e15574.	R
Moore Z, Angel D, Bjerregaard J, O’Connor T, McGuinness W, Kroger K, Schnack Brandt Pasmussen B and Bonet Yderstraede K. eHealth in Wound Care: From conception to implementation. J Wound Care, 2015. 24(5): p. S1–S44.	P
Piaggese A, Läuchli S, Bassetto F, Biedermann T, Marques A, Najafi B, Palla I, Scarpa C, Seimetz D, Triulzi I, Turchetti G and Vaggelas A. EWMA document: advanced therapies in wound management: cell and tissue based therapies, physical and bio-physical therapies smart and IT based technologies. J Wound Care, 2018. 27 (6 Suppl 6).	P

Background and Context

The rapid development of technologies in all areas is mirrored in health and wound care. Technological advance offers opportunities for more cost effective and timely delivery of wound care, with potential to eliminate redundancy, reduce variability, reduce errors, increase data access and promote greater time for the wound care practitioner to establish a therapeutic relationship with the individual and their carer.¹⁶

The *Digital Platforms and Technologies Standard* refers specifically to digital technologies that are commonly used in Australian wound practice at the time of publication. Recent reviews indicate that the most used digital technologies are photography and other digital imaging, and telehealth.^{3, 4} Advanced wound measurement technologies (e.g., digital photography, digital software planimetry, 3D wound mapping) are becoming ubiquitous in well-resourced areas.¹⁷ Other digital technologies support telecommunications (e.g., telehealth) and have improved the access of individuals in rural and remote areas to specialised general and wound-related care. However, many emerging technologies are being explored and adopted; for example, sensorised wound dressings, biophysical therapies, and nanotechnology-based therapy.³ The broad principles outlined above, including maintaining professional, legal and ethical obligations, developing frameworks and guidelines for new resources and ensuring appropriate education and training, remain relevant to the introduction of other new technological advances.

The intersect between wound care and telehealth

Increasingly, digital technologies are being used to enable access to health care (including wound care).³ Telehealth uses telecommunication technologies to facilitate remote delivery of health advice and health care.^{2-4, 18} Telehealth presents an opportunity to connect more personally with an individual and their family carer when it is not possible to physically meet. As audio-visual technologies rapidly advance, and telecommunication technologies improve in ability to rapidly transmit data, telehealth is being used across Australia to connect wound care practitioners with consumers.¹⁹ Telehealth services provide an option for people living in rural and remote regions, people living in regions with poor access to specialists, out-of-hours care and in more exceptional circumstances (e.g., during pandemics). Telehealth may be delivered in real-time (e.g., using web-conferencing platforms) or as a “store and forward” consultation in which information is conveyed across time (e.g., via email).³ A recent systematic review that included world-wide data demonstrated that wound care delivered via telehealth is associated with no significant difference in clinical outcomes compared with in-person wound care. This included no statistically significant difference in wound healing and amputation rates.¹⁹ However, the use of telehealth should be balanced with the potential impact on the accuracy of assessment, delivery of wound care and the therapeutic relationship.¹⁸ For wound care practitioners and wound service providers, video conferencing and other internet-based platforms also offer opportunity for increased connectedness with colleagues, peers and other specialists for consultation and education.³

Although telehealth provides opportunities for greater connectedness with individuals with a wound, family carers and the multidisciplinary team, the use of digital platforms does not change the obligation to maintain professional and clinical standards in wound care delivery.⁵ As noted in the *Digital Platforms and Technologies Standard* above, additional safeguards may be required to maintain privacy and confidentiality. Consideration of the physical environment, technological capabilities and education needs for all telehealth participants should be addressed when establishing services.

Digital information

A significant number of individuals access information via the internet; however, sources are not always complete, accurate, reliable or evidence based. An important role for regulated health

professionals and unregulated health care workers is educating individuals in appraising the reliability of information sources, identifying sound educational websites (e.g., government, university or health care organisation sites) to access, and discussing information that individuals have located to ensure it is reliable and accurately understood.²⁰

References

1. Australian Nursing Federation. 2013. Guidelines for Telehealth On-Line Video Consultation Funded Through Medicare. Australian Nursing Federation: Australia.
2. Australian Nursing Federation. 2013. Telehealth Standards: Registered Nurses. Australian Nursing Federation: Australia.
3. Piaggese A, Läuchli S, Bassetto F, Biedermann T, Marques A, Najafi B, Palla I, Scarpa C, Seimetz D, Triulzi I, Turchetti G, and Vaggelas A. EWMA document: advanced therapies in wound management: cell and tissue based therapies, physical and bio-physical therapies smart and IT based technologies. *J Wound Care*, 2018; 27 (6 Suppl 6).
4. Moore Z, Angel D, Bjerregaard J, O'Connor T, McGuinness W, Kroger K, Schnack Brandt Pasmussen B, and Bonet Yderstraede K. eHealth in Wound Care: From conception to implementation. *J Wound Care*, 2015; 24(5): S1-S44.
5. American Nurses Association. 2019. Core Principles on Connected Health (Principles). ANA: Silver Spring, MD.
6. Institute of Medical Illustrators. 2019. IMI National Guideline – Wound Management Photography. Institute of Medical Illustrators: London, UK.
7. Ahpra and National Boards. 2014. For Registered Health Practitioners: Code of Conduct. Ahpra: <https://www.ahpra.gov.au/News/2014-02-13-revised-guidelines-code-and-policy.aspx>
8. Australian Government Department of Health. 2020. Factsheet -Privacy Checklist for Telehealth Services. Australian Government Department of Health; [http://www.mbsonline.gov.au/internet/mbsonline/publishing.nsf/Content/F47F4FC1848FAEC2CA25855D008395C9/\\$File/Factsheet-privacy-checklist-for-telehealth-services-20200804.pdf](http://www.mbsonline.gov.au/internet/mbsonline/publishing.nsf/Content/F47F4FC1848FAEC2CA25855D008395C9/$File/Factsheet-privacy-checklist-for-telehealth-services-20200804.pdf)
9. NSW Health. 2021. Wound care organisational models. NSW Government Agency for Clinical Innovation: https://aci.health.nsw.gov.au/_data/assets/pdf_file/0010/665128/Chronic-wound-care-organisational-models.pdf
10. 2010. Photographic Wound Assessment Tool PWAT–Revised (©Hodgkinson, Bowles, Gordy, Parslow, Houghton, 2010). NSW Government Agency for Clinical Innovation: https://aci.health.nsw.gov.au/_data/assets/pdf_file/0009/388242/21.-Photographic-Wound-Assessment-Tool-PWAT.pdf
11. American Nurses Association. 2011. Principles for Social Networking and the Nurse: Guidance for Registered Nurses. ANA: Silver Spring, MD.
12. Ahpra and National Boards. 2019. Social media: How to meet your obligations under the National Law. Ahpra: <https://www.ahpra.gov.au/Publications/Social-media-guidance.aspx>
13. Medical Board of Australia and Ahpra. 2020. Good Medical Practice: A Code of Conduct for Doctors in Australia. Ahpra: <https://www.medicalboard.gov.au/Codes-Guidelines-Policies.aspx>

14. Nursing and Midwifery Board of Australia. 2018. Code of Conduct for Nurses. Nursing and Midwifery Board of Australia: <https://www.nursingmidwiferyboard.gov.au/Codes-Guidelines-Statements/Professional-standards.aspx>
15. Kelahmetoglu O, Camli MF, Kirazoglu A, Erbayat Y, Asgarzade S, Durgun U, Mehdizade T, Yeniocak A, Yildiz K, Sonmez Ergun S, and Guneren E. Recommendations for management of diabetic foot ulcers during COVID-19 outbreak. *Int Wound J*, 2020; 17(5): 1424-7.
16. American Nurses Association. 2015. *Nursing: Scope and Standards of Practice*. American Nurses Association: Silver Spring, MD.
17. Mani R, Margolis DJ, Shukla V, Akita S, Lazarides M, Piaggese A, Falanga V, Teot L, Xie T, Bing FX, Romanelli M, Attinger C, Han CM, Lu S, Meaume S, Xu Z, and Viswanathan V. Optimizing technology use for chronic lower-extremity wound healing: A consensus document. *Int J Low Extrem Wounds*, 2016: 1-18.
18. Gethin G, Probst S, Stryja J, and Christiansen N. Evidence for person-centred care in chronic wound care: A systematic review and recommendations for practice. *J Wound Care*, 2020; 29(Supplement 9b): S4-S23.
19. Chen L, Cheng L, Gao W, Chen S, Wang C, and Ran X. Telemedicine in chronic wound management: Systematic review and meta-analysis. *JMIR Mhealth Uhealth* 2020 8(6): e15574.
20. European Pressure Ulcer Advisory Panel, National Pressure Injury Advisory Panel, and Pan-Pacific Pressure Injury Alliance. 2019. *Prevention and Treatment of Pressure Ulcers/Injuries: Clinical Practice Guideline*. ed. Haesler E. EPUAP/NPIAP/PPPIA.