

Advancing practice in holistic wound management: a consensus-based call to action

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Wound care consumes extensive healthcare resources (Cornforth, 2013; Corbett and Ennis, 2014; Dowsett et al, 2015; Guest et al, 2015) and burdens patients and society with hidden costs, such as pain, social isolation, employment loss and depression (Cornwell and Schmitt, 1990; Dowsett, 2009; European Wound Management Association, 2009; Price and Krasner, 2012). A group of researchers undertook a modified Delphi process to build a consensus among 85 international wound care specialists on how to assess and treat chronic wounds, including how to embed evidence-based holistic wound management into clinical practice. Consensus was reached on the importance of conducting holistic wound management by assessing and treating the patient, based on their history and individual needs, assessing and treating the wound, based on a continuous and comprehensive wound assessment process, and assessing and considering the wound care environment.

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Ethical Principles:

The authors warrant that this manuscript is their original work, has not been published before and is not being considered for publication by another publisher.

Ethics Approval:

This research did not require ethical approval. It did not include patients, or patient data. Only the opinions of health care providers were gathered, and that information was only gathered directly from the providers, who consented to the process and the information collected.

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Eighty-five wound care specialists from 19 countries took part in a consensus process that spanned four months, ending in November 2019. The process included both traditional Delphi surveys, as well as virtual and face-to-face facilitated dialogues (Keast et al, 2020). The result was a consensus on best practices in chronic wound care and how to translate those best practices into effective patient care. This fourth article, in a four-part series, focuses on holistic wound management with the ultimate goal of increasing quality of care and reducing wound healing time.

Holistic wound management has been a topic of investigation and research for many years, often under the guise of holistic wound assessment, patient quality of life, patient empowerment, multidisciplinary wound care or patient-centred wound care. However, while some attention has been placed on holistic wound management, the emphasis is still focused on the biological factors influencing the wound's healing progression (Hopkins, 2001; Hollinworth and Hawkins, 2002; Benbow, 2006; European Wound Management Association [EWMA], 2008).

It is a generally accepted principle that the clinician's aim should be to reduce wound healing time (Price and Harding, 2004) by addressing all factors that promote healing (London, 2007; Ousey and Cook, 2013; Dowsett, 2018). Holistic wound management identifies and deals with the causative or contributory elements that could delay healing by recognising the complex combination of factors, both inside and outside the wound, that affect healing progression (EWMA, 2008; Ousey and Cook, 2012; Cornforth, 2013; Benbow, 2016; Wounds UK, 2018).

Identifying patient and wound factors that require intervention, using a holistic assessment process, enables the clinician to work with the patient to optimise their wound healing potential, through effective local wound care and by reducing risks of infection and other complications (Ousey and Cook, 2011; International Wound Infection Institute [IWII], 2016; Wounds UK, 2018).

Holistic wound management considers the 'whole patient', not the 'hole in the patient' (Hampton and Collins, 2004; Wounds UK, 2018).

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This requires the clinician to document a holistic patient assessment before undertaking an assessment of the wound itself (Keast et al, 2004; Atkin, 2013; Benbow, 2016; Coleman et al, 2017).

A holistic patient assessment should include:

■ Detailed history taking:

- About patient's current and past medical history — nutrition, smoking, mobility, dexterity, medication history, previous wounds, allergies, comorbidities, medications, etc (Williams and Leaper, 2000; EWMA, 2008; World Union of Wound Healing Societies [WUWHS], 2008; Ousey and Cook, 2011; Cornforth, 2012; Wounds UK, 2012; Wounds International, 2012; McRobert, 2013; Corbett and Ennis, 2014; Sibbald et al, 2014)
- About patient's psychological, social and spiritual history and current status — i.e. anxiety, depression, body image, coping challenges, social isolation, support network, family, quality of life, etc (Beck et al, 1993; Tare, 2002; EWMA, 2008; Wounds International, 2012; Wounds UK, 2012; Corbett and Ennis, 2014; Erfurt-Berge et al, 2019; WUWHS, 2019)
- Assessment of the wound care environment, including access to specialised health services (Cardozo, 2003; Wounds International, 2012; Wounds UK, 2012; IWII, 2016; Murphy et al, 2020)

■ Physical assessment of patient — respiration, blood pressure, heart sounds, skin assessment, etc (EWMA, 2008; WUWHS, 2008; Ousey and Cook, 2011; Wounds International, 2012)

■ Wound assessment — assessing the wound bed, the wound edges, the periwound skin and patient pain levels (Reddy et al, 2003; Barrett, 2007; Green and Jester, 2009; Ousey and Cook, 2011; Corbett and Ennis, 2014; Dowsett et al, 2019; Stolt et al, 2019).

Holistic wound management, requires the clinician to consider how the factors identified during the holistic patient assessment could increase the risks of delayed wound healing and then to develop a care plan to reduce those risks and heal the wound (EWMA, 2008; Wounds UK, 2016; Wounds UK, 2018). Understanding the relationship between the patient, the wound and the environment is key to developing an effective holistic management plan (Brown, 2015; Wounds UK, 2018). This requires a dynamic and continuous re-assessment process (Wounds International, 2012; Wounds UK, 2012; Cornforth, 2013; Wounds UK, 2018) utilising the expertise of a multidisciplinary team (Teare,

2002; Cornforth, 2012; McKenzie, 2011; Ousey and Cook, 2011). Development of the holistic wound management plan should be conducted in partnership with all members of the care team and the patient (Jordan et al, 2002; Corbett and Ennis, 2014; Nazarko, 2015; WUWHS, 2019). Evidence suggests that involving patients directly in their care planning and treatment decisions improves patient concordance, as well as healthcare outcomes (Solowiej et al, 2010; Corbett and Ennis, 2014).

Methodology

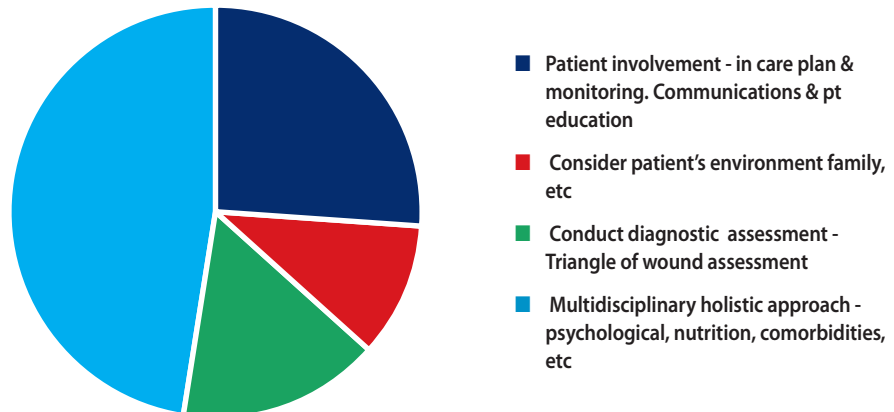
This project utilised a Modified Delphi Process that combines the rigor and validation of the traditional scientific Delphi method with professionally facilitated virtual and face-to-face collaborative processes (Bain and Hansen, 2020; Keast et al, 2020). Eighty-seven wound care specialists across 19 countries were sent a series of surveys on chronic wound care. Eighty-four of the survey participants then met in Denmark in November 2019 for a facilitated face-to-face dialogue. The group reviewed the survey results, discussed the latest research and best practices identified in the literature and shared their clinical experience.

The face-to-face interactive dialogue was designed as a round-robin iterative process to gather the views and ideas of all participants and to allow time for participants to build their collective intelligence and have in-depth discussions with international colleagues about their ideas (Keast et al, 2020). Eight stations were situated along what was called the 'Road to Consensus'. Each station had a topic, a summary of the relevant research and a series of open-ended questions to guide group discussions. After the participant groups cycled through each of the eight stations, the ideas generated were transcribed and thematically grouped by the facilitators, which led to the consensus on best practices in chronic wound care. The consensus results were presented back to participants who validated the results over a 30-day review period following the event.

Participants

Participants were qualified wound care specialists. Forty-five percent of participants had more than 20 years' experience and 86% had more than 10 years' experience. Eighteen percent of participants reported that their practice is 100% wound care. Participants were multidisciplinary and included: doctors (29%), nurse specialists (61%) and other healthcare professionals (10%).

Figure 1. Best Practices in Holistic Wound Management.



Results

Participants reached agreement on the importance of holistic wound management and developed recommendations on how to develop an effective holistic wound management plan. Consensus was reached on the top four best practices in holistic wound management [Figure 1].

The most important best practice in the holistic wound management recommended was utilising a multidisciplinary approach to assessing the whole patient. This included considering:

- Comorbidities and deteriorating conditions
- Lifestyle risk factors, such as smoking, sedentary lifestyles a alcohol/substance abuse
- Nutrition and obesity
- Vascular problems
- Dermatological complications such as allergies to adhesives
- Sociological issues, such as income instability/employment, housing, social network, social isolation and overall quality of life
- Psychological issues, such as depression, anxiety, etc
- Clinical history, such as previous wounds and diseases, allergies to medications, etc
- Current medications and medication history
- Age
- Mobility and dexterity.

Participants agreed that a multidisciplinary approach requires coordination among all care providers, as well as referral to specialist (i.e. dieticians, occupational therapists, diabetic educators, mental health service providers, surgeons, etc) as necessary.

The second-best practice recommended was involving the patient in care planning, treatment, and monitoring, through continuous communication and patient education. Four methods of empowering patients were identified, each were acknowledged as equally important in increasing patient concordance with the care plan and in increasing healing progression [Figure 2]. The four methods were:

- involve patients and caregivers in decision-making — work with patients to find solutions, consider the patient as a partner

Figure 2: Best Practice for empowering patients, increasing adherence to care plans and increasing health outcomes.

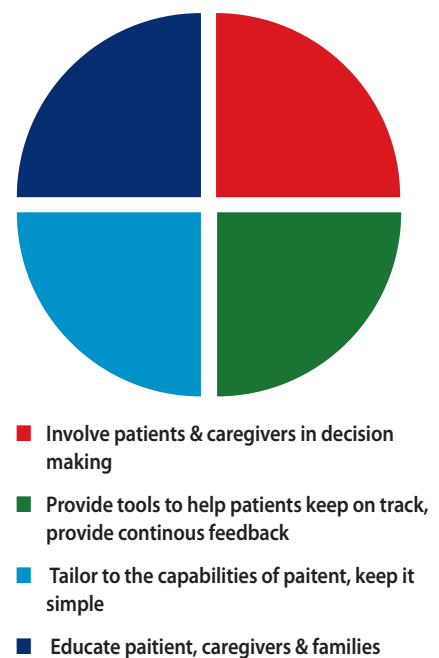
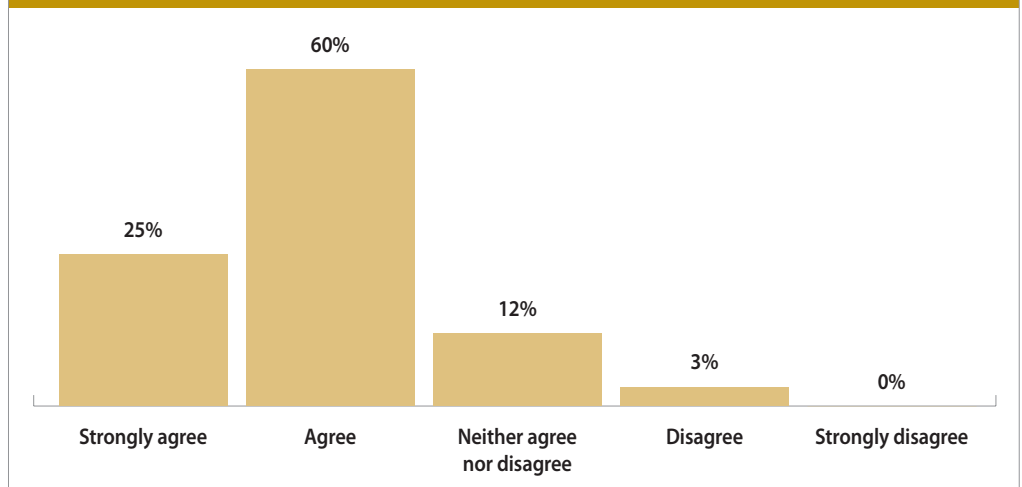


Figure 3. The acceptable indicator of effective wound healing progression is a reduction of the wound area of 20–40% in 4 weeks.



in care planning, accept patients' wishes, recognise and discuss patients' economic and social realities, listen to the patient, encourage patient ownership of their own health outcomes

- educate patients, caregivers and family members — on wound aetiology, on hygiene, on rationale behind care plan decisions, on effective dressing changes, using multiple delivery methods (demonstrations, pictures, pamphlets, videos etc), follow-up and test for understanding
- tailor communications to the capabilities of the patient — keep the message simple, use effective adult learning strategies, offer clear self-management pathway, empathise and empower
- provide tools to help keep patients on track and concordant with their care plan and provide continuous monitoring of progress and feedback — set mutual goals, encourage active accountability, give patients a copy of the care plan, provide patient diary or other tracking tools, offer help and relief strategies.

The third-best practice recommended was to conduct a holistic wound assessment. Agreement was reached on the following critical factors that must be considered when assessing the wound:

- assess the wound aetiology, or the cause of the wound
- assess the physical wound using a validated tool like the Triangle of Wound Assessment, that considers the wound bed, the wound edge and the periwound skin
- pain levels
- exudate level, colour and amount
- wound bioburden
- the wound's location

- the wound's history, duration, measurement and healing progression.

When asked what the acceptable indicator of effective wound healing progression is, 85% of participants agreed that a reduction in wound area of 20–40% in 4 weeks indicates an effective wound-healing progression [Figure 3].

The fourth best practice recommended was considering the wound care environment. This included consideration of:

- the patient's home environment — hygiene, access to clean water, privacy, accessibility, etc
- the patient's family and support network — what supports are available to change dressings, follow and monitor the care plan, what emotional support the patient can draw on within their family/community, caregiver abilities, etc
- the healthcare system in which the care is given.

Conclusions

While there is a great deal of evidence that holistic wound management leads to better health outcomes and decreases wound healing time, the prevalence of non-healing wounds continues to be a global problem. This project brought together wound care specialists from across 19 countries to develop a consensus on how healthcare providers should assess and treat wounds to promote effective wound healing. The consensus reached, offers recommendations to all health care providers on how to translate the evidence into clinical practice and decrease the number of days with wounds.

The consensus process concluded that the best practices in holistic wound management

are:

- Conduct a holistic patient and wound assessment that includes: Sibbald et al, 2014)
 - an assessment of patient's medical, psychological and social history and current situation
 - a physical assessment of the patient
 - an assessment of the wound
- Utilise a multidisciplinary holistic approach — psychological, psychosocial, nutritional, comorbidities, etc
- Include the patient in the development and monitoring of the care plan and engage in continuous patient communication and patient education
- Conduct a diagnostic assessment of the wound using a validated assessment tool like the Triangle of Wound Assessment, at every dressing change and at least once per week
- When developing the care plan consider the wound care environment, the patient's environment, family situation, etc.

The consensus reached emphasised the importance of all members of the care team considering a wider range of factors than simply the biology of the wound. Taking a holistic approach to wound care assessment and management will help healthcare professionals consider all the factors that affect wound healing. Considering all of these factors will significantly impact the patient experience, will influence the patients' quality of life, and will positively impact healing time. Shifting our approach to holistic wound assessment and management will help us reach the goal of fewer days with wounds. WINT

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