Wound care delivery: quo vadis?



JULIAN F GUEST Catalyst Health Economics Consultants, Rickmansworth, UK & Visiting Professor, Faculty of Life Sciences and Medicine, King's College, London, UK

nother year has passed since the 2016 Wounds UK annual conference. Have we managed to respond to the findings presented in that conference on service delivery and improve the patient experience?

The Burden of Wounds (BoW) study (Guest et al, 2015a; 2016) estimated that the NHS managed 2.2 million patients with a wound during 2012-13 and that the annual cost of managing these wounds and associated comorbidities was £5.3 billion. The prevalence of wounds has been estimated to be growing at the rate of 11% per annum (Guest et al, 2017a). If this growth rate continues unchecked, the NHS is likely to be managing an estimated 3.7 million patients with a wound in 2017–18 costing in the order of £8billion-£9billion. Nevertheless, the annual prevalence of wounds is likely to be increasing at different rates in different parts of the country, impacting differently on individual Clinical Commissioning Groups (CCGs) or Health Boards. The historical percentage increase in the prevalence of wounds year on year is unknown. Most clinicians involved in wound care say their clinics are getting larger each year, but they could not quantify this. However, industrial market analyses for likely product demand all predict increasing markets for both conventional and advanced wound care products (Markets and Markets, 2016; 2017).

There appears to be substantial variance in wound care between individual CCGs/Health Boards. While the role of CCGs and Health Boards is to address local health needs, the national health economic burden imposed by wounds necessitates the establishment and implementation of a nationally-agreed strategy if unwarranted variation is to be reduced, outcomes improved and costs reduced equitably. The findings from the BoW study resulted in the development of Betty's story (NHS England, 2017). Betty's experience is aimed at helping commissioners and providers understand the implications, in terms of health-related quality of life and costs, of shifting the wound care pathway from an uncoordinated and reactive

approach to a proactive evidence-based approach (NHS England, 2017).

Optimal care delivery and timely wound healing require a careful and detailed initial holistic assessment and an accurate wound diagnosis. The increasing annual prevalence of wounds is partially due to a lack of differential diagnosis, suboptimal care and delayed wound healing, which is often associated with increased rates of wound complications, such as infection (Dowsett, 2015; Vowden, 2016). Although healing is not achievable in all wounds, it should be the primary desirable outcome for all wound types. Moreover, clinicians should be more aware of published healing rates and assess the effectiveness of the care they are providing against these standards. The health economic impact of non-healing wounds to patients and the NHS is substantially greater than that of a healing wound (Guest et al, 2015a; 2016; 2017a).

Numerous wound studies have highlighted inconsistencies in wound care, staff involvement and dressing choice, and an apparent lack of a patient-specific treatment plan in many instances (Guest et al, 2012 2015b; 2017b; Panca et al, 2013). The role of the GP and other community-based medical staff has become inconsistent and communication between practitioners appears to be poor, with no clear role allocation. While a range of nursing staff (practice/community/specialist) is primarily involved in the delivery of wound care, there appears to be an increasing involvement of practice nurses. Consequently, it has become difficult to define who is responsible for the care of an individual patient's wound and any associated comorbidities.

Patients' records in clinical practice appear to lack any evidence of consistent reporting of wound management processes (Panca et al, 2013; Guest et al, 2012; 2015b; 2017b; 2017c; 2017d). Also, approximately 30% of all wounds are being managed without a documented differential diagnosis in the patients' records (Guest et al, 2015a; 2016). Furthermore, the length of time that a patient is on a combination of dressings or bandages before

- GuestJFetal (2016) Healtheconomic burdenthat different wound types impose on the UK's National Health Service. Int Wound J 14(2): 322–30
- Guest JF et al (2017a) The health economic burden that acute and chronic wounds impose on an average clinical commissioning group/health board in the UK. J Wound Care 26(6): 292–303
- Guest JF et al (2017b) Clinical outcomes and costeffectiveness of three different compression systems in newly-diagnosed venous legulcers in the UK. J Wound Care 26(5): 244–54
- Guest JF et al (2017c) Diabetic foot ulcer management in clinical practice in the UK: costs and outcomes. *Int Wound J* 14(6): In Press
- Guest JF et al (2017d) Venous leg ulcer management in clinical practice in the UK: costs and outcomes. *Int Wound J* 14(6): In Press
- Harding K et al (2011) International Consensus.

 The Role of Proteases in Wound Diagnostics.

 An Expert Working Group Review. Available at: http://bit.ly/1VNv9FZ (accessed 02.11.2017)
- Markets and Markets (2016) Wound Dressings Market by Type (Advanced Wound Dressings, Traditional Wound Dressings), Application (Surgical Wounds, Ulcers, Burns), End User (Inpatient Facilities, Outpatient Facilities) – Global Forecast to 2021. Available at: http:// tinyurl.com/kssurn3(acccessed25.10.2017)
- Markets and Markets (2017) Wound CareMarket by Product (Advanced (Foam, Alginate, NPWT, Active), Surgical, Traditional), Wound Type (Chronic (DFU, Pressure Ulcer), Acute (Burn), End User (Hospital (Inpatient, Outpatient), Long-Term Care, Home Healthcare) Global Forecast to 2022. Available at: http://tinyurl.com/6par468 (accessed 25.10.2017)
- NICE (2016) Chronic Wounds: Advanced Wound Dressings and Antimicrobial Dressings. Available at: http://bit.ly/2zeY14f (accessed 02.11.2017)
- NHS England (2016) Commissioning for Quality and Innovation (CQUIN) Guidance for 2017– 2019. Available at: http://bit.ly/2nbSEZL (accessed 25.10.2017)
- NHS England (2017) NHS RightCare Scenario:

 The Variation Between Sub-Optimal
 and Optimal Pathways. Betty's Story: Leg
 Ulcer Wound Care. Available at: http://bit.
 ly/2tjMhKF(accessed 25.10.2017)
- O'Meara Setal (2010) Antibiotics and antiseptics for venous leg ulcers. Cochrane Database SystRev 1: CD003557
- Panca M et al (2013) Clinical and costeffectiveness of absorbent dressings in the treatment of highly exuding VLUs. *J Wound Care* 22(3):109–18
- Vowden P, Vowden K (2016) The economic impact of hard-to-heal wounds: promoting practice change to address passivity in woundmanagement. Wounds International 7(2):10–15

being changed to another mix, appears to increase the longer the patient has that wound (Guest et al, 2017c; 2017d). Additionally, the duration of continuous prescribing of topical antimicrobial dressings was found to be a mean of 6 months in some wound types (Guest et al, 2017c; 2017d), even though there is little evidence to support the routine use of these products (O'Meara et al, 2010). More worrying is that just under half of patients with a diabetic foot ulcer seem to be treated at some time with compression, even though these patients do not have any documented evidence of venous disease, lymphoedema or a venous leg ulcer (Guest et al, 2017d). This indicates a lack of evidencebased wound care and treatment planning and may also reflect a range of difficulties experienced by non-specialist healthcare professionals in the community. The lack of senior engagement in wound care may have had a detrimental impact on outcomes, and thereby contributed to the inappropriate management, increasing prevalence and cost of wound management.

SO WHAT IS BEING DONE TO CHANGE WOUND CARE DELIVERY AND IMPROVE THE PATIENT EXPERIENCE?

The findings from the BoW study were taken forward as part of NHS England's Leading Change Adding Value Framework - Improving Wound Care Project. A national minimum data set has been developed to provide a framework upon which healthcare provider organisations can base their assessment documentation (Coleman et al, 2017). It is anticipated that this data set will facilitate a more consistent approach to wound assessment potentially leading to improved clinical decision making around wound care treatment, escalation plans, pathways and patient outcomes. This is supported by a new quality indicator for improving the assessment of wounds as part of the 2017-19 Commissioning for Quality and Innovation (CQUIN) framework (NHS England, 2016).

The ongoing changes in staff involvement in wound care need to be recognised and supported with appropriate resources and educational provision. Clearly, appropriate training is a prerequisite to overcoming some of the problems encountered in clinical practice, particularly in the community. Other measures that could help

improve wound care delivery in clinical practice and achieve better outcomes include:

- ➤ Establishing dedicated wound care clinics in the community, possibly within general practices, in which patients receive consistent, integrated care
- Assigning the responsibility for delivering wound care to an individual practitioner in order to achieve an optimum outcome for a patient
- → Defining the role of individual healthcare professionals within the patient care pathway
- ▶ Improving the diagnostic process and implementing a coordinated, shared treatment plan for each patient, with defined trigger points for senior involvement and onward referral for specialist care
- ➤ Regularly reviewing a patient's wound in order to gauge treatment effectiveness and thereby inform changes in treatment and/or senior involvement. Guidelines and best practice statements for a number of dressing products define appropriate timelines for product use and review of treatment outcomes (Barrett et al, 2010; Harding et al, 2011; Ayello et al, 2012; NICE, 2016).

Ultimately, the most effective way of reducing cost would be to identify patients who may be at risk of developing a wound and to provide prophylactic interventions, where appropriate.

The introduction of these measures, in line with the findings from the BoW study, should help improve a patient's experience and increase wound-healing rates. In turn, these actions should minimise unwarranted variation in clinical practice, reduce workload and associated healthcare resource use and lead to cost reductions in wound care.

REFERENCES

Ayello Eetal (2012) Appropriate Use of Silver Dressings in Wounds. An Expert Working Group Consensus. http://bit.ly/2zceoi1 (accessed 02.11.2017)

Barrett S et al (2010) Best Practice Statement: The Use of Topical Antiseptic/ Antimicrobial Agents in Wound Management. Available at: http://bit. ly/2aVHOY5(accessed02.11.2017)

Coleman S et al (2017) Development of a generic wound care assessment minimum data set. *J Tissue Viability* Pii: S0965-206X(17)30052-9. doi: 10.1016/j.jtv.2017.09.007

Dowsett C (2015) Breaking the cycle of hard-to-heal wounds: balancing cost and care. Wounds International 6(2):7–21

Guest JF et al (2012) Relative cost-effectiveness of a skin protectant in managing venous legulcers in the UK. J Wound Care 21(8): 389–98

Guest JF et al (2015a) Health economic burden that wounds impose on the National Health Service in the UK. BMJ Open 5(12): e009283

Guest JF et al (2015b) Clinical outcomes and cost-effectiveness of three alternative compression systems used in the management of venous leg ulcers. *J Wound Care* 24(7):300–8

12