How has the world of wound care changed?

Richard White
Scientific Editor, Wounds UK
Professor of Tissue Viability, University of Worcester and Director of Plymouth Wound Care

Regular readers of the *Wounds UK* journal will have noticed the recent historical commentaries on significant developments in wound care through recent times. These serve to remind us not only of what has gone before, but also of where we stand today in terms of clinical practice and treatments. For the purposes of this brief overview, I shall content myself firstly with the evolution of wound care treatments since World War II, this being the 'modern age' during which progress has been both rapid, and substantial; secondly, with the implementation and practice issues which have arisen over this period.

ADVANCEMENT OF DRESSINGS AND OTHER WOUND CARE PRODUCTS

Review articles on modern dressings invariably cite the work of Winter (1963; 1975) for the advent of moist wound healing. However, others were also involved and should be recognized for their contributions. Notable among these were Bull et al (1948) who recognized the need for "dressing which excludes liquids and bacteria from an open wound". They also realized the need for moisture vapour transmission in order to avoid over-hydration and possible maceration. Consultation with plastics experts resulted in a 'nylon derivative' which was tested *in vitro* and found to be a microbial barrier. This translated into favourable outcomes when tested on intact human skin, i.e. no bacterial overgrowth. Trial as a wound dressing was shown to "heal well, transparency making it possible to inspect the progress of healing without disturbing the barrier". In summary, a remarkable piece of research which was to presage the advent of moist wound healing by some years. Winter and Scales (1963), and later De Coninck et al (1996) were to add the scientific principles to this work.

Commercially, films were the first successful moist healing dressings. However, their shortcoming of inability to manage exudate led indirectly to the development of the hydrocolloids. Using adhesives that would stick to moist surfaces, originally developed for intra-oral use, sheets of hydrocolloid were used for stoma care devices (Stomahesive®). This later became the range of wound dressings known in the UK by the Granuflex® and DuoDERM® tradenames. In many respects this development marked a changing point in modern wound care: hydrocolloids fulfilled many of the criteria for the 'ideal wound dressing' espoused by Goodman et al (1956) and Winter (1975). Their avid uptake by clinicians brought about a renewed focus on wound management, particularly that of the chronic wounds, for even at this recent time leg ulcers were largely a neglected problem, and diabetic foot ulcers unrecognized as a clinical issue in the UK.

Coincident with the advent of Granuflex was an increase in biological research into wound healing biology and in the pathophysiology of the so-called 'chronic' wounds. The early recognition of the need for regulation of product development has directly led to the current situation where many wound product companies are making new dressings and other wound care products, regulated as Medical Devices according to European Union law.

EDUCATION AND ORGANISATIONS

A need for education of wound care professionals in wound care has led to formal university courses where, for example, Masters' degrees are awarded, and informal study day education which is routinely provided to interested parties. Conferences have also added to the opportunities for the presentation of research and for education. These have arisen as a result of the establishment of specific wound societies notably the European Wound Management Association (EWMA), the European Tissue Repair Society (ETRS), the European Pressure Ulcer Advisory Panel (EPUAP), and in the UK to the Wound Care Alliance (WCA-UK), the Tissue Viability Society (TVS) and Leg Ulcer Forum. These organizations make it much easier for clinicians, researchers and industry to keep in close touch with developments in this rapidly-developing field of healthcare.

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Many of these organisations issue guidance, journals and other online or printed information, which also serve the same purpose.

Notable among this list of societies, is the TVS for its involvement to the establishment of the clinical speciality of Tissue Viability, and as the herald of the ensuing societies. "The TVS started as a regional group of the Wessex Rehabilitation Association in 1979 becoming a national society in 1981 and gained its charitable status in the mid-1990s." A decade later, EWMA was founded in 1991 and EPUAP began in 1997.

HOW DOES THIS IMPACT OF THE PROVISION OF CARE?

Thus wound care in the 21st century is a sophisticated business, supported by industry, academia and regulation in the developed world. What impact has all of this had on care and the provision of care? Certainly the profile of wound care with the healthcare service is now much higher than it was forty years ao. Nevertheless, there are a number of issues, both positive and negative, which must be addressed.

Wound Care in the Community: Commissioning

It is now over 20 years since the emphasis on shifting the balance from secondary to primary care was first mooted (Fairfield et al, 1997; Coulter, 1995). At that time the general practice fundholding scheme was seen as the most comprehensive attempt to shift 'the balance of power'. Subsequently, we have seen the advent of commissioning as one means of influencing service development (Dixon et al, 1998; Glendinning et al, 1998). With respect to wound care in the primary care setting, a number of authors have commented on these changes and how they might affect practice (King, 2007; Harding, 2007; Cutting and White, 2009; Hampton, 2009). The Department of Health has identified venous leg ulcers (VLU) and wound healing as areas by which to 'test' the phased approach to the establishment of the Any Qualified Provider (AQPs) scheme of service delivery in some areas. The principles being that:

- Providers qualify and register to provide services via an assurance process that tests providers' fitness to offer NHS-funded services.
- Commissioners set local clinical pathways and referral protocols and thresholds which providers must accept.
- Referring clinicians must offer patients a choice of qualified providers for the service.
- Competition is based on quality, not price. Providers are paid a fixed price determined by a national or local tariff (based on national guidance).

To date, very few AQPs have been set up for VLU and/or wound care (Hampton, 2012). However, in Wales, the Government, in conjunction with the Wound Healing Research Unit (WHRU), has set up the Welsh Wound Innovation Centre. This partnership "seeks to standardize the approach and economic strategy for the wound healing sector and includes involvement from all different stakeholder groups" (Harding, 2015). This is clearly something for the rest of the UK to consider.

Education Issues

The education of clinicians in the field of wound care in the UK is variable (although the Institute for Skin Integrity and Infection Prevention at the University of Huddersfield deserves to be mentioned here for their consistent work and rigour). To generalize, moist wound healing has yet to become a standard component of many medical undergraduate syllabuses. As education takes a generation to filter through to care, we cannot expect many GPs to have any familiarity with modern wound care for another 20 years. Nurse education at pre-registration level is somewhat better, however, post-registration education is at best sparse and at worst, non-existent. The establishment of dedicated Masters' degree programmes at some UK universities has been of immense success. However, these are not providing the heathcare service with sufficient, qualified clinicians for the needs of the population. This is not an indictment of those universities, but rather of the NHS which fails to recognize the clinical, and social, need of the patient.

Perhaps the technological explosion which has had such an impact on wound care in the last 30 years has overtaken the necessary focus on practice development and care provision. One could, justifiably, argue that we have all the products and evidence we need to manage wounds of all aetiologies. What we lack is the structure and mechanisms of care delivery that are needed, and that patients deserve. WUK