Skin problems: assessing needs and delivering services

Skin breakdown affects a significant part of the UK population each year and has a major impact on sufferers, relatives and their carers. The recently published 'Skin conditions in the UK: a Health Care Needs Assessment' provides useful information about the burden of skin disease in the UK (Schofield et al, 2009). The document provides evidence that, even though skin problems are the commonest reason that people present to their GP with a new problem, relatively few are referred for specialist advice. This paper describes findings from the report that will be of interest to tissue viability specialists and links these findings to workforce issues and needs-based educational initiatives

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The high prevalence and morbidity of conditions affecting skin breakdown is strongly related to age and creates a large burden of disease. More research is needed into the complex mechanism of skin breakdown, but impaired immunological and nutritional status, immobility, altered consciousness, and incontinence are key factors (Voegeli, 2007). Demographic trends in developed countries are likely to cause a significant increase in the number of people with skin integrity problems in the future, with a corresponding increase in the costs of care (Posnett and Franks, 2007).

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In 1997 a dermatology health care needs assessment was published which described the burden of skin disease in the United Kingdom and reviewed the services available for patients (Williams, 1997). The prevalence of people with leg ulcers was described and reference made to the likely increasing public health burden of this chronic wound in an ageing population. Since then, there has been an unprecedented amount of healthcare reform, particularly in England, that has directly influenced delivery of tissue viability and related dermatology services.

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There has always been common ground between tissue viability and other specialities including dermatology, immunology, vascular medicine and care of the elderly. However, in recent years, the overlap between clinical specialities concerned with the prevention and maintenance of skin integrity has become more apparent as integrated pathways of care have become widely accepted as a way of improving standardisation, continuity and collaboration among multidisciplinary teams, which, until now, has not been a feature of traditional tissue viability services (Department of Health [DoH], 2008a, 2008b; DoH, 2009).

The current emphasis through the commissioning agenda for commissioners to look at health community-wide services for people with skin problems has brought wound management and dermatology much closer. Commissioners are now expected to develop services which cross traditional boundaries, promoting integrated working, development of extended role practitioners and quality services (DoH, 2008a, 2008b; DoH, 2009).

An updated health care needs assessment (HCNA) on skin conditions in the UK has recently been published by the Centre of Evidence-based Dermatology, Nottingham, highlighting that conditions affecting the skin are common, with half of the population reporting having experienced a skin condition in a preceding 12-month period (Schofield et al, 2009). This document reviews the effectiveness of

services for people with skin conditions, but in the context of today's NHS in England and the so-called 'World Class Commissioning' agenda (DoH, 2007) which requires commissioners to underpin commissioning decisions by performing a robust assessment of needs across the local health community.

The new publication, 'Skin conditions in the UK: a Health Care Needs Assessment' (Schofield et al, 2009), will be particularly helpful to support the commissioning process in relation to people with skin problems, as it considers the whole breadth of skin conditions and describes up-to-date information about the burden of skin disease in the UK. This includes the prevalence and incidence of skin disease, its impact on quality of life, and the cost of skin problems to the individual and society. There are sections on the influence of NHS reform, models of care and organisation of services, followed by a review of services available and their effectiveness.

The new health care needs assessment uses a broad range of sources, including the Proprietary Association of Great Britain (self-reported conditions) (PAGB, 2005). Data on activity in primary care in England and Wales was obtained from the Royal College of General Practitioners (RCGP) and Birmingham Research Unit Weekly Returns Service (WRS). Information from four specialist dermatology units and a detailed literature search was completed to look for information about the effectiveness of services, including hand searching of meeting abstracts and other grey literature. The sections on NHS reform and the review of the organisation of services and models of care rely heavily on Department of Health and related publications.

Burden of skin disease

Collecting information about the true prevalence and incidence of skin problems is difficult because of problems with the International Classification of Diseases (ICD) coding. For example, the section of the coding system entitled 'Disorders of the skin and subcutaneous tissues' does not include many common skin infections such as viral warts, fungal skin infections and herpes virus infections, although it does include 'chronic skin ulcers', which primarily refers to venous leg ulcers. This means that clinical activity is significantly under-reported. Additionally, although there are now quite sophisticated systems for capturing inpatient activity, such systems for measuring outpatient and community-based activity are much less well developed and not widely available. In particular, national data about activity relating to people at risk of or suffering from skin damage and compromised skin integrity is difficult to obtain, as it relates to a diverse range of individuals with complex health needs managed across many clinical specialities and can affect any age group.

Prevalence and incidence of skin conditions

Previous studies suggest that around 23–33% of individuals have a skin problem at any one time (Rea et al, 1976). Surveys suggest that around 54% of the UK population experiences a skin condition in a given 12-month period. Most (69%) self-care, with around 14% seeking further advice, usually from community health professionals (British Market Research Bureau, 1997). There is little information about the prevalence of ulcers, although a study in 1976 showed a prevalence of 'chronic ulcers' as 1.7 per 1000 (Rea et al, 1976).

Data obtained from the Royal College of General Practitioners and Birmingham Research Unit WRS shows that around 24% of the population (about 12.9 million people) seek medical advice about skin problems each year (Royal College of General Practitioners [RCGPs], 2006). This means that skin conditions in general, such as dermatitis, psoriasis, acne and skin infections are the commonest reason people consult their general practitioner with a new problem. There are on average about two consultations for each episode of skin disease, and an average general practitioner will have around 630 consultations per year that relate to skin conditions. Interestingly, skin infections such as carbuncles, impetigo, fungal skin infection, herpes simplex, cellulitis and wound infections are the commonest problems presenting to general practitioners.

There is a reported prevalence of 27 per 10,000 population of 'skin ulcers' of unknown aetiology presenting to general practitioners and practice nurses (RCGPs, 2006). The number of new episodes of ulceration is recorded as 21 per 10,000 population. The consultation rate for this group of patients (new and ongoing episodes) is high at 129 per 10,000. As expected, the consultation rate per patient per year for chronic 'skin ulcers' is high at 6.1. A large number of people with leg ulcers and chronic wounds are managed by other community services, but, as this activity is not captured by the Royal College of General Practitioners and Birmingham Research Unit WRS and there is no requirement for this data to be collected nationally, this information is limited. Data obtained from the West Hertfordshire District Nursing Service (covering a population of around 500,000) for the twelve months to the end of March 2008 recorded 269 new referrals for patients with leg ulcers, an episode incidence of around 5.4 per 10,000 (Reynolds, written personal communication). A previous, older study has suggested an overall prevalence of leg ulcers of around 15–30 per 10,000 population, increasing to about 200 per 10,000 population in the over 80s (Callam et al, 1985).

Only about 6% of all people presenting with skin problems are referred to see a specialist, and specialists see a quite different case mix than is seen by generalist, primary care clinicians (Schofield et al, 2009). Up to 50% of referrals are for the diagnosis and management of skin lesions, including skin cancer. Although consultations for people with psoriasis represent a small part of the primary care caseload, 6–12% of specialist activity relates to the management of people with this condition. This probably reflects a tendency for people to self-manage and only seek help when specialist treatment is required (Nevitt and Hutchinson, 1996).

Costs

Some important key messages about the cost of skin conditions emerge. Despite the large amount of skin disease, the cost to the NHS of providing care is relatively low; many patients self-treat and buy over-the-counter preparations. The overall cost to the NHS of managing skin disease is probably around £1,819 million per year (Schofield et al, 2009). Although there is a downward trend in claims for disablement benefit due to occupational dermatitis, work-related skin disease continues to be a problem. The cost (some, but not all of which, is included in the above figure) of providing care for chronic wounds to the NHS is high. Prescription costs alone for wound care dressings in 2006/07 were about £100 million (National Prescribing Centre, 2008). Systematic reviews have highlighted the fact that evidence of efficacy for many of the available wound dressings is lacking (Chaby et al, 2007; Palfreyman et al, 2007), although they did identify evidence supporting the use of some modern wound care products.

Effectiveness of available services

The updated health care needs assessment describes in detail the services available for people with skin problems, according to levels of care from self-care to highly specialist services for rare conditions. There is emphasis on the level of care (generalist or specialist) provided, rather than location of care. Robust evidence of evaluation of most of the services delivered is lacking, although there are more studies evaluating nurse services than those provided by other healthcare professionals.

Self-care

Self-care, including patient support organisations, the internet and the 'expert patient programme' (EPP) (DoH, 2001) all provide opportunities to support people with skin conditions. The internet provides a variable quality of information to patients and the public, but too often resources are developed without proper accreditation, even though sensible standards for reliable content are available (Coulter et al, 2006). There is little or no experience of the EPP for patients with skin disease. There could be potential benefits of the EPP for patients if a more disease-specific rather than a generic approach was developed. Large numbers of patients buy over-the-counter skin treatment products, suggesting that pharmacists are the first point of contact for people with skin conditions. Despite this, training of pharmacists in the management of skin problems is limited, and good evidence that pharmacists are effective in providing appropriate guidance and management for this group of patients is lacking.

There are large numbers of independent and supplementary prescribers who are able to prescribe widely for patients with skin conditions and compromised skin integrity, but who receive little or no training in skin disorders.

Primary care

Many people with skin disease receive 'first point of contact' primary care services (generalist care) provided by a range of healthcare professionals including general practitioners, community nurses, practice nurses and nurse practitioners. There is evidence that the level of training and knowledge of these healthcare professionals in skin disease is limited and probably inadequate (Schofield et al, 2009). In particular, neither pre-registration nurse training nor undergraduate medical training includes compulsory dermatology and skin integrity education. There are large numbers of independent and supplementary prescribers who are able to prescribe widely for patients with skin conditions and compromised skin integrity, but who receive little or no training in skin disorders.

Secondary care

Specialist dermatology departments are made up of multiprofessional teams and provide a wide range of services. Skin surgery forms about 30% of activity in specialist services (Schofield et al, 2009). There is good evidence that dermatologists are good at diagnosing and initiating a management plan, and that nurses work best when implementing the management plan for a pre-diagnosed condition and providing long-term support for patients and their families (Schofield et al, 2009).

Specific issues relating to skin integrity and chronic wounds

The health care needs assessment document highlights issues relating to some of the more commonly encountered skin integrity problems that cause skin breakdown and chronic wounds and discusses lymphovascular and leg ulcer services. The importance of a multidisciplinary approach to the management of people with problems of skin integrity is highlighted. With regard to the management of patients with leg ulcers, key points are summarised from the most recent literature and include the following:

- Reports in the late 1990s expressed concern that despite areas of good practice in the management of people with leg ulcers in the community, there was wide variation in the standard of care (NHS Centre for reviews and Dissemination, 1997; Audit Commission, 1999)
- Compression bandaging increases healing rates for venous leg ulcers and multi-component systems seem to be more effective than single layer systems (O'Meara et al, 2009)
- Improved venous leg ulcer healing rates are unrelated to any particular type of dressing and simple low-adherent dressings are as effective as interactive dressings (Palfreyman et al, 2007)
- A review of community clinics and traditional home visits for the management of leg ulcers showed little evidence to support either model, provided the nurses working in either setting were properly trained and had access to necessary resources (Thurlby and Griffiths, 2002)
- Although practice nurses are theoretically well placed to manage mobile patients with leg ulcers, the evidence suggests that many

practice nurses are not interested in leg ulcers, have not had training in the assessment and management of people with leg ulcers, and do not have long enough appointment times allocated for this patient group (Schofield et al, 2000)
- The Royal College of Nursing guidelines for the nursing management of people with leg ulcers stress the importance of integrated models of care and the need for relevant and appropriate training in the skills required for effective leg ulcer management (Royal College of Nursing, 2006).

Workforce development

The recently published transformational guides for community services endorses the need to develop a competent workforce that will develop new ways of working and deliver innovative solutions to modernise and improve local services (DoH, 2009). This programme comprises six best practice guides including acute care, long-term conditions, rehabilitation services and end of life care, which emphasise the importance of the need for service redesign to maintain maximum health and independence, multidisciplinary case management, and the need to co-ordinate and plan care pathways together, as most likely to have the greatest potential to improve care in the future.

The 'Acute Care Closer to Home' guidance specifically recommends that: 'tissue viability and complex wound care should be aligned to dermatology care pathways to ensure that individuals at risk of health deterioration are known to relevant services along the clinical care pathway', and concludes that investment in properly trained specialists to promote and lead new services should be a priority (DoH, 2009).

There is evidence that the level of training and knowledge of healthcare professionals in the promotion and maintenance of skin integrity is limited and inadequate (Ersser, 2005; Voegeli, 2007). There are large numbers of independent prescribers who are able to prescribe widely for patients with skin conditions but who receive little or no training in prevention of skin breakdown. Commissioners and provider management teams are now responsible for ensuring that staff have the right skills in the right place to treat patients safely and competently (DoH, 2007). This requires some practitioners to have advanced level knowledge which demands commissioning changes in education pathways. In the current climate, clinicians need to develop new attributes including the ability to lead service transformation and clinical innovation, and have improved clinical, leadership, managerial and business skills to improve health outcomes.

A range of Department of Heath publications emphasise the requirement for education and training to be of sufficient breadth and depth to deliver high quality care alongside the need to provide e-learning and innovative approaches to education (e.g. *High Quality Care for All: NHS Next Stage Review Final Report* [DoH, 2008a]; *High Quality Workforce: NHS Next Stage Review* [DoH, 2008c]). In light of these developments, the School of Postgraduate Medicine at the University of Hertfordshire is launching a new postgraduate award in January 2010. The MSc Skin Integrity Skills and Treatment will complement the existing academic award of MSc Dermatology Skills and Treatment which has rapidly established itself since validation in 2006 as being innovative, creative, and relevant to the practitioner's clinical setting. The MSc Skin Integrity Skills and Treatment has been developed to fulfil an identified need for specialist education in the promotion and maintenance of skin integrity, which is defined as the state in which a person experiences, or is at risk of damage/injury to dermal tissues and has a wider remit than wound management (Juiall-Carpenito, 2008).

The new programme has been developed with the needs of practitioners with a special interest (PWSIs) in skin integrity in mind, such as GPs, specialist nurses, podiatrists, pharmacists and physiotherapists and meets the Government's agenda for continuing professional development and enhancement of interprofessional learning and working. The skin integrity and dermatology pathways benefit from shared learning which has already resulted in doctors accessing tissue viability modules and tissue viability nurses accessing dermatology modules for the first time. The new skin integrity curriculum uses modules from existing programmes with the addition of four new modules:
- Skin integrity and tissue repair
- Enhanced skin integrity skills
- Therapeutics of skin conditions
- Business skills for clinicians.

The new curriculum has been developed utilising expertise in providing teaching and learning through the use of blended learning to widen student participation, and maintains the positive aspects of face-to-face engagement with students as well as using e-learning technologies that provide flexible continuing professional development for busy healthcare practitioners. A particular feature of this programme is the use of the university conference model (UCM) to deliver modules at specialist international conferences to maximise 'real-world' learning opportunities. This has been successfully adopted by several European universities and positively evaluated by students, who value the chance to participate in a range of dynamic learning activities while attending a major international meeting (European Wound Management Association [EWMA], 2007).

Summary

The practice and educational developments described in this paper support the NHS Plan which outlined an ambitious 10-year strategy to change service delivery and the workforce (DoH, 2000). Priorities included continuing professional development and provision of interdisciplinary teams and interagency learning opportunities. The resultant changes represent a welcome union between policies, service improvement and workforce development. WUK

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Key points

- The rising prevalence of factors that exacerbate skin breakdown reflects an ageing population and demand for integrated skin integrity services is increasing.
- An updated health care needs assessment (HCNA) relating to skin conditions has recently been published. This highlights the fact that skin disease is common and even though skin problems are the commonest reason that people present to their GP with a new problem, very few are referred for specialist advice.
- The cost of wound care is expensive and evidence of effectiveness of some wound care treatments is lacking. Models of care for people with compromised skin integrity should involve an integrated multidisciplinary approach, underpinned by nurses with the necessary skills.
- Education for healthcare professionals that provide first point of contact for patients with skin conditions and wounds is inadequate, and often optional rather than compulsory. Training programmes should reflect the case mix seen in clinical practice.
- New postgraduate programmes based on flexible learning approaches are developing, offering clinicians the opportunity to integrate the related disciplines of tissue viability and dermatology.