Undertaking an assessment of the skin using a holistic approach

Key points

Nursing and Midwifery Council proficiency standards emphasise the important role of the nurse in skin care.

The effects of chronic skin conditions on quality of life should not be underestimated and for some patients it can be worse than a diagnosis of cancer.

A comprehensive history taken prior to the physical skin assessment will provide clues and signpost the nurse to a possible diagnosis and plan of care.

It is important to be aware of the different presentations seen in skin of colour.

Skin assessment

Skin assessment includes a dermatological, psychological and psychosocial history of the patient alongside a physical examination. Throughout the assessment process, nurses should use four of their senses – hearing, sight, touch and smell – to gather information.

Dermatological history

Dermatological history should include basic demographics (for example, age and occupation). The following points should be explored with the patient:

- Nature, site and duration of the problem;
- Initial appearance and evolution of the rash;
- Symptoms such as pain and itching;
- Aggravating and relieving factors and interventions that have been tried;
- Recent travel;
- Recent illnesses;
- Family history of skin disease;
- Past medical history;
- Atopic history, including eczema,

Nurses working in a variety of settings will care for patients of all ages presenting with a skin condition. Around 54% of the UK population experience a skin condition in any given 12-month period; of these 69% will manage the condition themselves and 14% will seek further medical advice, usually from a doctor or nurse in the community (Schofield et al, 2009). Despite the number of people experiencing them, skin conditions are often trivialised with dermatology perceived as a ‘Cinderella’ specialty. Lay people and many health professionals historically regarded skin diseases as dirty, repulsive and abhorrent (Linn, 1956). This article challenges these assumptions by highlighting the importance of undertaking a comprehensive assessment of patients presenting with a skin condition. A case study of a child with eczema herpeticum is used to explore these issues and his mother, who is a qualified nurse, reflects on her experience as a parent and health professional while managing her child’s health.
Clinical Practice

Discussion

asthma and hay fever;
- Allergies;
- Medications including medicines that are:
  - Currently used or have been used in the past;
  - Prescribed and over the counter;
  - Bought on the internet;
  - Borrowed from friends and relatives;
- Social history;
- Constitutional symptoms, including weight loss, fatigue and pain (Fitzpatrick et al, 2001).

A comprehensive history will provide clues that will help inform the physical examination of the patient.

Psychological and psychosocial history

The impact that skin conditions can have on patients and their families should not be trivialised. The effect on quality of life has been shown to be greater for some chronic skin conditions, such as psoriasis, than for life-threatening and non-dermatological conditions, such as cancer (Schofield et al, 2009).

It is important to assess this impact and there are many assessment tools available to support clinical practice (see resources box for more information).

Physical skin assessment

Following the initial history taking, the skin should be examined systematically in a warm, well-lit room with natural light. It is considered best practice to examine the whole skin working from the top down, including the hair, nails, skin creases and folds, and to note any unusual odours or smells – which could indicate infection, continence problems or poor care. This should be explained to the patient and their family, who may be anxious about undressing.

Intimate examinations can be embarrassing and even distressing for patients, and their religious and cultural backgrounds should be considered. The assessment is likely to include examinations of breasts and genitalia and you will need to be close to and usually touch the skin. It is important to follow best practice guidance relating to intimate examinations and ensure that you:
- Explain to the patient what the examination will involve, in a way they can understand, so that they have a clear idea of what to expect, including any pain or discomfort;
- Obtain the patient’s consent before the examination and record it in the patient’s notes;
- Ensure that you:
  - Relating to intimate examinations and important to follow best practice guidance.

Table 1. Primary lesions present at the initial onset of skin disease

<table>
<thead>
<tr>
<th>Type of lesion</th>
<th>Description</th>
<th>Conditions seen in</th>
</tr>
</thead>
<tbody>
<tr>
<td>Macule</td>
<td>Flat mark, a circumscribed area of colour change, brown, red, white, blue or tan with smooth surface</td>
<td>Flat mole, freckle, measles</td>
</tr>
<tr>
<td>Papule</td>
<td>Elevated spot, palpable, firm, circumscribed lesion, generally less than 5mm in diameter. May be solitary or multiple and can be: acuminated (pointed), dome-shaped (rounded), filiform (thread-like), flat-topped, oval or round, pedunculated (with a stalk), sessile (without a stalk), umbilicated (with a central depression), verrucous (wart)</td>
<td>Acne, scabies, warts</td>
</tr>
<tr>
<td>Nodule</td>
<td>Elevated, firm, circumscribed, palpable, large solid lesion greater than 5mm in diameter</td>
<td>Cysts, lipomas</td>
</tr>
<tr>
<td>Plaque</td>
<td>Elevated, flat-topped, firm, rough, superficial papule greater than 2cm in diameter with well-defined or ill-defined borders</td>
<td>Psoriasis</td>
</tr>
<tr>
<td>Wheal</td>
<td>Elevated, solid, transient, changing and irregular-shaped area of cutaneous oedema. Variable in diameter, pale pink or white</td>
<td>Urticaria</td>
</tr>
<tr>
<td>Vesicle</td>
<td>Elevated, circumscribed, superficial fluid filled blister less than 5mm in diameter. They may be grouped</td>
<td>Eczema herpeticum</td>
</tr>
<tr>
<td>Bulla</td>
<td>Vesicle (blister) greater than 5mm in diameter</td>
<td>Bullous pemphigoid</td>
</tr>
<tr>
<td>Pustule</td>
<td>Vesicle filled with pus</td>
<td>Acne, folliculitis</td>
</tr>
</tbody>
</table>

Sources: DermNet NZ (2014); Lawton (2005)
Skin of colour
It is important to be aware of the different presentations seen in skin of colour. For example, lesions which appear as red or brown in white skin may appear as black or purple in skin of colour with mild redness (erythema) often missed. Skin inflammation commonly leads to post-inflammatory pigmented changes lighter (post-inflammatory hypo-pigmentation) and darker (post-inflammatory hyper-pigmentation). This can persist for a long time after the initial inflammation and is often of great concern to patients who think their skin is permanently scarred and, is more obvious in skin of colour (Lawton, 2015).

Additional diagnostic tests
As part of the assessment and diagnosis, further investigations and diagnostic tests may be required, for example:
● Diagnostic biopsies – histological examination and immunofluorescence, which looks at the role of the immune system in many blistering skin conditions, for example bullous pemphigoid;
● Microbiological samples of scales, crusts, exudate and tissue (including hair and nails) to identify the presence of yeasts, fungus, bacteria, viruses and parasites;
● Blood sampling to help with diagnosis and for monitoring drug therapies for safety and effectiveness;
● Allergy testing – patch testing and skin-prick testing (Primary Care Dermatology Society, 2019; DermNet NZ, 2016).

Case study
In this section, Victoria Turner reflects on the case of her son Roman, who had an episode of eczema herpeticum.

Roman’s story
Roman has no family history of skin disease but he developed eczema when he was seven weeks old and food allergies to soya, legumes, eggs and nuts were identified; an EpiPen auto-injector was prescribed. Following his eczema diagnosis, he was prescribed a variety of topical mild, moderate and potent corticosteroids but only the potent steroids were effective.

Roman has very sensitive skin and has reacted badly to different topical treatments, lotions and creams. He currently uses a moisturiser daily for maintenance of his skin, topical steroids, Cultivate (fluticasone propionate 0.05% w/w cream) for flare-ups of eczema to his body, Betnovate RD to his face, and antihistamines at night to reduce itching. These may also be used in the day if a food reaction occurs. Heat appears to aggravate Roman’s symptoms, causing him to scratch, so we installed a fan in his bedroom to keep him cool. Cotton bedding and clothing are used and we replaced carpets with vinyl flooring in an attempt to improve his symptoms.

In October 2018, when Roman was nearly two, we attended a family wedding and had contact with a boy whose brother was at home with chickenpox. A few days later Roman had his first swimming class and afterwards he developed a high temperature and looked very unwell. He was treated with paracetamol to try to reduce his temperature, but he experienced rigors and started to develop spotty blistered areas around his eczema on his knees, thighs, arms, hands and feet (Fig 1).

I took him to his GP who suggested it could be eczema herpeticum – a rare and serious skin infection usually caused by herpes simplex virus type 1 or 2 that is considered a dermatological emergency. The National Institute for Health and Care Excellence (2013) list the signs as:
● Areas of rapidly worsening, painful eczema;
● Clustered blisters similar to the early stage of cold sores;
● Punched-out erosions (circular, depressed, ulcerated lesions) usually 1–3mm that are uniform in appearance;
● Possible fever, lethargy or distress.

There were no spots on Roman’s front or back; they were only present in eczematous areas, so the GP telephoned an on-call dermatologist who suggested that, given the possible contact with chickenpox, this was like to be the cause of his skin problems. The GP asked us to come back after the weekend so Roman could be reassessed.

By Monday morning, Roman’s spots had worsened and we returned to the GP, who diagnosed eczema herpeticum and arranged an urgent hospital admission (Fig 2). Roman required treatment with two intravenous antiviral drugs three times a day.

Reflection as a mother
Every day I feel so much guilt for not knowing about infected eczema and how I could have spotted the signs sooner. I knew something was not right and did not feel happy with Roman’s initial diagnosis of chickenpox.

Reflection as a student
After this event with Roman, I wanted to ensure that health professionals could gain an understanding about eczema and signs...
to look for when eczema becomes infected. I devised a very simple flowchart (Fig 3) as part of my course to help health professionals, patients and their families to understand the signs of infected eczema.

**Reflection as a registered nurse**

When my son was initially seen by the GP, he did not receive a dermatology assessment. This resulted in a delay in his diagnosis and treatment. As we move toward wider use of telephone consultations in general practice, I am aware that skin conditions need to be seen and cannot be diagnosed by telephone.

My postgraduate course did not specifically cover common skin conditions and the main skin-related focus was on pressure ulcers. This begs the question do we need specific education and training for student nurses and registered nurses to understand more about skin conditions and how to manage them?

**Discussion**

In the UK, GPs and practice nurses are the first point of contact for people with skin conditions, which are the most frequent reason for consultation in general practice (Schofield et al, 2011). Knowledge of the prevalence and incidence of skin conditions is a prerequisite for designing clinical services and providing appropriate and continuing education for primary healthcare professionals (Schofield et al, 2011).

An appropriately trained health professional should be competent to take the patient’s history and undertake skin examination. Dermatological symptoms may be part of a general medical or psychological disorder, so accurate and reliable history taking is important, as is a holistic assessment of each patient’s needs (Primary Care Commissioning, 2011). Skin integrity is clearly highlighted in the Nursing and Midwifery Council’s (2018) standards of proficiency for registered nurses. Nurses should be able to:
- Undertake a whole-body systems assessment including respiratory, circulatory, neurological, musculoskeletal, cardiovascular and skin status;
- Use contemporary approaches to the assessment of skin integrity and use appropriate products to prevent or manage skin breakdown;
- Identify and manage skin irritations and rashes;
- Demonstrate the knowledge, skills and ability to act as a role model for others in providing evidence-based, person-centred nursing care to meet people’s needs related to mobility, hygiene, oral care, wound care and skin integrity.

In light of this, we ask the question: is our future workforce equipped to achieve these standards?

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**Fig 3. Assessment to identify eczema herpeticum**

- **Is eczema visible?**
  - Yes
  - No

- **Has it rapidly worsened?**
  - Yes
  - No

- **Is it painful?**
  - Yes
  - No

- **Are there clustered blisters or punched-out erosions?**
  - Yes
  - No

- **Does the patient have a fever, distress or lethargy?**
  - Yes
  - No

Source: Created by Victoria Turner as part of her postgraduate studies

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### Further resources

- British Association of Dermatologists [www.bad.org.uk](http://www.bad.org.uk)
- British Dermatological Nursing Group [www.bdng.org.uk](http://www.bdng.org.uk)
- Centre of Evidence-based Dermatology Resources (for examples of assessment tools) [www.nottingham.ac.uk/research/groups/cebd](http://www.nottingham.ac.uk/research/groups/cebd)
- Primary Care Dermatology Society [www.pcds.org.uk](http://www.pcds.org.uk)
- Cochrane Skin Group [skin.cochrane.org](http://skin.cochrane.org)
- DermNet NZ [dermnetnz.org](http://dermnetnz.org)
- National Eczema Society [www.eczema.org](http://www.eczema.org)

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### References

- **DermNet NZ** (2014) Terminology. DermnetNZ.
- **General Medical Council** (2013) Intimate Examinations and Chaperones. GMC.
- **Primary Care Commissioning** (2011) Quality Standards for Dermatology: Providing the Right Care for People with Skin Conditions. PCC.