MBChB Year 2 Clinical contact in GP – Skin and integument

Context for the session

The Intended Learning Outcomes are:

- Discuss preparing for a clinical consultation
- Open a clinical consultation
- Describe strategies for building rapport
- Gather a focused dermatology history
- Elicit patient's ideas, concerns, expectations, impact and emotions (ICE-IE)
- Indentify key elements in examination of the skin
- Describe common rashes and skin lesions
- Demonstrate an approach the clinical examination (WIPER)
- Assess and document vital signs including pulse, respiratory rate oxygen saturations, temperature and blood pressure (including calculating the NEWS2 score)

In the other areas of their Effective Consulting they will consider the above plus:

- Practise giving your colleagues effective feedback

Students will have covered the following in the two-week skin and integument block:

In **Case-Based Learning** they will consider a young man who presents with psoriasis. Students will consider: pathophysiology and skin turnover; how to describe rashes; impact on physical, social and psychological function; differential diagnoses of rashes; topical treatments and basic mechanism of action of steroid creams; and coping strategies. The GP treating the young man also has a rash – a dermatitis of the hands and the students look at implications for work.

In **Lectures, workshops and practical** they will learn about:

- The structure and function of the skin, hair and nails including normal diversity.
- Skin thermoregulation
- Skin histology
- Skin damage and repair
- Skin conditions: Psoriasis, eczema, acne, skin infections, and skin cancer
- Acute and emergency dermatology
- Paediatric dermatology
- Skin in systemic disease

Specifics for Skin and integument in GP clinical contact

Session structure and format

Please refer to the GP Clinical contact handbook for generic information and advice on how to structure and deliver each session.

Specifically for this session, start by:

- Briefly meet each student 1:1, to identify any individual issues that you need to be aware of
- Getting the group to introduce themselves – do not assume they know each other (but we try to avoid "orphan" students)
- Establishing group rules and agree how to work together as a group, e.g. punctuality, keeping each other confidences, etc.

You are not expected to give a tutorial on assessing skin problems. Students have had lectures and been sent reading material on assessing skin lesions and rashes in clinical practice, so get them to tell you what they have learnt. Brainstorm their thoughts on a flipchart or whiteboard (see figure) and/or use these prompts:

- Discuss what skin problems you commonly see in practice and how to assess a rash or skin lesion.
- If you are asked to assess someone presenting with a rash, how do you prepare? What do you look at in the notes before you speak to them?
- The range of possibilities for "a rash" is broad. What are the most important things you want to cover in the medical history and why? What are "red flags" in a patient presenting with rash?
- When someone presents with a skin lesion what do you want to find out about? How do you go about differentiating a skin cancer from a benign skin lesion?

Use the session to build on their general consultation and examination skills, as well and focusing on those things unique to skin problems.

(Expert) patients

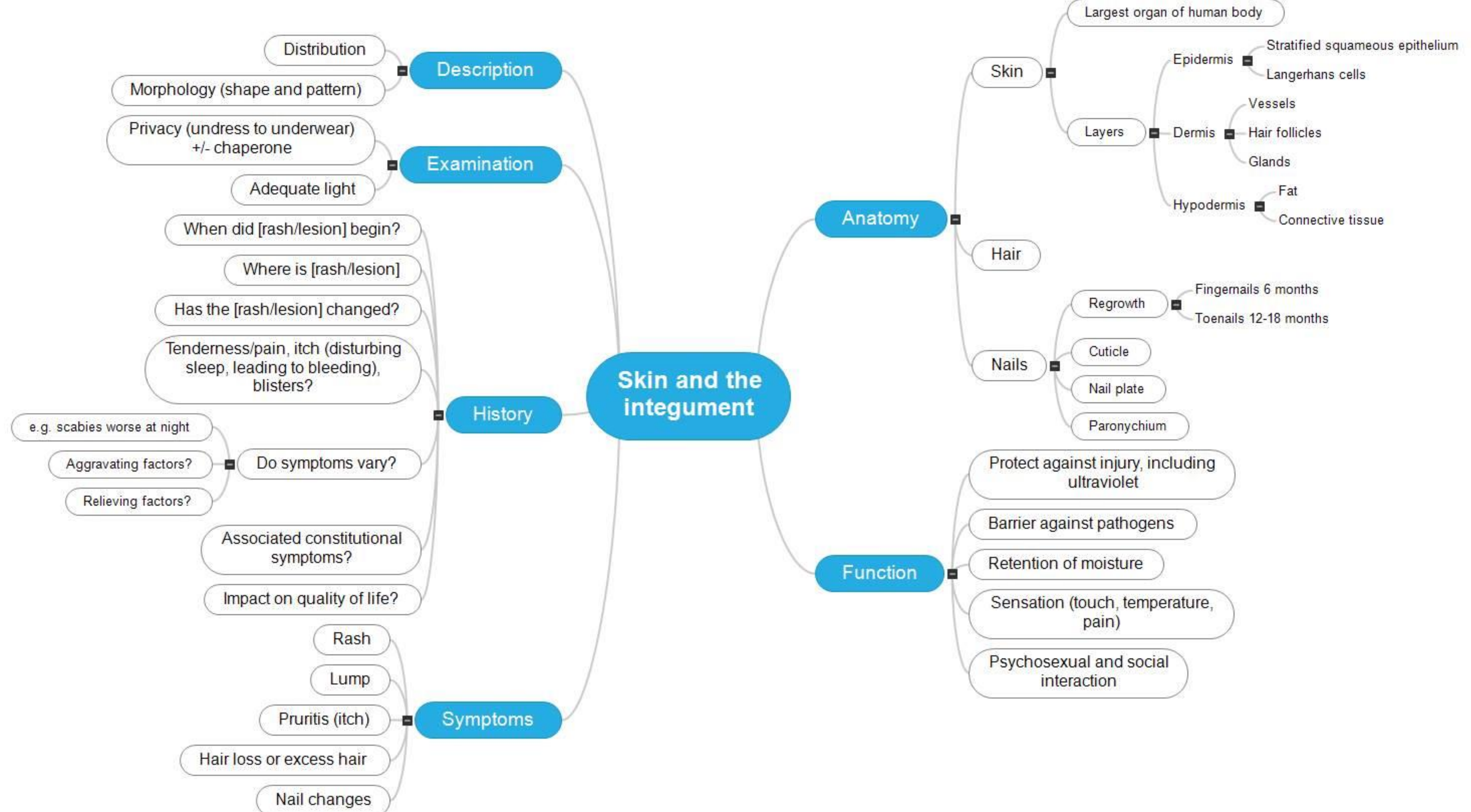
Ideal patients for the block are people:

- with long-term skin inflammatory conditions, such as atopic eczema, acne or psoriasis.
- with common, benign skin lesions (e.g. warts, seborrheic keratosis/basal cell papilloma) or chronic urticaria
- who have been treated for skin cancer (malignant melanoma, squamous or basal cell carcinoma)
- willing to have their pulse, respiratory rate oxygen saturations, temperature and blood pressure checked

Or any combination of the above!

Use the below information, previously given to the students, to structure/inform your discussions and interactions with patient(s).

Figure: Possible skin "brainstorm"



Student information on skin history and examination

Why does dermatology matter?

(Adapted from Munro)

In the United Kingdom, general practitioners deal with most skin problems, which account for 10-15% of all consultations (Le Roux et al 2020). However, because skin disorders are so common and so obvious, all doctors ought to have some idea about what is and what isn't normal in the skin.

The skin is in the front line of environmental attack from physical and biological agents. Each of the skin's physiological roles can malfunction. The skin may also be damaged as a result of disease arising elsewhere in the body. Consequently, there are lots of dermatological diseases: the British Association of Dermatologists diagnostic index has over 4000 preferred terms. Remember that in many parts of the world, leprosy and fungal and protozoal skin diseases remain major public health problems.

Nobody has a perfect skin, and a lot of lesions never reach medical attention. Skin disease generally starts to matter to people when:

- it doesn't look nice, to themselves or others
- they don't know what might be
- it itches or hurts
- it might be contagious
- it can kill them. (Malignant melanoma kills about 1500 people a year in the UK, many of them relatively young; squamous carcinoma of the skin another 500. Serious malignancies of the skin also include cutaneous lymphomas, and the skin may be the site of metastatic tumours and of cutaneous signs of malignancy)

It is easy to underestimate the social impact of even mild skin disease. Itch is unpleasant, and scratching unpleasant to watch. Atopic eczema keeps children and their parents awake. Hand dermatitis produces occupational handicap. Hair loss may be psychologically devastating; psoriasis can cause sexual difficulties; acne impairs confidence, and may affect job prospects.

History

Broadly speaking, skin disorders can be divided into rashes and lesions:

- Rashes are things like psoriasis, eczema, acne, and drug eruptions
- Lesions are things like moles, warts, and benign and malignant tumours.

'SOCRATES' is one way to remember what to ask about: Site, Onset, Character, Radiation, Associated symptoms, Timing, Exacerbating/relieving factors and Severity.

- **Initial appearance and evolution of lesion:** Site and distribution: Where is the rash or skin lesion? Is it localized or widespread? Onset: How long has the problem been there for? When was it first noticed? Sudden or gradual onset? Longstanding or recent? Has the patient had a similar rash before? What changes have occurred with time? What was the initial appearance?
- **Symptoms:** Particularly itch and pain
- **Aggravating and relieving factors** including previous and current treatments and if effective or not
- **Recent contact/stressful events/travel and illness**
- **History of sunburn and use of tanning machines and skin type:**

The Fitzpatrick skin type (FST) was developed in 1975 to assess the propensity of the skin to burn during phototherapy, and should not be conflated with race and ethnicity:

Type	Descriptor
I	White skin. Always burns, never tans.
II	Fair skin. Always burns, tans with difficulty.
III	Average skin colour. Sometimes mild burn, tan about average.
IV	Light-brown skin. Burns minimally, tans easily.
V	Brown skin. Rarely burns, tans darkly easily.
VI	Black skin. Heavily pigmented. Never burns, tans very easily

- **Past medical history:** History of atopy i.e. asthma, allergic rhinitis, eczema/history of skin cancer and suspicious skin lesions.
- **Family history of skin disease**
- **Social:** Occupation and if skin problem exacerbated by work.
- **Medication and allergies:** regular recent and over-the-counter medications.
- **ICEIE—**ideas, concerns, expectations, impact and emotions.

Examination

There are four important principles in performing a good examination of the skin:

Examining the skin (adapted from British Association of Dermatology Handbook for medical students):

Principle	Key features
INSPECT	General observation Site and number of lesion(s) If multiple or a rash, consider the pattern of distribution and configuration
DESCRIBE	*The individual lesion* **SSCAMM** **S**ize (the widest diameter), **S**hape **C**olour **A**ssociated secondary change **M**orphology, **M**argin (border)
If the lesion is pigmented:*	**ABCDE** rule: **A**symmetrical shape **B**order irregularity **C**olour irregularity **D**iameter > 6mm **E**volution of lesion (e.g. change in size and/or shape) **Symptoms** (e.g. bleeding, itching)
PALPATE	*The individual lesion:* Surface Consistency

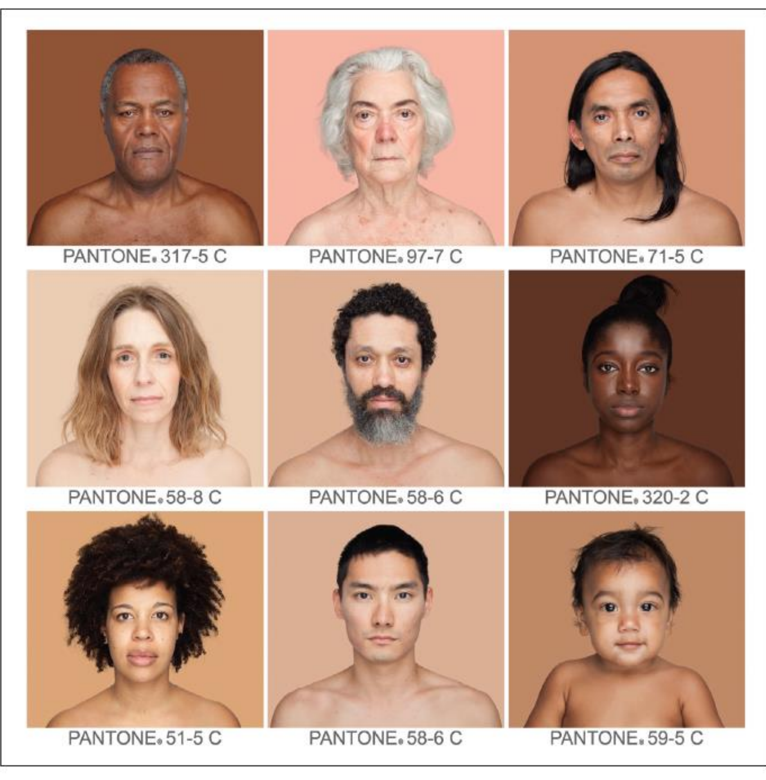
	Mobility Tenderness Temperature
SYSTEMATIC CHECK	Examine the nails, scalp, hair & mucous membranes Examine draining lymph nodes *And general systems examination.*

* NICE recommended referring people using a suspected cancer pathway referral (for an appointment within 2 weeks) for melanoma if they have a suspicious pigmented skin lesion with a weighted 7 point checklist (**score of 3 or more**):

- Major features of the lesions (scoring 2 points each):
  - change in size
  - irregular shape
  - irregular colour.
- Minor features of the lesions (scoring 1 point each):
  - largest diameter 7 mm or more
  - inflammation
  - oozing
  - change in sensation.

Skin colour

Take a look at "Humanæ" (https://angelicadass.com/photography/humanae/), which is a photographic work by artist Angélica Dass. It is an attempt to move our thinking beyond inaccurate labels of "white", "red", "black" and "yellow" associated with race, and to better reflect the diversity of human skin colour. The background for each portrait is tinted with a color tone identical to a sample of 11 x 11 pixels taken from the nose of the subject and matched with the industrial pallet Pantone®

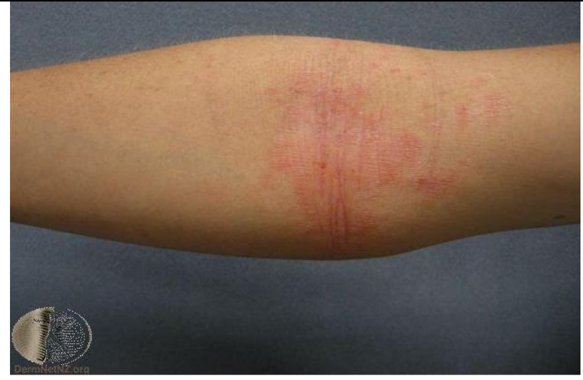
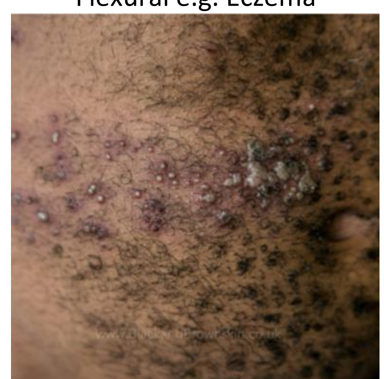
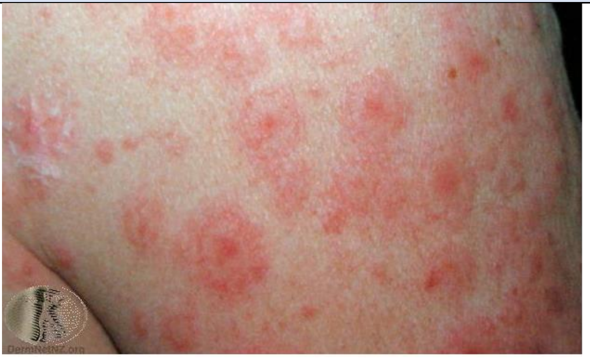


Terminology

Using correct medical terminology for skin problems can help your observation skills and help you reach a differential diagnosis, it is also important to give an accurate description when you refer to colleagues for advice.

- A rash is an eruption or widespread collection of lesions
- A skin lesion is an area of altered skin, they can be single or multiple

Key terminology to know:

Distribution: How skin lesions/rashes are spread out. Skin lesions may be isolated (solitary or single) or multiple.	When lesions are localised to certain regions it helps diagnosis, as skin diseases tend to have characteristic distributions It can be helpful to map out the distribution.
Generalised—extensive or widespread **Localised:** Restricted to one area of skin only **Dermatomal**—lesions appear on area of skin innervated by a single spinal nerve **Symmetrical**—appearance roughly the same on both sides of body **Flexural**—in skin folds e.g. axilla, antecubital fossa, popliteal fossa, behind the ears **Extensor** surface e.g. knees/elbows /shins **Pressure areas**: Sacrum, buttocks, ankles, heels	 Flexural e.g. Eczema  Dermatomal e.g. Shingles
Configuration—the shape/appearance of lesions	
Discrete—lesions separate from each other **Confluent—**lesions merge together **Annular**—in a ring **Linear**—in a line **Target lesion**—central dark area in paler ring and red edge. **Discoid/nummular**--round/coin shaped **Circumscribed**—has a well-defined border or edge	 Target lesions

Resources

“Medical Student: Dermatology” app: Developed by the British Association of Dermatologists, this is free to download from the App Store and Google Play

“Dermatology: A Handbook for Medical Students and Junior Doctors” is available free as book or PDF (see link below). It is fantastic resource, giving a comprehensive outline of the examination of skin lesions, rashes and terminology.

References

Le Roux E, Edwards P J, Sanderson E, Barnes R K, Ridd M J. British Journal of General Practice 2020; 70 (699): e723-e730. DOI: https://doi.org/10.3399/bjgp20X712577

Chiang N, Verbov J. Dermatology: A Handbook for Medical Students and Junior Doctors. BAD, 3rd Edition, 2020. https://cdn.bad.org.uk/uploads/2021/12/29200247/Derm_Handbook_3rd-Edition-_Nov_2020-FINAL.pdf [Accessed 17.10.23]

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