# Examining a Skin Lesion - OSCE Guide

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This guide provides a clear step-by-step approach to **examining a skin lesion** in an OSCE setting.

Download the skin lesion examination <u>PDF OSCE checklist</u>, or use our <u>interactive OSCE checklist</u>.

#### Introduction

Wash your hands and don PPE if appropriate.

Introduce yourself to the patient including your **name** and **role**.

Confirm the patient's **name** and **date of birth**.

Briefly **explain** what the examination will involve using **patient-friendly language**.

**Explain** the need for a **chaperone** if the skin lesion is located in an **intimate area**: "One of the ward staff members will be present throughout the examination, acting as a chaperone, would that be ok?"

**Gain consent** to proceed with the examination.

Adequately **expose** the **skin lesion** and **position** the **patient** so that you can **clearly visualise** it.

Ask the patient if they have any **pain** before proceeding with the clinical examination.

# **General inspection**

#### Skin lesions

Note the number, location and distribution of the patient's skin lesions from the **end of the bed**:

- **Acral distribution:** distal areas including the hands and feet (e.g. hand, foot and mouth disease).
- **Extensor distribution:** extensor surfaces including the elbows and knees (e.g. psoriasis).
- **Flexural distribution:** flexural surfaces including the axillae, genital region and cubital fossae (e.g. eczema).

- **Follicular distribution:** affecting areas with increased numbers of hair follicles such as the face, chest and axillae (e.g. acne).
- **Dermatomal distribution:** the skin lesions appear confined to one or several dermatomes and do not cross the midline (e.g. herpes zoster).
- **Seborrhoeic distribution:** present in areas where there is an increased density of sebaceous glands such as the face and scalp (e.g. seborrhoeic dermatitis).

### Objects and equipment

Look for **objects** or **equipment** on or around the patient that may provide useful insights into their medical history and current clinical status:

- **Medical equipment:** may include bandages/dressings, oral medications and topical medications.
- **Mobility aids:** items such as wheelchairs and walking aids give an indication of the patient's current mobility status.
- **Prescriptions:** prescribing charts or personal prescriptions can provide useful information about the patient's recent medications.



Hand, foot and mouth disease 1



Psoriasis<sup>2</sup>



Eczema



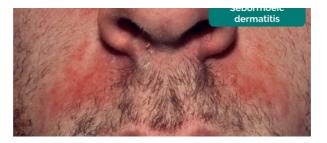
Acne 3





Herpes zoster <sup>4</sup>





Seborrhoeic dermatitis <sup>5</sup>

# **Close inspection**

# Size of the lesion(s)

Assess the size of the lesion(s): measure their width and height (if raised).

# Configuration of the lesion(s)

Assess the configuration of the lesion(s).

**Configuration** refers to the **shape** or **outline** of skin lesions. The pattern of multiple lesions or the shape of an individual lesion can be useful in narrowing the differential diagnosis.

When assessing configuration, note the following characteristics:

- Note if the lesion(s) is/are **discrete** or **confluent**.
- Note the **shape** of the lesion(s).
- Assess the **border** of the lesion(s) (e.g. well/poorly defined).

Configuration examples

**Discrete lesions:** individual lesions, clearly separated from one another (e.g. normal mole).

**Confluent lesions:** lesions that appear to be merging together (e.g. urticaria).

**Linear lesions:** lesions in the shape of a line (e.g. excoriations).

Discoid lesions: coin-shaped lesions (e.g. discoid eczema, discoid lupus).

**Target lesions:** concentric rings of varying colour, resembling a bullseye (e.g. erythema multiforme).

**Annular lesions:** ring-like lesions (e.g. tinea corporis).





Normal mole

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Urticaria <sup>6</sup>

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Discoid eczema <sup>7</sup>





Erythema multiforme <sup>8</sup>



Tinea corporis

### Colour of the lesion(s)

Assess the **colour** of the **lesion(s)**.

Colour examples

**Erythematous lesions:** redness of the skin caused by an increased blood supply to the area. Erythematous lesions will blanch when pressure is applied.

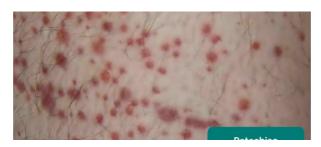
**Purpuric lesions:** reddish/purple discolouration of the skin caused by small blood vessels bleeding into the skin. Purpuric lesions do not blanch when pressure is applied. Petechiae are small purpuric lesions less than 2mm in diameter whereas ecchymoses are larger purpura more than 2mm across (commonly referred to as a bruise).

**Hyperpigmented lesions:** areas of darker skin caused by excess melanin production. Hyperpigmentation may be diffuse (e.g. Addison's disease) or discrete (linea nigra in pregnancy).

**Hypopigmented skin lesions:** areas of paler skin caused by melanocyte and melanin depletion or dysfunction. Pityriasis versicolour is a superficial fungal infection of the skin that impairs melanocyte function resulting in hypopigmented skin lesions.

**Depigmentation:** areas of skin which appear completely white due to the absence of melanin. Vitiligo is an autoimmune condition that results in the destruction of melanocytes and loss of pigment in the areas of skin affected.





Petechiae 9



### **Ecchymosis**





Linea nigra 10





Vitiligo 11

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Pityriasis versicolour 12

# Morphology of the lesion(s)

**Assess the form and structure of the lesion(s):** note if individual lesions appear flat, raised above the plane of the skin or depressed below it.

### **Primary lesions**

**Primary skin lesions** are those which develop as a **direct result** of a **disease process**.

**Macule:** a flat area of altered colour less than 1.5cm in diameter.

**Patch:** a flat area of altered colour greater than 1.5cm in diameter.

**Papule:** a solid raised palpable lesion less than 0.5cm in diameter.

**Nodule:** a solid raised palpable lesion greater than 0.5cm in diameter.

**Plaque:** a palpable flat lesion usually greater than 1cm in diameter. Most plaques are raised, however, some may be thickened without being visibly raised.

**Vesicle:** a raised, clear fluid-filled lesion less than 0.5cm in diameter.

**Bulla:** a raised, clear fluid-filled lesion greater than 0.5cm in diameter.

**Pustule:** a pus-containing lesion less than 0.5cm in diameter.

**Abscess:** a localised accumulation of pus.

Wheal: an oedematous papule or plaque caused by dermal oedema.

**Boil/furuncle:** staphylococcal infection around or within a hair follicle.

**Carbuncle:** staphylococcal infection of adjacent hair follicles (i.e. multiple boils/furuncles).





Psoriasis<sup>2</sup>

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Keratoacanthoma 13





Herpes zoster <sup>4</sup>



Bulla 14



### Abscess



Urticaria <sup>6</sup>



Furuncle 15



Carbuncle 16

### **Secondary lesions**

**Secondary lesions** are **modifications** of **primary lesions** that occur due to **trauma** to, or **evolution** of, the **primary lesion**.

**Excoriation:** loss of epidermis associated with trauma.

**Lichenification:** thickening of the epidermis with exaggeration of normal skin lines, typically caused by chronic rubbing or scratching of an area (e.g. chronic eczema).

**Scales:** visible fragments of the stratum corneum as it is shed from the skin, most commonly associated with psoriasis.

**Crust:** a rough surface consisting of dried serum, blood, bacteria and cellular debris. The serum, blood, bacteria and debris has usually exuded through an eroded epidermis.

**Scar:** new fibrous tissue which occurs after skin injury. Atrophic scarring involves the thinning of normal tissues underlying the scar resulting in a cratering effect. Hypertrophic scarring involves the hyperproliferation of scar tissue within the wound boundary, resulting in a prominent scar. Keloidal scarring involves the hyperproliferation of scar tissue beyond the wound boundary resulting in a scar that is significantly larger than the original skin insult.

**Ulcer:** a localised defect in the skin of irregular size and shape where the epidermis and some dermis have been lost. Ulcers ultimately result in scarring when healed.

**Fissure:** a sharply-defined, linear or wedge-shaped tear in the epidermis with abrupt walls, typically due to excess skin dryness.

**Striae (stretch marks):** purple lines on the skin caused by tearing during the rapid growth or overstretching of skin (e.g. growth spurts, ascites, intrabdominal malignancy, Cushing's syndrome, obesity, pregnancy). They undergo an evolution of colour from purple to pink to white as they mature.





Eczema

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Psoriasis<sup>2</sup>





Normal scar <sup>17</sup>

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Keloid scar <sup>18</sup>

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Venous leg ulcer 19

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Arterial leg ulcer <sup>20</sup>

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Striae 21

# Assessment of a pigmented lesion

To perform a **structured assessment** of a **pigmented lesion** you should apply the **ABCDE** approach.<sup>3</sup>

### **ABCDE** approach

### **Asymmetry**

**Assess** the **symmetry** of the **skin lesion**: asymmetry is suggestive of malignancy.

### **Border irregularity**

**Assess** the **borders** of the **skin lesion**: note if they appear well-defined. Poorly defined borders are suggestive of malignancy.

### Colour variation or changes

**Assess** the **colour** of the **skin lesion**: note if the colour appears consistent throughout the lesion. The presence of multiple colours within a single skin lesion is suggestive of malignancy.

#### **Diameter**

**Assess** the **diameter** of the **skin lesion**: measure the size of the skin lesion and ask the patient if it has been growing in size. Progressively enlarging skin lesions, particularly those over 6mm in diameter are suggestive of malignancy.

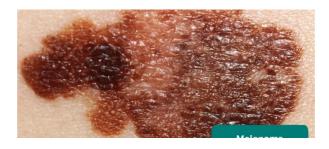
#### Elevation/evolution

**Assess** the **elevation** of the **skin lesion** and **take a history** of the **lesion's evolution**: elevated skin lesions and those which have a history of bleeding and itching are more concerning for malignancy.

### Final steps

If you **identify** a **skin lesion** which may be **malignant** you should perform a **comprehensive assessment** for **other suspicious lesions** and **examine the regional lymph nodes**.





Melanoma



#### Normal mole



Seborrhoeic keratosis <sup>22</sup>

### **Palpation**

**Don gloves** if there is a risk that the skin lesion is **infective** and/or is likely to expose you to **bodily fluids** (e.g. blood/pus).

#### **Assess** the **surface characteristics** of the **lesion**:

- **Texture:** note if the lesion feels smooth (e.g. ecchymoses) or rough (e.g. psoriatic plaque).
- **Elevation:** note if the lesion is flat (e.g. ecchymoses), raised (e.g. keratoacanthoma) or depressed (e.g. hypotrophic scar).
- **Crust:** if present, assess if you are able to remove the crust and inspect the underlying tissue (e.g. psoriasis).
- **Temperature:** assess the temperature of the lesions (e.g. an abscess may feel warm).

### **Assess** the **deeper characteristics** of the **lesion**:

- Consistency: note if the lesion feels hard, firm or soft.
- **Fluctuance:** hold the lesion by its sides and then apply pressure to the centre of the mass with another finger. If the lesion is fluid-filled (e.g. cyst) then you should feel the sides bulging outwards.
- **Mobility:** assess if the lesion feels mobile or is tethered to other local structures.
- **Tenderness:** may indicate infective and/or inflammatory aetiology.

# Systemic examination

Some **skin conditions** have **extracutaneous manifestations** whilst other **skin lesions** may develop **secondary to a systemic disease process**. As a result, it's important to perform a **comprehensive assessment** to identify relevant pathology.

#### Hands and elbows

Inspect the nails and hands for relevant clinical signs.

**Nail pitting:** punctate depressions of the nail plate associated with eczema, psoriasis and alopecia areata.

**Onycholysis:** separation of the distal end of the nail plate from the nail bed associated with psoriasis and fungal nail infection.

**Koilonychia:** spoon-shaped nails, associated with iron deficiency anaemia (e.g. malabsorption in Crohn's disease).

#### **Elbows**

**Inspect** the **elbows** for evidence of **psoriasis plaques**, **xanthomas** (hyperlipidaemia) or **rheumatoid nodules** (rheumatoid arthritis).

### Hair and scalp

Inspect the hair and scalp for relevant clinical signs.

#### **Hair loss**

**Alopecia areata:** well-defined patches of hair loss with surrounding normal hair.

**Alopecia totalis:** loss of all hair from the scalp.

### **Excess hair growth**

**Hirsutism:** androgen-dependent excess hair growth in females.

**Hypertrichosis:** non-androgen dependent excess hair growth.

#### Scalp

**Scalp psoriasis:** plaques of psoriasis located on the scalp, often resulting in visible scale in the hair.

**Seborrhoeic dermatitis:** often causes diffuse scale to be present throughout the scalp.

#### **Mucous membranes**

Inspect the oral mucosa for relevant clinical signs.

**Hyperpigmented macules:** pathognomonic for Peutz-Jeghers syndrome, an autosomal dominant genetic disorder that results in the development of polyps in the gastrointestinal tract.

Bullae: associated with pemphigus vulgaris, an autoimmune blistering disorder.

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Nail pitting  $^{23}$ 

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Onycholysis <sup>24</sup>

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Koilonychia <sup>25</sup>

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Alopecia areata  $^{26}$ 



Peutz–Jeghers syndrome <sup>27</sup>