Assessment of skin lesions; naked-eye and using 10x magnification devices

The purpose of this document is to help medical professionals with limited training in lesion recognition with the aid of appropriate magnification to identify common benign lesions that do not need to be referred.

The type of device recommended for basic recognition is a 10-LED Scale Loupe Magnifier with 10x magnification. Several brands exist. Such devices are not recommended for more intermediate-advanced skin lesion recognition for example in the assessment of melanocytic lesions when dermatoscopes along with specific dermoscopy learning is required.

This document is divided into 4 sections

Step 1: identifying good and bad moles

Step 2: using appropriate loupe magnification, if the lesion is raised can it be recognised as one of the following common benign lesions:
- seborrhoeic keratosis
- dermatofibroma
- angioma

Step 3: if the lesion is raised and using loupe magnification cannot be recognised as benign is the lesion an EFG (Elevated and Firm and Growing)?

Step 4: PUN
- Pink (other)
- U – ugly duckling
- N – nails and nether regions (genitals)

<table>
<thead>
<tr>
<th>Clinical features described in this document</th>
<th>Magnified features described in this document</th>
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<td>A - Asymmetry</td>
<td>• Arborising (well-focused branching) vessels</td>
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<td>B - Border irregular</td>
<td>• Pigment bands</td>
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<td>C - Colour different to other lesions</td>
<td>• Fissures and ridges</td>
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<td>D - Diameter changing (ie growing)</td>
<td>• Comedo-like openings</td>
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<td>E - Elevated</td>
<td>• Milia-like cysts</td>
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<td>F - Firm</td>
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<td>G - Growth (persistent)</td>
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<td>P - Pink (other)</td>
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Step 1: identifying good and bad moles

**Good moles: clinical appearance of benign melanocytic naevi (common moles)**

- **Clinical appearance of benign melanocytic naevi (common moles):**
  - 2 shades of brown but well organised and symmetrical.
  - Soft wobbly symmetrical naevi.
  - Pattern comparison is important – does one stand out as an ugly duckling? All of these vary a little but there is no ugly duckling.
Bad moles: when to suspect melanoma
Melanoma is more likely in lesions with the following features:

A - Asymmetry
B - Border irregular, jagged, notched or blurred
C - Colour different to other lesions: it may be 1 colour (e.g. black or pink), 2 colours/shades of colour that are not organised symmetrically, 3 or more colours/shades of colour is nearly always concerning
D - Diameter changing (i.e. growing)

It is often helpful to compare the lesion in question with the patient’s other moles to see if it looks different i.e. is it an ugly duckling?

These are all melanoma.
Step 2: using appropriate loupe magnification, if the lesion is raised can it be recognised as one of the following common benign lesions?

**Seborrhoeic keratosis**

**Clinical features:** usually multiple, often brown (but can be black, skin-coloured or pink), can be scaly or greasy, ‘stuck-on’ appearance, bits can drop off.

**Loupe magnification:** yellow-brown pigment bands (can look like coral), fissures and ridges (cerebriform), scattered grainy yellow-brown-black comedo-like openings, white milia-like cysts

**Pigment bands**

Found in some thin SK. Yellow-brown short thick lines, can be curved. Can look like coral.

**Fissures and ridges giving a cerebriform appearance**

**Brown and black grainy comedo-like openings** (red and blue arrows), white milia-like cysts (black arrows)
**Dermatofibroma**

**Clinical features:** one to several lesions, commonly the limbs, 5-10 mm and slightly elevated. Colour red-brown, a deeper area of pigmentation can be found at the periphery. Palpation reveals much of the lesion sits deep to the skin surface and has a firm consistency. Pinching the lesion results in central dimpling.

**Loupe magnification:** except in flat dermatofibromas lesions have a central scar-like white area that sometimes has a white network or white lines. A brown periphery, with closer examination areas of a very fine, brown, rounded network may be seen.

| This lesion above shows a fine brown rounded peripheral network | The lesion above has a white central network |
Angioma

**Clinical features:** small, red-purple soft raised lesions

**Loupe magnification:** red-purple and occasionally black lacunae, which can be separated by white fibrous stroma
Step 3: if the lesion is raised and cannot and cannot be recognised as benign is the lesion an EFG?

EFG = Elevated and Firm and Growing. All lesions below are EFG

Solid BCC

Clinical features: grow 2-4 mm/year, non-tender, may bleed/crust periodically. Shiny pearly papule or nodule with telangiectasia. May have rolled edge and central ulcer

Loupe magnification: gelatinous with well-focused branching vessels (arborising), can have a few round-oval blue globules at the periphery.

Squamous cell carcinomas (SCC), nodular melanomas – both can be EFGs

SCC clinical features: grow more quickly than BCC. Mainly UV-exposed sites. Tender papules and nodules with or without scale
Nodular melanoma clinical features: grow more quickly than BCC. Any site. Can be black, brown, pink or sometimes skin-coloured papules or nodules.
### Step 4 – PUN

- **Pink (other)**
- **U – Ugly duckling**
- **N – Nails and nether regions (genitals)**

**Pink (other)**

Pink can mean many things.

<table>
<thead>
<tr>
<th>Image</th>
<th>Description</th>
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<tbody>
<tr>
<td><img src="image1" alt="Actinic keratosis" /></td>
<td>Actinic keratosis – small flat non-tender lesion with rough surface scale on UV-damaged skin</td>
</tr>
<tr>
<td><img src="image2" alt="Bowens disease" /></td>
<td>Bowens disease – a larger slow growing flat non-tender lesion with rough surface scale on UV-damaged skin</td>
</tr>
<tr>
<td><img src="image3" alt="Superficial BCC" /></td>
<td>Superficial BCC - 1 or a few. Scattered erosions, can have a fine whipcord edge</td>
</tr>
<tr>
<td><img src="image4" alt="Solitary areas of ulcers" /></td>
<td>Solitary areas of ulcers can represent poorly differentiated SCC</td>
</tr>
<tr>
<td><img src="image5" alt="SCC on the lips" /></td>
<td>SCC on the lips can be subtle</td>
</tr>
<tr>
<td><img src="image6" alt="Amelanotic melanoma" /></td>
<td>Amelanotic melanoma – a solitary smooth plaque. An ugly duckling as patient had no other lesions with the same appearance</td>
</tr>
<tr>
<td><img src="image7" alt="Spitz naevus" /></td>
<td>Spitz naevus - a small solitary pink papule usually in younger patients. Benign but cannot be clinically differentiated from a melanoma and so must be referred urgently</td>
</tr>
</tbody>
</table>
U - Ugly duckling

Be wary of a lesion that is growing that looks or behaves differently to the rest

A slow growing firm white-yellow plaque on the central face – an infiltrative BCC

A new pigmented ugly duckling in a 92 year old – melanoma

A poorly healing ulcer – a poorly differentiated SCC
N - Nails and nether regions

**Nail melanoma** can present as a new solitary line or nail destruction.

**Subungual haematoma** - clear nail seen proximally - very reassuring.

Melanoma (above left) and SCC (above right) can affect the genitalia.