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 in to 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

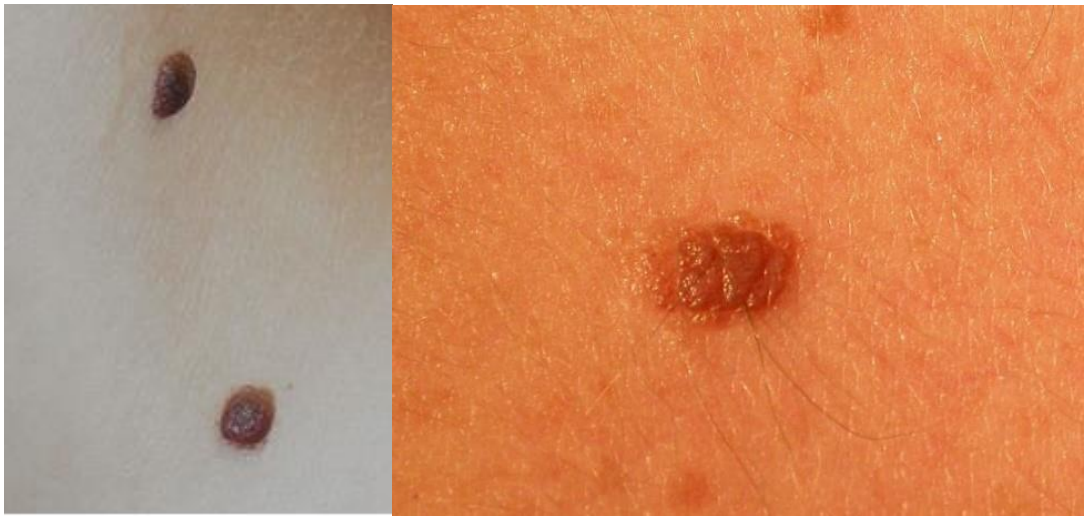
- **Pink (other)**
- **U – ugly duckling**
- **N – nails and nether regions (genitals)**

Clinical features described in this document	Magnified features described in this document
A - Asymmetry **B - B**order irregular **C - C**olour different to other lesions **D - D**iameter changing (ie growing) **E - E**levated **F - F**irm **G - G**rowth (persistent) **P - P**ink (other) **U - U**gly duckling **N - N**ails and **n**ether regions	• Arborising (well-focused branching) vessels • Pigment bands • Fissures and ridges • Comedo-like openings • Milia-like cysts • White centre with or without lines/network • Lacunae

Step 1: identifying good and bad moles

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

2 shades of brown but well organsied 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 (eg 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 (ie growing)

It is often helpful to compare the lesion in question with the patient's other moles to see if it looks different ie is it an **ugly duckling?**

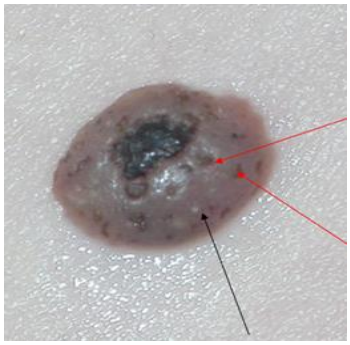
These are all melanoma.

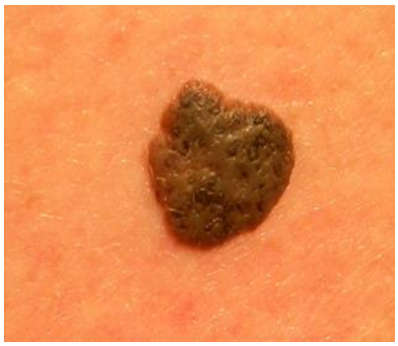
Step 2: using appropriate loupe magnification, if the lesion is raised can it be recognised as one of the following common benign lesions?

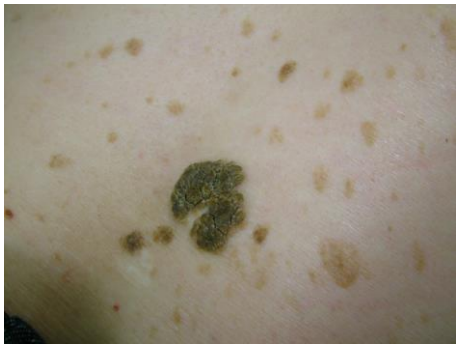
Seborrhoeic keratosis

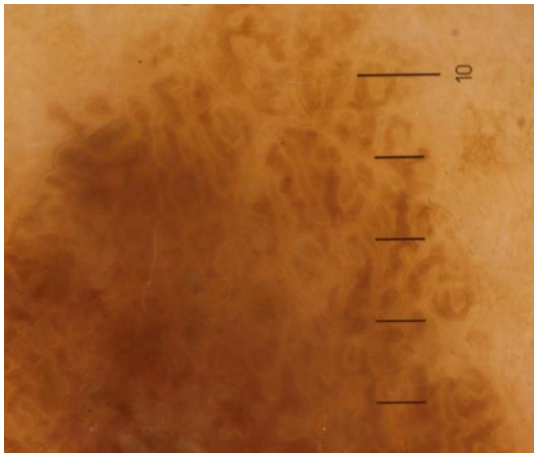
Clinical features: usually multiple, often brown (but can be black, skin-coloured or pink), can be scaly or greasy, 'stuck-on' appearance, bits can drop off.

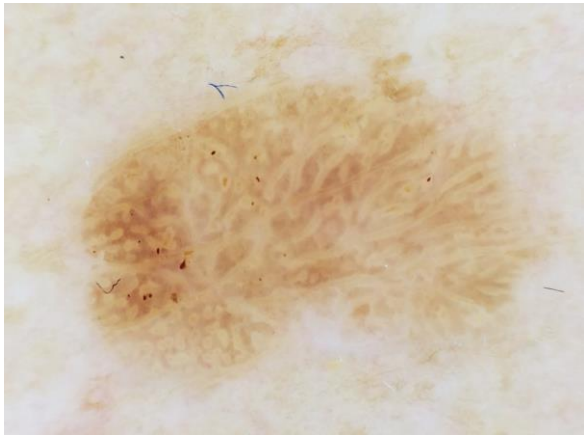
Loupe magnification: yellow-brown pigment bands (can look like coral), fissures and ridges (cerebriform), scattered grainy yellow-brown-black comedo-like openings, white milia-like cysts



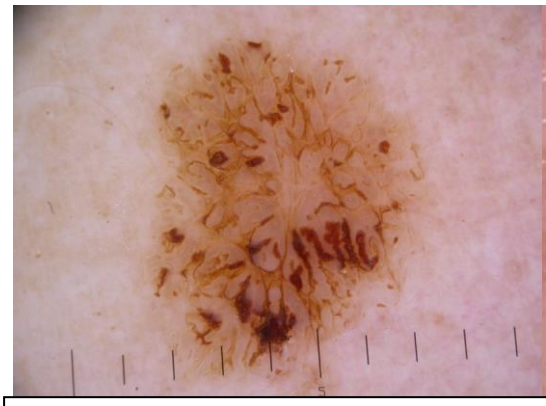


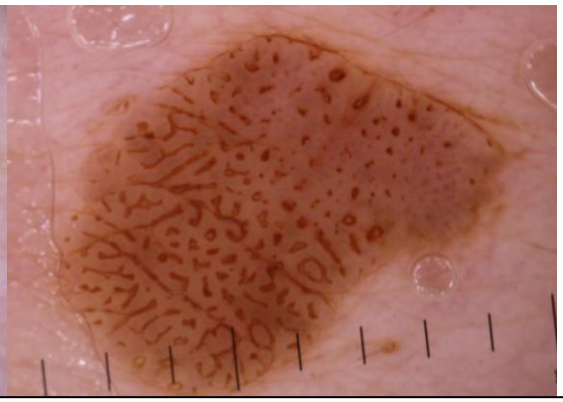




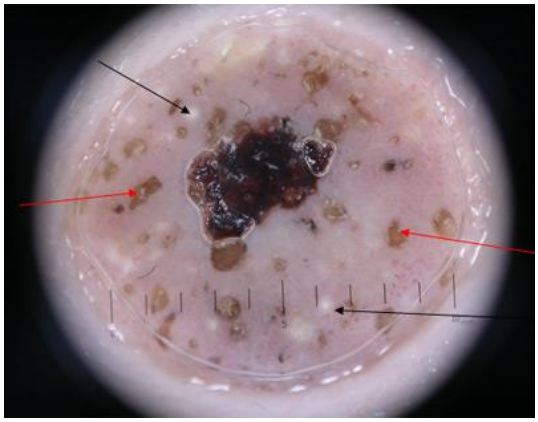


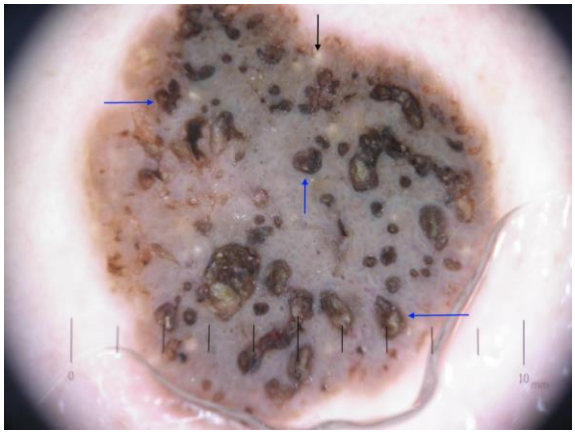
Pigment bands Found in some thin SK. Yellow-brown short thick lines, can be curved. Can look like coral.





Fissures and ridges giving a cerebriform appearance



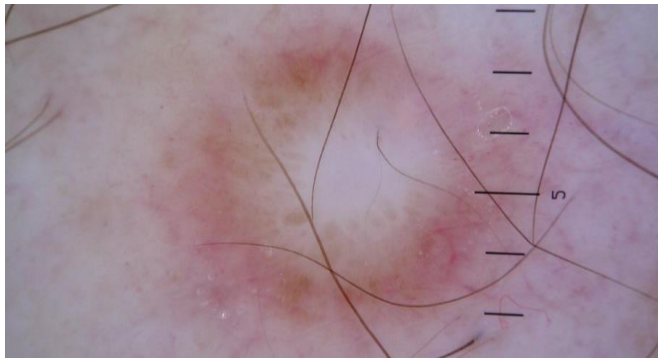


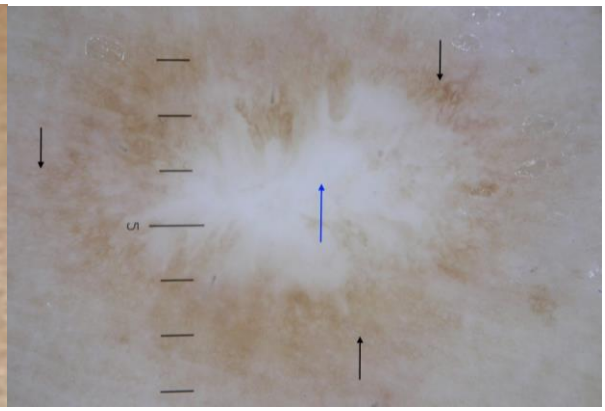
Brown and black grainy **comedo-like openings** (red and blue arrows), white **milia-like cysts** (black arrows)

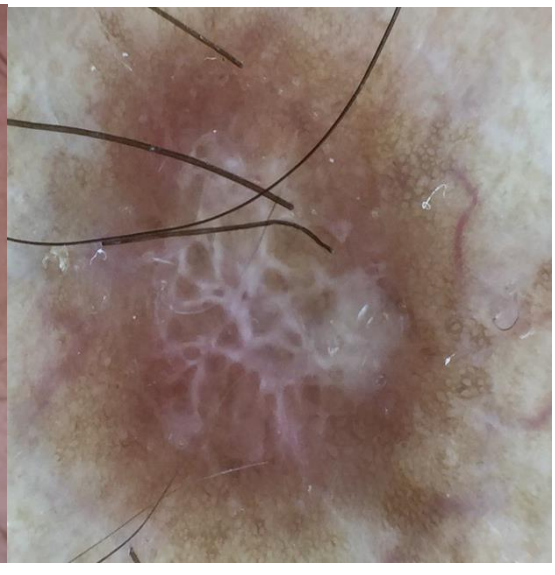
Dermatofibroma

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.





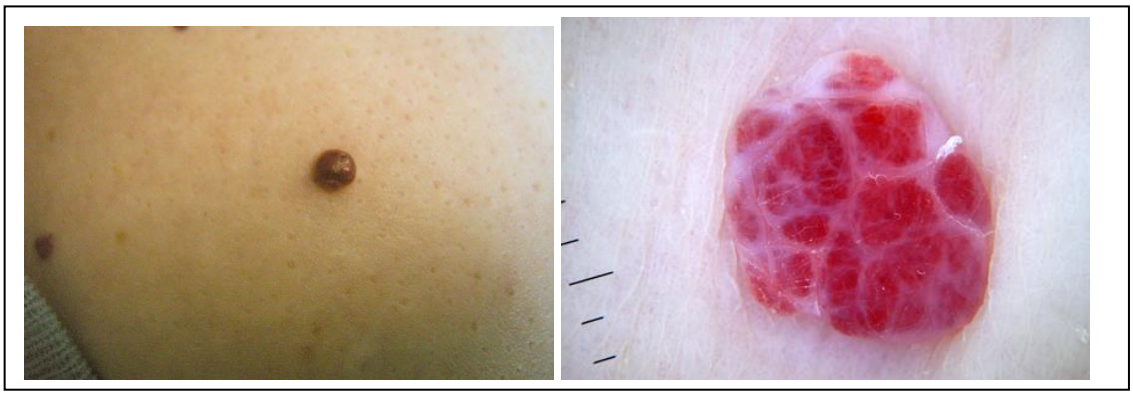


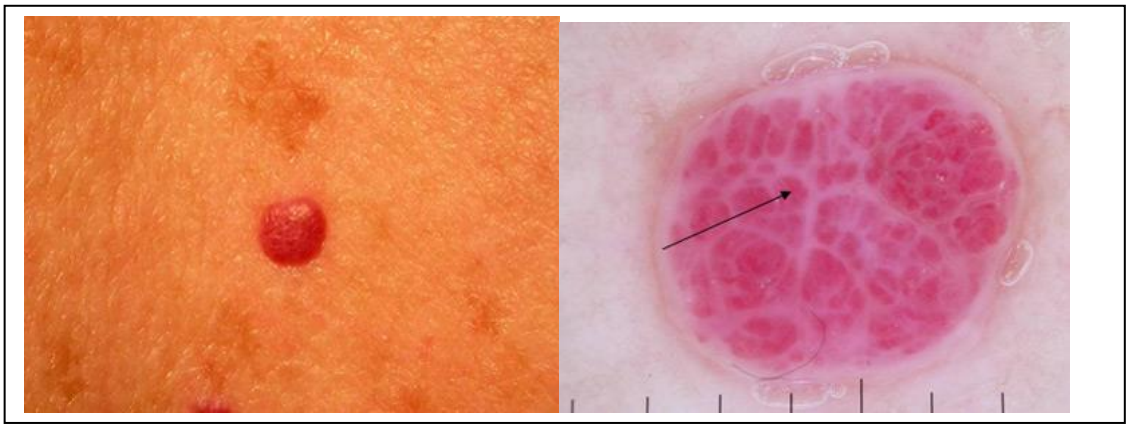
This lesion above shows a fine brown rounded peripheral network

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

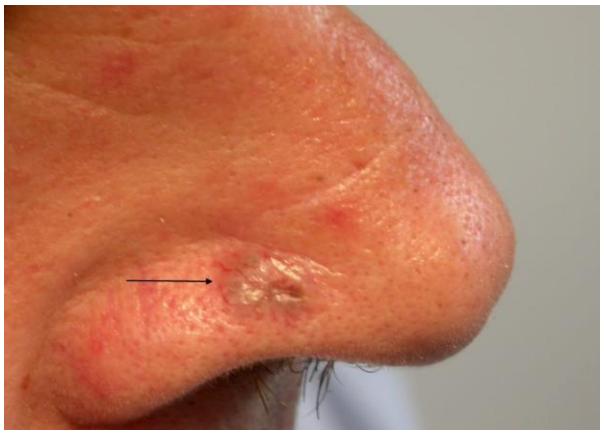
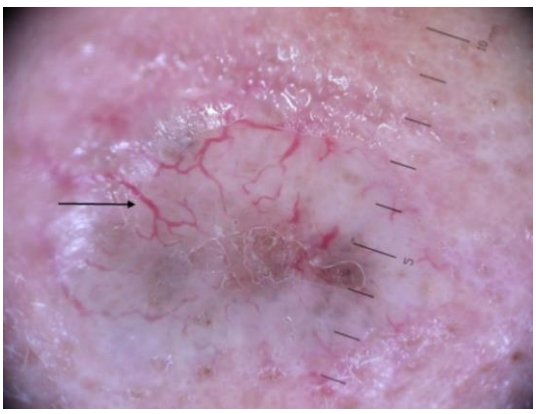




Step 3: if the lesion is raised and cannot and cannot be recognised as benign is the lesion an EFG?
EFG = Elevated and Firm and Growing. All lesions below are EFG

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)

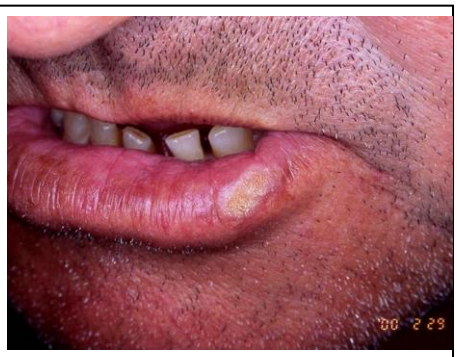
Pink can mean many things.

Actinic keratosis – small flat non-tender lesion with rough surface scale on UV-damaged skin

Bowens disease – a larger slow growing flat non-tender lesion with rough surface scale on UV-damaged skin

Superficial BCC - 1 or a few. Scattered erosions, can have a fine whipcord edge

Solitary areas of ulcers can represent **poorly differentiated SCC**



SCC on the lips can be subtle

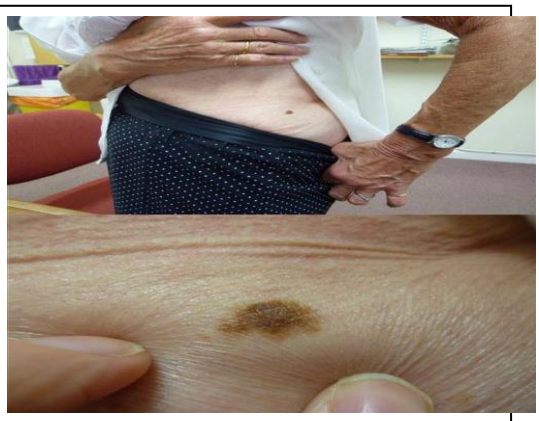
Amelanotic melanoma – a solitary smooth plaque. An ugly duckling as patient had no other lesions with the same appearance

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

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 vear old – melanoma

A poorly healing ulcer – a poorly differentiated SCC

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

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