

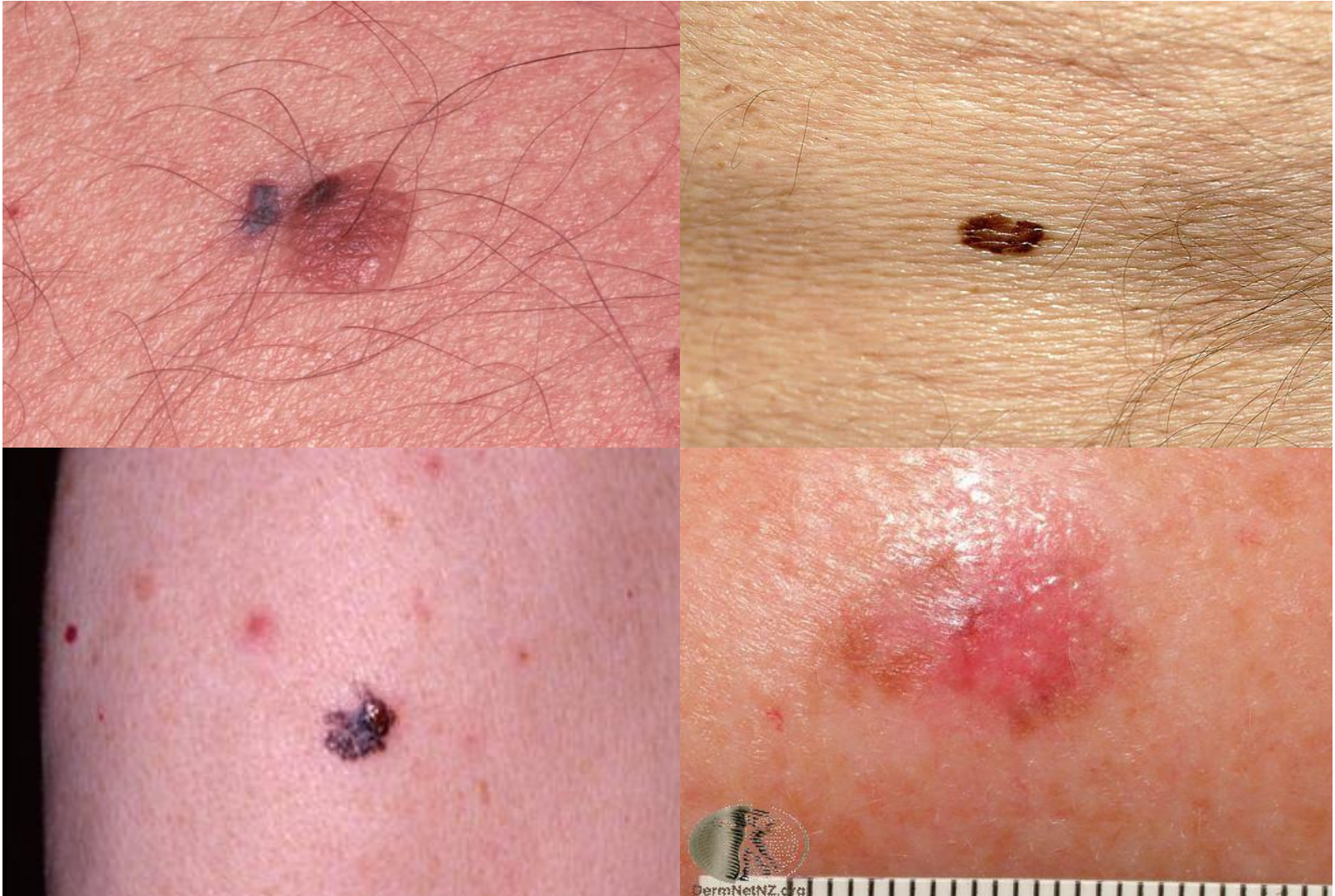
# Skin Cancer

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13.10.16

# Skin Cancer

- Melanoma – mole cancer - is a true cancer which can metastasize and kill
- Non Melanoma skin cancer
  - Basal cell cancer - slow growing, hardly ever metastasizes
  - Squamous cell cancer – can metastasise but usually not serious once removed but can be much more serious in transplant patients

# Melanoma



# UK Lifetime risks of Melanoma

Is now 1 in 54



# Squamous Cell Cancer



# UK lifetime risks for Squamous Cell Cancer of the Skin

Is now 1 in 10



# Basal Cell Cancer



# Basal Cell Cancer UK Lifetime Risk for White Skinned People

Is now 1 in 3



# Skin Cancer UK

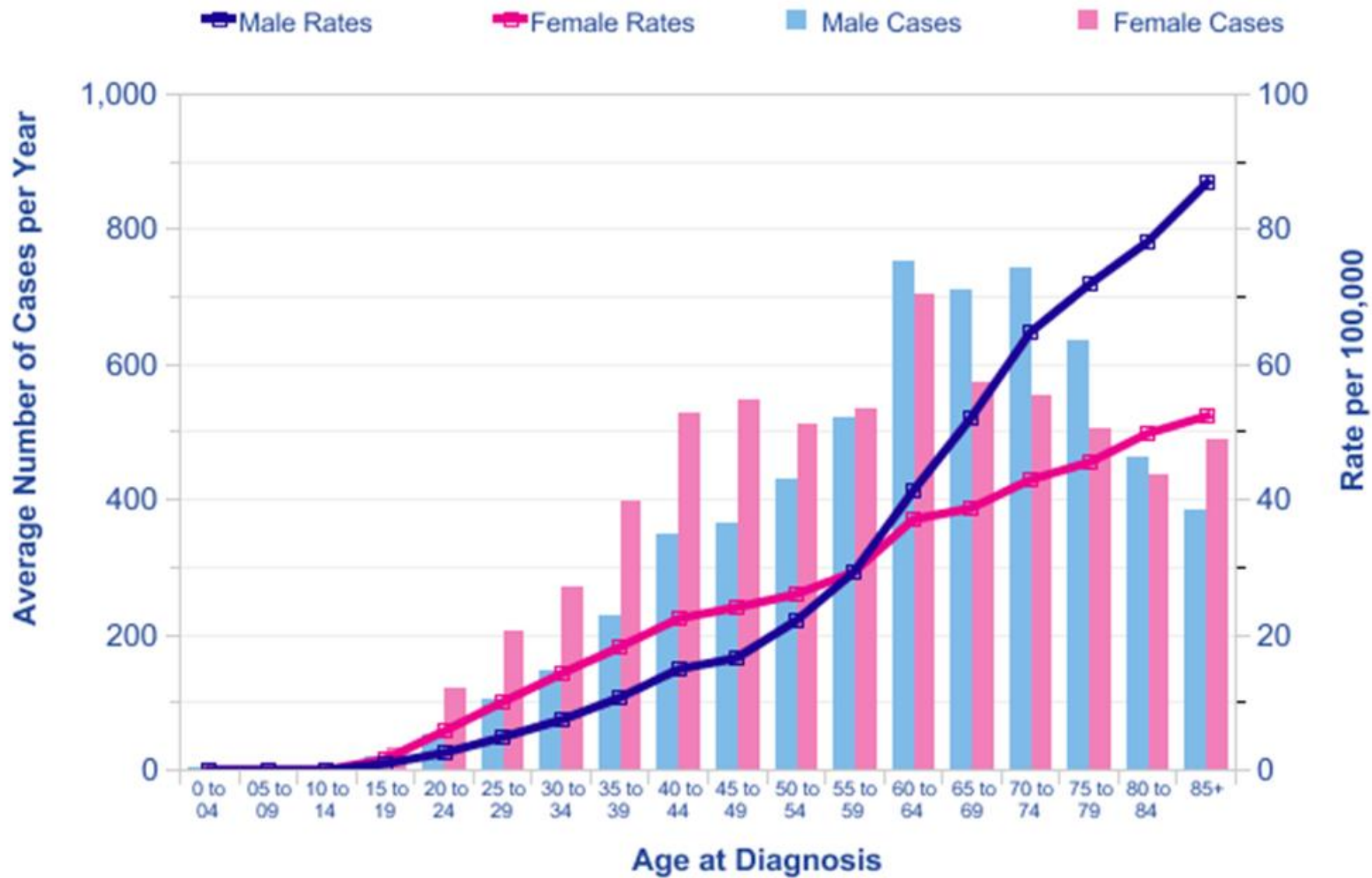
- There were around 14,500 new cases of melanoma in the UK in 2013
- 40 cases diagnosed every day.
- Melanoma is the fifth most common cancer in the UK (2013).
- Melanoma accounts for 4% of all new cases in the UK (2013).
- In males in the UK, melanoma is the seventh most common cancer, with around 7,200 cases diagnosed in 2013.

# Skin Cancer UK

- In females in the UK, melanoma is the fifth most common cancer, with around 7,400 cases diagnosed in 2013.
- Around half (49%) of malignant melanoma cases in the UK each year are diagnosed in people aged 65 and over (2011-2013).
- Since the 1970s, melanoma incidence rates have more than quadrupled (360% increase) in the UK.
- In males where rates have increased more six-fold (544% increase)

# Skin Cancer UK

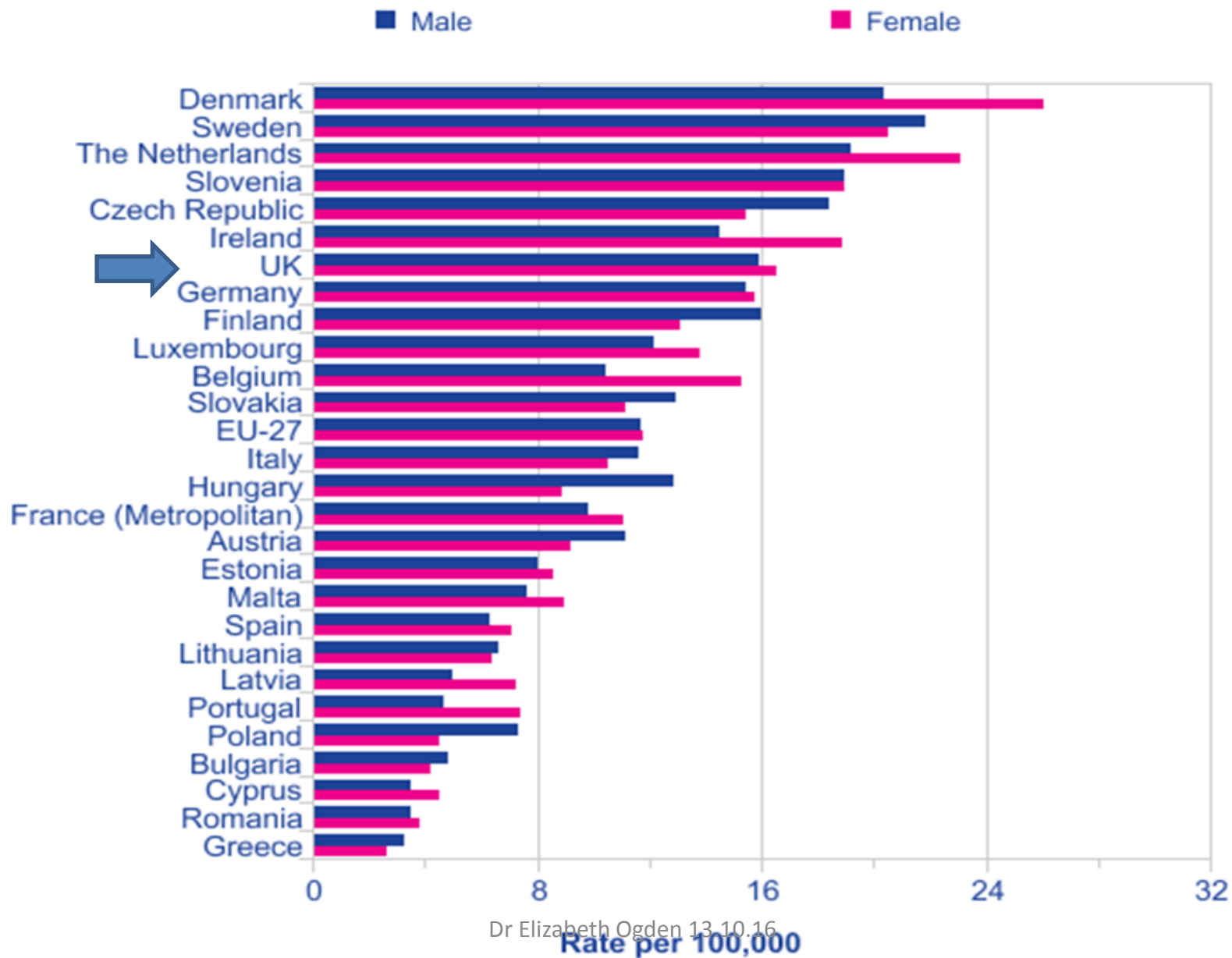
- Over the last decade, melanoma incidence rates have increased by almost half (46%) in the UK, though this includes a larger increase in males (59%) than females (36%)
- Most melanoma cases are diagnosed at an early stage.
- Most skin cancers occur in the trunk or legs.
- 1 in 54 people will be diagnosed with melanoma during their lifetime
- Skin cancer is more common in White people than Asian or Black people.





# Skin Cancer UK

- Skin cancer in England is less common in people living in the most deprived areas.
- In the UK around 59,000 people were still alive at the end of 2006, up to ten years after being diagnosed with malignant melanoma.
- There were around 72,100 new cases of non-melanoma skin cancer in the UK in 2013, though this underestimates true incidence.
- In Europe, more than 100,000 new cases of melanoma were estimated to have been diagnosed in 2012.



# Skin Cancer UK

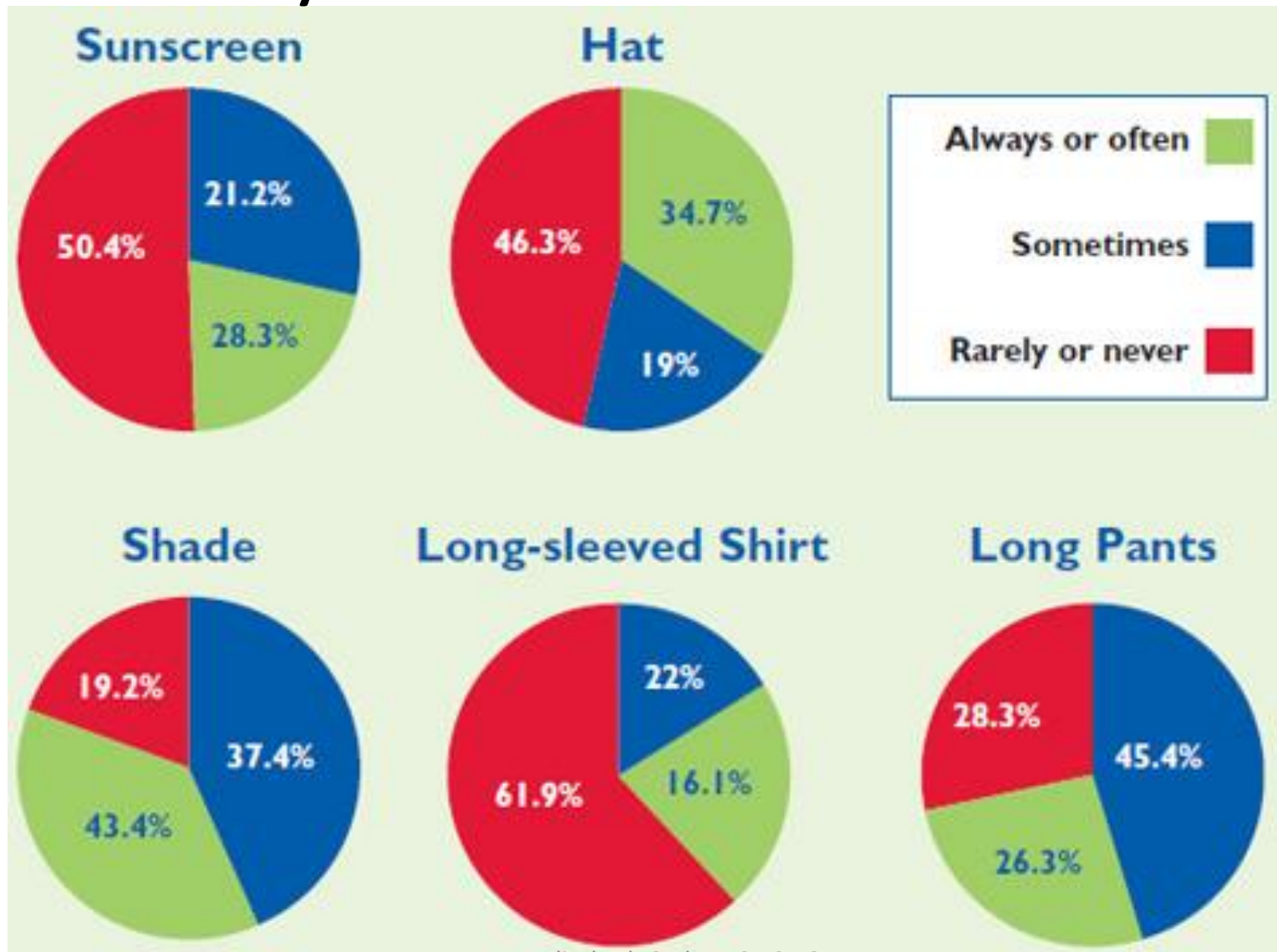
- The UK incidence rate is ninth highest in Europe for males and seventh highest for females.
- Half of melanoma cases are diagnosed in patients over 65
- Deaths from melanoma 2459 in 2014
- Worldwide, around 232,000 people were estimated to have been diagnosed with t melanoma in 2012, with incidence rates varying across the world.

# USA Melanoma Stats

- About 76,380 new melanomas will be diagnosed in 2016 - 46,870 ♂ 29,510 ♀
- About 10,130 people are expected to die of melanoma – more men than women
- The average age of people when it is diagnosed is 63 but can occur in the young
- Melanoma is 20 times more common in whites than in African Americans.
- Overall, the lifetime risk of getting melanoma is 1 in 40 for whites, 1 in 1,000 for blacks, and 1 in 200 for Hispanics.



# Survey of American's Sun Habits



# Skin Cancer in Australia

- Has the world's highest skin cancer incidence rate
- Australians are 4x more likely to develop a skin cancer than any other form of cancer
- Approximately 2 in 3 Australians will be diagnosed with skin cancer before the age of 70
- Melanoma is the fourth most common form of cancer
- 1 million GP consultations for skin cancer per year

# Skin Cancer in Australia

- Melanoma is the commonest cancer in the 15-44 age group
- Skin Cancer is the most expensive cancer
- Estimated to cost £177 million a year for NMSC and £20 million for melanoma
- Melanoma incidence has increased 6.8% over 10 years for women and 18.7% for men
- 1 in 24 ♂ and 1 in 33 ♀ in Australia will develop a melanoma by the age of 75

# Skin Cancer in New Zealand

- 1 in 15 New Zealanders will develop a melanoma
- Skin cancer costs the New Zealand health system about \$33 million/year (£16 million)
- About 2256 new melanoma cases a year with 250 deaths
- 42 cases per 100,000 (compared to 17 per 100,000 in UK)



# Skin Cancer in New Zealand

- New skin cancers total about 67,000 a year compared to a total of 16,000 for all other new cancer registrations
- Melanoma was leading cancer in males aged 25-44
- Second commonest cancer in women aged 25-44 and also those under 25
- Leading cause of cancer death in 25- 44 age group

# Sunbeds banned for under 18 year olds



- People who use tanning beds are 2.5 times more likely to develop SCC and 1.5 times more likely to develop BCC
- 71% of tanning salon patrons are females.
- People who first use a tanning bed before age 35 increase their risk for melanoma by 75%

# Sunbeds

- Nine out of 10 sunbeds surveyed throughout England emitted levels of UV radiation that exceed the maximum levels contained within the European standard.
- Moreover, the skin cancer risk for comparable times of exposure was up to six times higher than that for Mediterranean sunlight.
- Tierney P, Ferguson J, Ibbotson S, et al. Nine out of 10 sunbeds in England emit ultraviolet radiation levels that exceed current safety limits. British Journal of Dermatology. Article first published online: 17 JAN 2013

# When dealing with a Skin Lesion

- Do not forget to take history specially in regard to how long the lesion has been present – the longer usually the better
- Examine with a good strong light
- Use a Magnifying lens
- Stretch and touch the lesion

# Lesions

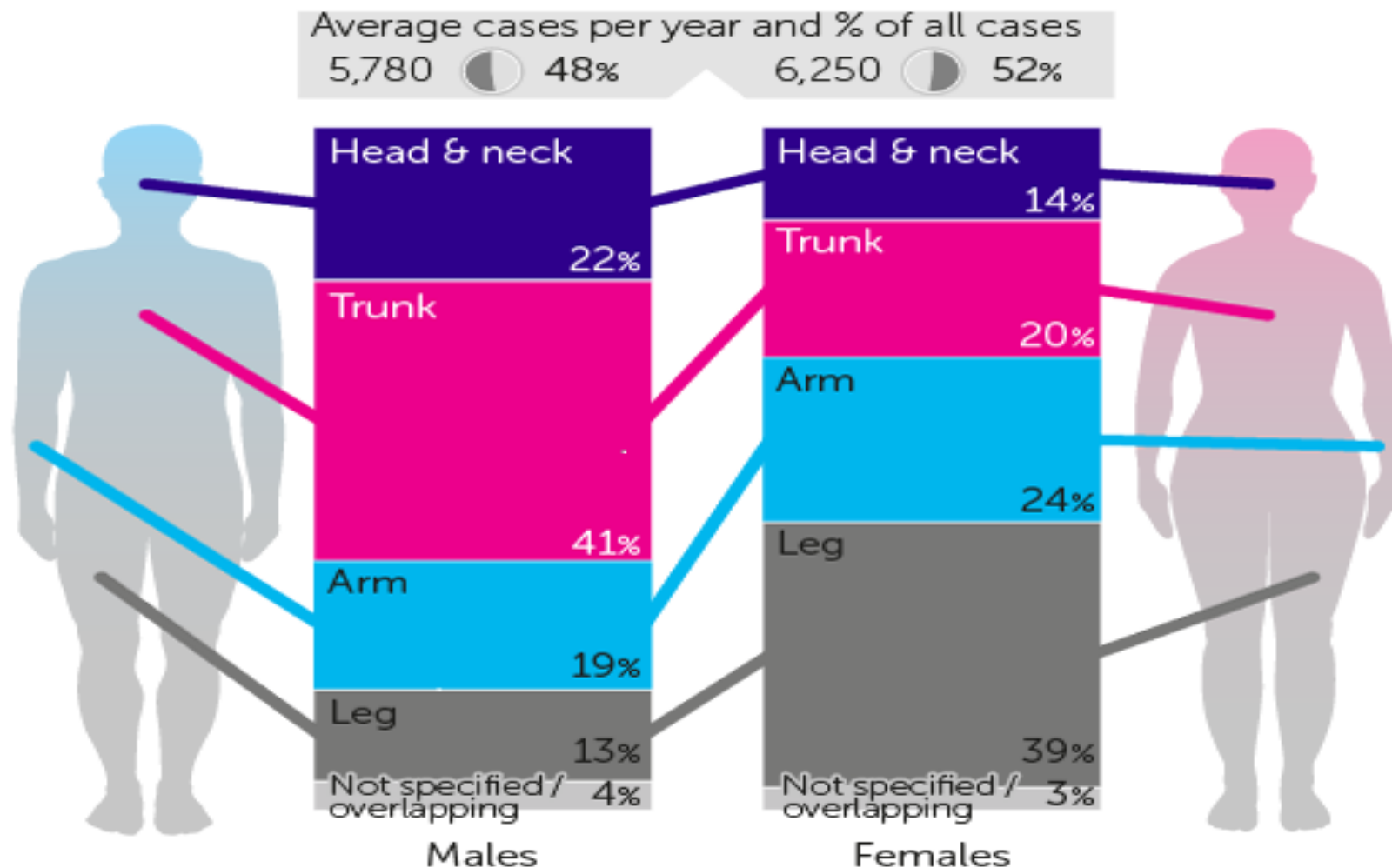
- Lesions need to be looked at in relation to the background skin and the lesions around them
- Skin cancer, especially BCC, is common
- Sun damaged skin is more likely to develop skin cancer

# Signs to Look For

- Skin Type
- Is the patient sun damaged?
- Colour of the lesion
- Is it an even colour?
- Is it a nice regular shape?
- Is scale present?
- Where it is – what lesions do you get there?
- Are there other similar lesions?
- What does the lesion feel like?

## Malignant Melanoma (C43)

Percentage Distribution of Cases Diagnosed on Parts of the Body, by Sex, UK, 2008-2010





# Crust and Scale



Scale indicates the lesion is superficial and arising in the uppermost layers of skin – Differential is Solar Keratosis, Squamous Cell Cancer and Viral warts

# The Sun

- It is estimated that around 80% of melanomas in fair-skinned people and 90% of non-melanoma skin cancers are caused by sun exposure
- Sunburn and intermittent sun exposure are causal in melanoma development
- More chronic exposure is causal in the formation of basal cell cancer and squamous cell cancer

# Who is susceptible to skin cancer?

- Gardeners
- Outdoor workers
- Those who have second homes abroad
- Those who like hot sunny holidays
- Those who burn easily in the sun
- Those that freckle
- Sunbed users
- Transplant recipients

# Airline Crew

- Melanoma risk is 2.2 times higher among airline pilots and cabin crew compared with the general population
- Ultraviolet (UV) exposure both occupational (UV levels are higher at altitude than on the ground) and non-occupational may explain this association

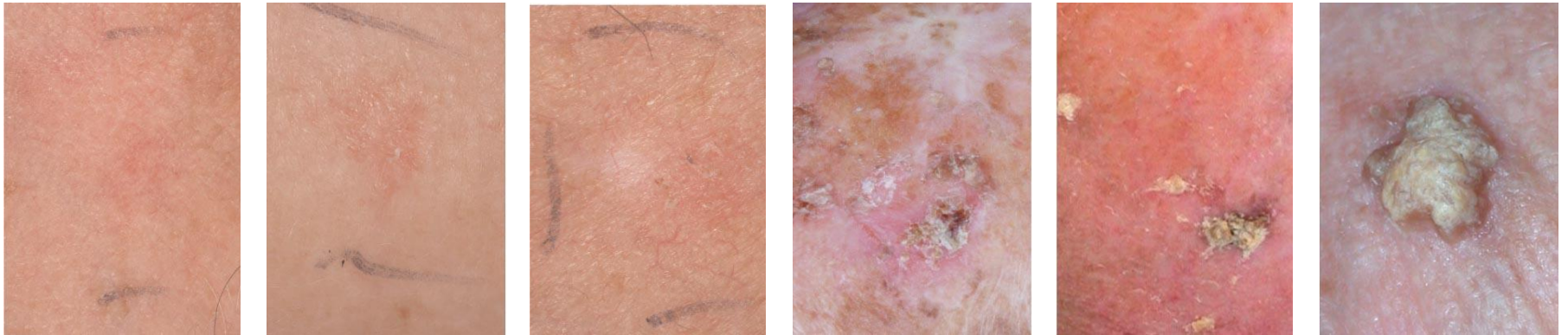
# Moles

- Start in early life – not born with moles
- Will get more until 40- 45
- Will regress in later life
- Some people will have hundreds, some just a few – average is 34 moles
- The colour tends to match your skin type – pale skin pink/ light brown. Darker skin types have darker moles

# Moles

- Common moles can appear during childhood or adulthood, and noticing a new mole is not necessarily a reason to panic.
- They usually have a diameter of less than 5 mm
- Their shape is round or oval
- Have clear edges
- They may be slightly raised

# The presentation of Actinic Keratoses



A few superficial  
“thin” AKs

Many small but  
visible AKs, which  
may be palpated

Multiple “thicker”  
AKs many of which  
are quite  
hyperkeratotic

# Transformation to Squamous Cell Cancer

- Histopathologically an intraepidermal proliferation of atypical keratinocytes can be observed.
- Clinical studies have established that between 0.025 and 16% of Aks progress to invasive SCCs, with extrapolation studies suggesting the risk of progression at approximately 10% (Glogau, 2000).



# Solid organ transplantation and skin cancer

# Skin Cancer in Transplants

- Risk of BCC in transplant patients is 5 -10x that of general population
- Risk of SCC in transplant patients is 40-250x that of general population (cf. Smoking x 2 risk)
- In one US study 5% of transplant patient died of skin cancer – 2/3rds due to SCC
- In Australian study 27% of heart transplant patients died of skin cancer

# Skin Cancer in Transplants

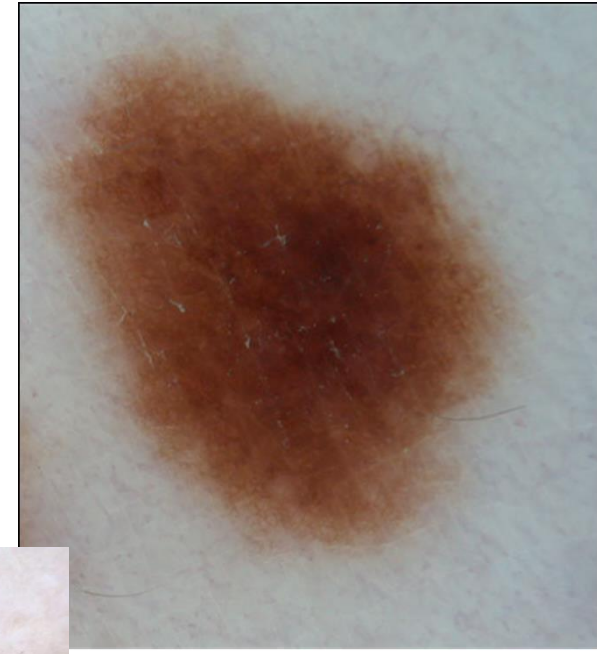
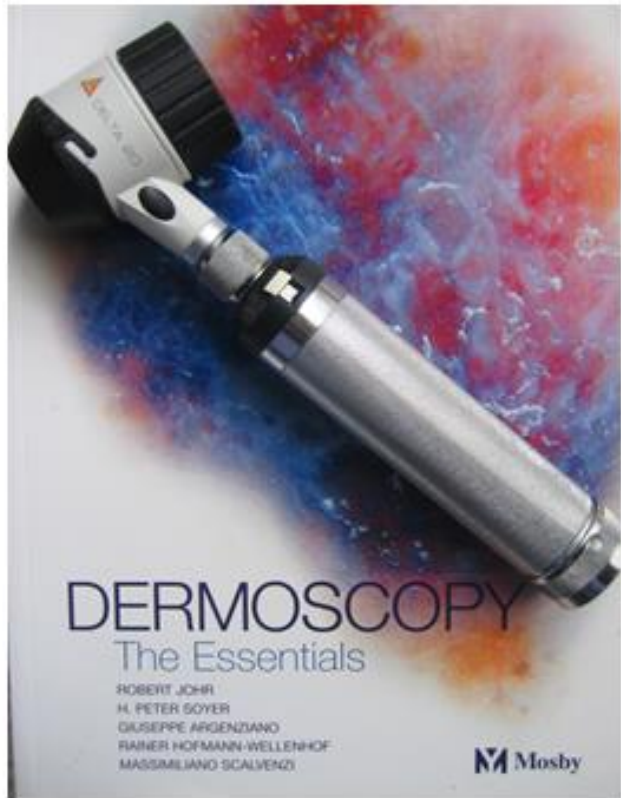
- Actinic Keratoses, Warts and SCCs begin to appear in increasing frequency within 5 years after transplantation
- Lesions multiple and in sun exposed areas especially head and neck, back of hands and forearms



# Skin Cancer in Transplant Patients

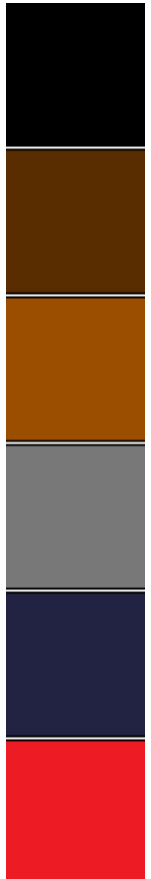
- Can be hard to tell from warts
- May look atypical
- Can be multiple
- Can grow quickly
- Tend to be more aggressive
- Tend to metastasize more easily
- Can be fatal

# Dermoscopy is a useful skill

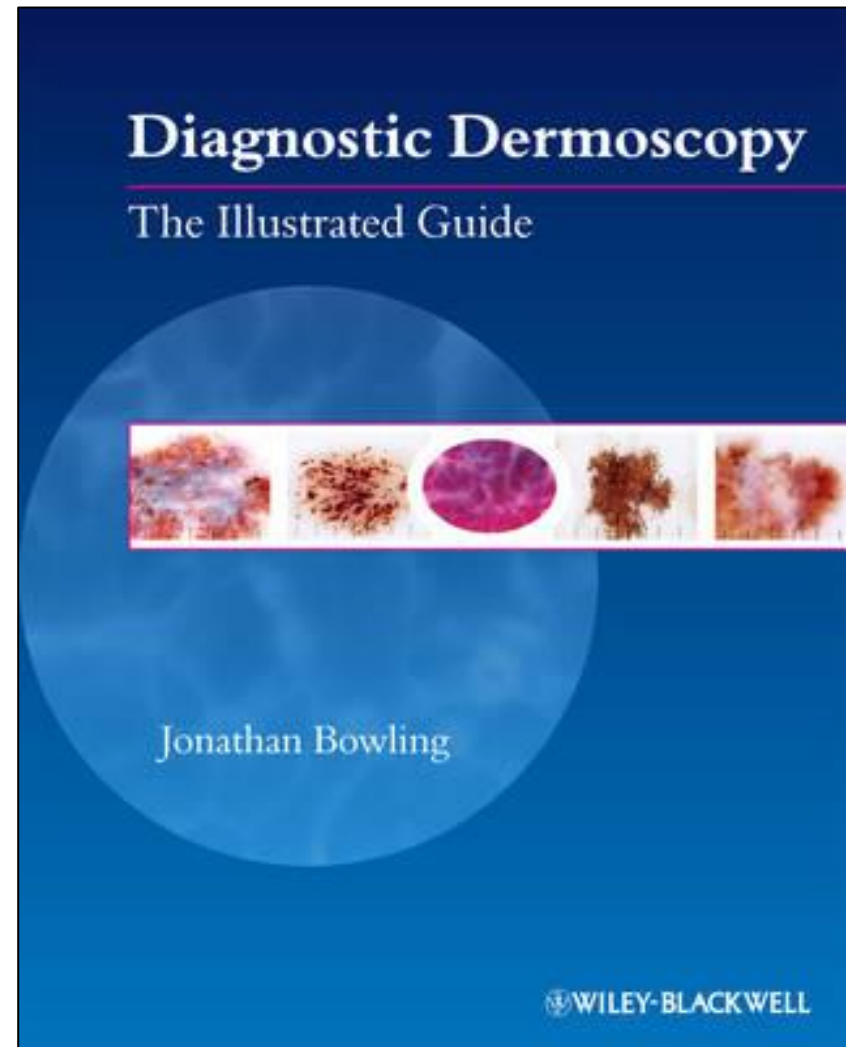
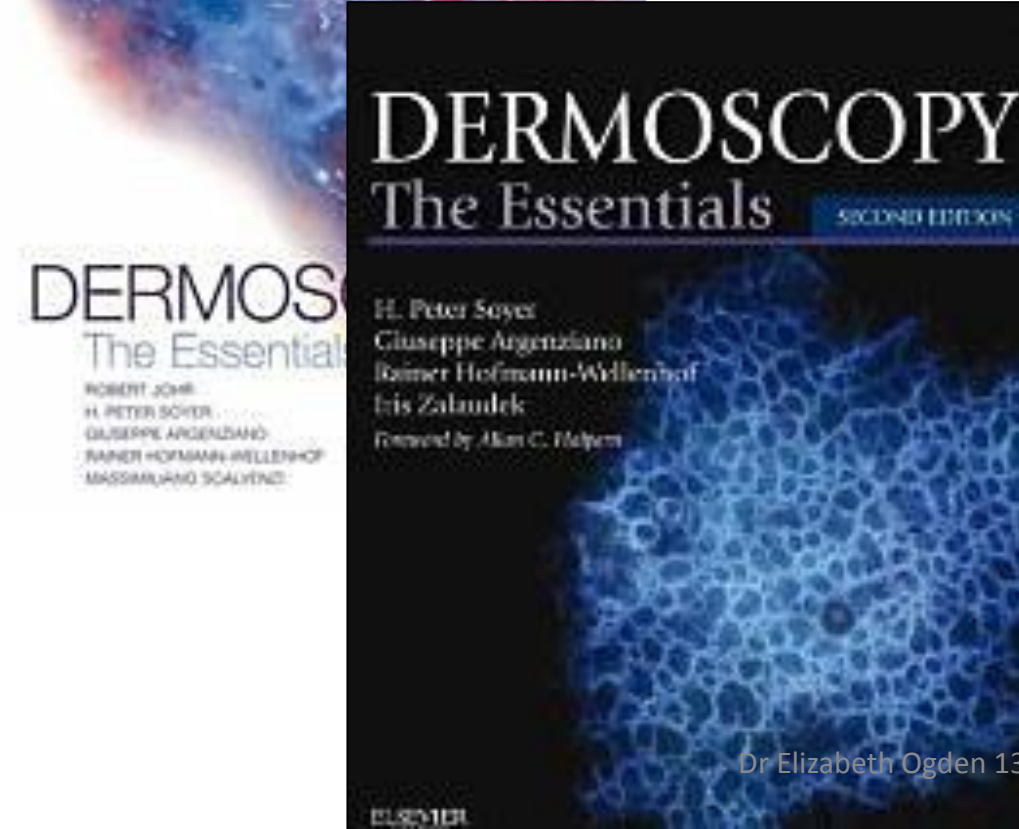


# Colours

- **Melanin looks**
  - black in the stratum corneum and upper epidermis
  - Light to dark brown in the epidermis
  - Gray to blue-gray in the papillary dermis
  - Steel blue in the reticular dermis
- **Red suggests increased or dilated blood vessels**
- **White suggests scarring, regression or keratin**



# Dermoscopy Books



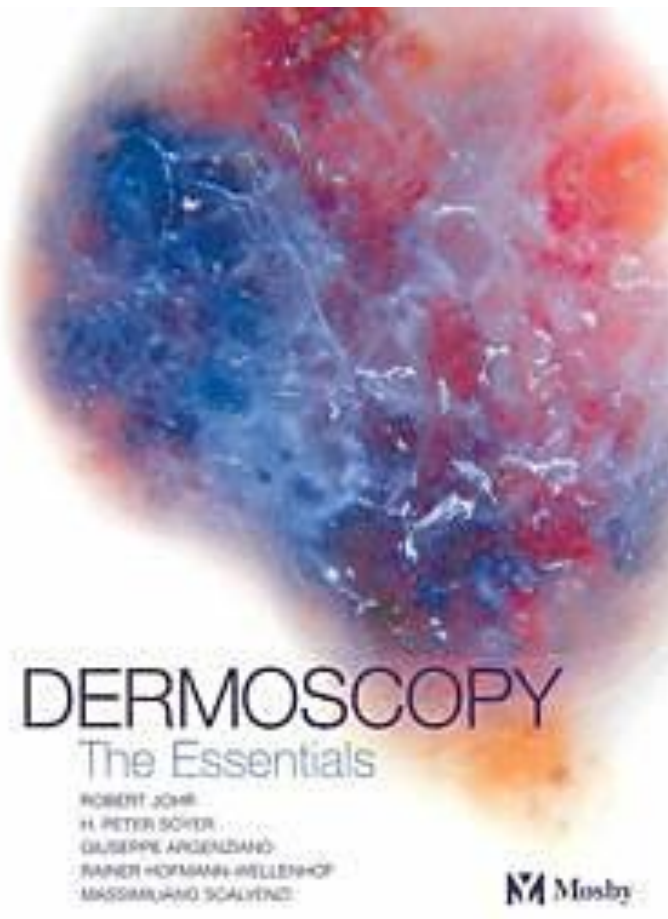
# Dermoscopy Courses

[www.dermoscopy.org](http://www.dermoscopy.org)

<http://dermnetnz.org/doctors/dermoscopy-course>

<http://www.dermoscopy.co.uk/>

<http://www.pcds.org.uk/events/dermoscopy/>





# Summary

- Two BCCs – Routine referral NOT 2 week wait
- Others were
  - Seborrhoeic Keratosis
  - Haemangioma
  - Irritated seborrhoeic keratosis
  - Normal mole

# Lesions

If not sure about a lesion – the options are

- Review in 2-4 weeks
- Treat with topical steroid if think dermatosis
- Arrange Excision
- Photograph and review
- Refer

**With nodular lesions or thick pink lesions do not delay**

# General Points

- Do not be tempted to look at a lesion in isolation
- Look at skin around it and at other lesions on the body
- Avoid the keyhole approach- get the patient to remove some clothing
- Look at the skin in general to see how much sun they have had and to see other lesions
- Another lesion may be much more worrying

# Cryotherapy



Only use  
Cryotherapy when  
you are 100% sure of  
your diagnosis

Good for warts and  
some Solar and Seb  
Keratoses

Never Cryo  
pigmented lesions

Leaves pale areas

# Skin Surgery

Do not biopsy unless you have a really good idea what the lesion is

Do not biopsy pigmented lesions

Always send for histology



# Skin Surgery



If you decide to remove a lesion do an ellipse excision – width to length 1 to 3

# Non Melanoma Skin Cancer

- The majority of NMSCs are either BCCs or SCCs – which are highly treatable and survival rates for NMSCs are very high.
- However, if left untreated, these tumours can become destructive, invading local tissues and causing disfigurement.
- Lifetime risks for BCC in the UK for white skin types is now 1 in 3
- Lifetime risks for SCC in the UK for white skin types is now 1 in 10

# Beware of solitary scalp lesion



# Unexpected Histopath Report

- **HISTOPATHOLOGY REPORT**
- **CLINICAL DETAILS**
- ?Pyogenic granuloma present for two months.
- **SPECIMEN**
- Skin biopsy, scalp
- **MACROSCOPY**
- An irregular piece of skin with separate fragments of crust. The skin measures 20 x 10 x 4mm.
- **MICROSCOPY**
- Sections show fragments of poorly differentiated tumour composed mainly of severely dysplastic epithelioid cells with high mitotic activity. The immunostaining shows positive reaction with CD10 and Vimentin. The staining is negative with EMA, S100, HMB45, CK7, PSA, Chromogranin and Desmin. The morphological features and the immunoprofile are consistent with a metastatic carcinoma, possibly renal cell carcinoma.
- **CONCLUSION**
- **Scalp lesion: metastatic carcinoma, possibly renal cell carcinoma.**

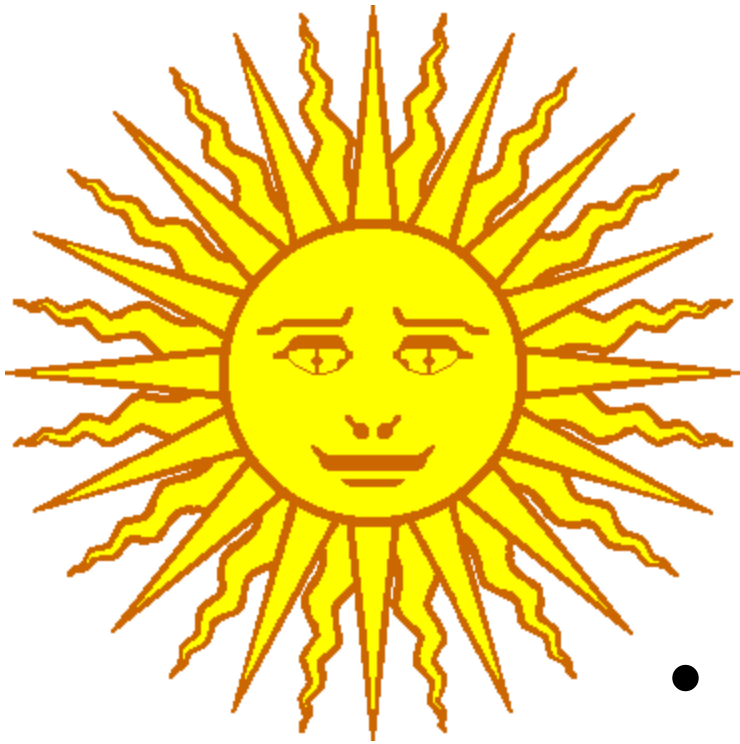
# Cutaneous metastases

From primary in:-

- Breast
- Lung
- Ovary
- Colon
- Renal
- Oral Cavity
- Melanoma itself can present with metastases

# Paediatric Skin Cancer

- 90% of paediatric melanoma cases occur in patients aged 10-19
- 6.5% of paediatric melanomas occur in non-Caucasians, which is a higher % than that seen in adults.
- Melanoma accounts for up to 3% all paediatric cancers
- Between 1973 and 2001, melanoma incidence in those under age 20 rose 2.9%
- Diagnosis and treatment is delayed in up to 40% of childhood melanoma



- In the UK is the sun's radiation greater in mid April or mid August ?