The GP’s approach to the patient who is worried about sun, skin and moles

Dr Stephen Hayes
Associate Specialist in Dermatology,
University Hospital Southampton
Dr Stephen Hayes
DECLARATION OF INTERESTS

• Former GP/GPwSI
• Associate Specialist in Dermatology, University Hospital Southampton
• Works with Primary Care Dermatology Society since 2002
• Independent dermatology/dermoscopy educator for reward
• Blogs at www.dermoscopy.wordpress.com
• UK board member of International Dermoscopy Society
‘I keep six honest serving men,
(They taught me all I knew)
Their names are What, and Why, and When,
And How and Where and Who.’
A few things patients ask and say

• Is this mole anything to worry about?
• Can I have a mole check please doctor?
• Can you take this mole off to stop it going bad?
• What about vitamin D—isn’t sunlight good for you?
• What changes in a mole do I need to look out for?
• I’m worried about this mole because it itches
A few questions GPs ask

• Can I safely exclude a dangerous skin cancer?
• If worried, do I refer urgently or routinely?
• If I am going to reassure, what advice should I give?
• Who should have mole mapping and monitoring?
• Should I get some training in dermoscopy?
• How soon can I afford to retire?
A tale of two cancers...

Change in UK mortality 1971-2008 -source cancer research UK

Cervical cancer 957 deaths

Melanoma 2,067 deaths
Melanoma now 5th most common UK cancer excluding BCC+ SCC
South west skin cancer hub - a great source of data
GP suspected skin cancer referrals up 41% in 5 years, mainly due to NICE guidance

The number of people in England admitted to hospital for skin cancer has risen by 41 per cent in the past five years, but much of the increase is due to a change in GP practice, scientists said.

A study by researchers at Public Health England found the number of hospital admissions for the treatment of skin cancer rose from 87,685 in 2007 to 123,808 in 2011, partly a result of new guidance issued to family doctors on treatment.

There was a 30 per cent increase in the hospital admissions for melanoma, the most serious type of skin cancer, and a 43 per cent increase in admissions for non-melanoma skin cancer, which is rarely fatal when treated effectively.
Our Vision: Creating a melanoma-free world through education.

Our Mission: Inspiring people to implement life-long habits for self-detection and prevention of skin cancer.

The Melanoma Education Foundation is a nonprofit organization devoted to saving lives from melanoma, a common skin cancer that is often deadly unless detected early before there are any symptoms. The Foundation increases awareness of melanoma two ways:
Donna Annand melanoma charity (Jersey)

Donna’s Story

- Donna Annand sadly passed away aged 29 on 18 February 2011 following a long and brave battle against Stage IV malignant melanoma.

- Donna’s wish was that this disease be highlighted to allow the early detection and treatment of melanoma to improve people’s chances of survival.

- The result of Donna’s wish is the formation of The Donna Annand Melanoma Charity.
Feel the fear - urgent skin cancer pathway patients are often terrified
Feel the fear- urgent skin cancer pathway patients are often terrified needlessly
Impressive, but no prizes for diagnosis!
• SCC destroying ear
• Elderly patient living alone
• Thought it wasn’t cancer as it didn’t hurt
A year later-happy ending (well, up to a point...)
SCC—typically a fast growing lump or ulcer on elderly, white, sun-damaged skin, often but not always keratinised

Note badly sun damaged back

Sent up as ‘? Actinic keratosis’ !!!
Aggressive fast growing SCC
Lower leg and scalp, common locations for SCC
Back of hand a common site for SCC
Basal cell cancer (BCC) very common. Rarely a problem unless close to vital structures
Usually slow growth with scabbing
‘classic’ nodular ulcerated BCC.
Morphoeic BCCs on the head can be difficult
Find one, look for others!
12 BCCs on one man
Where’s the dangerous skin cancer?
Previously unnoticed 0.5mm melanoma on sun damaged back, picked up by an observant doctor
Can you tell BCC from SCC? And does it matter?

**BCC**
- Slow growing
- The scab that never quite heals
- Non tender
- Typical sites-face, trunk, shoulders

**SCC**
- Fast growing
- Often forms keratin horn
- Often tender or painful
- Typical sites-ears, bald scalp, back of hands, shin
Melanoma survival depends on early diagnosis
Distribution in males and females
Beware the solitary lesion and ugly duckling
The pigmented lesion that your eye is immediately drawn to (ugly duckling) may well be a melanoma.
Ugly duckling on background of older, white, sun-damaged skin. Thin melanoma
Ugly duckling. Note irregular clods and blotches on dermoscopy
Ulcerated nodule on scalp - diagnosis was easy.

- Male, 80 presented with blue/grey ulcerated nodular melanoma.

- Dead from metastatic melanoma 6 weeks later.
• New red nodule!!!!!
What is this tumour?
Does dermoscopy help?
Nodular melanoma
key learning point

To avoid missing obvious melanomas, study loads of melanoma images!
www.dermis.net
superficial spreading melanoma

189 images

worth an hour of your time (claim CME)
www.dermis.net/ superficial spreading melanoma
Note carefully.

many melanomas include the colours **red or pink**.
A group of complete novices were taught skin lesion recognition simply by showing them lots of colour images (*).

It was quite effective.

(*) G. Argenziano, presentation given at 5th world dermoscopy congress, Thessaloniki, June 2018
Will education reduce skin cancer incidence?
‘But I never sunbathe, doctor!’
Jersey builders, while I was giving a talk on skin cancer diagnosis. April 2018.
Having fun on Chesil Beach, July 2015

Note the Nasty burn - but still at it!
SUN EXPOSURE EFFECTS

UV-induced skin-damage  Cell-damage  DNA-damage

Free radicals  Cell membrane

Nucleus  DNA

Keratinocyte
UV and infrared penetration into the layers of the skin

- UVB rays
- Infrared and UVA rays
- Sunscreen
- Epidermis
- Dermis
- Hypodermis
- Skin without protection
- Filter reflect UV radiation
<table>
<thead>
<tr>
<th>UV Light Outcomes</th>
<th>UVC</th>
<th>UVB</th>
<th>UVA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- No Effect</td>
<td>- Sunburn</td>
<td>- Premature Aging</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Inflammation</td>
<td>- Indirect DNA Damage</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Direct DNA Damage</td>
<td>- Oxidative Stress</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Eye Damage</td>
<td>- Skin Cancer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Skin Damage</td>
<td></td>
</tr>
</tbody>
</table>

- **Atmosphere**: The source of UV light.
- **Epidermis**: The outer layer of the skin.
- **Dermis**: The inner layer of the skin.
- **Hair Follicle**: Structures that give rise to hair and sweat glands.
- **Keratinocyte**: Cells that produce keratin, the protein that makes up the outer layer of skin.
- **Melanocyte**: Cells that produce melanin, which gives skin its color.
- **Fibroblast**: Cells that produce collagen, the protein that gives skin its structure and elasticity.
What about vitamin D and the sun? **Fake news** abounds, much of it from the tanning industry or others with products to sell.

![Vitamin D Benefits](image)

**Vitamin D Can**
- Reduce your risk of the flu
- Reduce your risk of cancer
- Reduce chronic muscle aches
- Reduce your risk of cardiovascular disease
- Reduce your risk of depression
- Reduce your risk of developing diabetes
- Reduce your risk of getting autoimmune disease
- Reduce your risk of osteoporosis
Lots of ‘sunshine vitamin’ propaganda out there, which minimises the risk of UV damage.
The new guidelines on vitamin D – what you need to know

Thursday July 21 2016
How has the new vitamin D advice been reported?

In general the new government advice on vitamin D has been reported accurately.

However, the Guardian's headline, "Tuck into tuna, salmon and eggs or take vitamin D pills – official health advice" is misleading. While it's important to eat these foods as good sources of vitamin D, the advice is to consider taking vitamin D supplements because it is difficult to get enough from food alone.
Misreporting on vitamin D is widespread!

- How has the new vitamin D advice been reported?
- What is vitamin D?
- What is the new vitamin D advice?
- Is there new vitamin D advice for children too?
- Why are we being advised to take vitamin D supplements?

Meanwhile, the Express headline, "Everyone should take vitamin D: Health chiefs warn millions are at risk of deficiency," overstates the advice. Most people are simply being asked to consider taking supplements.

And, although roughly one in five people has low vitamin D levels, this is not the same as a vitamin D deficiency. It is not accurate to say that millions of people are at risk of deficiency.
SACN also looked at possible links between vitamin D and non-musculoskeletal conditions, including cancer, multiple sclerosis and cardiovascular disease. They didn’t find enough evidence to draw any firm conclusions.

In spring and summer, most of us get enough vitamin D from sunlight on our skin and a healthy, balanced diet.

However, SACN couldn’t make any recommendations about how much sunlight people would need to get enough vitamin D because there are a number of factors that can affect how much vitamin D is produced in the skin. So the recommendations assume "minimal sunshine exposure".
People who have a higher risk of vitamin D deficiency are being advised to take a supplement all year round.

SACN's review concluded that these at-risk groups include people whose skin has little or no exposure to the sun, like those in care homes, or people who cover their skin when they are outside.

People with dark skin, from African, African-Caribbean and South Asian backgrounds, may also not get enough vitamin D from sunlight in the summer. They should consider taking a supplement all year round as well.
British kids of Asian origin are eight times more likely than their white counterparts to be vitamin D deficient, says a new study that is leading calls for vitamin D supplementation for this at-risk group.

"We suggest that supplementation with vitamin D of all babies of Asian origin for the first 2 years of life might be the economic answer to a growing problem," wrote lead author Christos Zipitis from Burnley General Hospital.

Such conclusions are based on a prospective study, which identified 14 children with vitamin D deficiency in the Burnley Health Care NHS Trust in the north west of England between 2000 and 2005.

Virtually all those affected were of Asian ethnicity, and none had received vitamin D supplements. The researchers extrapolated their results to show that the overall vitamin D deficiency in the general Trust population was 1 in 923, while children of Asian origin had an incidence of 1 in 177.
Asian children suffer vitamin deficiency

The diet of Asian children may place them at a disadvantage.

Thousands of British Asian children are deficient in vitamin D, scientists have found.

A lack of Vitamin D, which is generated by the body through exposure to sunshine, can cause the bone disease rickets. It may also lead to the brittle bone disease osteoporosis in later life.

Researchers from the Institute of Child Health, London, carried out blood tests on more than 600 Asian children aged two years.
Vitamin D summary

• Vitamin D is essential for healthy bones, and most likely has various other benefits which are harder to quantify
• Dietary deficiency is common
• Vitamin D is synthesised in human skin during sun exposure
• The question ‘How much sun exposure do we need for adequate vitamin D synthesis?’ has not been satisfactorily answered. There are too many variables. However, burning is ALWAYS VERY BAD.
• At risk groups should consider vitamin D supplements, especially in autumns and winter.
• Asian children and people who habitually cover their whole skin are at risk and should probably all take supplements.
These 2 women probably both need vitamin D supplements, especially the one on the right.
If you want any more information....
Mole mapping and monitoring

• Who is at greatest risk?
• How do we do monitoring anyway?
• What does the evidence say?
What do we mean by atypical or dysplastic naevi?
## Atypical versus dysplastic naevi

<table>
<thead>
<tr>
<th>Atypical naevus</th>
<th>Dysplastic</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Clinical diagnosis</td>
<td></td>
</tr>
<tr>
<td>• Acquired naevus over 5mm</td>
<td></td>
</tr>
<tr>
<td>• A degree of asymmetry</td>
<td></td>
</tr>
<tr>
<td>• Lacks clear diagnostic features of melanoma</td>
<td></td>
</tr>
<tr>
<td>• Good evidence is NOT precursor to melanoma</td>
<td></td>
</tr>
</tbody>
</table>
## Atypical versus dysplastic naevi

<table>
<thead>
<tr>
<th>Atypical naevus</th>
<th>Dysplastic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Not a clinical diagnosis</td>
</tr>
<tr>
<td></td>
<td>• Borderline melanoma in situ?</td>
</tr>
<tr>
<td></td>
<td>• Implied premalignant status</td>
</tr>
<tr>
<td></td>
<td>• Overdiagnosis ‘to be on the safe side’?</td>
</tr>
<tr>
<td></td>
<td>• Clinical and histopathological overlap with thin and in-situ melanoma</td>
</tr>
</tbody>
</table>
ATYPICAL MOLE SYNDROME

What are the aims of this leaflet?

This leaflet has been written to help you understand atypical mole syndrome. It tells you what it is, what causes it, what can be done about it and where you can find out more about it.
What is atypical mole syndrome?

Atypical mole syndrome is a disorder of the skin which is seen in approximately 2% of the population. It is defined when an individual has more than 50 moles composed of melanocytes (pigment producing skin cells) present on their skin, and three or more are atypical (unusual) in their appearance, e.g. size and shape. An atypical mole is one greater than 5 mm in diameter, often with flat and raised areas, often oval rather than round, and often with some colour variation.

Solitary atypical moles are individually benign moles with a low risk of progression to melanoma (a type of skin cancer). However, people with multiple atypical moles (atypical mole syndrome) are considered to have a higher risk (increased 7 to 10 fold) of developing melanoma compared to the general population, due to the presence of atypical moles especially if some of these moles are on the scalp, buttocks, or feet. The risk is increased further if one or more first or second degree relatives (i.e. a close blood relative including parents, full siblings or children, or a blood relative including grandparents, grandchildren, aunts, uncles, nephews, nieces or half-siblings, respectively) have been diagnosed with malignant melanoma; this combination is known as familial atypical mole syndrome.
From BAD patient information leaflet

• ‘…people with atypical moles are considered to have a higher risk (increased 7 to 10 fold) than the general population of developing melanoma....

.....the risk is increased further is a first or second degree relative has been diagnosed with melanoma.’
How is atypical mole syndrome diagnosed?

Atypical mole syndrome can often be recognised by its appearance, if examined by a dermatologist. If there are any concerns over the diagnosis your doctor can arrange for the mole to be removed and examined. A set of baseline photographs of the entire skin surface may be requested to facilitate monitoring of the moles.

People who have atypical mole syndrome, or familial atypical mole syndrome, are at an increased risk of developing melanoma and therefore it is recommended that the skin is checked, on a regular basis, for any changes (as mentioned under the Self care (What can I do?) section).

Can atypical mole syndrome be cured?

No.
Can I have my moles checked, doctor?

• Should we check individual moles, or the whole skin?
• Can the NHS fund this or should it be private?
• Who should be ‘checked’?
• How?
• By whom?
• At what intervals?
• And what are we looking for?
Stephen Hayes’ back!

- Lots of moles, several are atypical
- History of blistering sunburn in youth
- Family history of melanoma
- I don’t want to die from melanoma..
- But I don’t like having bits of me cut out thank you very much!
Which of his 100+ moles will you cut out?
Which of his 100+ moles will you cut out?
‘If in doubt, cut it out’ is not a risk free policy.
Excision of dysplastic naevus on young woman’s leg by an American dermatologist, with 5mm margins (from YouTube)
Atypical naevi indicate increased risk, but are not themselves premalignant.

• When someone has many atypical naevi, we cannot reasonably cut them all out.

...so what shall we do?
NEWSFLASH!!!!

• ATYPICAL NAEVI VERY RARELY DEVELOP INTO MELANOMA

• 80% OF MELANOMAS ARISE DE NOVO FROM CLEAR SKIN

• MONITORING IN HIGH RISK PATIENTS IS SAFE AND EFFECTIVE AT CATCHING NEW MELANOMAS AT A PRE-INVASIVE STAGE (IN SITU OR MINIMAL BRESLOW THICKNESS)
Digital dermoscopic monitoring of atypical nevi in patients at risk for melanoma

• **Objective**: To determine the utility of monitoring dermoscopic photographs of atypical nevi in a high-risk population.

• **Methods**: Over a 4.5-year period, digital dermoscopic photographs were taken of clinically atypical nevi at initial and follow-up visits, such that side-by-side comparisons could be made.

• **Results**: A total of 5945 lesions were monitored in 297 patients over 3–52 months (median 22 months) and 324 lesions were biopsied. Photographic changes were noted in 96/5945 (1.6%) lesions, which included 64 dysplastic nevi (67%), 25 common nevi (26%), and one melanoma (1.0%). Of six melanomas biopsied during the follow-up period, only one was detected by dermoscopic photographic change at follow-up.

• **Conclusions**: Most clinically atypical melanocytic nevi are stable over time, and lesions exhibiting dermoscopic changes are most likely to be dysplastic nevi. While dermoscopy is a useful tool for clinical examination, the sensitivity of dermoscopic monitoring is limited by melanomas that may arise in normal skin or in clinically benign nevi that were not initially photographed.

• 1 in 6,000 atypical naevi turned into a melanoma
• The potential for nevi to serve as melanoma precursor lesions is controversial.\textsuperscript{2} The malignant transformation of an individual nevus is estimated to occur at a rate of 0.00005 to 0.003% per year.\textsuperscript{3}

• In addition, the majority of melanomas arise de novo, and only 20 to 30% of melanomas are associated with a melanocytic nevus.\textsuperscript{2}

• Therefore, we think that prophylactic excision of melanocytic nevi has a low potential to reduce melanoma risk and is not warranted.\textsuperscript{3,4}

• Instead, clinical surveillance with periodic skin examinations, dermoscopy, and photography are the strategies we suggest for early detection of melanoma.
Key learning points

• 99.999% of all naevi will NOT undergo malignant change

• 80% of melanomas arise from clear skin, NOT pre-existing naevi
What is mole mapping?

The term ‘mole mapping’ has been used in several different ways. However, it usually refers to a surveillance programme for those at high risk of malignant melanoma. It may include a clinical skin examination and dermoscopy to identify and evaluate lesions of concern.

Mole mapping might simply involve marking spots on a cartoon drawing of the body (see self skin examination) to indicate the position of skin lesions of concern, particularly moles and freckles. Mole mapping is more likely to refer to conventional print photographs or digital images of the whole body’s skin surface. These can be reviewed at a later date to see if there are any new skin lesions, or whether pre-existing skin lesions have grown or changed colour or shape.

Some systems rely on automated machine detection of new or changed lesions and/or automated diagnosis. These machines are increasingly accurate but should not be used as a substitute for clinical evaluation by a doctor.
Digital mole mapping

Sophisticated digital mole mapping programmes may include the following:

- Risk evaluation i.e. age, medical and family history, skin typing, sun exposure
- Patient education regarding sun protection, moles and melanoma
- Skin examination by a health professional (usually a doctor or specially trained nurse)
- High quality digital images (photographs taken with a digital camera)
  - Standardised poses of the whole body, with lesions of concern carefully localised (this can require very accurate positioning and sophisticated computer programming if there are several similar moles in close proximity)
  - Close-up macro images of the lesions of concern
  - Dermoscopic images of lesions of concern
- Evaluation of the images by an expert in skin cancer, usually a dermatologist
- A report to the patient and/or referring health practitioner including suspected diagnoses and recommendations for treatment of lesions of concern
- Follow-up mole mapping in 3 to 6 months for lesions of concern that do not reach the threshold for excision
- Follow-up mole mapping of all imaged lesions at intervals of 1 to 2 years or as recommended by your doctor
- A secure database and transfer system to store the images and reports
- Copies of the images for the patient or doctor to aid in self skin examination
Mole mapping and digital monitoring

basic principles

• The risk of a new melanoma is increased in the following situations

- personal or family history of melanoma
- large number of naevi, especially if over 100
- 2 or more atypical naevi
- severe sun damaged skin
- immune suppression (main risk here is squamous cell cancer)
How to monitor patients with atypical moles? : hierarchy of techniques and cost

- advise patient to observe their own moles
- advise patient to photograph own skin
- professional photography individual naevi
- professional photography of areas e.g. back, legs, face
- professional photography of whole skin
- digital imaging of whole skin, with dermoscopic imaging of particularly atypical moles

Increasing cost
How to use mole mapping

‘spot the difference’

At it’s simplest, monitoring consists of comparing the patient’s whole skin against the photos.

If there is no change over time, lesions can be safely assumed to be non malignant, even if they look quite odd.
No change over 6 months is very reassuring. Most melanomas change visually over 3 months.
Just like star spotting in the night sky
Melanoma in situ picked up by mole map and monitoring
Mole mapping and monitoring - discussion and an example

This patient gave written permission for these images to be shared for the purpose of education.

He was mole mapped and followed up after the excision of a thin melanoma.

Several other naevi have been excised, all proved to be benign (labelled mildly dysplastic.)
These moles were unchanged over 3 years

• Failure to change over this length of time is strong evidence that they are all completely harmless and should NOT be excised ‘as a precaution’
These atypical naevi are non symmetrical with variable brown colour and patterns, but lack Argenziano’s 7 features of melanoma

- Atypical pigment network
- Blue grey areas
- Radial streaming (streaks/pseudopods)
- Irregular black blotches
- Irregular dots and globules
- Atypical vessels
- Regression structures
- (I would add shiny white streaks)
No moles had changed over 3 years of monitoring, we can therefore safely say they are harmless

- NB this is ‘a case study of one’ but agrees with and illustrates the published trial evidence mentioned earlier.
Short term or long term monitoring?

**Short term monitoring**
- Suitable for individual borderline lesions
- **Only monitor flat lesions,** never nodules
- Dermoscopic photography is essential
- 90% of early melanomas will have changed over 12 weeks
- (beware, some are very slow growing)

**Long term monitoring**
## Short term or long term monitoring?

<table>
<thead>
<tr>
<th>Short term monitoring</th>
<th>Long term monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Suitable for multiple naevi, atypical mole syndrome, melanoma patients</td>
</tr>
<tr>
<td></td>
<td>• Mole mapping (total body photography) with or without dermoscopy of selected naevi</td>
</tr>
<tr>
<td></td>
<td>• Most melanomas picked up are on monitoring are in situ or very thin.</td>
</tr>
</tbody>
</table>
What about apps and commercial mole mapping?

Better, easier skin tracking. Guaranteed.

Skin cancer can spread quickly. Early detection saves lives. Catch it sooner.
MANY mole watching Smartphone apps are coming on to the market

Are they any good? maybe.

Potential down side:

- overdiagnosis + monetisation
- patients may select the wrong lesions
Hud dermoscope being marketed direct to public

DermLite Hud Smart Skin Scanner

Price: $79.00

Only 6 left in stock - order soon.
This item does not ship to United Kingdom. Please check other sellers who may ship internationally. Learn more

Ships from and sold by Amazon.com.
- Enables you to track your skin and catch skin changes early, using your very own smartphone
- Lets you capture crystal-clear photos of your skin using its medical-grade optics
- Free app teaches you about skin cancer, reminds you, and lets you send photos to a dermatologist
- Includes slide-on case compatible with iPhone 6 & iPhone 6s
- Works with any iPhone or a smartphone up to 3.1" (78mm) in width

Click image to open expanded view
Patient performed dermoscopy with Teledermatology


• Fifty-eight Australian adults aged 50-64 years performed skin self-examination and photography using a cheap Smartphone dermoscope at home

• A total of 309 lesions were patient-photographed and emailed to a dermatologist.

• The patient=performed dermoscopic images were of adequate quality and telediagnosis of the lesions correlated well with clinical diagnosis

• The sensitivity of skin self-examination plus mobile teledermoscopy was 81.8% with the patient as denominator and 41.9% with the lesion as denominator.

• However, patients photographed many banal lesions and missed some suspicious ones

• CONCLUSION: the details may require some work, but patient performed skin self examination (SSE) with Smartphone dermoscopy is feasible.
Mole monitoring in conclusion

- Patients with many naevi, atypical naevi, past history of melanoma, strong family history, immune suppression and genetic syndromes are known to be at higher risk of developing melanoma.
- Monitoring of **high risk** patients has been shown to detect melanomas at an earlier, more curable, stage.
- Benefits of monitoring lower risk patients has not been shown (e.g. the disappointing German skin cancer screening experience)
- Photography can reassure by demonstrating lack of change over time
- Self monitoring by patients using Smartphone apps is feasible, but the risks and benefit of apps have yet to be demonstrated
- There are likely to be further developments in this area
Should my practice invest in dermoscopy skills?

• Hint...

YES!
Dermoscopy-a scope like any other!

- Illuminates
- Magnifies
- Breaks down refraction
- Reveals unseen additional data
A range of dermoscopes

Heine Delta 20 Plus

Opticlar Dscope

DermLite II Pro HR

DermLite DL3
Dermoscopy improves accuracy of primary care physicians to triage lesions suggestive of skin cancer.


- 73 GPs in Barcelona and Naples were given a 1-day training course in skin cancer detection and dermoscopic evaluation, and were randomly assigned to the dermoscopy evaluation arm or naked-eye evaluation arm. During a 16-month period, 73 physicians evaluated 2,522 patients with skin lesions who attended their clinics and scored individual lesions as benign or suggestive of skin cancer. All patients were re-evaluated by expert dermatologists at clinics for pigmented lesions. Referral accuracy of both groups was calculated by their scores, which were compared to those tabulated for dermatologists.

- RESULTS:

- Significant differences were found in terms of sensitivity and negative predictive value. Histopathologic examination of equivocal lesions revealed 23 malignant skin tumors missed by GPs performing naked-eye observation and only 6 by GPs using dermoscopy (P = .002)

- The use of dermoscopy improves the ability of GPs to triage lesions suggestive of skin cancer without increasing the number of unnecessary expert consultations.
Dermoscopy, a useful tool for general practitioners in melanoma screening: a nationwide survey
British Journal of Dermatology February 2016, Chappuis, Duru, Marchal, Girier, Dalle, Thomas

- A study to evaluate dermoscopy use by French GPs
- 4,057 French GPs were surveyed by questionnaire, a tenth responded
- Only 8% had access to a dermoscope
- Of this 8%, only 47% had received any training in dermoscopy. Most of them had received very short and recent training
Conclusions of French GP dermoscopy use study

• Our study demonstrates positive opinions regarding dermoscopy, despite a minority of French GPs using this technique in the areas surveyed.

• The need for formal training appears to be the main limitation to wider use.

• Appropriate and specifically designed training programmes should be offered.
International evidence for dermoscopy is strong
## Australian evidence summary

### Evidence summary and recommendations

<table>
<thead>
<tr>
<th>Evidence summary</th>
<th>Level</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>From a meta-analysis of nine level II studies prospectively performed in a clinical setting, the diagnostic accuracy for melanoma, as expressed by the relative diagnostic odds ratio, was 15.6 times higher for dermoscopy compared with naked eye examination. Sensitivity of dermoscopy was 18% (95% CI 9%–27%; P=0.002) higher than for eye examination, but there was no evidence of an effect on specificity. Two subsequent level II studies showed results consistent with the larger meta-analysis.*</td>
<td>I, II</td>
<td>[7], [8], [9], [10], [11], [12], [13], [14], [15], [16], [17], [18], [19]</td>
</tr>
<tr>
<td>Dermoscopy has been shown to reduce the benign:malignant ratio of excised melanocytic lesions and reduce the number of patients referred for biopsy in both specialists and primary care.*</td>
<td>II</td>
<td>[8], [9], [18], [20]</td>
</tr>
</tbody>
</table>

*The studies were classified as III-2 according the NHMRC 2009 levels and grade of evidence. Using the Grade approach, the studies
• While there are fewer studies on dermoscopy in primary care (general practice), all five that were undertaken in this context ... show a consistently improved sensitivity for the diagnosis of melanoma or the identification of suspicious lesions requiring biopsy.[7][18][19][21][22]

• ..... based on other evidence where lack of training can lead to a reduction of diagnostic accuracy[23] some formal training in dermoscopy is required to achieve improvement in diagnostic accuracy.
Lesions dermoscopy helps diagnose:

- Benign naevi
- Seborrhoiec warts
- Haemangiomas
- Dermatofibromas
- Basal cell cancers
- Bowen’s disease
- Melanomas and dysplastic naevi

The main role of GP dermoscopy is to screen these benign lesions out.
Dermoscopy is invaluable

Nodular melanoma?
Dermoscopy is invaluable

Nodular melanoma?

No, it’s a harmless haemangioma.
Worries about this big black mole?
Dermoscopy → abundant yellow and brown clods - a typical feature of harmless seborrhoeic keratosis
Scary mole?
Dark but harmless naevus
Benign or malignant—you MUST wager!
How much will you wager now?
How hard is it to learn to use a dermoscope?
Learning new skills is possible! There is help.
Free on line dermoscopy education resources

• Primary Care Dermatology Society web site www.pcds.org.uk
• International Dermoscopy Society (IDS) http://dermoscopy-ids.org
• IDS Facebook DERMATOSCOPY page (15,000 members world wide, new cases for discussion posted daily)
• www.dermnetnz.org
• Eric Erhsam’s blog www.dermoscopic.blogspot.co.uk
• Stephen Hayes’s blog www.dermoscopy.wordpress.com (cases plus many links to other free on line resources)
• Ian McColl’s Australian site http://dermoscopymadesimple.blogspot.co.uk
• YouTube-many excellent dermoscopy videos by IDS board members
Hyperlinks to studies cited in this presentation

  rentIssue&)
- [http://europepmc.org/articles/PMC2292405](http://europepmc.org/articles/PMC2292405)
- [http://www.dermnetnz.org/topics/mole-mapping/](http://www.dermnetnz.org/topics/mole-mapping/)
Thank you

Please consider joining the
International Dermoscopy Society

Membership is free, connect with 15,000 colleagues worldwide

Daily case discussions on the Society’s Facebook Dermatoscopy page.