Skin Cancer Overview

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May 2, 2019

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Disclaimers

Ø

---unapproved use of (approved) medications

---opinions

"What upsets people is not things themselves, but their judgment about things"

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Objectives

- Recognition of what might and what might not be skin cancer
- What can I handle—what should I refer?
- Post diagnosis/post treatment protocols.
- Who do I refer to?
- "Lots" of busy slides for home/office/later perusal.
- And, of course, derm pictures.

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- The first commercially feasible synthesis of prednisone was carried out in **1955** in the laboratories of **Schering Corporation**, which later became **Schering**-Plough Corporation, by Arthur Nobile and coworkers.

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(One of many)
1st rule of dermatology:

If you know what it is, **why** touch it?

If you don't know what it is, **don't** touch it.

But……

"Don't touch the fishing rod."

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Cancer Facts and Figures 2018.
American Cancer Society

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Wehner MR, Chren MM, Nameth D, et al
International prevalence of indoor tanning: a systematic review and meta-analysis
--JAMA Dermatology 2014

US of A, N and W Europe and Australia

EACH YEAR
Estimated 452796 cases of BCC/SCC and 11374 cases of MM attributed to indoor tanning
Estimated 362941 cases of lung cancer attributed to smoking

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Whys and Wherefores

- Cutaneous cancers account for >50% of all malignancies in U.S.
  - 3-4 million new cases of BCC and SCC annually
- UV radiation (UVR) in sunlight is the primary etiology for all skin cancers

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Environmental Agents Associated with the Development of Human Skin Cancer

• UV radiation	General population	BCC, SCC, MM
• Cigarette smoke	Smokers	SCC
• Soot	Chimney Sweeps	SCC
• Coal tar, pitch	Steel workers	SCC
• Petroleum Oils	Machinists, textile workers	SCC
• Arsenic	Agricultural workers	BCC, SCC
• PCB	Petrochemical workers	MM
• Dry-cleaning	Dry cleaners	BCC
• Fiberglass	Insulators	BCC
• Psoralen	Psoriasis patients	BCC, SCC<MM
• Nitrogen mustard	CTCL patients	SCC
• Immunosuppressant	Transplant patients	BCC, SCC
• Ionizing radiation	Various skin disorders	BCC, SCC

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Ultraviolet Radiation

- Causes DNA damage—leading to mutations
- Allows clonal expansion of malignant cells with altered signaling pathways providing a survival advantage
- Acts as an immune suppressant

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Cigarette Smoke

- Cigarette and pipe smokers have an overall twofold increased risk for cutaneous SCC

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Other tidbits

- Soot
  - Described in 1775 with chimney sweeps and scrotal carcinoma
- Petroleum products
  - Particularly SCC
- Fiberglass and dry-cleaning chemicals
  - BCC
- Arsenic exposure
  - BCC, SCC as well as internal malignancies
  - Occupational exposure—agricultural pesticides, sheep/cattle dip, mining, smelting, glass works
  - More insidious exposure—contaminated water or shellfish
  - Aresenic exposure + UVR act as cocarcinogens—increased frequency and size of lesions

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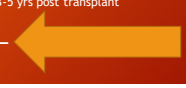
And…

- PUVA
  - Less used today especially with introduction of biologicals
  - Long lasting effects—even after d/c light therapies
- Nitrogen mustard
  - Used for CTCL
- Immunosuppressants/transplant patients
  - Transplant patients risk of developing SCC about 100times that of general population
  - Usually start to develop about 3-5 yrs post transplant
    - SCC—100 fold increase
    - BCC—6 fold increase
    - MM—2 fold increase
    - Merkel cell—24 fold increase



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Preventative measures

- Sunscreen use
- Avoidance of "middle-of-the-day" outdoor activities
- Protective clothing
  - Hat
  - Shirt
  - Sunglasses

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Lifetime risk

- Effects of UVR causing NMSC is cumulative, therefore with reducing lifetime UVR exposure we would expect to reduce risk of developing NMSC
- Melanoma probably more linked to intense childhood exposure, but not completely so.

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Let's get started

- Basal Cell—BCC
- Squamous Cell—SCC
- Melanoma—MM

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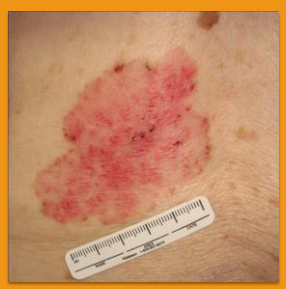
73yo male
left lumbar peri-spinal

- A. Tinea corporis
- B. Psoriasis
- C. BCC
- D. Nummular eczema
- E. Lyme



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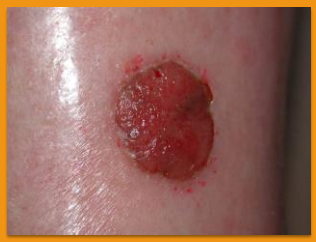
63yo female
left mid-tibia

A. Malignant melanoma
B. SCC
C. BCC
D. Erythema nodosum
E. Traumatized seborrheic keratosis



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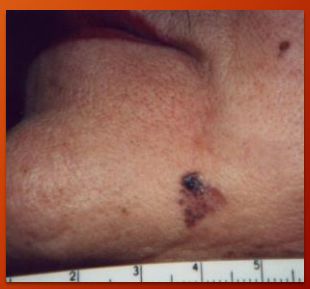
47yo female

A. Malignant melanoma
B. Pigmented basal cell
C. HSV scar
D. Acne excorieé
E. Contact dermatitis



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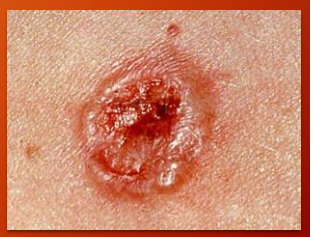
57yo male

A. "I picked a pimple"
B. BCC
C. Welding burn
D. "I nicked myself while shaving"
E. Melanoma



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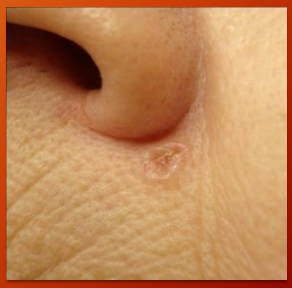
53yo male



A. BCC
B. Granuloma annulare
C. Sebaceous hyperplasia
D. Ruptured cyst
E. Scar

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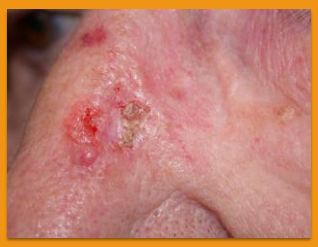
87yo male



A. Amelanotic melanoma
B. BCC
C. SCC
D. Actinic keratosis
E. "scar from my glasses"

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Subtypes

- Nodular
- Pigmented
- Rodent ulcer
- Superficial spreading
- Morpheaform/sclerosing

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Basal Cell Carcinoma

- BCC **most common** form of human cancer
  - 75% of NMSC and about 25% of all cancers
  - Detected and treated early—highly curative
  - Generally older than 50yo, but increasing in younger population
- **Risk factors**
  - UVR, especially UVB
    - Regular exposure (occupational) vs intermittent i.e. weekend warrior which may be more damaging
  - Light hair and eye color
  - Northern European ancestry
  - Inability to tan
- **Patient with BCC history = 3 fold increase risk of melanoma**
  - Check you patients' backs at every visit

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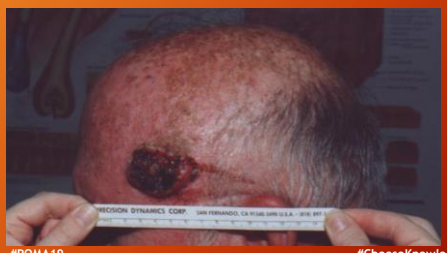

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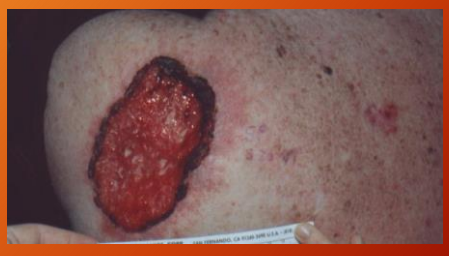

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Presentation

Rule out skin cancer

- ANY friable, non-healing lesion
- ANY "it was there, then healed, and now it's back" lesion
- ANY "it's only a curling iron burn, I did it several weeks ago"
- (almost) ANY "I picked a pimple, and now it won't heal"

Pearly, translucent, telangiectasiae, ulceration, rolled borders

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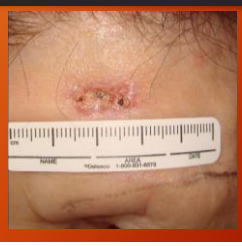
"I just burnt myself with curling iron (3 weeks ago)



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Biological behavior

- Generally slow growing with local extension—rare mets
  - One study had rate of mets of 0.0028—0.55%
- Without treatment: invasion of subcutaneous tissue down to bone
- Anatomic fusion plates, watch for tumor progression
  - Nose/alar to cheek junction
  - Retroauricalar areas

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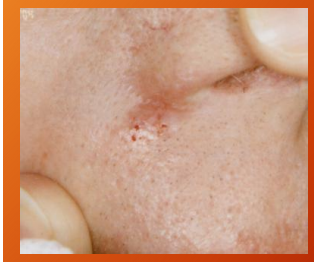
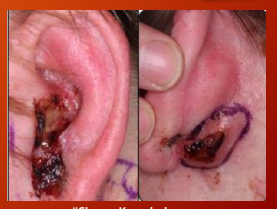

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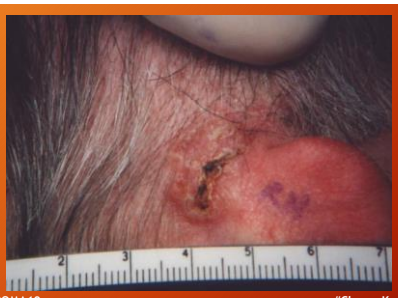

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Diagnosis

- Physical exam—visual diagnosis
  - …..but BCC vs amelanotic melanoma
- Biopsy
  - For diagnosis
  - For billing
    - Can't bill for BCC without a path report—cryosurgery treatment (=D48.5)
  - For patient's cancer policy
    - Cryosurgical treatment or imiquimod treatment

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- Biopsy, cont'd
  - For treatment
    - Your office
    - Referral
      - Radiation will need biopsy before they treat
      - Mohs surgeon

Consider patient costs:
biopsy one day, come back another day for treatment
travel, off work, copays
biopsy then refer
why not just refer

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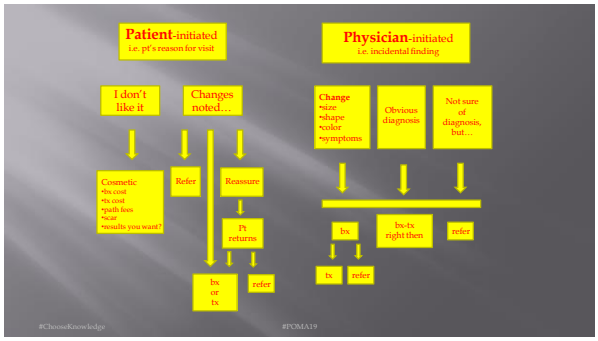

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Biopsy

- Shave vs punch
  - "new" 2019 biopsy codes—tangential vs punch
  - Time/cost/effort—what are you trying to accomplish
  - Punch if BCC in a scar vs scar tissue is involved

OR

- Just treat it:
  - Shave, curettage, and electrodessication

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Treatment

- Biopsy>>>>then treat or just treat
- Physician comfort level/skill
- Patient comfort level
- Consider
  - recurrence rate
  - preservation of function
  - Patient or family expectations
  - Side effects of treatment

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Treatment options

- Cryosurgery
  - Thermocoupler vs double freeze thaw
  - More recurrence potential
    - Larger or thicker lesions
  - "very good" for superficial spreading BCC
    - Multiple lesions can be treated at one visit

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Treatment options

- Topical
  - Imiquimod
    - FDA approved for superficial BCC on trunk, neck, & extremities
    - Side effects expected—patient counselling is a must
    - Dosing regimens
  - 5-fluorouracil
    - Used more for actinic keratoses and superficial SCC than for BCC
    - Works by causing inflammation and subsequent healing
    - Side effects expected—patient counselling is a must
    - Dosing regimens

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Treatment options

- SCE x 3
  - Shave, curettage, and electrodessication
  - Lesions <1cm cure rates of 98-99%
    1-2cm cure rates of 95-96%
    >2cm cure rates about 85%
  - With recurrent treatments cure rates go down
  - N.B. with SCE x 3 as biopsy and subsequent treatment
    - Can't bill a biopsy and a treatment—just bill the treatment
    - Path report MAY verbalize "+" margins, can be confusing when patient or other physician gets path report----needs another procedure??

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Treatment options

- SCE x 3 plus imiquimod post-op for a month
  - For field treatment of the area

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Treatment options

- Photodynamic therapy
  - Two-part treatment
    - Application of photosensitizer followed by 1+++hrs exposure to light irradiation—blue vs red vs broadband
    - May be preceded by light curettage of the BCC(s)
    - Non-responders are retreated in about a week
    - Higher recurrence rates than with other modalities
    - Post-treatment adverse events include:
      - Photosensitivity—need for light avoidance and photoprotection for 48hrs
      - Erythema
      - Crustiness
      - Tenderness

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Treatment options

- Surgical/cold steel
  - Elliptical/flap/grafts
  - Recommendation for 4mm margin of uninvolved skin
  - With smaller (<5mm) lesions recurrence rates for surgery vs sce x 3 very similar
- Mohs micrographic surgery
  - Very low recurrence rates
  - "better" for recurrent lesion
  - "better" for morpheaform lesion

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Treatment options

- Radiation
  - Time consuming
  - "Must" have biopsy first
  - Permanent alopecia
  - With recurrence, may be a more aggressive tumor

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Incompletely excised BCC

- How was original tumor treated
  - With SCE x 3 margin will be "+"
- Patient age/medical condition
  - Watch and wait
    ---Study from the 1960's reported 50-70% of incompletely excised BCC's don't/won't recur
- Send for Mohs or radiation therapy

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Biological therapies

- Metastatic BCC are quite rare: 0.0028%--0.55%

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Follow-up recommendations

- With diagnosis of BCC (as well as SCC and MM for that matter)
  - Yearly screening
  - Look at your patients' backs!!
  - Recommend self exams at home
  - Discuss sun/UVR protection
    - Patients and family members and anyone who will listen
    - NO TANNING BOOTH

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Squamous Cell Carcinoma (SCC)

- BCC's start de novo, SCC's start from precursors: AK's and Bowen's
- BCC's rarely metastasis, SCC can range from easily managed to local invasive to highly infiltrative and lethal
- After dx of SCC, patient has 45-50% cumulative risk of developing another NMSC in next 3-5 yrs.
- Watch your patients—look at backs and ears and posterior necks
- Generally more likely in men: women with longer hair and lipstick offers some protection

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SCC

- Squamous cell carcinoma (SCC) is the second most common form of skin cancer.
- More than 1 million cases of SCC are diagnosed in the U.S. each year, resulting in more than 15,000 deaths.
- **Organ transplant patients** are approximately 100 times more likely than the general public to develop squamous cell carcinoma.

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Risk factors

• UV radiation	General population	BCC, SCC, MM
• Cigarette smoke	Smokers	SCC
• Soot	Chimney Sweeps	SCC
• Coal tar, pitch	Steel workers	SCC
• Petroleum Oils	Machinists, textile workers	SCC
• Arsenic	Agricultural workers	BCC, SCC
• PCB	Petrochemical workers	MM
• Dry-cleaning	Dry cleaners	BCC
• Fiberglass	Insulators	BCC
• Psoralen	Psoriasis patients	BCC, SCC<MM
• Nitrogen mustard	CTCL patients	SCC
• Immunosuppressant	Transplant patients	BCC, SCC
• Ionizing radiation	Various skin disorders	BCC, SCC

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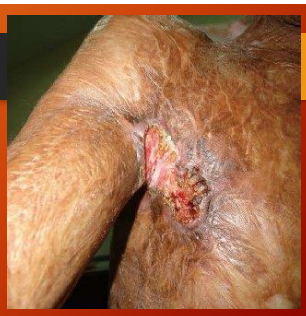
Risk factors

- UVR is #1
  - PUVA
- Scar cancer

A 46 years male with 3 years history of ulceration and bleeding in right axilla. He had sustained scald burns at the age of 3. Biopsy confirmed it to be squamous.



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Risk factors

- Chronic inflammatory conditions
  - Venous ulcers
  - Snake bite ulcers
  - DLE
  - Oral lichen planus
  - Lichen sclerosis et atrophicus
  - Hailey-Hailey disease (benign familial pemphigus)
  - Necrobiosis lipoidica
- Vaccination scars—BCC more likely than SCC
- HPV

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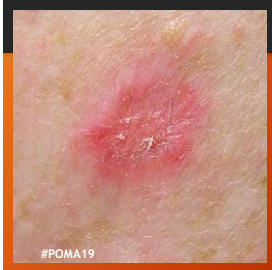

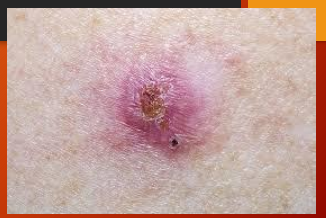

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Prevention

- Same as with BCC
- Life-long UV exposure protection
- No tanning booth
- Treatment of precursor lesions
  - Treat because of what they can do, not necessarily what they will do
  - Time line discussion—Pirates stadium analogy
- Smoking cessations
- Condoms
- Decreased alcohol consumption

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Clinical manifestations

- Sun-exposed areas most common
- Solitary lesions arising in precursor lesions
- Immunocompromised patients/transplant patients may develop eruptive SCC's

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Actinic keratoses

- Rough sandpaper feel—feel them vs see them
- They may come and go for weeks, months, or years
  - Watch for the ones that stay, are symptomatic, and/or grow
- Bowen's—SCC in situ
  - Usually solitary, sharply demarcated and scaly
    - df dx—psoriasis, eczema, LSC,
    - Generaly NOT symptomatic
    - Generally more in advanced-age patients

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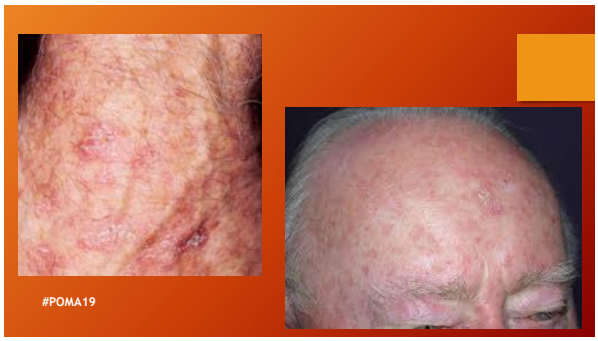

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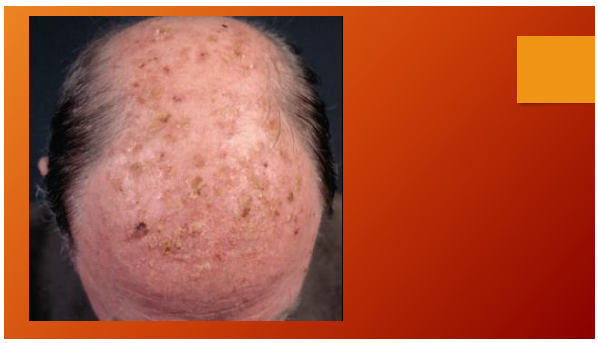

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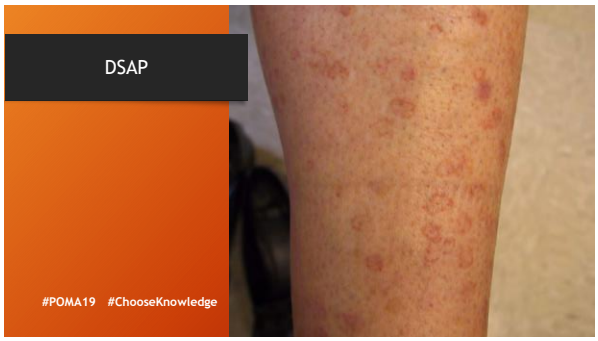
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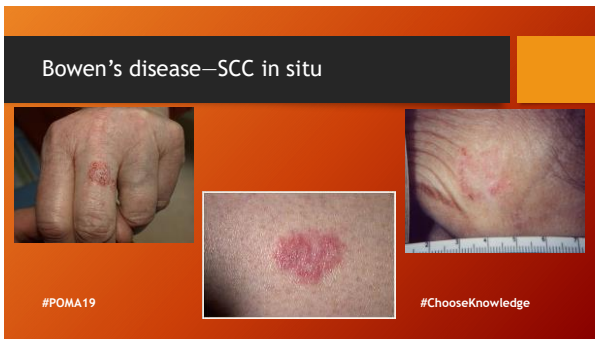
Bowen's disease—SCC in situ
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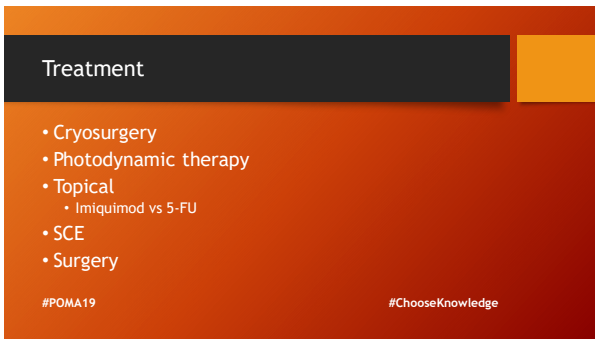
Treatment
• Cryosurgery
• Photodynamic therapy
• Topical
• Imiquimod vs 5-FU
• SCE
• Surgery
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SCC of the keratoacanthoma type

KA's:

- Usually solitary
- Rapidly growing

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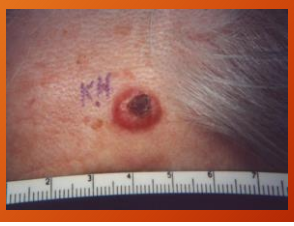
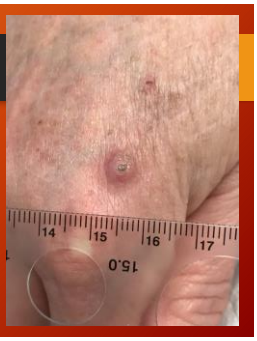
Keratoacanthoma





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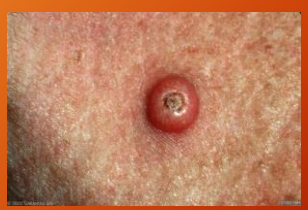
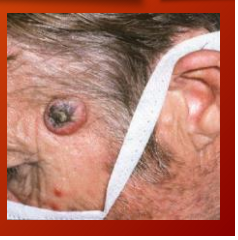
Keratoacanthoma





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SCC

- Firm with crustiness, keratotic feel/look
- Flesh-colored or pink/red
- May be pigmented
- "Ratty" looking
- AK to SCC conversion---lesion now painful with minimal touch

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Metastatic risk

- **< 2cm has overall less risk—about 1%**
- 2-5cm about 10% risk
- >5cm about 15% risk
- Generally SCC arising in actinically damaged skin has low risk of mets—4-5%
- Anatomical site:
  - Ear –20% recurrence potential
  - Lip –14-15% mets risk
  - Scar SCC all areas –up to 40% mets risk

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Treatment

- Pretty much same as for BCC
- 5-FU use
  - BID x 1 month vs once daily for one week on (+/-), one week off (+/_)

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75

Follow-up

- Same as for BCC
- At least yearly in office
  - Remind patients that more frequent if they see something
- Regular self-exams at home!!
- Lymph node assessment

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77

Malignant melanoma

- While most cancers have shown both decreased incidence and mortality over the past several decades, the incidence of melanoma has continued to grow. Mortality has only recently stabilized in US and other countries
- Steep rise in men >60yo and in lower socioeconomical areas
- For any given age and across all ages, men have poorer survival than women
- Melanoma incidence is increasing at a faster rate than any other preventable cancer in the US

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78

An estimated 178,560 cases of melanoma will be diagnosed in the U.S. in 2018:

87,290 cases will be in situ (noninvasive),

91,270 cases will be invasive

An estimated 9,320 people will die of melanoma in the U.S. in 2018:

5,990 will be men

3,330 will be women.

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79

- Historically:
  - Men trunk, head and neck
  - Women extremities
- Don't count on it! If and where there's skin….

Most common location: skin

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80

At-risk populations

- Childhood cancer survivors (predominantly treated with radiation) should be offered yearly body exams
- Organ transplant patients more commonly see SCC than MM, but are at a higher risk for MM than general population
- HIV patients at higher risk than general population
- Parkinson's patients seem to be at a higher risk. Ongoing studies looking into this
  - Even L-dopa containing meds have "increased risk for MM" in package insert
- Indoor tanning/artificial sunlamps
  - Increased risk with increase years of use/hours of use per session and number of sessions
  - Minnesota study: ever-users vs never-users: 41% increased risk of developing MM

81

- On average, a person's risk for melanoma doubles if he or she has had more than five sunburns
- The estimated five-year survival rate for patients whose melanoma is detected early is about 99 percent in the U.S.
- The survival rate falls to 63 percent when the disease reaches the lymph nodes and 20 percent when the disease metastasizes to distant organs.

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82

ABCD's and E's

- Asymmetry
- Border
- Color
- Diameter
- Evolution

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83

Considerations

- Ugly ducking sign
- Mutual birthday suit body exams
- Change the clocks twice a year—self exams twice a year
- Men >60yo more likely to see PCP than dermatologist,

.....get in the habit of looking at your patients

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84

More considerations

- Recent study indicates that less than 1/3 of MM arise in an existing mole
  - i.e. 70% just show up
  - Get to know your moles
  - Selfies, for comparison

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85

Melanoma types

- Lentigo maligna
- Superficial spreading
- Nodular
- Acral lentiginous
  - Subungual variants
- Amelanotic

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86

Lentigo maligna melanoma

- Almost exclusively on sun-exposed areas of head and neck
  - Nose and cheeks most common sites
- Usually "older" patients
  - Uncommon before age 45
- Macular, irregular borders and color variations
- May become quite large

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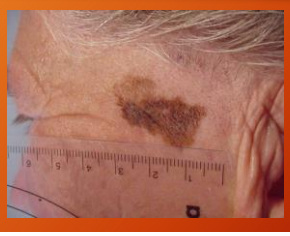
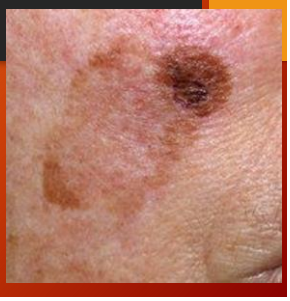
87

Lentigo maligna melanoma





88

Don't let this happen!

- >10 year history
- Patient in office for "other" issues
- Not concerning to patient
  - "It's okay, I've seen 3 physicians for this and they say it's ok"

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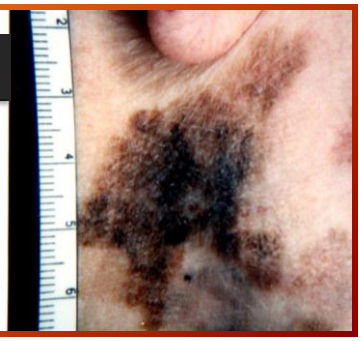

89

Superficial spreading melanoma

- Most common type of melanoma
- Legs of women and upper back of men.....but
- Usually 50-60yo
- Irregular notched/scalloped borders with variations of color
- Slightly to definitely palpable

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90

1 day old male
left medial knee

- nope

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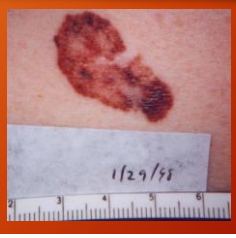
91

Superficial spreading melanoma



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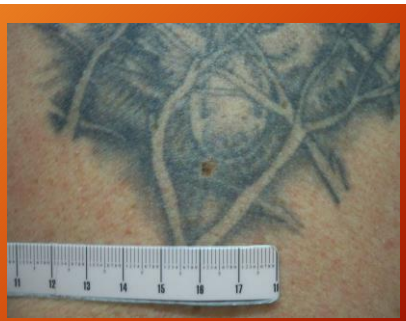

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93

Nodular melanoma

- Second most common variant
- "Rapid" evolution, often arising over several weeks/months\
- More common to develop de novo than in pre-existing lesion
  - Patient/family member observation
  - Get to know your moles
- May resemble common hemangioma, pyogenic granuloma, blue nevus, or pigmented BCC

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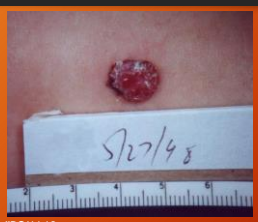
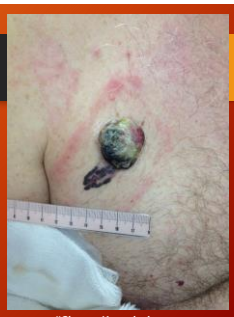
94

Nodular melanoma





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95

Acral lentiginous melanoma

- Most common form of MM in dark skinned patients
  - 60-70% of MM in African American
  - 30-45% of MM in Asians
  - Only 2-8% of MM in light-skinned/Caucasian patients
- Palms and soles of feet
- Subungual sites
  - Hutchinson's sign
  - Often painful
  - May have history of trauma
    - ??subungual hematoma, if acute try puncturing nail to drain it

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Acral-lentiginous melanoma
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Subungual melanoma
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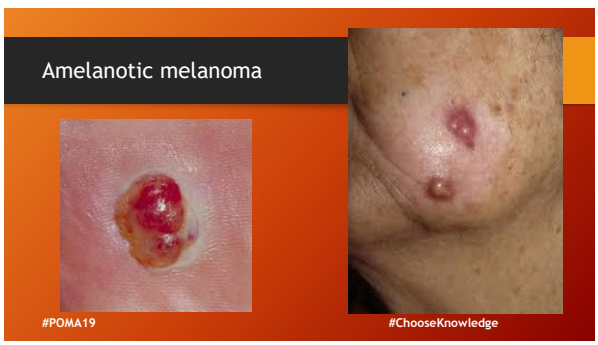
#ChooseKnowledge

98


Amelanotic melanoma
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#ChooseKnowledge

99

Other variants

- Mucosal
  - Oral, vaginal wall, rectal
- Retinal

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100

Classification and Staging

- Treatment
- Prognosis
- Follow-up

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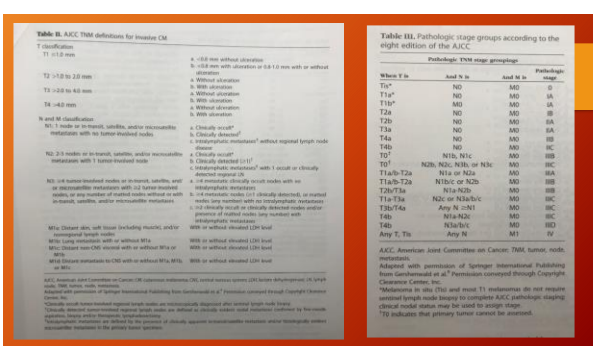

Table II. AJCC TNM definitions for invasive CM

T classification	
T1 ≤1.0 mm	a. <0.8 mm without ulceration b. <0.8 mm with ulceration or 0.8-1.0 mm with or without ulceration
T2 >1.0 to 2.0 mm	a. Without ulceration b. With ulceration
T3 >2.0 to 4.0 mm	a. Without ulceration b. With ulceration
T4 >4.0 mm	a. Without ulceration b. With ulceration
N and M classification	
N1: 1 node or in-transit, satellite, and/or microsatellite metastases with no tumor-involved nodes	a. Clinically occult* b. Clinically detected† c. Intralymphatic metastases‡ without regional lymph node disease
N2: 2-3 nodes or in-transit, satellite, and/or microsatellite metastases with 1 tumor-involved node	a. Clinically occult* b. Clinically detected [illegible] c. Intralymphatic metastases‡ with 1 occult or clinically detected regional LN
N3: ≥4 tumor-involved nodes or in-transit, satellite, and/or microsatellite metastases with ≥2 tumor-involved nodes, or any number of matted nodes without or with in-transit, satellite, and/or microsatellite metastases	a. ≥4 metastatic clinically occult nodes with no intralymphatic metastases b. ≥4 metastatic nodes (≥1 clinically detected), or matted nodes (any number) with no intralymphatic metastases c. ≥2 clinically occult or clinically detected nodes and/or presence of matted nodes (any number) with intralymphatic metastases
M1a: Distant skin, soft tissue (including muscle), and/or nonregional lymph nodes	With or without elevated LDH level
M1b: Lung metastasis with or without M1a	With or without elevated LDH level
M1c: Distant non-CNS visceral with or without M1a or M1b	With or without elevated LDH level
M1d: Distant metastasis to CNS with or without M1a, M1b, or M1c	With or without elevated LDH level

Table III. Pathologic stage groups according to the eight edition of the AJCC

Pathologic TNM stage groupings			
When T is	And N is	And M is	Pathologic stage
Tis*	N0	M0	0
T1a*	N0	M0	IA
T1b*	M0	M0	IA
T2a	N0	M0	IB
T2b	N0	M0	IIA
T3a	N0	M0	IIA
T4a	N0	M0	IIB
T4b	N0	M0	IIC
T0†	N1b, N1c	M0	IIIB
T0†	N2b, N2c, N3b, or N3c	M0	IIIC
T1a/b-T2a	N1a or N2a	M0	IIIA
T1a/b-T2a	N1b/c or N2b	M0	IIIB
T2b/T3a	N1a-N2b	M0	IIIB
T1a-T3a	N2c or N3a/b/c	M0	IIIC
T3b/T4a	Any N ≥N1	M0	IIIC
T4b	N1a-N2c	M0	IIIC
T4b	N3a/b/c	M0	IIID
Any T, Tis	Any N	M1	IV

AJCC, American Joint Committee on Cancer; TNM, tumor, node, metastasis.
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*Melanoma in situ (Tis) and most T1 melanomas do not require sentinel lymph node biopsy to complete AJCC pathologic staging; clinical nodal status may be used to assign stage.
†T0 indicates that primary tumor cannot be assessed.

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Biopsy/treatment

- Biopsy critical
  - Depth of lesion helps with staging/prognosis/treatment/follow-up
  - Excisional biopsy
  - Saucerization
  - Punch/incisional
    - Miss the "important stuff"

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Table IV. Recommendations for diagnostic biopsy of suspected melanoma

Preferred biopsy technique is a narrow excisional/complete biopsy with 1- to 3-mm margins that encompass the entire breadth of lesion and is of sufficient depth to prevent transection at the base. This may be accomplished by fusiform/elliptical or punch excision or deep shave/saucerization removal to depth below the anticipated plane of the lesion.

Partial/incomplete sampling (incisional biopsy) is acceptable in select clinical circumstances such as facial or acral location, very large lesion, or low clinical suspicion or uncertainty of diagnosis.

Narrow-margin excisional biopsy may be performed if an initial partial biopsy is inadequate for diagnosis or microstaging, but it should not generally be performed if the initial specimen meets the criteria for consideration of sentinel lymph node biopsy.

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Treatment

- Surgical
  - Less time between biopsy and excision = better prognosis

Compared with stage I melanoma patients treated within 30 days of being biopsied, those treated 30 to 59 days after biopsy have a 5 percent higher risk of dying from the disease, and those treated more than 119 days after biopsy have a 41 percent higher risk.

Conic RZ, Cabrera CI, Khorana AA, Gastman BR. Determination of the impact of melanoma surgical timing on survival using the National Cancer Database. *J Am Acad Dermatol* 2018; 78(1):40-46.e7. doi:10.1016/j.jaad.2017.08.039.

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Treatment

- General surgeon vs surgical oncologist
  - Where do you live?
- Surgical margins based on depth of lesion
  - In situ 0.5cm (?0.8-0.9)
  - ≤ 1.0cm 1.0cm
  - > 1.0-2.0cm 1-2cm
  - > 2.0cm 2cm

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Sentinel lymph node biopsy

- Usually for MM depths >1.0cm
  - With 0.8cm - 1.0cm consider
- With <0.8mm with adverse features:
  - Ulceration, lymphovascular invasion, and/or high mitotic rate in setting of younger age
- Reasons NOT to perform SLN Bx:
  - Advanced age
  - Poor functional status
  - Comorbid conditions that portend a short life expectancy or preclude general anesthesia or subsequent treatments

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Baseline and follow-up recommendations
(dermatologist vs oncologists)

- No imaging or lab studies for asymptomatic patients with new stage 0-II primary MM (tumor thickness from in-situ to >4mm but no nodes)
- Imaging and labs for specific symptoms and/or mets noted
- Dermatology "work group": no labs necessary for asymptomatic MM patients
- Oncology protocol.....

Oncology collaboration (I defer to oncology with >1mm lesions)

- High risk IIB (>4mm w/o ulceration) or IIC (>4mm w/ulceration)
- Patients with positive SLN bx

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Table XV. Suggested surveillance intervals and follow-up tests

CM stage	Follow-up interval and duration	Examination	Radiologic* tests
Stage 0 MIS	At least every 6-12 mo for 1-2 y; annually thereafter	Physical examination with emphasis on assessment for local recurrence, particularly for the LM subtype, and full skin check to ascertain for new primary CM	None
Stage IA-IIA	Every 6 to 12 mo for 2-5 y; at least annually thereafter	Comprehensive history (review of systems) and physical examination, with specific emphasis on the skin and regional LNs	None
Stage IIB and higher	Every 3-6 mo for the first 2 y; at least every 6 mo for 3-5 y and at least annually thereafter	Comprehensive history (review of systems) and physical examination, with specific emphasis on the skin and regional LNs	May be performed for up to 3-5 y†

CM, Cutaneous melanoma; *LM*, lentigo maligna; *LN*, lymph node; *MIS*, melanoma in situ.
*Including chest radiography (to screen for lung metastasis); computed tomography of the chest, abdomen, and pelvis; brain magnetic resonance imaging; and/or positron emission tomography–computed tomography. The frequency of imaging depends on the risk of recurrence.
†Highest risk period for relapse.

109

Non-surgical Treatments

- For melanoma in-situ or lentigo maligna melanoma
  - Characterized by:
    - Larger tumors
    - Sun-exposed skin of face, scalp and ears of older patients
    - May be poor surgical candidates
    - Histological margins with atypical melanocytic hyperplasia
  - Must discuss possible treatment limitations of topical treatment
    - Undertreating lesion that may follicular adnexal extension>>>potential invasive MM

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Non-surgical Treatments

- Imiquimod
  - M–F x 3 months
- Radiation therapy not recommended as first line therapy
  - May be used as adjunctive therapy in high risk MM
  - Used mostly outside USA

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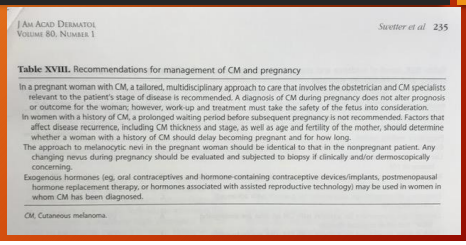
111

Melanoma and pregnancy



J Am Acad Dermatol
Volume 80, Number 1

Sweetter et al 235

Table XVIII. Recommendations for management of CM and pregnancy

In a pregnant woman with CM, a tailored, multidisciplinary approach to care that involves the obstetrician and CM specialists relevant to the patient's stage of disease is recommended. A diagnosis of CM during pregnancy does not alter prognosis or outcome for the woman; however, work-up and treatment must take the safety of the fetus into consideration.

In women with a history of CM, a prolonged waiting period before subsequent pregnancy is not recommended. Factors that affect disease recurrence, including CM thickness and stage, as well as age and fertility of the mother, should determine whether a woman with a history of CM should delay becoming pregnant and for how long.

The approach to melanocytic nevi in the pregnant woman should be identical to that in the nonpregnant patient. Any changing nevus during pregnancy should be evaluated and subjected to biopsy if clinically and/or dermoscopically concerning.

Exogenous hormones (eg, oral contraceptives and hormone-containing contraceptive devices/implants, postmenopausal hormone replacement therapy, or hormones associated with assisted reproductive technology) may be used in women in whom CM has been diagnosed.

CM, Cutaneous melanoma.

112

Pregnancy recap…

- Dx during pregnancy does not alter prognosis nor outcome for woman
  - However, work-up and treatment must take safety of fetus into consideration
- Prolonged waiting period before subsequent pregnancy is not recommended
  - Consider factors that affect disease recurrence (thickness and stage), age and fertility should determine delay/waiting period
- Approach melanocytic nevi in pregnant patient the same was with non-pregnant patient. If it needs to be done, it needs to be done.
- Exogenous hormones may be used in women with hx of MM

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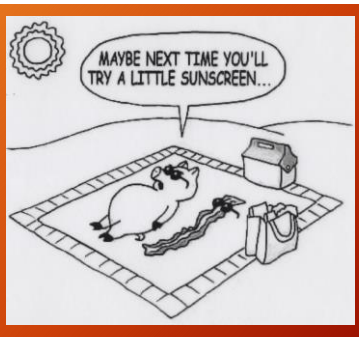
113



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114

Post-lecture question #1

True or False:

Tanning booth use offers an effective means to increase a patient's vitamin D levels.

#POMA19 #ChooseKnowledge

115

- Answer tally slide

#POMA19 #ChooseKnowledge

116

10-15 minutes of incidental UVB exposure three times a week will usually maximize the skin's active vitamin D production.

(Tanning booths are predominantly UVA producers)

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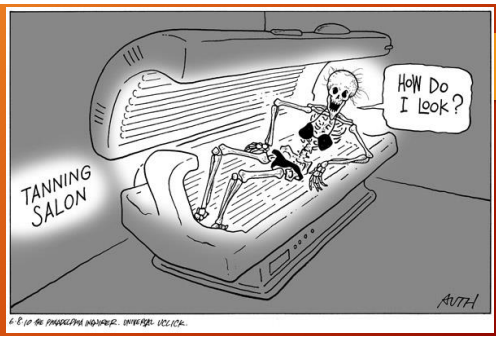
117



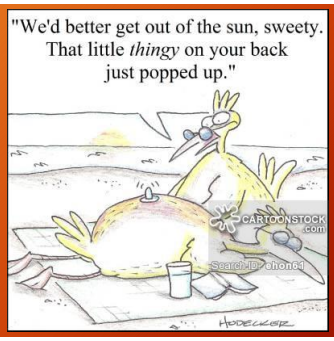
118

#2 True or False:

As a result of this lecture, I vow to take "a gander" at my patients' back at least once a year.

#POMA19 #ChooseKnowledge

119



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120

#3 True or False

This lecture is now over.

#POMA19 #ChooseKnowledge

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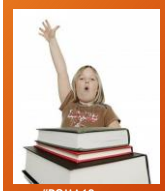
Questions



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