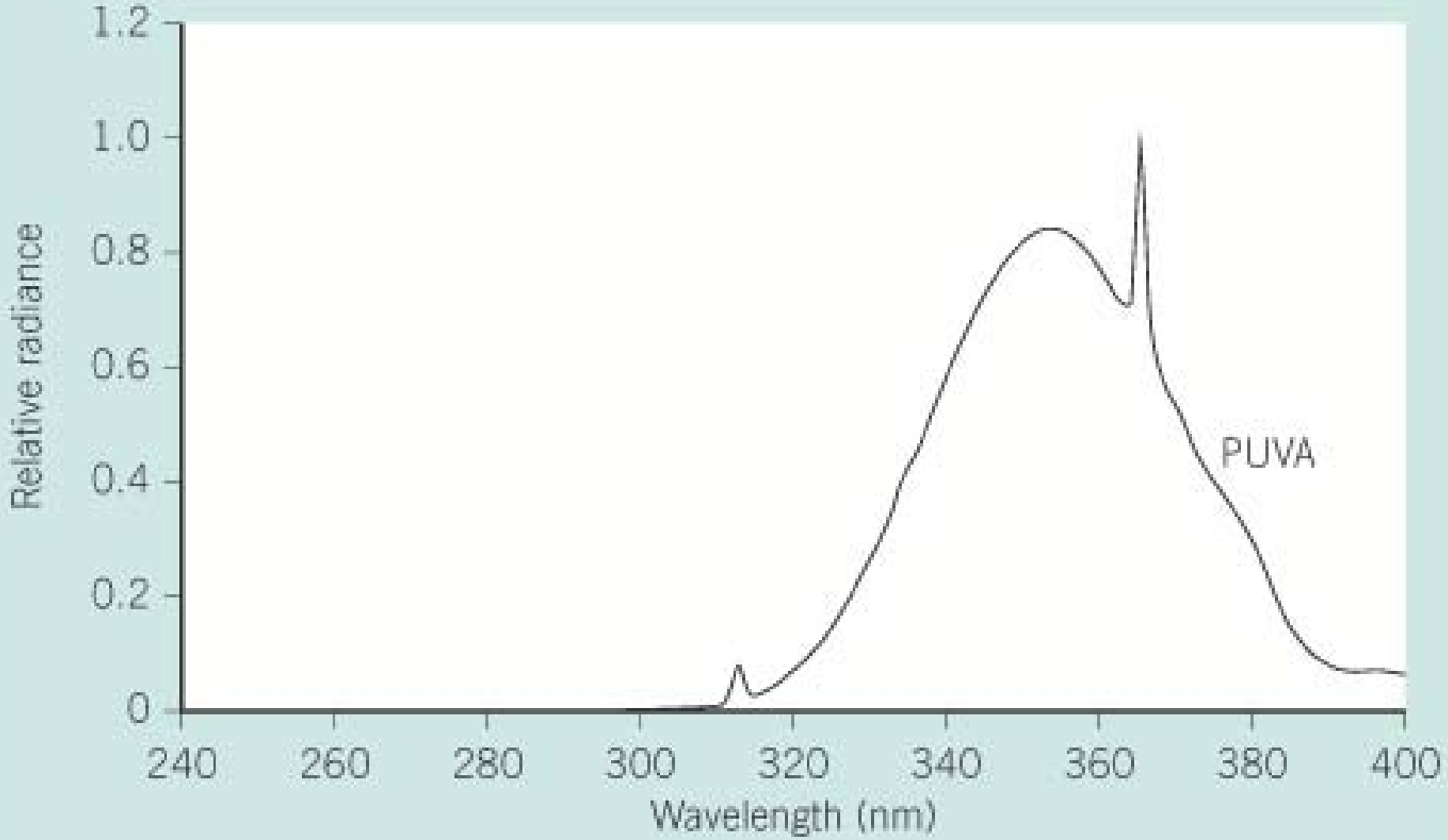
PUVA

TYPICAL SPECTRUM OF UVA BULB USED FOR PUVA THERAPY



Diseases to treat with PUVA

- Psoriasis
- CTCL
- Parapsoriasis
- Pityriasis lichenoides Chronica/PLEVA
- Vitiligo
- Atopic Dermatitis
- GVHD
- PMLE/Solar urticaria (UVB)
- Lichen planus
- Granuloma annulare
- Alopecia areata
- Pruritus (UVB)
- Urticaria (UVB)
- Urticaria pigmentosa(UVB)

PSORALEN

- 8-MOP derived from the Ammi Majus plant
- Occurs naturally in limes, celery, figs etc
- Trisoralen-synthetic- less phototoxic probably because it is less well absorbed
- Photoactivated by wavelength 330nm
- UVA exposure to cells containing psoralen results in photoconjugation

PSORIASIS

When to choose PUVA

- Extensive and moderate to severe disease
- Chronic disease
- Thick plaques
- Type 2-6 skin
- Pt responds to sun or UVB but has a short remission
- Consider intelligence, motivation, geography, schedule, photodamage

PUVA

- Check ANA, CBC, chemistries?
- Have patient have eyes checked yearly
- Note photosensitizing drugs (ingest AFTER the PUVA Rx if possible)

Oxsoralen Ultra 10mg Dosing

- 0.4 mg / kg
- Or…

- 66-143 lbs - 20mg
- 144-200 lbs- 30mg
- >200 lbs - 40mg

Oxsoralen Ultra 10mg

- Take 1 ¼ hours before treatment
- Take with food
- Don't vary amount of food and time of Rx
- Can cause nausea, HA, rash (rare)

Rx of nausea

- Take with food
- Move Rx to the afternoon rather than morning
- Divide into 2 doses 30 min apart (1 hour and 1 ½ hour before light)
- Decrease dose by 10 mg (not less than 20 mg or it will be lost after 1st pass through the liver)
- Antiemetic – eg Tigan

Frequency of treatments

- BIW
- TIW
- Mon, Tues, Thurs, Fri (11011)

Initial UVA Dosing (1/2 Joule below skin type) followed by increments per Rx

• Skin Type I	.5 J/cm2	.5J/cm2
• Skin Type II	1.5 J/cm2	.5J/cm2
• Skin Type III	2.5 J/cm2	1.0 J/cm2
• Skin Type IV	3.5 J/cm2	1.0 J/cm2
• Skin Type V	4.5 J/cm2	1.0 J/cm2
• Skin Type VI	5.5 J/cm2	1.5 J/cm2

Grading of Erythema reported by patient

- E0 no erythema
- E1 faint pink
- E2 red
- E3 fiery red with edema
- E4 fiery red w/edema and blistering
- NB Erythema is limiting factor – E1 should not be exceeded

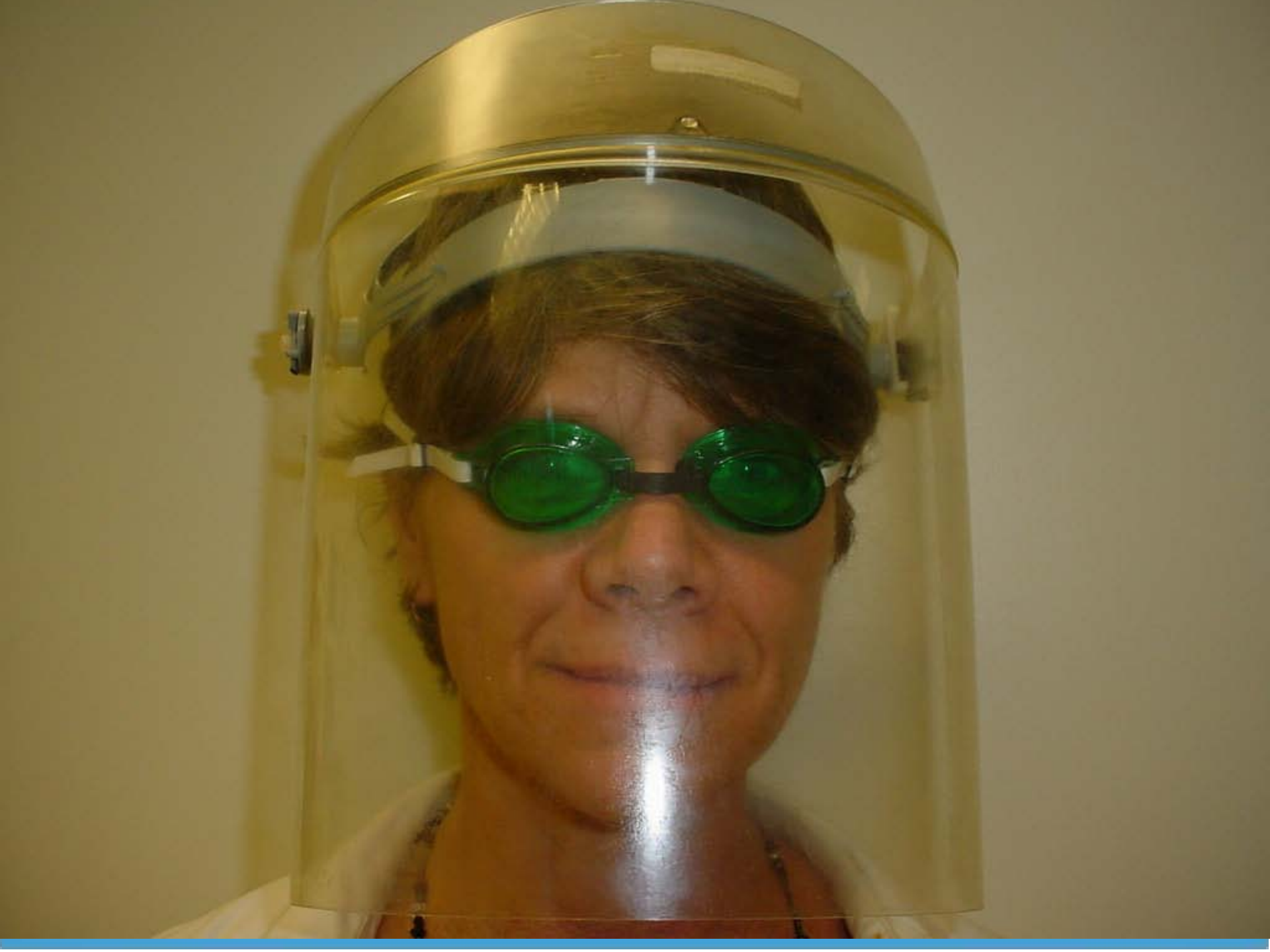
Erythema (pt to inform MD)

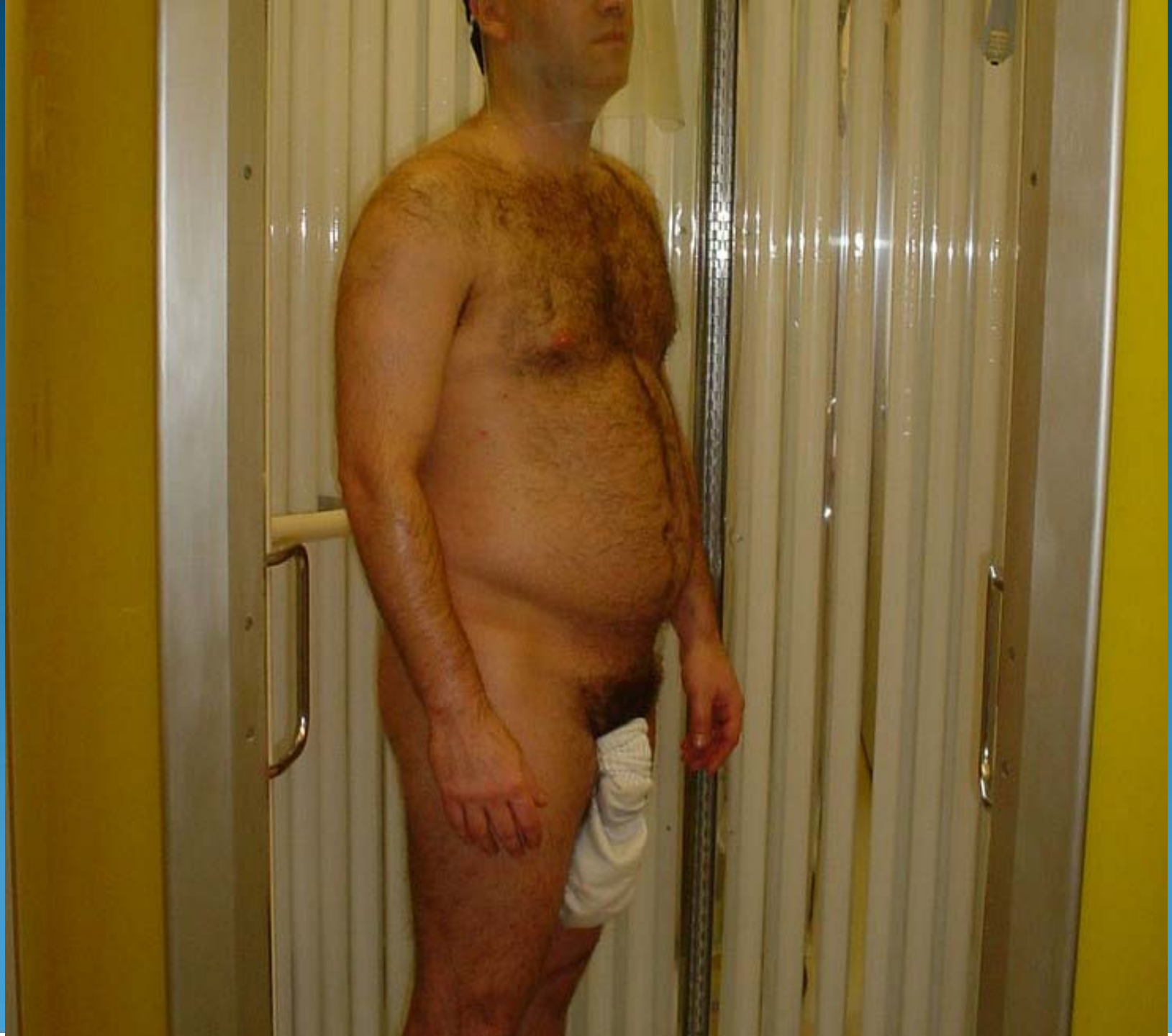
NB PUVA Rx is suberythemogenic!

- E1 (faint erythema) hold the dose
- E2 (red) and any sx's of deep burning or itching, hold the Rx until symptoms resolve

Special Circumstances

- Vitiligo - Treat as Skin Type I and increase dose by .25 J/cm2
- Mycosis Fungoides – Treat as skin type I
- Little old pale ladies – treat as Skin type I and increase qwk not qRx





Lubricate Skin to improve optics


Dry, Sensitive
Skin Treatment
Cetaphil
Moisturizing Lotion
Fragrance Free
Non-Comedogenic
GALDERMA
16 FL OZ (473 mL)
sunmark
heavy
mineral oil
USP
16 FL OZ (1 PT) 473 mL

As with UVB…

- Stop steroids and use Dovonex
- Avoid tar…will cause stinging and burning
- Prophylax for Herpes simplex

Drugs

- If photosensitizing drugs, take after Rx or adjust dose of light
- Drugs like Tegretol, Dilantin ands phenobarb may enhance metabolism of methoxalen

PUVA

- If no response after 10 Rx's, increase the increments of UVA
- If no response after 5 more treatments, increase the dose of oxsoralen

Extra Rx's

- Limbs, esp legs are slowest to respond
- After a few treaments, give about 25% to 50% extra to arms and legs
- Can stop extra when these areas have cleared

Approx final dose of UVA

- Skin Type I 5 J/cm2
- Skin Type II 8 J/cm2
- Skin Type III 12 J/cm2
- Skin Type IV 14 J/cm2
- Skin Type V 16 J/cm2
- Skin Type VI 20 J/cm2

PUVA Rx of Psoriasis

- Usual course is 25-30 Rx's
- MD should assess patient every 4 weeks
- Treat until patient is 90-95% clear
- Then HOLD the dose and decrease frequency of Rx's for maintenance

Maintenance

- 4 treatments at weekly intervals (QW)
- 4 treatments every other week (Q2W)
- 4 treatments every 3rd week(Q3W)
- 4 treatments at monthly intervals (Q4W)
  - At this point, to avoid burning, the dose of UVA should be decreased by 10% each Rx

Missed Treatments (clearing phase)

Time Missed	Adjustment
8-9 days	Give routine increase
10-14 days	Hold at prior dose
15-20 days	Decrease 1-2 joules
21-24 days	Decrease 2-3 joules
25-28 days	Decrease 3-4 joules
4-5 weeks	Decrease 4-5joules
5-6 weeks	Decrease 5-6 joules
6-7 weeks	Decrease 6-7 joules

PUVA EYE PROTECTION

- Wear glasses for 24 hours after taking med
- Wear untinted glasses at dusk
- Can remove glasses at night
- Can coat own glasses with UV-400
- Avoid sun exposure even through windows
- Yearly eye exam

PUVA SKIN PROTECTION

- Avoid UV light including through windows as soon as oxsoralen is ingested and for 24 hours
- Wear washable sunscreen or sun protective clothing on way to light Rx

Phototoxic complications

- Burns
  - Did pt take oxsoralen in am or eat less food?
  - Did pt get sunlight exposure?
  - New photosensitizing meds?
  - Technical error? (only 2/70)
  - No treatment until all sx's (burning or itching) resolve

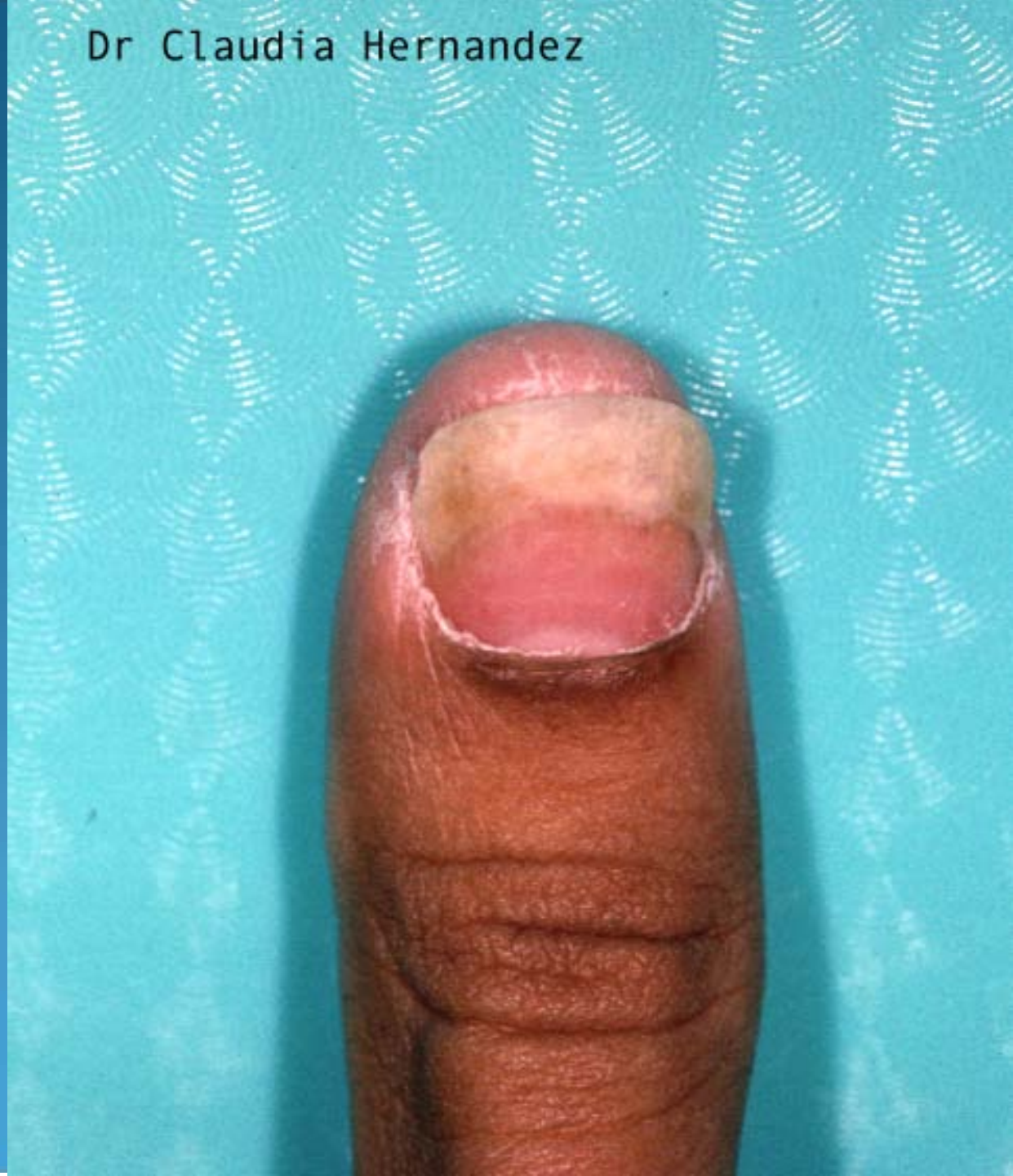
Phototoxic complications

- Deep burning pain
- Especially on outer arms and thighs
- Usually lasts 1-2 weeks but can last months!
- Treat symptomatically and no light until sx's resolve

Subacute phototoxicity

- Looks like psoriasis-scaly pink patches but are located on highly exposed areas and are VERY pruritic
- If not sure psoriasis vs subacute phototoxic rash, cover that area for a few Rx's to see if it gets better

Photo-onycholysis



New Rash? As w/ UVB…

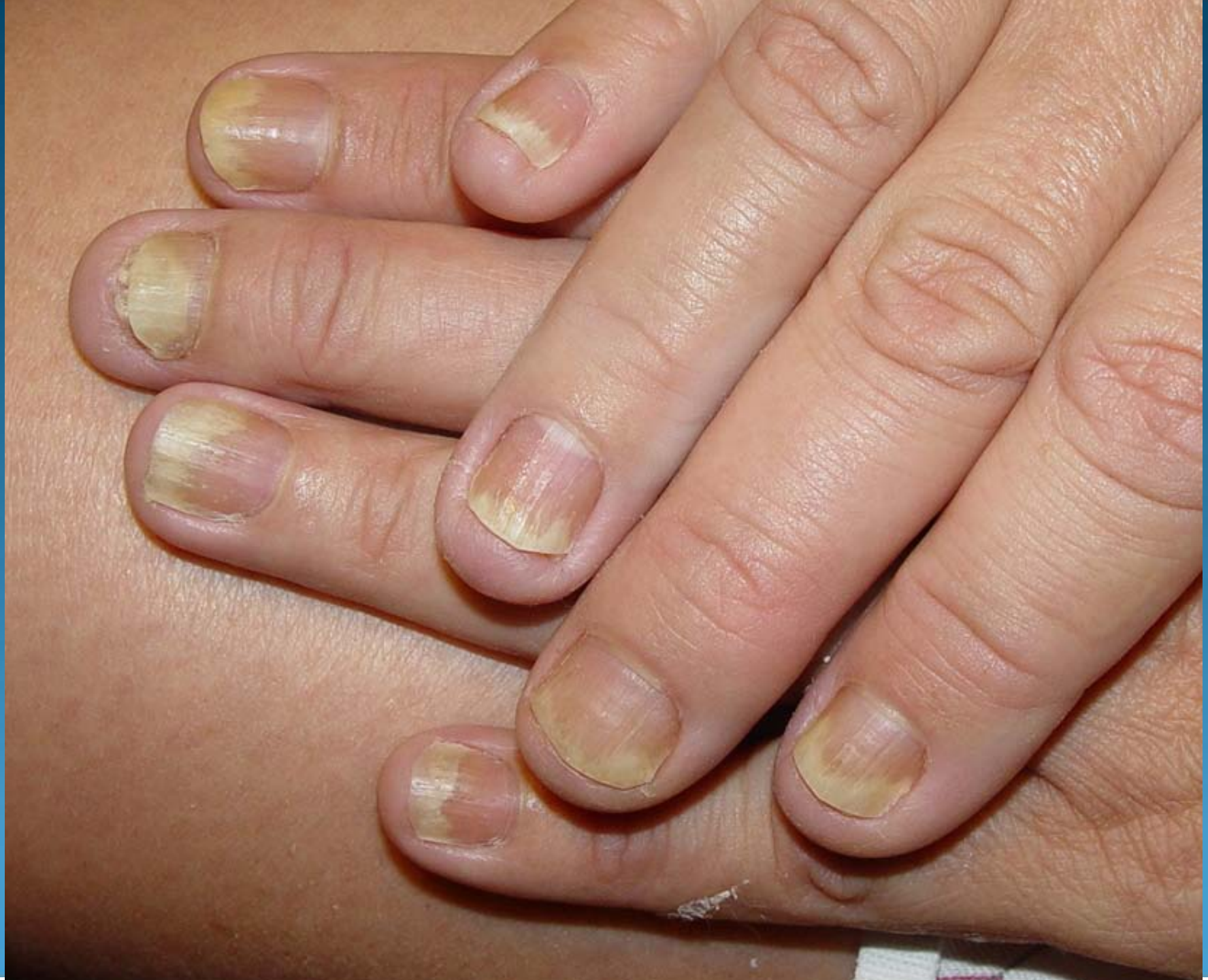
- Grover's Dz, PMLE, LE, Bullous pemphigoid, Herpes simplex, impetigo

RePUVA

- Esp if plaques are very thick, pustular or eryhtrodermic
- To speed response and lower amount of UVA
- Start Soriatane 25mg qd 3-4 weeks before starting PUVA
- Reduce UVA dose by about 1/3

MTX and PUVA

- Start MTX 3 weeks before PUVA Rx
- Can taper MTX after patient is significantly better



Skin Cancer

- After 200-250 PUVA rx's the risk of skin cancer goes up
- Risk goes up much higher if used with Cyclosporine or Nitrogen mustard so these are contraindicated

Topical PUVA

- Mainly for palms and soles
- Use Soriatane first if possible
- Can use bath or apply dilute ointment ½ hour before Rx
- Expose palms and soles to UVA in hand and foot unit (Use lower UVA doses)
- Risk of burns much higher

Oxsoralen and Sun

- Mainly used for vitiligo (<10% body surface)
- Apply Oxsoralen lotion diluted in Aquaphor tto strength of .001%
- Thirty min later expose to sun for 15-30 min
- After 2 weeks, can increase to 45-60 min if not getting pink
- After Rx, wash off and apply sunblock