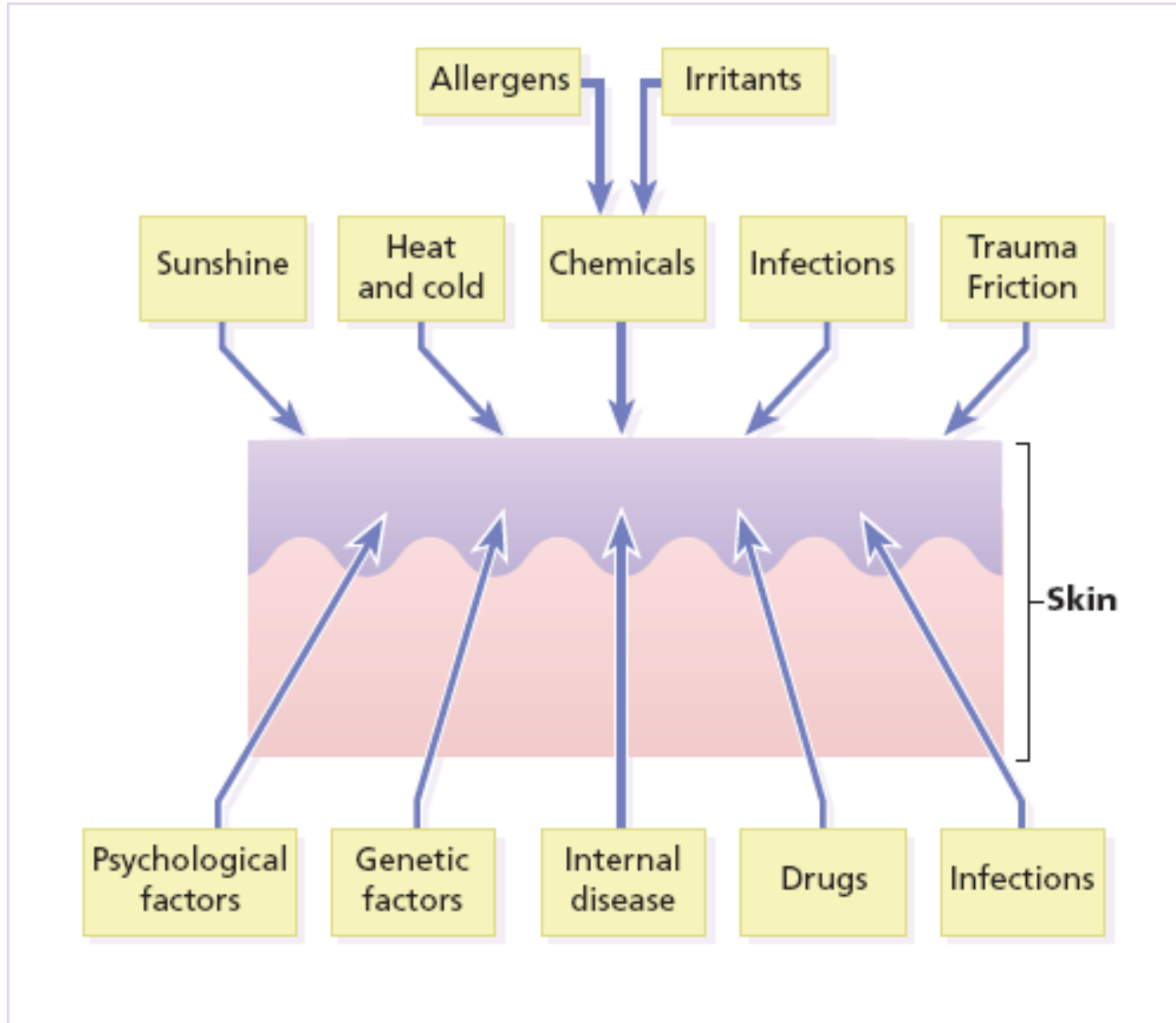




Approach to skin problems and common skin diseases



**Natta Rajatanavin , MD.
Div. of dermatology
Dep. Of Medicine , Ramathibodi Hospital
Mahidol University
29th Jan 2015**



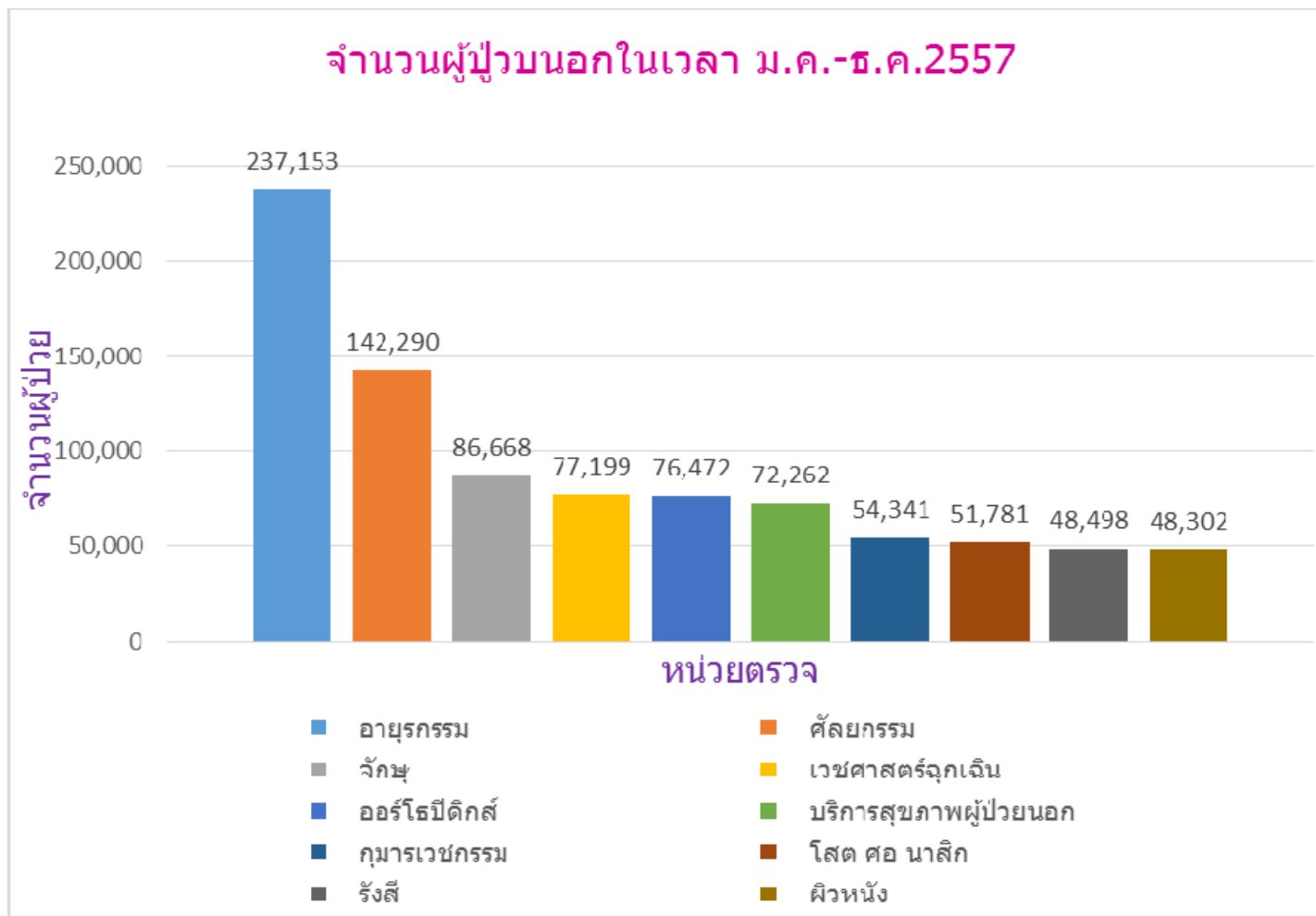
Functions of the Skin:

- Appearance, Quality of Life
- Barrier function
- Immunologic function
- Temperature regulation
- Photo protection/ vitamin D synthesis
- Nerve sensation
- Wound healing

วัตถุประสงค์

- ระบุระดับความชุกของโรคผิวหนังในประเทศไทย
- เข้าใจถึงความแตกต่างของโรคผิวหนังแต่ละประเภท
- ระบุอาการแสดงและอธิบายผลตรวจโรคผิวหนังแต่ละกลุ่มโรค
- ให้การวินิจฉัยโรคผิวหนังที่พบบ่อยในผู้ป่วยนอกและผู้ป่วยใน
- ระบุหลักการรักษาโรคผิวหนังที่พบบ่อย

Ramathibodi OPD



ผู้ป่วยนอก หน่วยตรวจผิวหนัง จำแนกตามโรคหรืออาการ 10 อันดับแรก พ.ศ. 2555

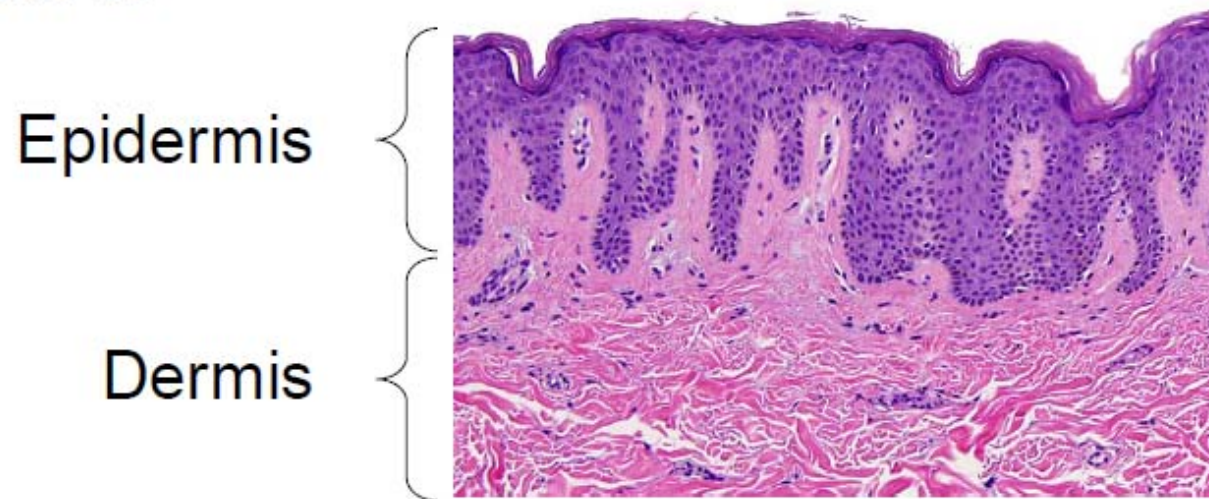
รหัสโรค	โรค/อาการ	จำนวนผู้ป่วย (ราย)		
		ชาย	หญิง	รวม
L81	Other disorders of pigmentation	1,601	14,705	16,306
L70	Acne	3,086	10,312	13,398
L30	Other dermatitis	3,008	6,823	9,831
L85	Other epidermal thickening	1,637	3,115	4,752
L40	Psoriasis	2,016	2,017	4,033
L21	Seborrhoeic dermatitis	1,652	2,260	3,912
L82	Seborrhoeic keratosis	710	2,326	3,036
L50	Urticaria	654	2,320	2,974
L91	Hypertrophic disorders of skin	691	1,880	2,571
L65	Other nonscarring hair loss	538	1,811	2,349



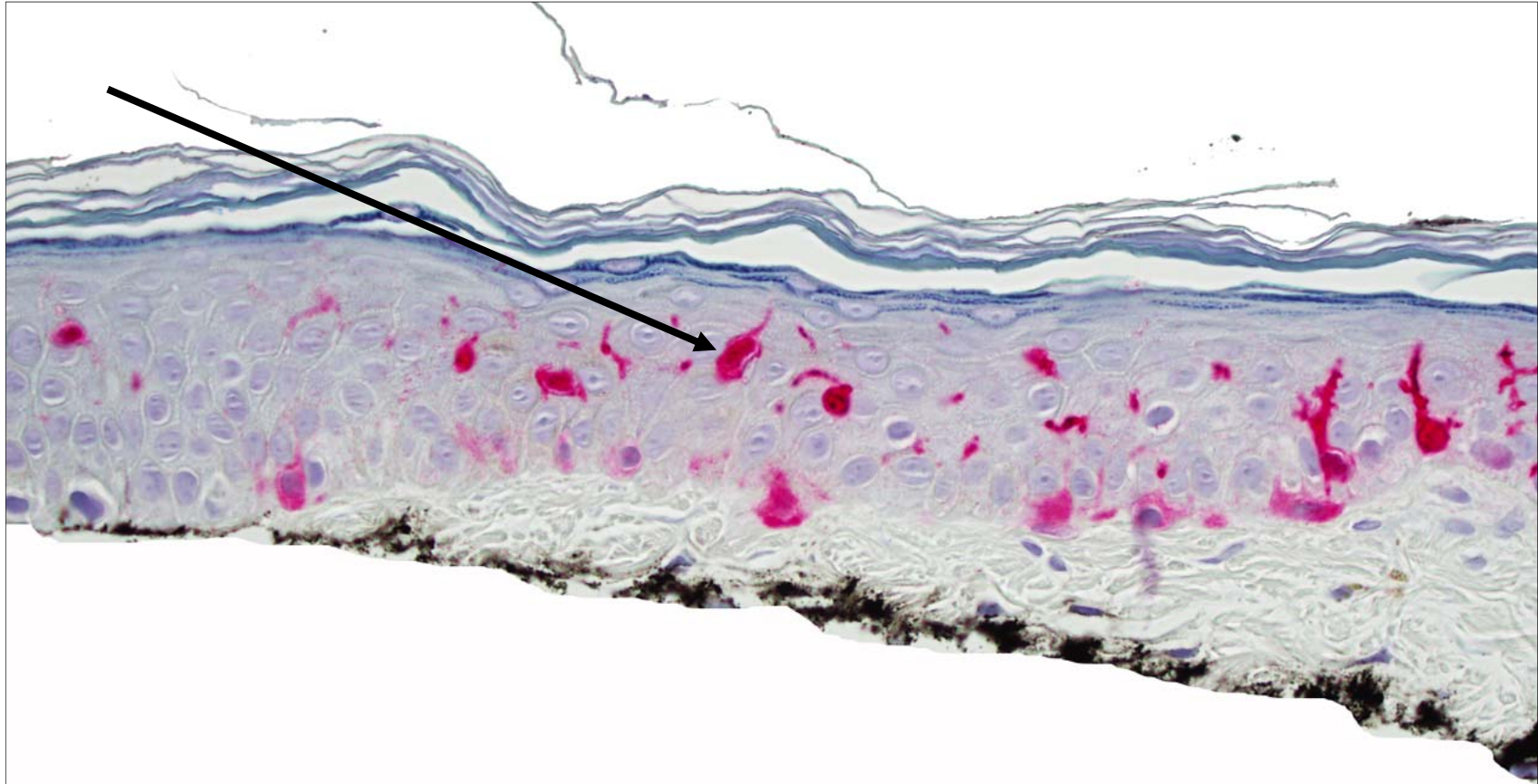
Approach dermatologic disease
with an understanding of basic
skin structure and
microanatomy

Layers of the skin

- The epidermis is the topmost layer, and consists primarily of keratinocytes.
- The dermis lies below the epidermis, and consists primarily of fibroblasts, collagen, and elastic fibers.

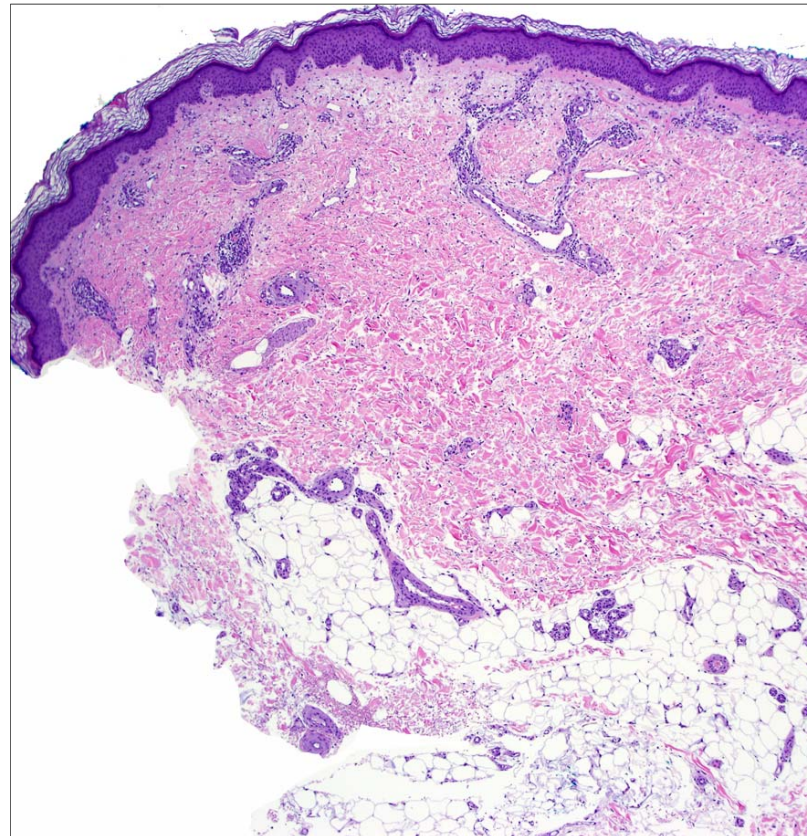


Langerhans Cells



important in the induction of delayed-type
hypersensitivity

Below the dermis lies fat, also called subcutis, panniculus, or hypodermis.



Epidermis

Dermis

Subcutis

How to make a skin diagnosis?

- History taking
- Total body skin examination
- Key morphologic lesions, configuration and locations.

Reference www.aad.org

History taking

- Occupation and hobby; exposure to chemical, pet
- Drug; all routes, supplement diet
- FH; allergic problems and drug eruption
- System review

Basic tool

- Eyes, hands
- Light
- Magnifying lens
- Ruler, camera



The Total Body Skin Exam (TBSE)

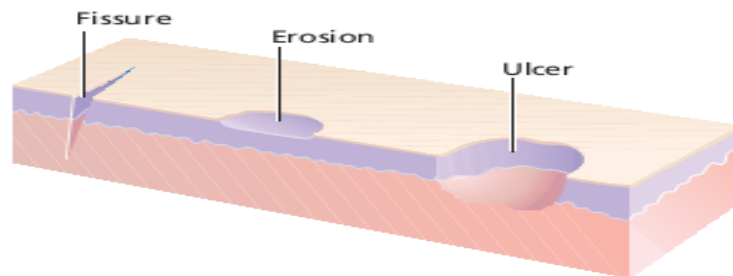
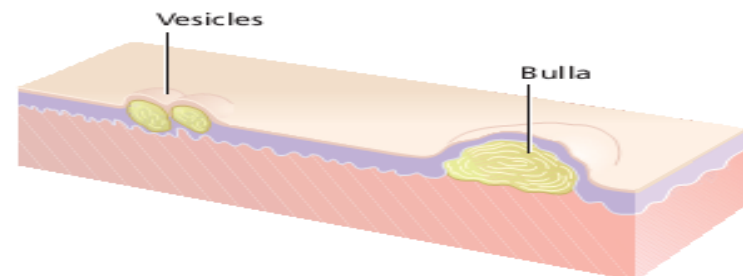
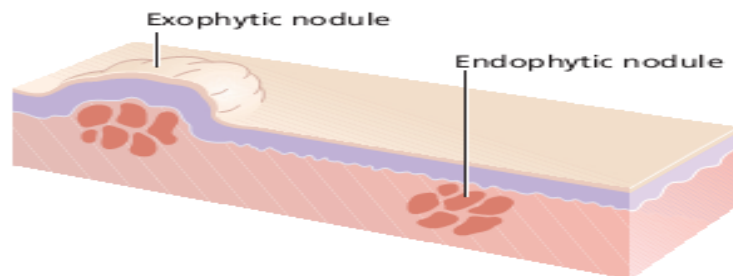
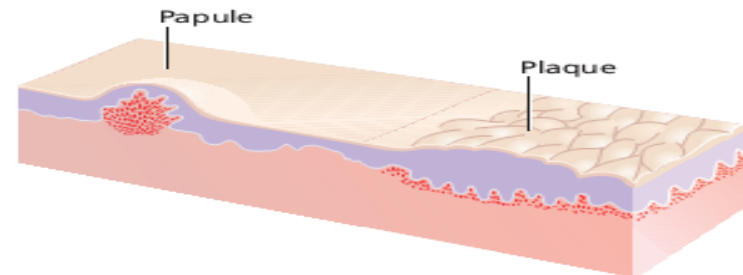
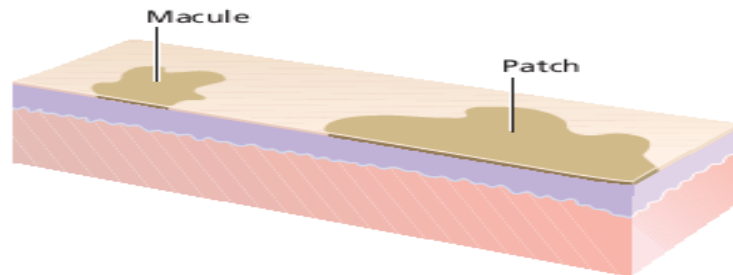
- inspection of the entire skin surface, including
fingers and toes web
- the scalp, hair, and nails
- the mucous membranes of the mouth, eyes, anus, and genitals



Skin examination; description

- **1** Morphology ; macule, papule, nodule, +/-scale, ulcer
- **2** Color
- **3** Shape ,arrangement of multiple lesions
- **4** Distribution, location

Primary/ secondary lesions

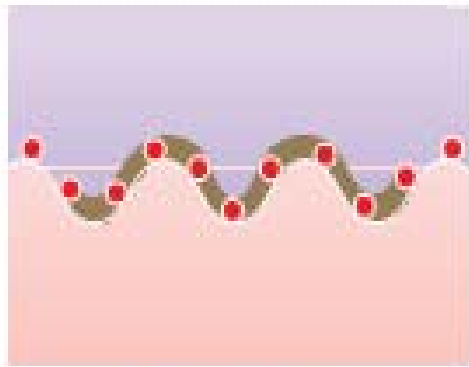


secondary lesions

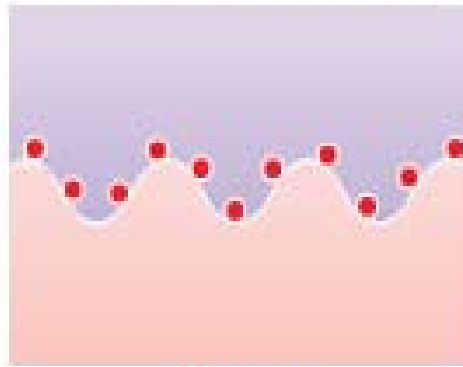
Common skin disorder in OPD Ramathibodi hospital

- Disorder of pigmentation
- Acne
- Eczema/ dermatitis
- Dermatophytosis
- Seborrheic dermatitis
- Psoriasis

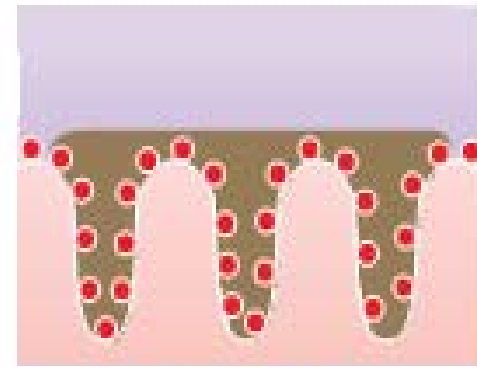
1. Dermal V.S. Epidermal pigment



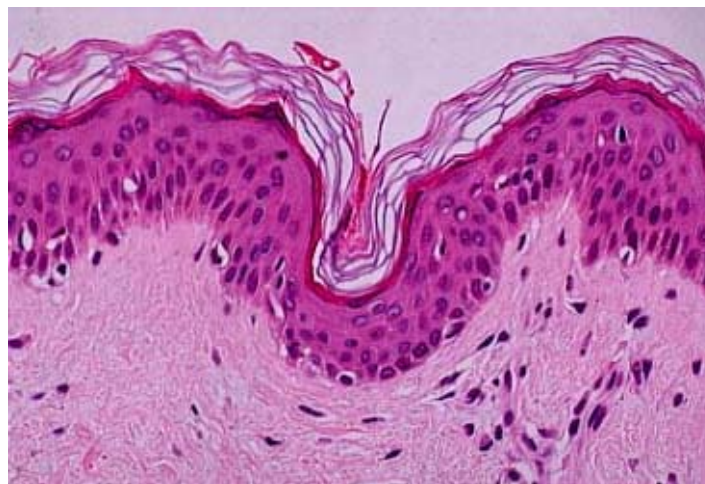
Freckle



Normal

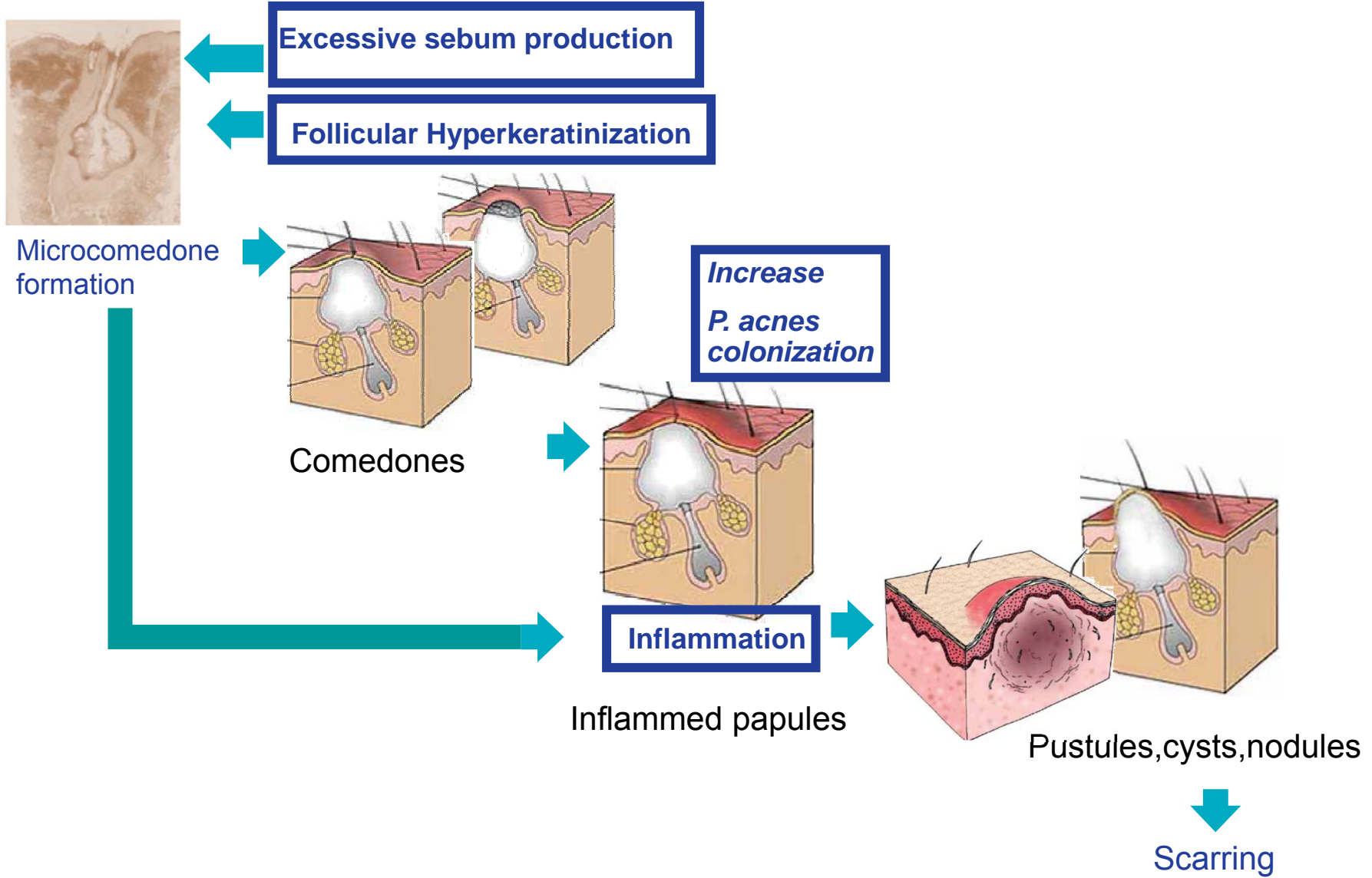


Lentigo



Pathogenesis of acne

4 key factors causing acne



Acne treatment algorithm



Mild

Moderate

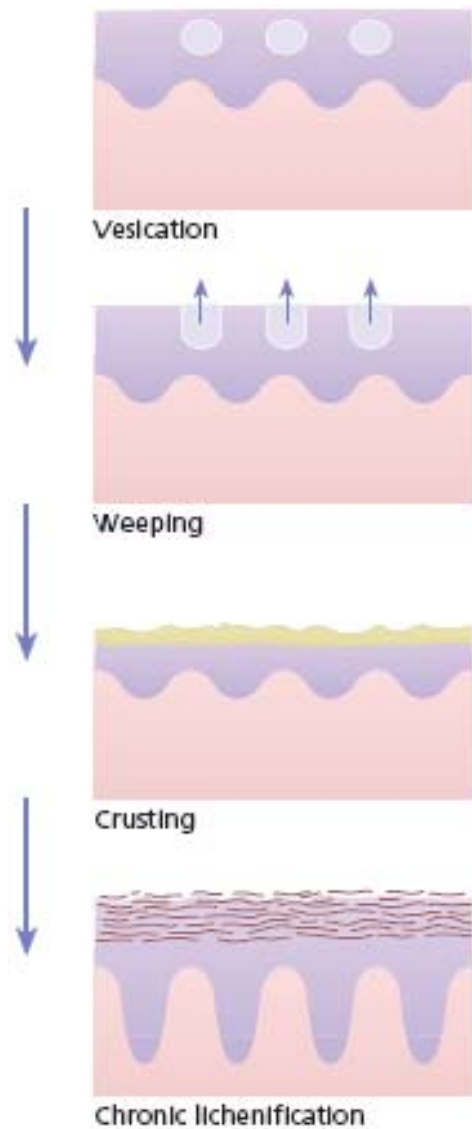
Severe

	Comedonal	Papular/pustular	Papular/pustular	Nodular†	Nodular/conglobate
First choice†	Topical retinoid	Topical retinoid + topical antimicrobial	Oral antibiotic + topical retinoid +/- BPO	Oral antibiotic + topical retinoid +/- BPO	Oral isotretinoin§
Alternatives†	Azelaic acid or salicylic acid	Alt. topical antimicrobial agent + alt. topical retinoid or azelaic acid¶	Alt. oral antibiotic + alt. topical retinoid +/- BPO	Oral isotretinoin or alt. oral antibiotic + alt. topical retinoid +/- BPA/azelaic acid¶	High-dose oral antibiotic + topical retinoid + BPO
Alternatives for females†,¶	See first choice	See first choice	Oral anti-androgen** + topical retinoid/azelaic acid¶ +/- BPO	Oral antiandrogen** + topical retinoid +/- oral antibiotic +/- alt. antimicrobial	High-dose oral anti-androgen** + topical retinoid +/- alt. topical antimicrobial
Maintenance therapy	Topical retinoid		Topical retinoid +/- BPO		

3. Eczema/Dermatitis

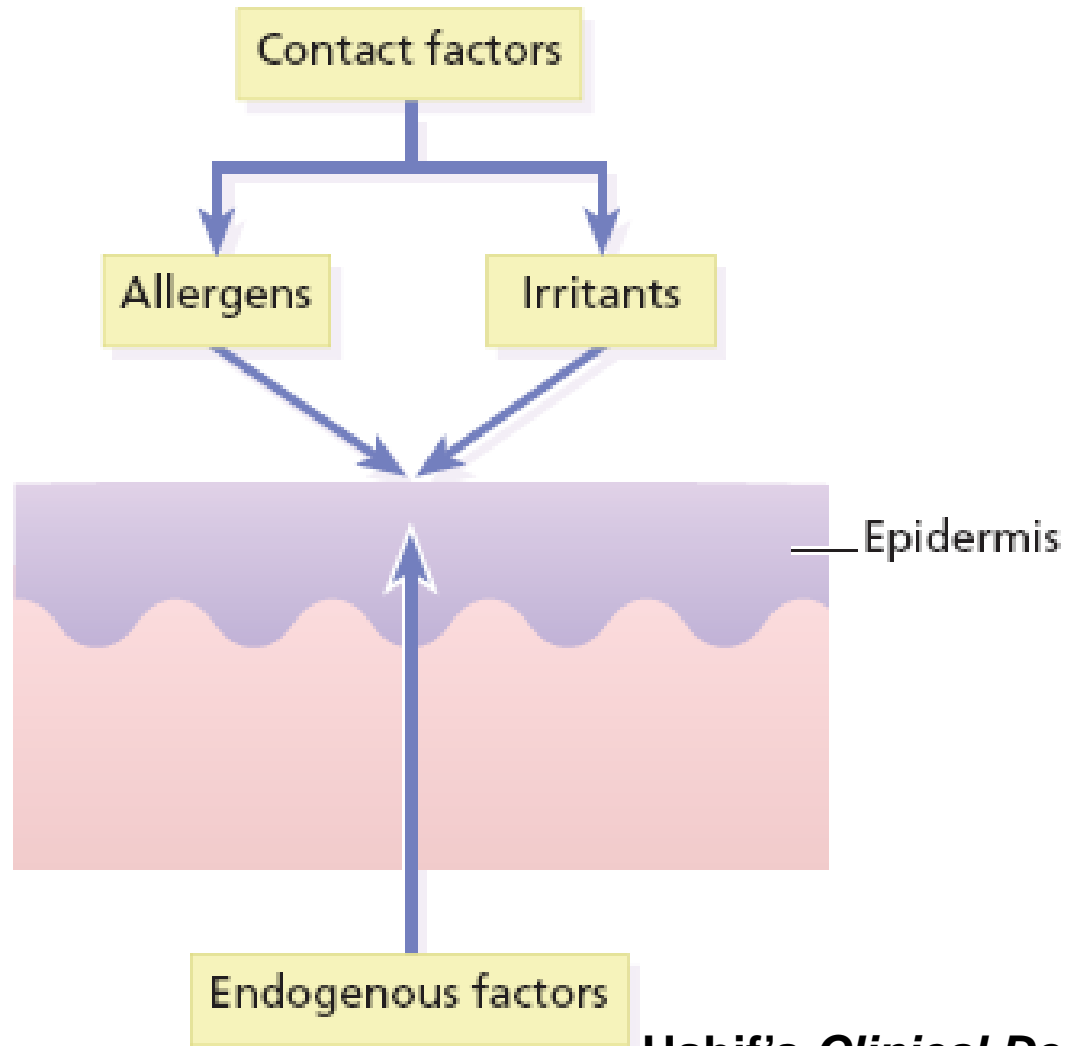
- 'Dermatitis' means inflammation of the skin
- 'eczema' comes from the Greek for 'boiling'
- Multi stage
- Acute
- Subacute
- chronic



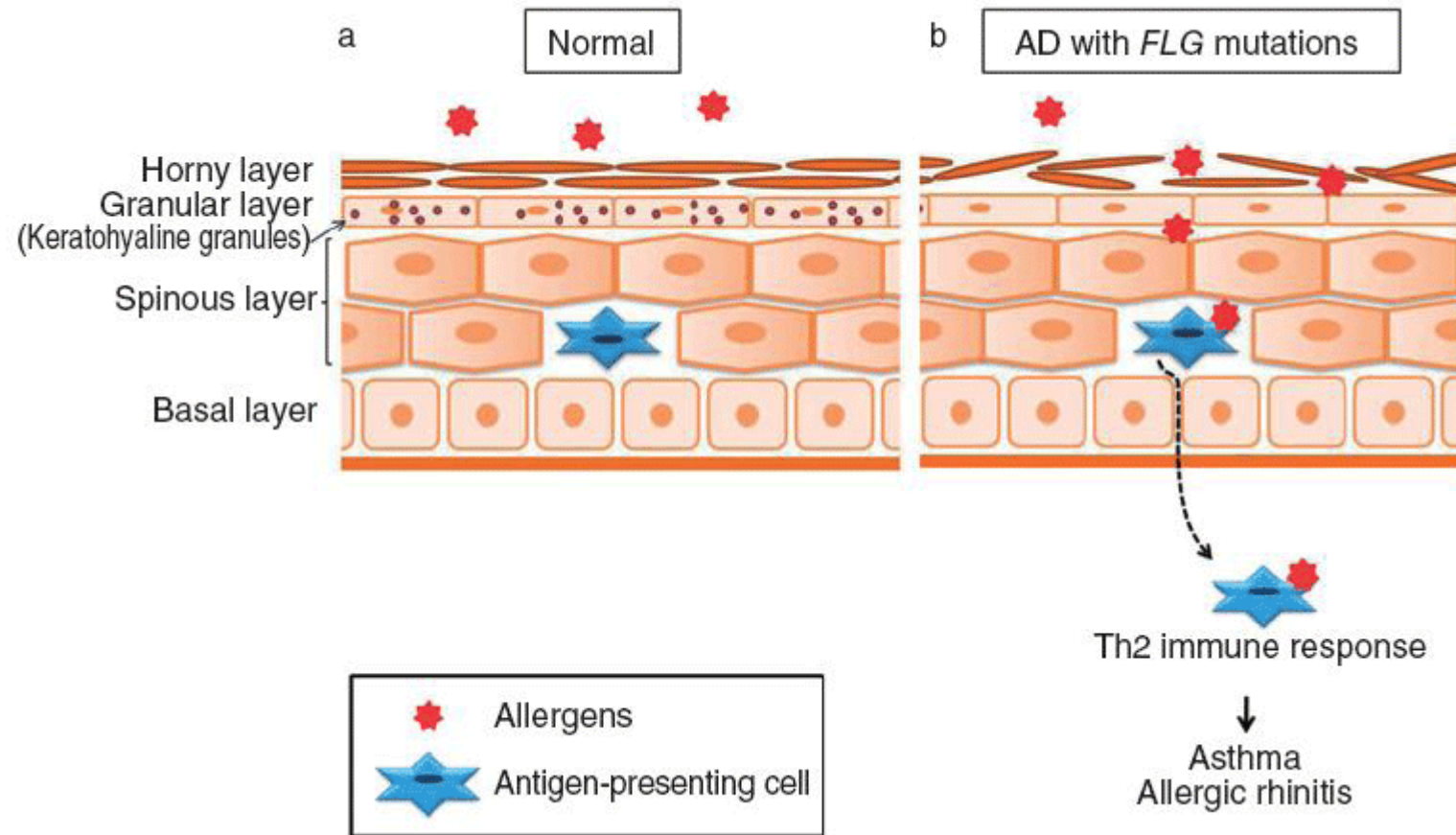


- sequence of histological events in eczema.

The causes of eczema.



Barrier dysfunction



Filaggrin gene (*FLG*) mutation

Rx; Exo/endogenous eczema

- Avoidance
- *Skin hydration*
- Topical corticosteroid; eczema steroid sensitive
- Anti histamine 1st- 2nd

Topical Steroid Strength

Potency	Class	Example Agent
Super high	I	Clobetasol propionate 0.05%
High	II	Fluocinonide 0.05%
Medium	III – V	Triamcinolone acetonide ointment 0.1% Triamcinolone acetonide cream 0.1% Triamcinolone acetonide lotion 0.1%
Low	VI – VII	Fluocinolone acetonide 0.01% Desonide 0.05% Hydrocortisone 1%

The retention of water in the SC

- 1. **Natural Moisturizing Factor (NMF)**
- 2. **Intercellular lipids**; free fatty acids, cholesterol, and ceramides.
- 3. **Sebum lipids** from sebaceous gland

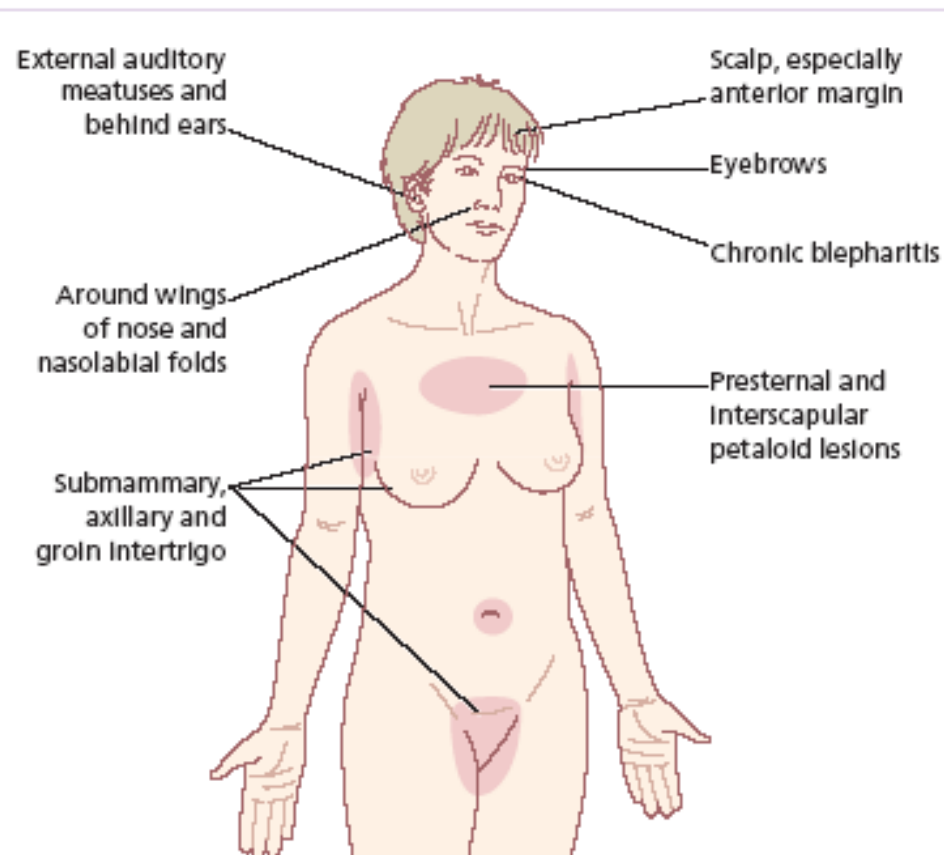
Chemical composition of NMF in corneocytes

- Chemical Composition (%)
- Free amino acids 40
- Pyrrolidone carboxylic acid 12
- Lactate 12
- Sugars 8.5
- Urea 7

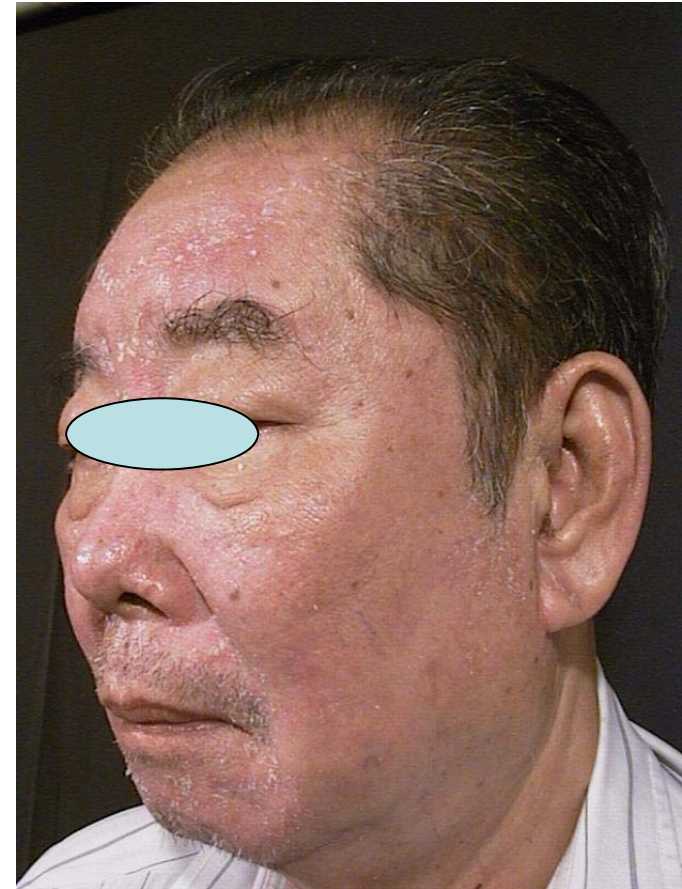
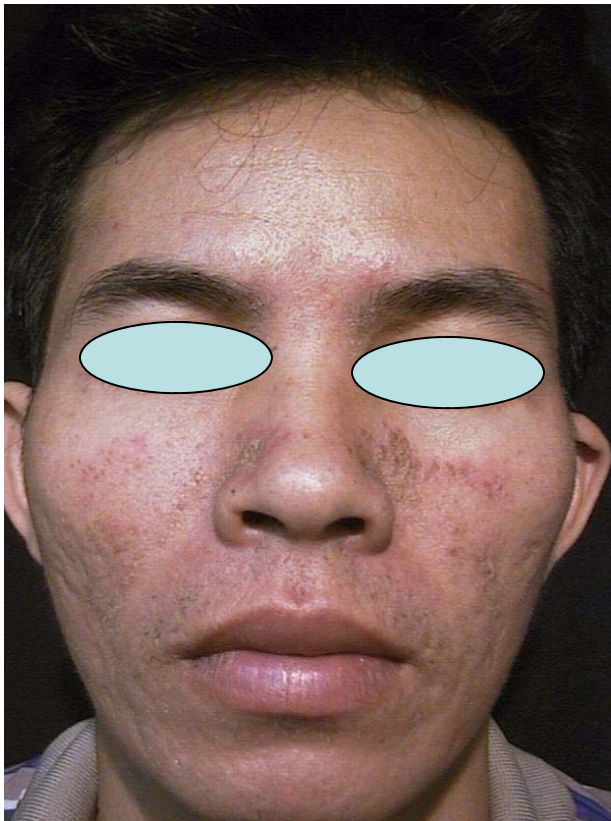
How to choose emollient?

- emollient Lotion, **cream**, ointment, oil
- Ingredients Urea, Ceramide, oil

- eczema, mainly affecting hairy areas, and often showing characteristic greasy yellowish scales.



5. Seborrhoeic dermatitis



6. Psoriasis



**MAHIDOL
UNIVERSITY**
Wisdom of the Land

- Most common location of psoriasis;



- Plaque type



Treatment

- Topical; mono Rx for mild psoriasis <10% BSA
- Systemic; MTX, Cyc A, Acitretin
- Phototherapy
- Biologic drug yr. 2000



Common dermatologic problem in IPD

- **Drug eruption**

Urticaria, angioedema

DRESS

EM (Erythema multiforme)

SJS (Steven- Johnson syndrome)

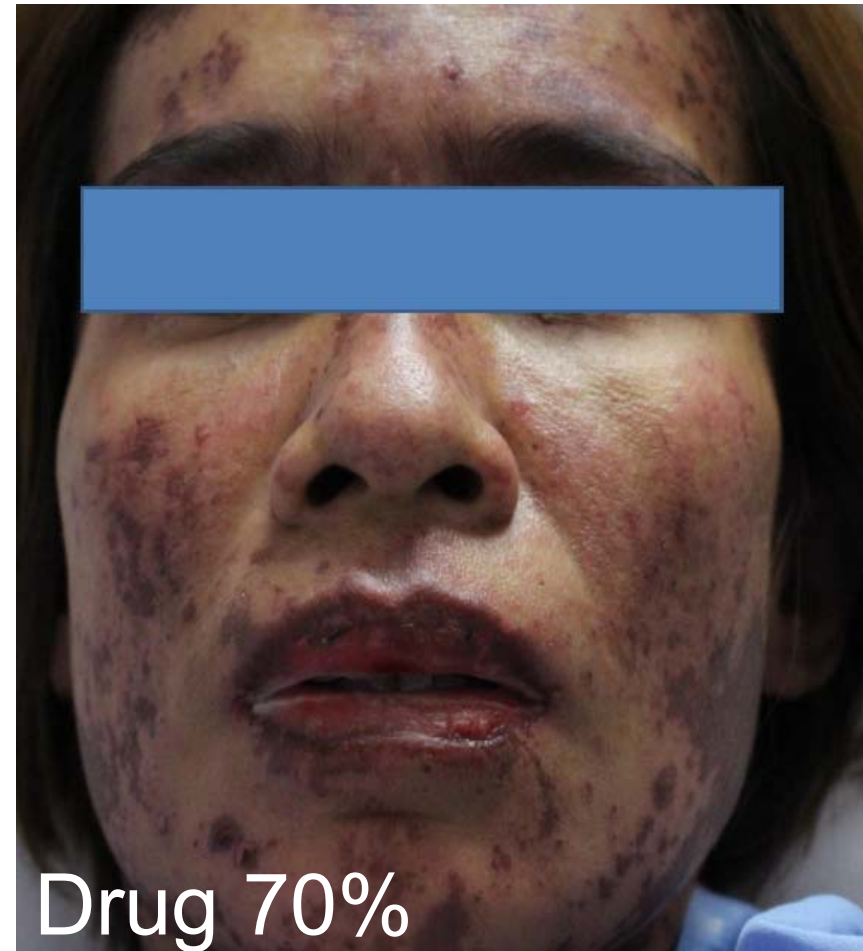
TEN(toxic epidermal necrolysis)

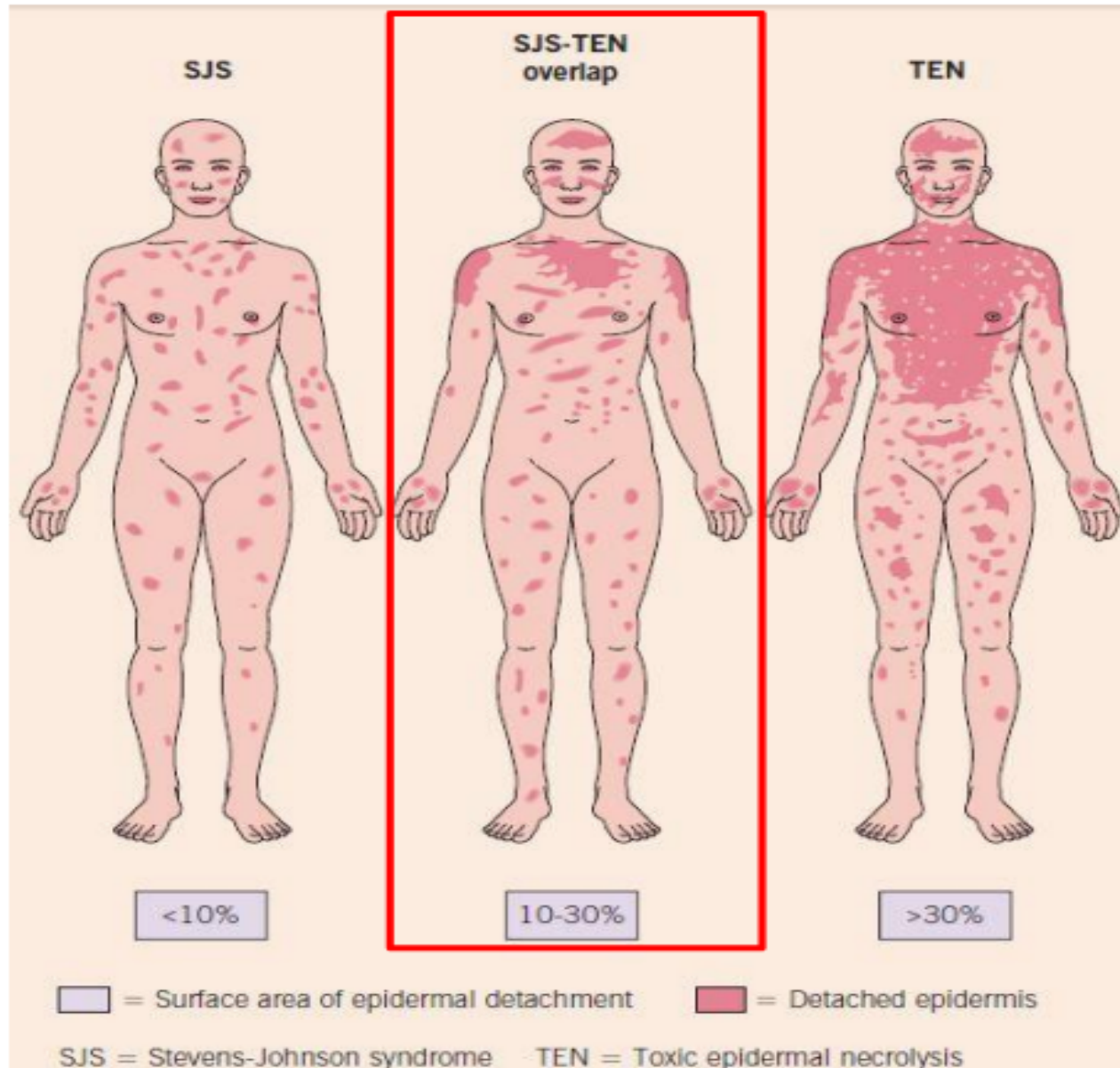
AGEP

DRESS/Hypersensitivity Syndrome

- **D**rug **R**eaction with **E**osinophilia and **S**ystemic **S**ymptoms
- Maculo-papular rash, urticarial, etc.
- Fever
- Lymphadenopathy
- **Eosinophilia**
- Internal organ involvement e.g. **hepatitis**, interstitial nephritis, pneumonitis, or myocarditis

Typical /atypical target lesions





Dermatology: J. Bologna, 3rd Edition, 2012

Cause of EM/SJS/TEN

- **EM**

- infection 90% (HSV1,2, mycoplasma)

- **SJS/TEN**

- Drug 70%

AGEP

- **A**cute **G**eneralized **E**xanthematous **P**ustulosis
- Onset <4 days, fever >38.5 C
- Cause
 - β-Lactam antibiotics
 - Macrolides

Management

Stop drug

- Systemic corticosteroid ; prednisolone 1 mg/kg/day
(Dexamethasone 5 mg IV q 6 hrs)
- Topical corticosteroid
- Consult EYE

Prevention

High risk drug

- **Allopurinol**; *Pharmaco-genomic* HLA-B*5801
- Anti convulsant; **carbamazepine** B*1502
phenytoin
- Nevirapine
- Sulfa group
- Anti Tbc
- Oxicam NSAID

Dermatologic therapy

- Topical corticosteroid
 antifungal
 emollient,moisturizer
 whitening
- Systemic immuno-supressive
 biologic agent
- Physical photo-therapy
 laser

Conclusion

- Dermatology is a visual specialty, nonetheless, the history is important.
- Complete clinical description is crucial in making an accurate diagnosis.
- Re-examination over time and more than one biopsy may be required for definitive diagnosis.

Reference. dermatology lexicon

dermatology lexicon

dermatology lexicon

term database | dictionary | morphology | about DLP

raised
papule

depressed
atrophy

flat/macular
macule

surface change
scale

fluid filled
vesicle

purpura/vascular
petechiae

configurations
linear

plaque

atroph

macule

scale

vesicle

petechiae

grouped

erosion

crust

bull

ecchymosis

scattered

cyst

ulcer

erythema

exc

abscess

polycyclic

comedo

sinus

erythroderma

eschar

telangiectasia

reticular

keloid

striae

lichenification

furuncle

serpiginous

horn

burrow

exfoliation

ichthyosiform

targetoid

wheel

poikiloderma

whorled

arcuate

annular

INSTRUCTIONS
Click the cursor on a **term** to view its lexicon. Click the cursor on the **lexicon** to view animations or illustrations

This page is dedicated to Dr. Irwin M. Freedberg; DLP consultant, esteemed teacher, and friend

Click here to begin

start | DLP Morphology Page... | Microsoft PowerPoint... | theartofdiagnosis | pdf%5CF7c004.pdf - ... | EN | 10:49

Acknowledgement; Dr.somsak Tunratanakorn

www.aad.org

The screenshot shows the homepage of the American Academy of Dermatology (AAD). The browser address bar displays 'www.aad.org'. The page features a blue header with navigation links: 'About AAD', 'Contact us', 'Support AAD', 'AAD store', and 'Employment'. Social media icons for Facebook, Twitter, and YouTube are also present. A search bar is located on the right side of the header.

The main content area is divided into three columns:

- For dermatologists:** Includes links for 'Member tools and benefits', 'Meetings and events', and 'Education and quality care'. A dropdown menu is open, listing various resources such as 'AAD professional education', 'Clinical guidelines', 'PQRS', 'State melanoma reporting', 'Appropriate use criteria', 'MOC', 'Patient safety', 'Awards, grants and scholarships', 'About AAD Recognized Credit', 'Basic Dermatology Curriculum', 'Choosing Wisely', 'Transplant Skin Cancer Network', and 'The Basement Membrane Zone video lecture'.
- For the public:** Includes a link for 'SPOT Skin Cancer' and 'Dermatology A to Z'.
- For the media:** Includes links for 'Media resources' and 'Stories and news'.

On the right side, there is a 'Your account' section with a 'Sign in' link and buttons for 'Donate' and 'Become a member'.

The central part of the page features a large image of a smiling woman. Below the image are three buttons: 'Dermatology World', 'Caring for pierced ears', and 'Public service advertisement'.

Below the image is a 'Find a Dermatologist' section with a search form. It includes fields for 'ZIP code', 'Radius' (set to 5 miles), and a 'Search' button. An 'Advanced search' link is also provided.

Below the search form is a 'Dermatology A to Z' section with a grid of letters: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z.

At the bottom, there is a 'News and features' section with a headline: 'Meaningful Use hardship exception extended'. Below the headline is a brief description: 'CMS has announced the reopening of its Meaningful Use (MU) hardship exception application for physicians and...'. To the right of this section is a 'Read the latest issue of JAAD' button with the JAAD logo.

The URL in the address bar is partially visible as '/basic-dermatology-curriculum'.

UPDATED
IN EACH ISSUE
TO INSURE THAT
DIAGNOSIS, PATHOPHYSIOLOGY
AND THERAPY ARE AS CURRENT
AS POSSIBLE.

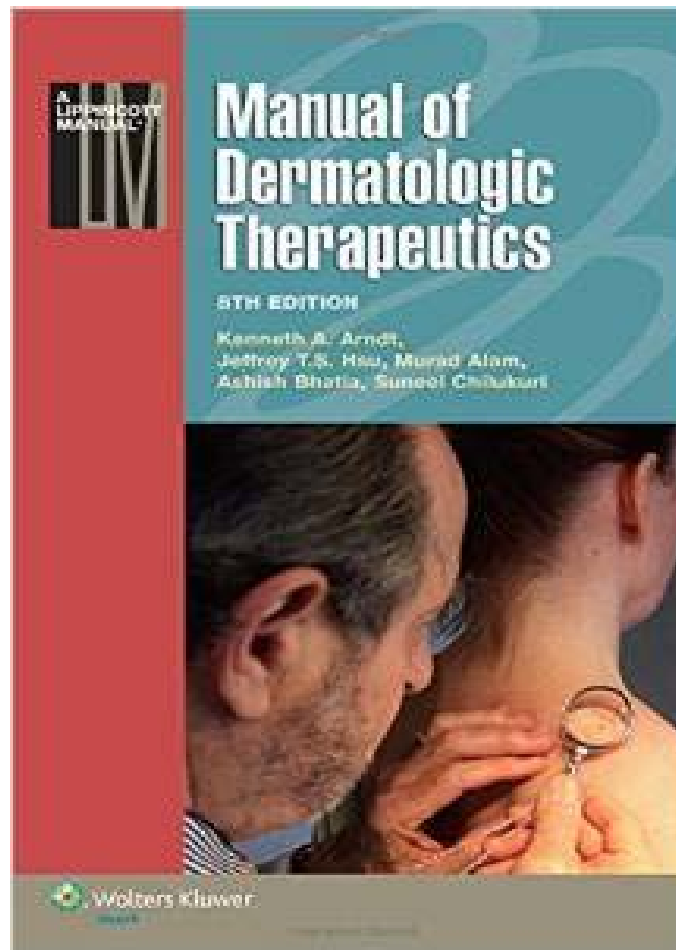
COLOR ATLAS AND SYNOPSIS OF CLINICAL DERMATOLOGY

Thomas B. Fitzpatrick

Machiel K. Polano

Dick Suurmond

Manual of Dermatologic Therapeutics



- [Kenneth A. Arndt, Jeffrey T. S. Hsu](#)
- Lippincott Williams & Wilkins, 2014

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Thank you