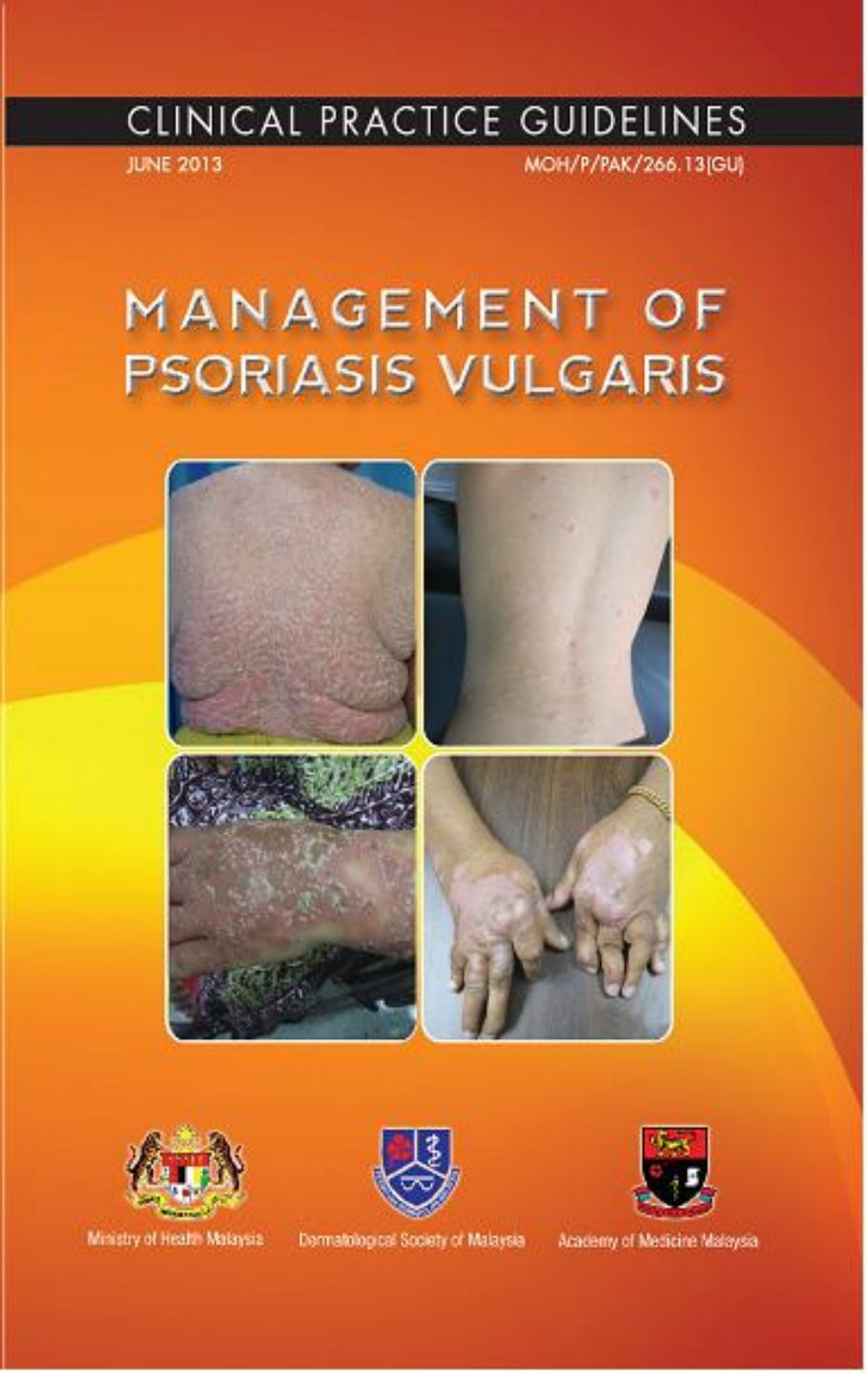
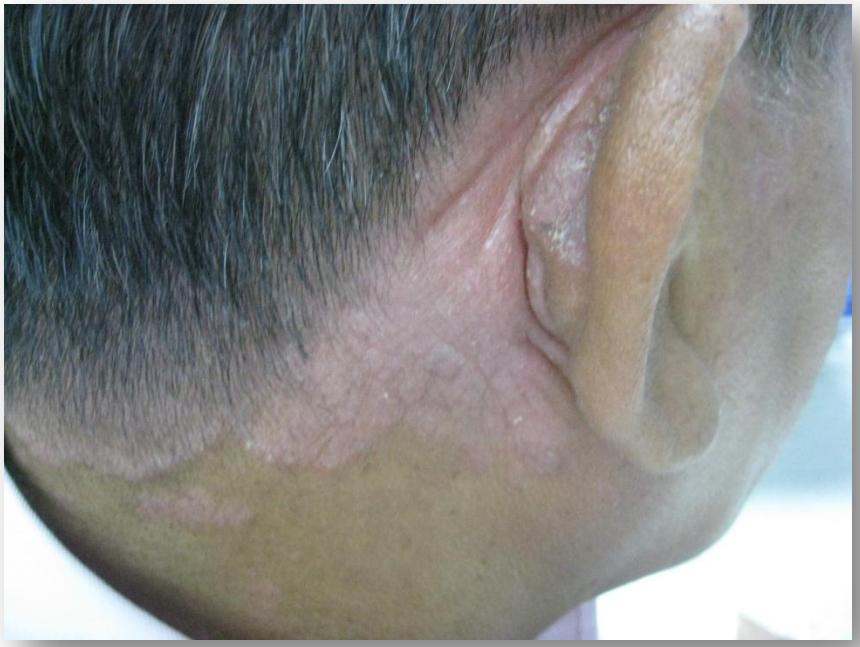


Case Discussion: *Severe Psoriasis*

Clinical Practice Guidelines Management of Psoriasis Development Group

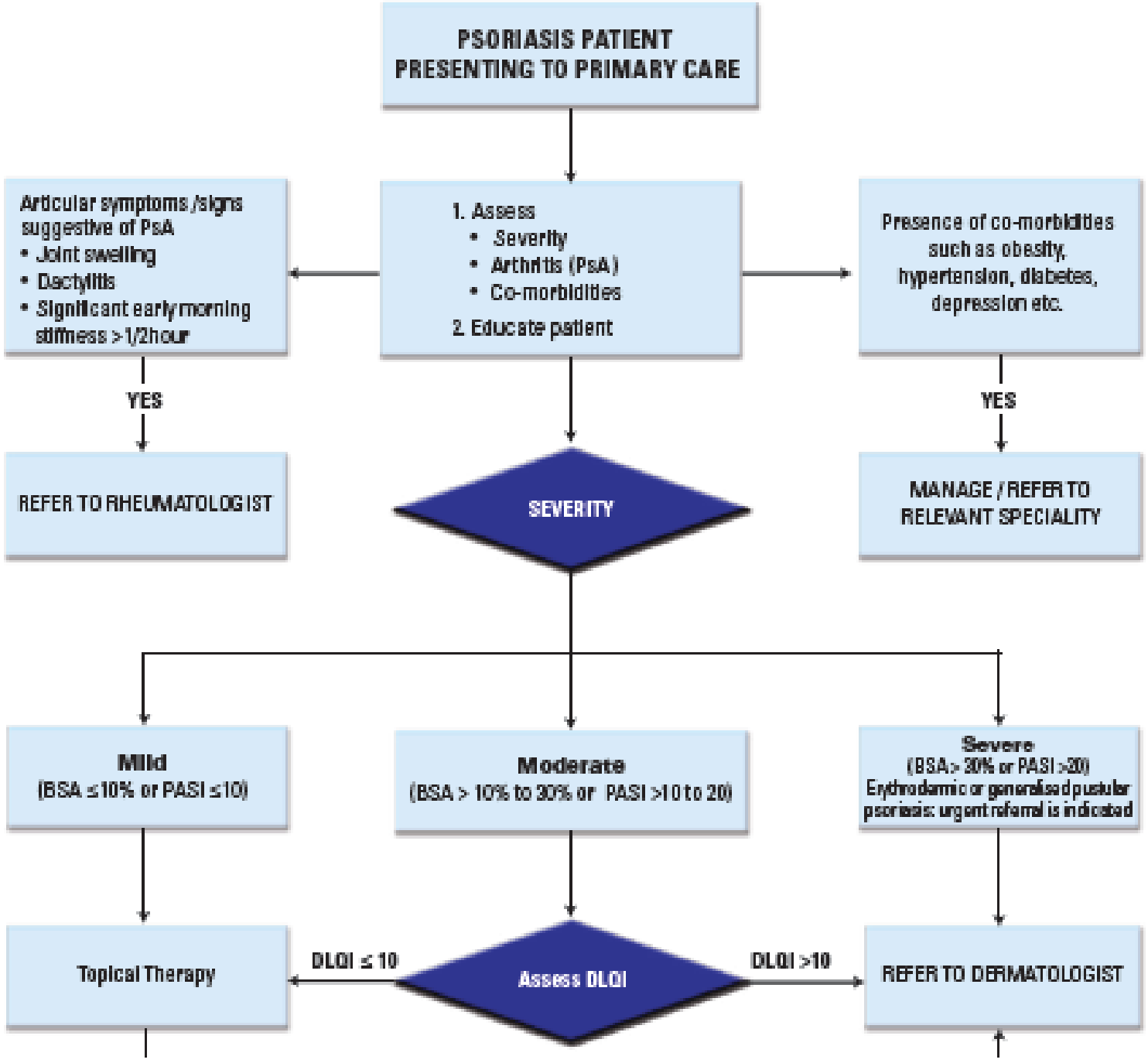
56 year-old businessman

- K / c chronic plaque psoriasis for 20 years
- Inadequate response to topical therapy and acitretin



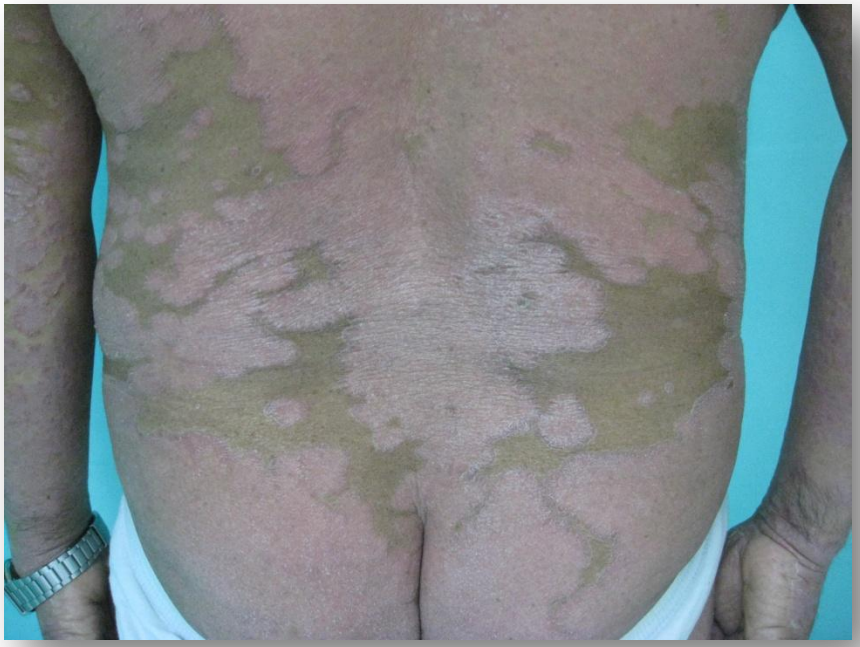
Questions

- How would you assess this patient?
  i. Assessment of disease severity
  ii. Assess for arthropathy
  iii. Assess for co-morbidities (Metabolic syndrome, CVS disease, depression)-BP, BMI,FSL, FBS, ECG


PSORIASIS PATIENT PRESENTING TO PRIMARY CARE
Articular symptoms /signs suggestive of PsA
• Joint swelling
• Dactylitis
• Significant early morning stiffness >1/2hour
1. Assess
• Severity
• Arthritis (PsA)
• Co-morbidities
2. Educate patient
Presence of co-morbidities such as obesity, hypertension, diabetes, depression etc.
YES
YES
REFER TO RHEUMATOLOGIST
SEVERITY
MANAGE / REFER TO RELEVANT SPECIALITY
Mild
(BSA ≤10% or PASI ≤10)
Moderate
(BSA > 10% to 30% or PASI >10 to 20)
Severe
(BSA> 30% or PASI >20)
Erythrodermic or generalised pustular psoriasis: urgent referral is indicated
Topical Therapy
DLQI ≤ 10
Assess DLQI
DLQI >10
REFER TO DERMATOLOGIST

56 year-old ex-army officer

- Weight 78kg
- BMI 33
- Diabetes mellitus past 5 years on metformin and glibenclamide
- No arthritis

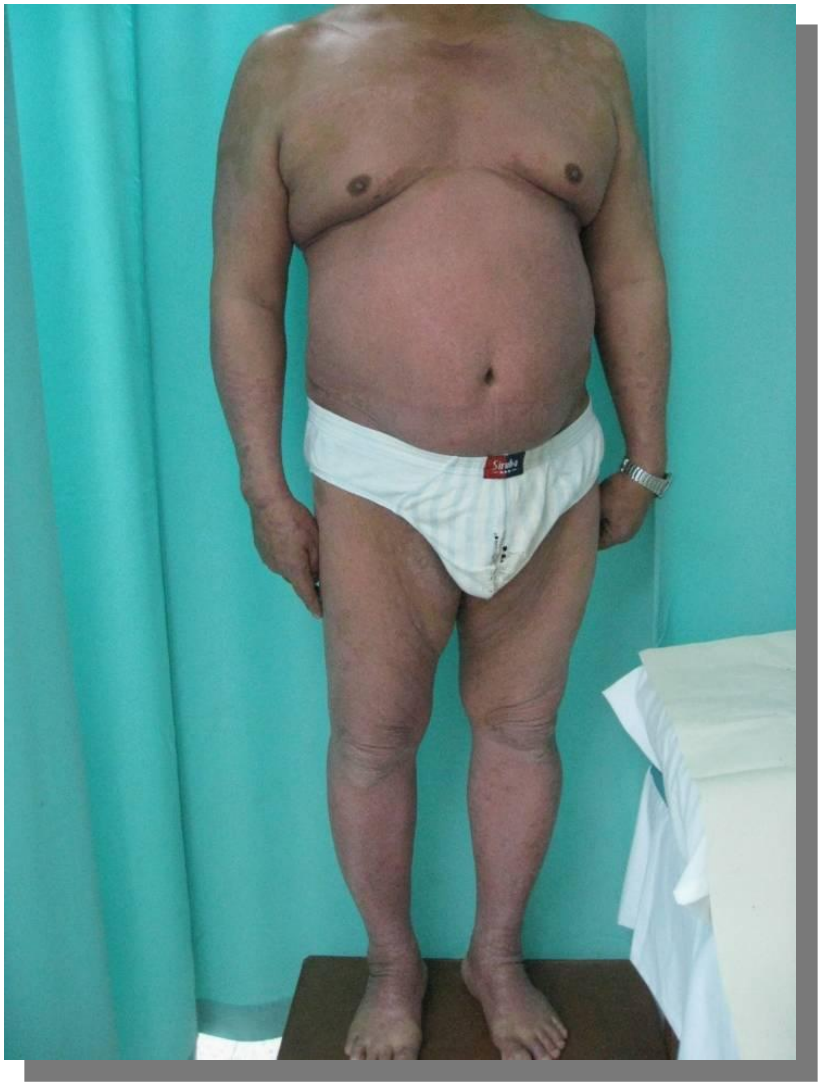


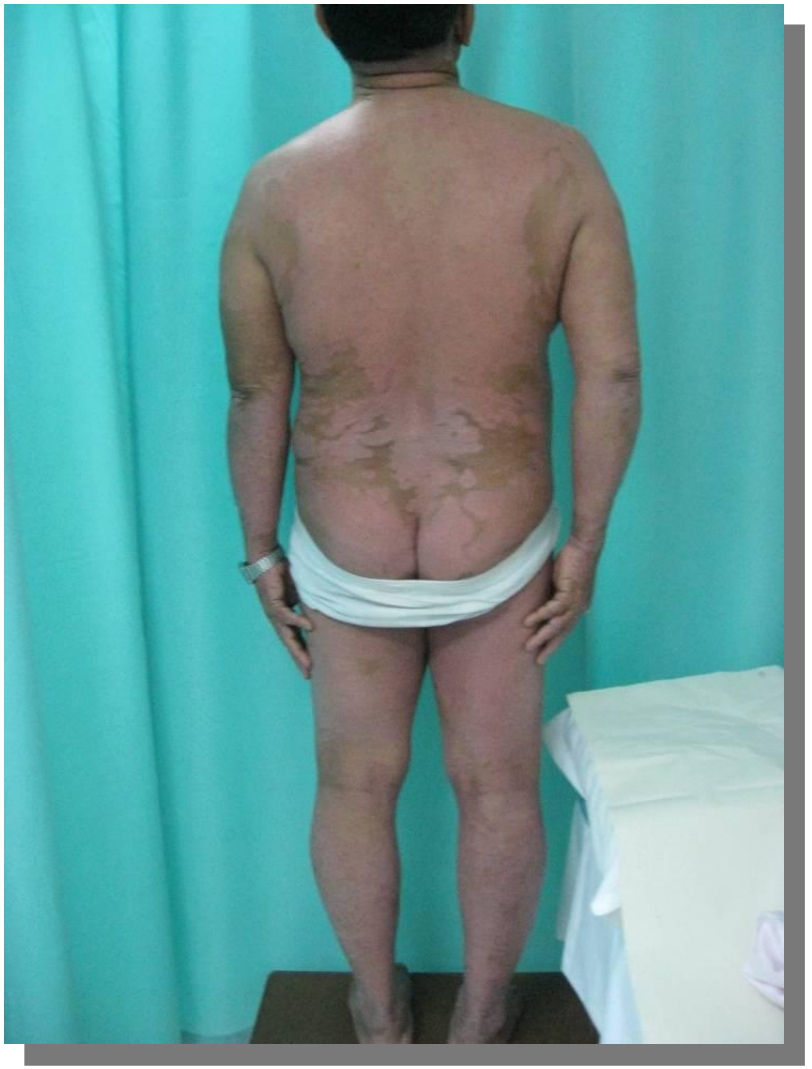
What tools would you use to assess the severity of psoriasis in this patient?

Malaysian CPG on management of Psoriasis vulgaris
Assessment of severity

- Psoriasis Area and Severity Index (**PASI**) or Body Surface Area (**BSA**) should be used to assess the **physical severity** of psoriasis **(Grade C)**

- Dermatology Life Quality Index (**DLQI**)should be used to measure the impact of psoriasis on the **quality of life** of patients. **(Grade C)**





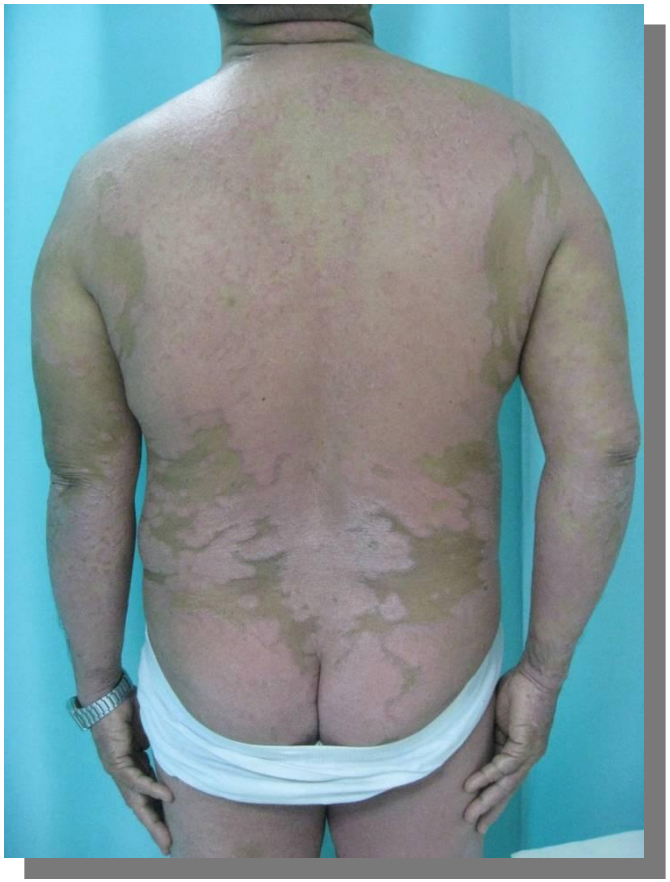
BSA 80%

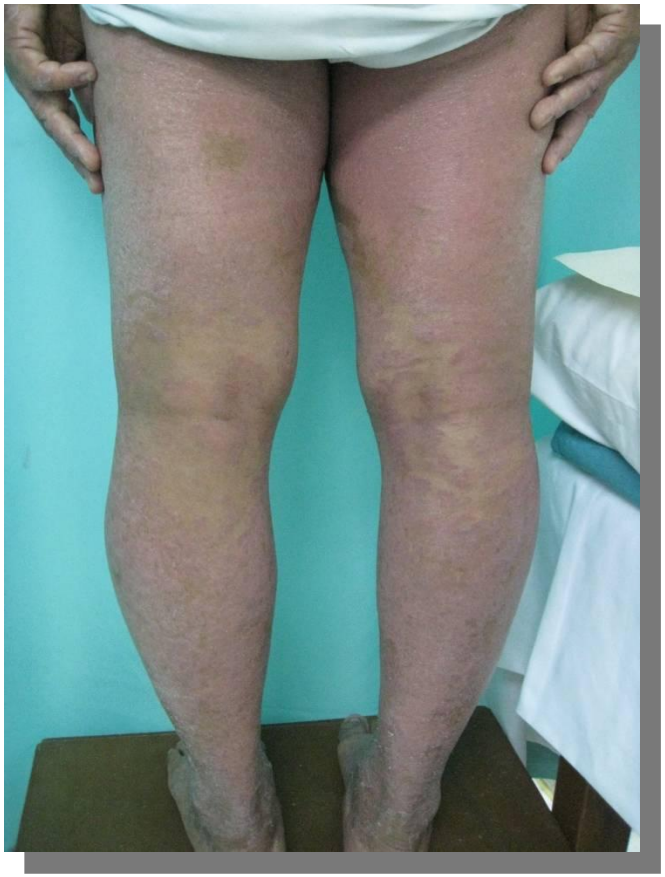
PASI 37

DLQI 15

Case 5

- How would you grade the severity of this patient





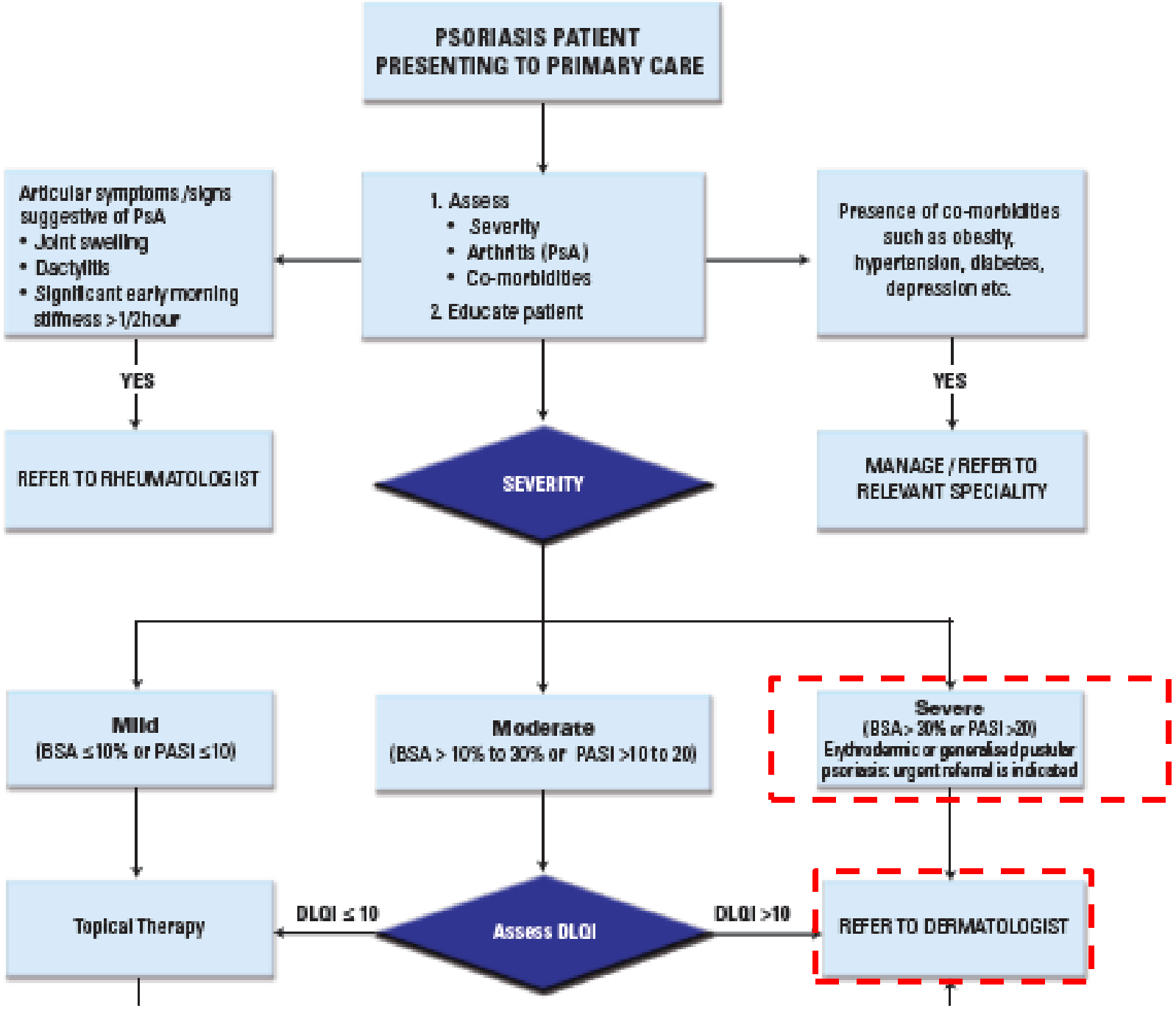
Definition of Psoriasis Severity:

Psoriasis Severity	Definition		
	BSA	PASI	DLQI
Mild	≤ 10%	≤10	≤10
Moderate	>10% -30%	>10-20	>10-20
Severe	>30%	>20	>20

Case 5

How should we manage this patient with severe psoriasis?

- Refer dermatologist
- Refer or treat associated diabetes mellitus and obesity


PSORIASIS PATIENT PRESENTING TO PRIMARY CARE
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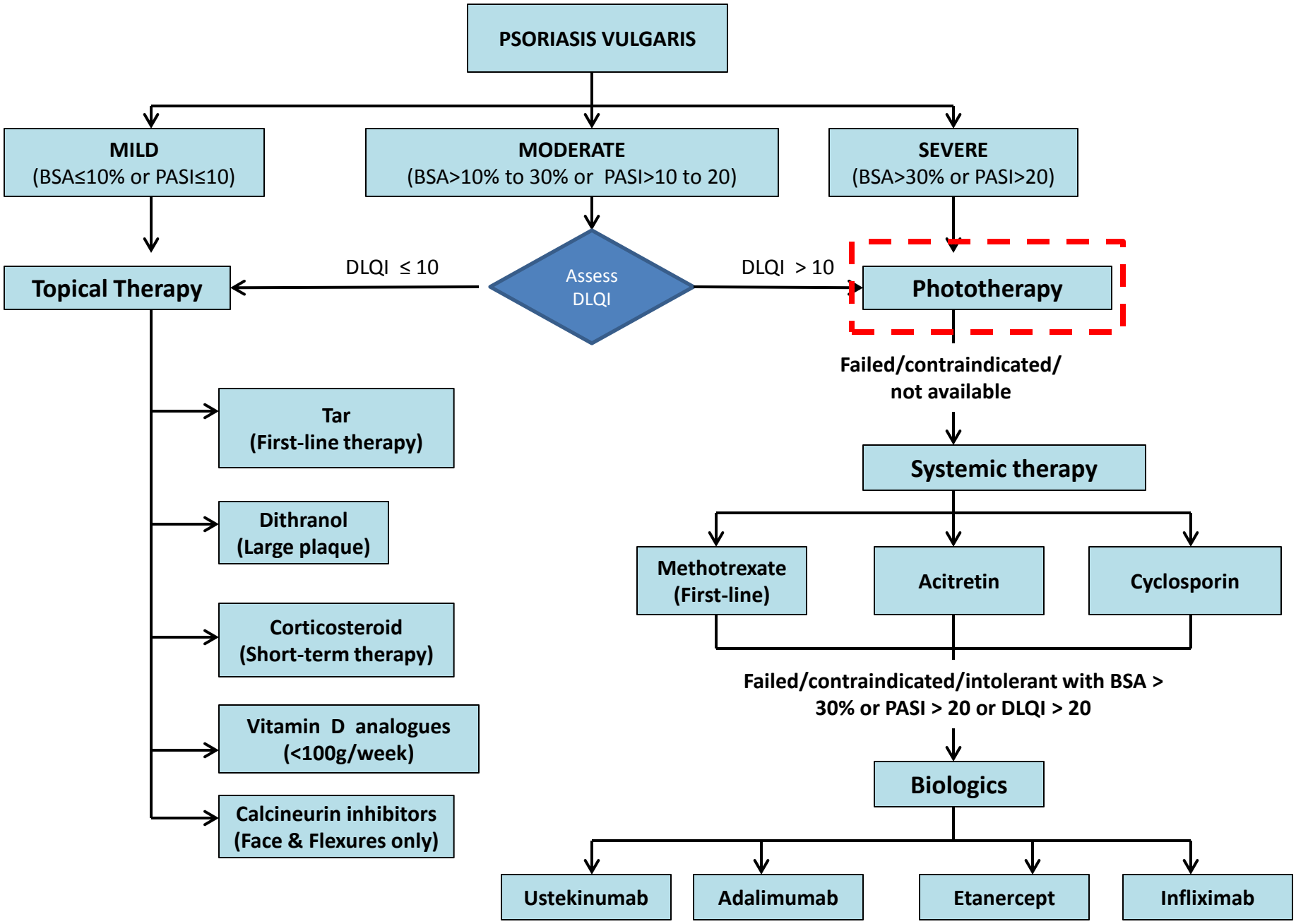
Erythrodermic or generalised pustular psoriasis: urgent referral is indicated
Topical Therapy
DLQI ≤ 10
Assess DLQI
DLQI >10
REFER TO DERMATOLOGIST

What is the most appropriate treatment option for this patient?

1. Phototherapy
2. Methotrexate
3. Cyclosporine
4. Biologics
5. Topical agents

ALGORITHM 2: TREATMENT OF PSORIASIS VULGARIS



Choice of therapy for this patient?

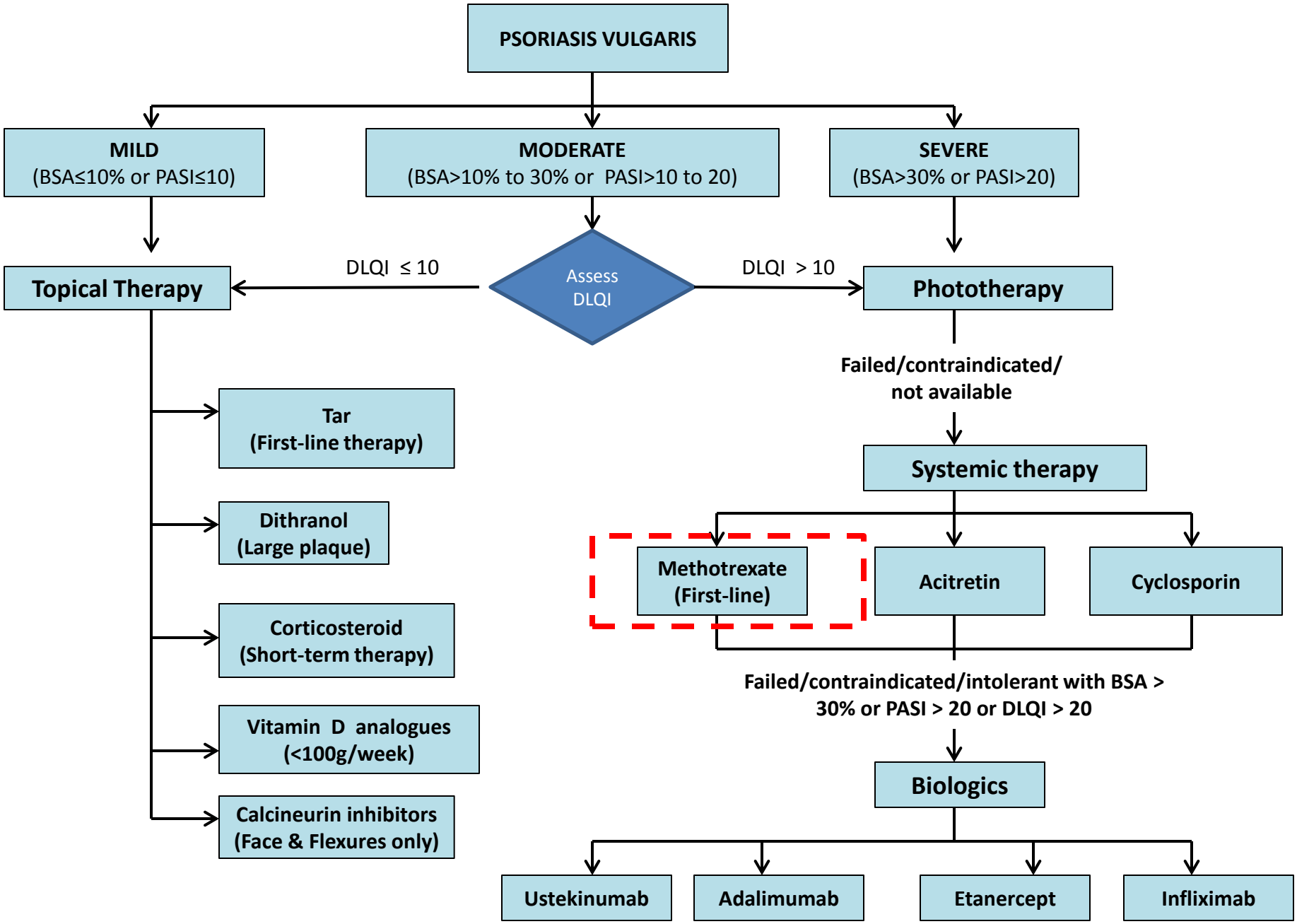
Phototherapy

- Logistics

What systemic agent would you choose?

1. Methotrexate
2. Cyclosporin
3. Biologics

ALGORITHM 2: TREATMENT OF PSORIASIS VULGARIS



Choice of therapy for this patient?

Systemic therapy

A. Methotrexate
   - hepatotoxicity is higher in obesity, diabetes mellitus

B. Cyclosporin
   - HT, renal toxicity and dyslipidemia
   - If fail MTX
   - Cannot be used long-term

C. Acitretin
   - Partial improvement
   - Dyslipidemia

Methotrexate

- MTX chosen
- What would you do before starting MTX?

What is Methotrexate

- Methotrexate is an analogue of folic acid which inhibits dihydrofolate reductase.

- It is a frequently used systemic agent for moderate to severe plaque psoriasis.

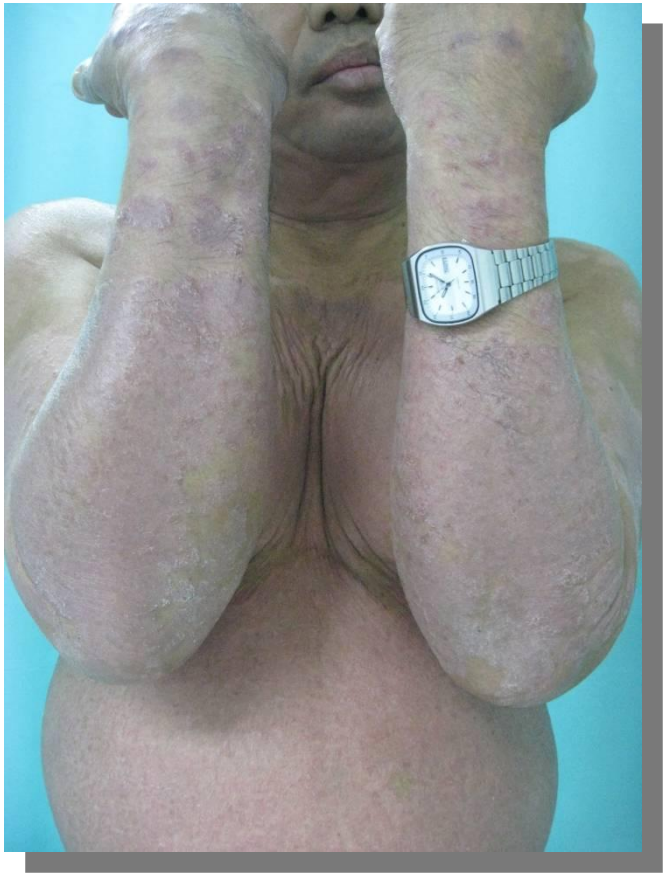
- Methotrexate is efficacious in treating moderate to severe plaque psoriasis

Malaysian CPG on management of Psoriasis vulgaris
Recommendation on systemic therapy

- All patients for systemic/biologic therapy should have a pre-treatment assessment including laboratory/imaging tests and regular monitoring for side-effects/toxicity. **(Grade C)**

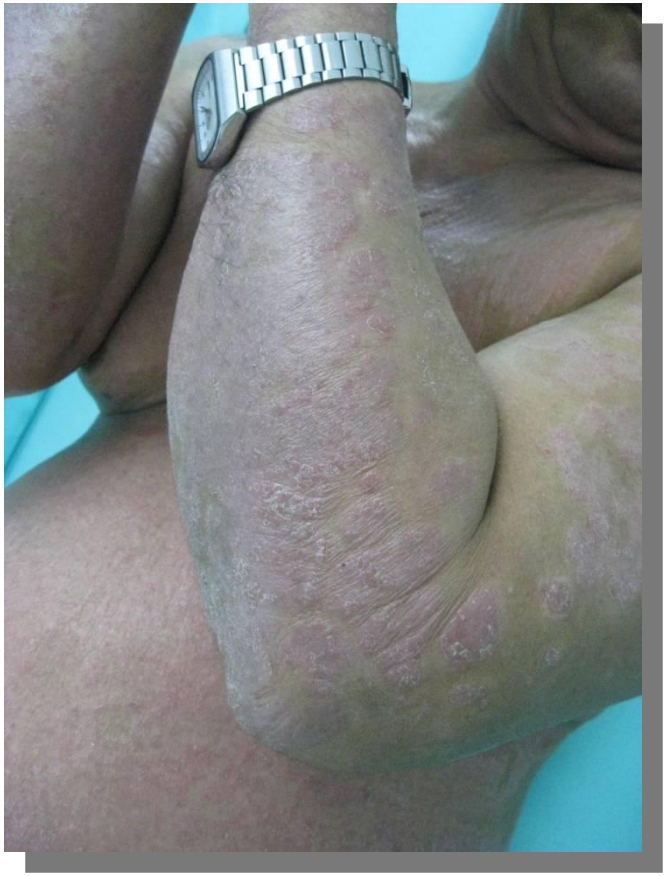
Assessment before systemic treatment

- Patient education and counseling
  - Benefit/risk
- History and examination to exclude the following:
  - Latent TB
  - P/H TB treatment
  - Active infections
  - Hepatitis
  - Malignancy
  - P/H malignancy
  - Congestive heart failure
  - Pregnancy or breast-feeding
  - Intention to get pregnant/father a child
- Manage co-morbidities



Pre-therapy Assessment

- Laboratory tests
  - FBC
  - ESR/CRP
  - UFEME
  - LFT
  - FLP/FBS
  - BUSE
  - Hepatitis screen
  - HIV
  - ANA
- TB screening
  - Mantoux test
  - Interferon Gamma Release Assay
  - CXR



Case 5

- Ensure normal baseline screening prior to starting MTX
  - Laboratory screening and CXR all normal
  - DM well controlled HbA1c 6.5%
  - Mantoux test 1mm
- Assess risk factor for
  - Haematotoxicity and
  - Hepatotoxicity

Risk factors for methotrexate induced hematologic toxicity

- Renal insufficiency
- Advanced age
- Lack of folate supplementation
- Multiple concurrent medications
  - Medication errors
  - Drug interactions
- Hypoalbuminemia
- Excess alcohol intake

Risk factors for methotrexate induced hepatotoxicity

- Diabetes mellitus
- Obesity
- History of or current alcohol consumption
- Persistent abnormal liver chemistry studies
- History of liver disease, including chronic hepatitis B or hepatitis C
- Family history of inheritable liver disease
- History of significant exposure to hepatotoxic drugs or chemicals
- Lack of folate supplementation
- Hyperlipidemia

Treatment Regime And Monitoring Of Methotrexate

- **<u>Initial therapy</u>**
- Start with oral test dose of 5.0 - 7.5 mg /week
- Supplement with folic acid 5mg od (except the day of methotrexate) or 5mg once a week (the day after methotrexate)
  - Supplementation with folic acid is effective in reducing hepatic side-effects

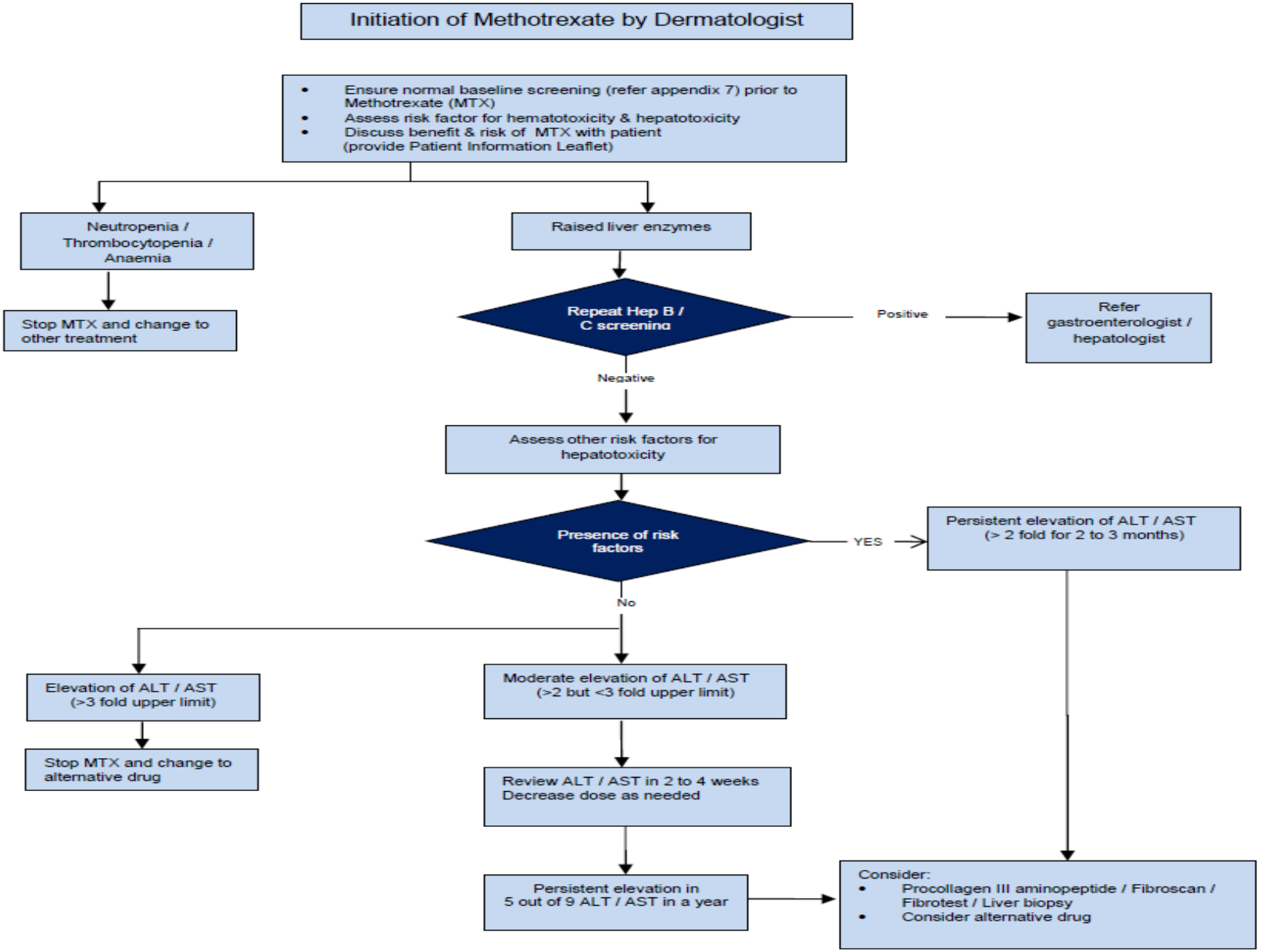
Treatment regime and monitoring of methotrexate

Maintenance therapy

- Escalate dose from 7.5 mg/week till response (maximum 20mg /week)
- Monitor FBC/LFT/RP
  - 1-2 weeks during dose escalation
  - Monthly for the first 3 months
  - Subsequently every 1 to 3 month
- Do blood test 5 - 7 days after last dose of methotrexate
- Monitor cumulative dose
  - Consider Procollagen III aminopeptide/ Fibroscan/Fibrotest or Liver biopsy when total cumulative dose
  - 3.5 to 4.0g in those without risk factors for hepatotoxicity
  - 1.0 to 1.5g in those with risk factors for hepatotoxicity

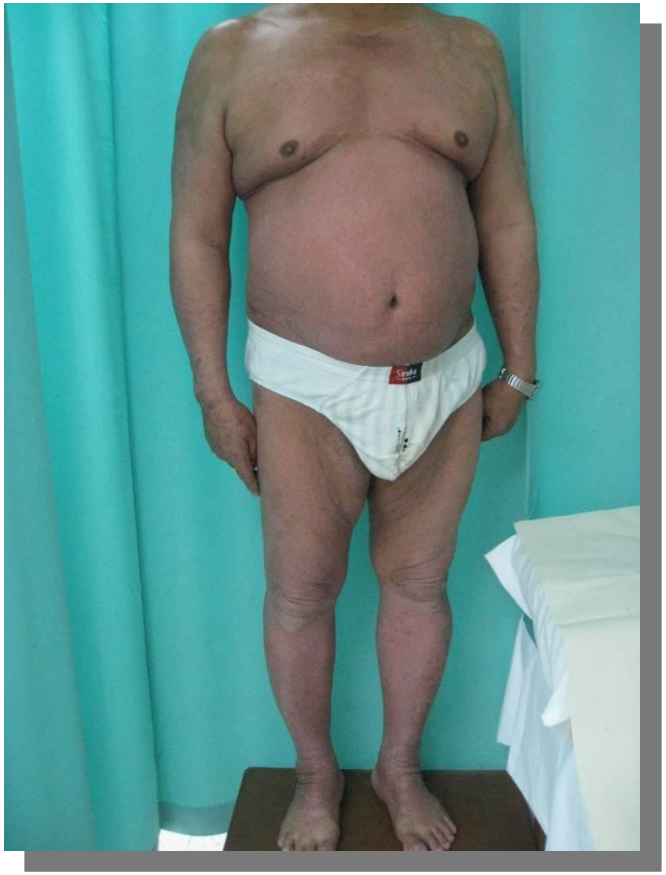
- ***This patient had increased risk factors for liver fibrosis : Type 2 DM and obesity***

ALGORITHM 3: MONITORING HEMATOTOXICITY AND HEPATOTOXICITY OF METHOTREXATE



56 year-old ex-army officer

- Weight 78kg
- BMI 33
- Diabetes mellitus past 5 years on metformin and glibenclamide
- No arthritis
- BSA 80%
  PASI 37
  DLQI 15
- MTX started
- When would you assess the effectiveness of MTX?

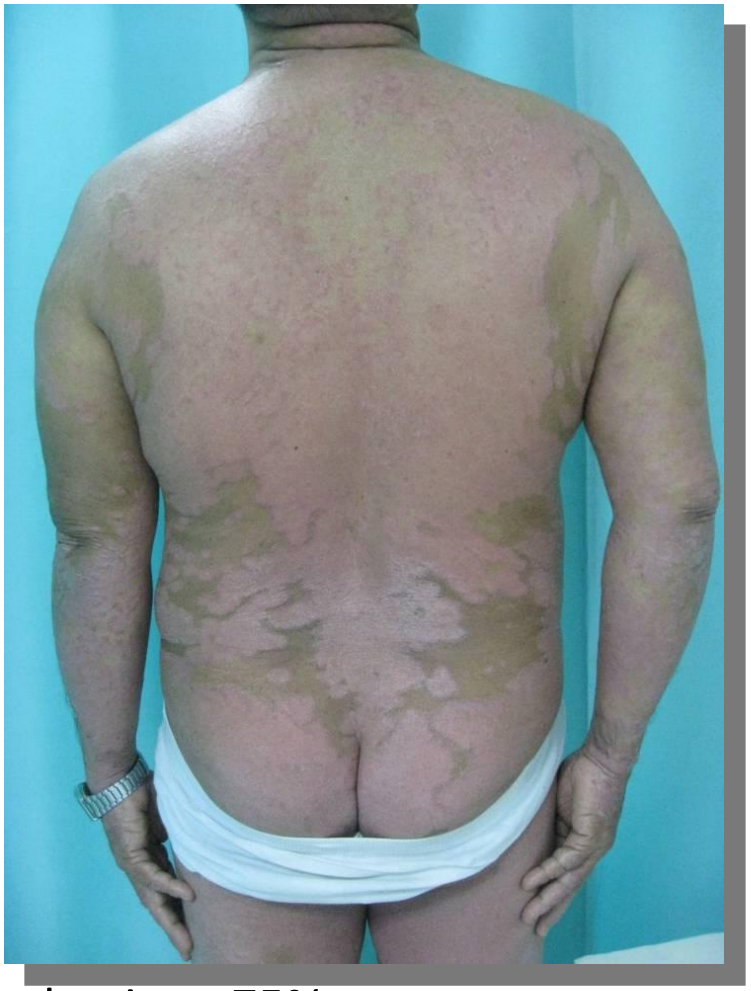


Treatment Goals

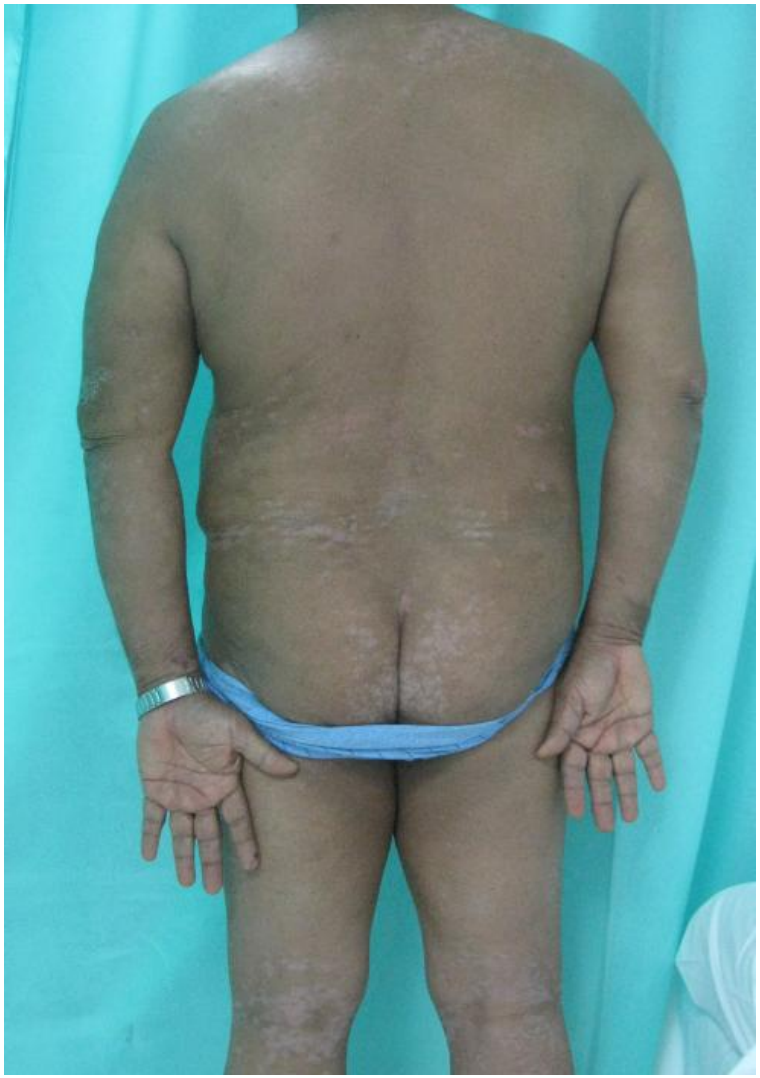
TABLE: TREATMENT GOALS OF VARIOUS MODALITIES

TREATMENT	MINIMAL TARGETS	TIME FOR EVALUATION (WEEKS)	SUBSEQUENT EVALUATION (MONTHS)
Topical therapy	↓ BSA ≥50 or PASI ≥ 50 or DLQI ≤5	6	6 – 12
Phototherapy Methotrexate Cyclosporine Acitretin	↓ BSA ≥75 or PASI ≥75 or DLQI ≤5	6 16 16 12	6
Infliximab Adalimumab Ustekinumab Etanercept	PASI ≥75 OR PASI 50 to <75 plus DLQI ≤5	10 16 16 24	6

Week 0



Week 16



BSA reduction >75%

DLQI 2

Achieved treatment goal

- Remember to monitor every 6 months for loss of response
- Every 1-3 monthly for adverse effects of MTX
- Remind patient to delay treatment when unwell