Malaysian Clinical Practice Guideline for the Management of Psoriasis Vulgaris: Summary of recommendations for management in primary healthcare setting

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Introduction

Psoriasis is a genetically determined, systemic immune-mediated chronic inflammatory disease that affects primarily the skin and joints. It has been estimated to affect 1-3% of the general population worldwide. There are several distinctive clinical sub-types of psoriasis. Psoriasis vulgaris (Figure 1), the most common type, is seen in 89% of the 6895 patients registered in the Malaysian Psoriasis Registry.[1] Psoriatic arthritis is present in 15%. Patients with psoriasis, particularly those with severe disease, are more prone to depression, metabolic syndrome or the individual component of metabolic syndromes namely obesity, diabetes mellitus, dyslipidemia, and hypertension.[2-6] Young adults with severe psoriasis have a 3-fold increased risk of developing myocardial infarction (MI) and a reduction of 3-4 years in life expectancy.[3,4,7] There is also increasing evidence that controlling chronic inflammation of psoriasis with systemic agents or biologics reduces cardiovascular co-morbidity.[3,7-10]

Effective treatments are available. Unfortunately, surveys showed that patients frequently received suboptimal care or were on ineffective treatment for longer than neccessary.[11-12] To improve care of patients living with psoriasis, the Malaysia Health and Technology Assessment Section of the Ministry of Health recently published a clinical practice guidelines (CPG) for the Management of Psoriasis Vulgaris in adults.[13] The aims of this CPG are to assist clinicians and other healthcare professionals (HCPs) in making evidence-based decisions on the management of psoriasis and to implement treatment goals to improve outcome of patients living with psoriasis. This article summarises recommendations on the assessment and management of psoriasis that are relevant to the primary HCP.

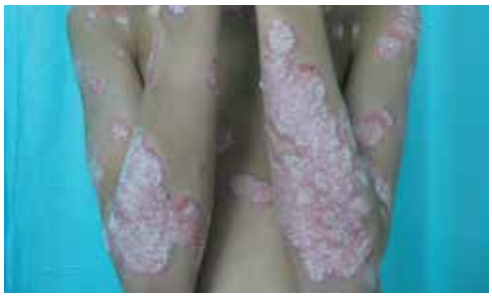

Figure 1. Well demarcated erythematous plaques with silvery scales on extensor surfaces of arms

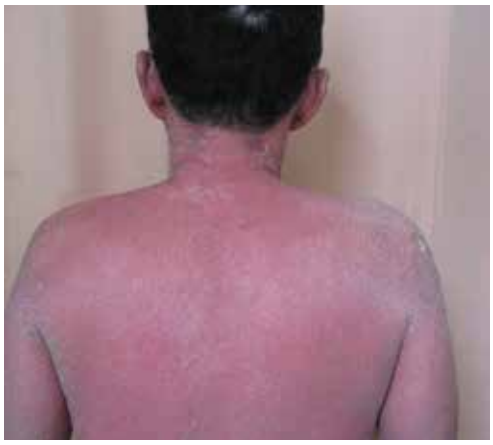

Figure 2. Erythrodermic psoriasis: Generalised redness with thick scales on back

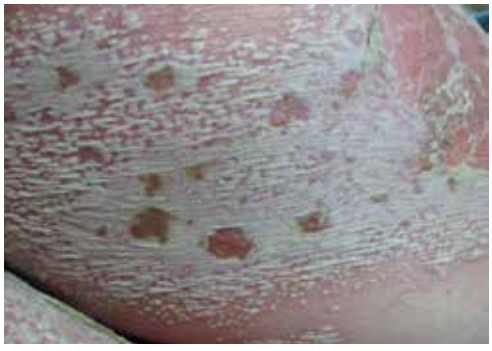

Figure 3. Generalised pustular psoriasis showing erythematous plaques studded with pustules: commonly induced by systemic corticosteriod

Diagnosis and investigation

Psoriasis is diagnosed clinically. Psoriasis vulgaris, the most common type of psoriasis, is characterised by well demarcated erythematous plaques with silvery scales on extensor prominences (Figure 1) and lumbosacral region. Scalp and nail involvements are useful clues to diagnosis, being present in up to 80% and 60% respectively of patients with psoriasis. Guttate psoriasis is usually seen in children and adolescents after an upper respiratory tract infection and is characterised by multiple small plaques of psoriasis. Two rare but potentially life-threatening phenotypes are erythrodermic psoriasis (Figure 2), which is extensive psoriasis affecting more than 80 % body surface area and generalised pustular psoriasis, characterised by widespread erythema studded with superficial pustules, which may coalesce to form lakes of pus (Figure 3).

Commonly encountered differential diagnosis of psoriasis vulgaris includes seborrhoeic dermatitis, tinea corporis, atopic dermatitis and discoid eczema. Seborrhoeic dermatitis classically affects scalp, supraorbital ridges, nasolabial folds, paranasal gutters, central chest and central upper back. On the scalp, scaling of seborrheic dermatitis is more diffuse with fine, greasy scales whereas the sharply demarcated psoriatic plaques, which tend to extend 1-2 cm beyond the hairline, have coarser and thicker scales. Lesions in atopic eczema are less demarcated and located on flexural areas such as antecubital and popliteal fossa. Discoid eczema, preferentially affects the extremities and is very pruritic. Tinea corporis is characterised by annular plaques and may be confused with resolving annular psoriatic lesions. However, diagnosis of tinea corporis is easily confirmed by a positive skin scraping for fungal hyphae. Mycosis fungoides is an uncommon cutaneous T-cell lymphoma, which should be distinguished from psoriasis vulgaris. Classic mycosis fungoides is divided into three stages; patch, plaque and tumour stage. Unlike the well-demarcated plaques seen in psoriasis, patch/plaques of mycosis fungoides have varying borders. Diagnosis is sometimes difficult because the early patch and plaque stage resembles eczema or psoriasis and may not demonstrate classic histological features. A close clinico-pathological correlation is necessary to confirm the diagnosis of mycosis fungoides. If there is any diagnostic doubt, patients should be referred to a dermatologist for further assessment. Skin biopsy may occasionally be needed to confirm psoriasis with atypical presentations and to rule out other conditions.

Risk factors

The most significant risk factor for psoriasis is having a family history of psoriasis.[13] Other risk factors include obesity, smoking, recent infection, alcohol consumption of more than five drink/month in men and skin injury (koebner phenomenon).[13] Although there is a lack of good evidence linking drugs to psoriasis, it is prudent to avoid drugs such as NSAIDs, beta-blockers and lithium which had been reported to aggravate/trigger psoriasis. Systemic corticosteroid should also be avoided because it has been repeatedly implicated as the most common cause of potentially life-threatening generalised pustular psoriasis.[14]

Identification of psoriatic arthritis and other comorbidities

Psoriatic arthritis affects 6 to 42% of patients with psoriasis.[15-16] Skin lesions precede arthritis in about 75% of cases. Hence, HCPs who take care of patients with psoriasis are very well-placed to identify onset of arthritis in their patients. Early diagnosis is important because psoriatic arthritis is aggressive and is associated with progressive joint damage. HCPs should perform regular assessment for associated arthritis in their psoriasis patients by eliciting a history of significant morning stiffness, joint pain and/or swelling to facilitate timely referrals to rheumatologists. Psoriasis, like other diseases associated with chronic systemic inflammation such as rheumatoid arthritis and systemic lupus erythematosus, carries a higher risk of cardiovascular morbidity and mortality. Hence, all patients with psoriasis should be regularly assessed for metabolic syndrome and other classic risk factors of atherosclerosis-related diseases. Assessment of patient with psoriasis should also include psychosocial measures since patients with psoriasis have higher risk of depression, anxiety, and suicidal ideation especially in severe disease.[17]

Principles of care

The treatment of psoriasis should be a combined decision between patients and their HCPs. Management should start with patient education (Algorithm 1). Adequate information on their disease and current available treatment options are necessary to enable patients to make informed decision regarding their care. The choice of treatment should be individualised based on patient's preference, disease severity, available treatment

options and the risk-benefit of treatment. The goal of treatment is to improve and maintain patients' health-related quality of life (QoL) through control of symptoms and signs of psoriasis. Treatment goal and minimal target set should be monitored regularly to detect loss of response, which may necessitate modification of therapy. Implementing and regular monitoring of treatment goals are necessary to ensure long-term effective treatment.

Table 1. Assessment of psoriasis severity and referral criteria for specialist care

- Assess severity of psoriasis and its impact on patient's quality of life
  - at first presentation
  - when assessing effectiveness of treatment
  - before referral for dermatologist/rheumatologist care
- Measure severity of psoriasis by documenting percentage of body surface area affected (%BSA) and/or DLQI score
- Assess for early arthritis on presentation and then at least yearly by looking for significant morning joint stiffness, dactylitis and joint swelling
- Assess regularly for metabolic syndrome and risk factors of atherosclerosis-related diseases
- Classify severity into mild, moderate or severe psoriasis
  - Mild psoriasis (BSA or PASI or DLQI 10)
  - Moderate psoriasis (BSA >10 to 30% or PASI >10 to 20 or DLQI >10)
  - Severe psoriasis (BSA>30% or PASI >20 or DLQI >20)
- Criteria for dermatology referral
  - Diagnostic uncertainty
  - Erythrodermic (Figure 2) or generalised pustular psoriasis (Figure 3) should be referred urgently for specialist assessment and treatment
  - Patients who have failed adequate trial of topical therapy for 6-12 weeks
  - Moderate to severe psoriasis that requires phototherapy or systemic or biological therapy
- Criteria for rheumatology referral
  - Diagnostic evaluation of patients with suspected arthritis
  - Formulate management plan for psoriatic arthritis

Table 2. Key recommendations relevant to primary healthcare professionals

- Patients with psoriasis or PsA should be encouraged to adopt a healthy lifestyle
  - Regular exercise
  - Maintain healthy body weight (Body Mass Index 18.5–24.9)
  - Stop smoking
  - Avoid alcohol or drink in moderation
- Patients with mild or moderate psoriasis with minimal impairment in quality of life (DLQI≤5) should be treated with topical agents
- Emollient should be used regularly
- Tar-based preparations may be used as a first-line topical therapy
- Short-term use of potent and very potent topical corticosteroid may be used to clear limited plaques. (Grade A)
  - Avoid use on the face, genitalia and body folds
  - Limit use of super potent corticosteroid to less than 30 g/week
  - Limit use of potent corticosteroid to less than 60 g/week
  - Continuous use of potent corticosteroid should not exceed 4 weeks
  - Continuous use of super potent corticosteroid should not exceed 2 weeks
- Mild potency corticosteroid may be used for face, genitalia and body folds
- Vitamin D analogue may be used for short-term treatment
  - Limit use to less than 100 g/week
- Fixed dose combination of vitamin D analogue and corticosteroid may be used for short-term treatment
- Review patient 6 weeks after starting a new topical agent
  - Evaluate tolerability and initial response to treatment
  - Reinforce the importance of adherence when appropriate
  - Reinforce the importance of a not using potent or very potent corticosteroids long term
  - If there is little or no improvement at this review
  - Discuss next treatment options (refer dermatologist or change to another topical agent)

Assessment of disease severity

Assessment of patients with psoriasis should include measurement of the physical severity of the disease and its impact on patients' quality of life (Table 1). Both measurements are important to ensure that patients are directed towards appropriate services that meet their individual needs in order to minimise morbidity. Severity of psoriasis and its impact on patient's QoL should be measured on first presentation, during evaluation of the effectiveness of interventions, before referral for specialist care and at each referral point in the treatment pathway (Algorithm 1). There are no biomarkers for disease severity, so measurement is based on clinical evaluation of the skin. Physical severity of psoriasis may be measured by calculating the percentage of body surface area involved (BSA) using "rule of nine" or by taking patient's one palm size (flat hand with apposed thumb and fingers) as 1%. Psoriasis area and severity index (PASI) is common tool used for assessing the severity and response of psoriasis to new treatment. PASI measures the severity of skin lesions (i.e., degree of erythema, scaling and induration of lesions) and extent of involvement in four regions (head and neck, upper limbs, trunk and lower limbs). Score range from 0 to 72. PASI is the recommended tool to measure response of psoriasis to treatment with biologics.

Dermatology life quality index (DLQI) is recommended to measure the impact of psoriasis on patient's QoL. It is a 10-item dermatology-specific questionnaire that measures impact of skin disease and its treatment on patient's life (Appendix 1). DLQI assesses itch, pain, feeling of embarrassment, problems with treatment, interference with daily life, relationship and sexual activity. Score ranges from 0 to 30 where 0 to1 means no effect at all, 2 to 5 small effect, 6 to 10 moderate effect, 11 to 20, very large effect and 21 to 30 extremely large effect on QoL. Severity of psoriasis should be classified into mild, moderate or severe psoriasis to determine optimal treatment approach (Table 1).

Treatment goals and options

Treatment goals are routinely used in many chronic medical diseases to measure efficacy of therapy and to prevent complications due to uncontrolled disease activity. For instance, HbA1c is the treatment goal for diabetes mellitus and a blood pressure of <140/90 is the treatment goal for hypertension. One important consequence of uncontrolled diabetes mellitus and hypertension is cardiovascular morbidity and mortality. Severe psoriasis is also significant risk for cardiovascular morbidity and mortality. Patients with severe psoriasis have a 3-4 year reduction in life-span which is similar to patients with uncontrolled hypertension.[3,4,7] Hence, it is necessary to treat psoriasis like other chronic diseases by implementing and monitoring treatment goals based on disease severity to ensure appropriate and adequate long-term effective treatment.

Topical therapy is the first-line treatment for mild-to-moderate psoriasis. Second-line therapy includes phototherapy with broad- or narrow-band ultraviolet (UV) B light or psoralen plus UVA light (PUVA). Conventional systemic agents such as cyclosporin, methotrexate and acitretin are offered if phototherapy is not available, impractical for patients or when patients did not respond or could not tolerate phototherapy. Biologics is only recommended for patients with severe psoriasis who have failed or have contraindication or intolerance to conventional systemic therapy.

For all treatment modalities, our goal is to help patient achieve a DLQI ≤5, that is, psoriasis should just have small or no effect on patient's life after treatment. For topical therapy, initial response is evaluated at week 6. If patient achieved 50% or more reduction in BSA involvement, treatment should be continued and effectiveness should be regularly monitored every 6-12 to detect loss of response which may need treatment modification (Algorithm 1). If treatment goal is not achieved, DLQI should be assessed. If DLQI ≤5, topical treatment should be optimised by ensuring adherence or adding/switching to another topical agent. If DLQI >5, patients should be offered dermatology referral. Table 2 summarises key recommendation relevant to primary HCP.

Implications and implementations

Psoriasis is no longer just a skin disease. It is a chronic inflammatory systemic disease with significant cardiovascular morbidity and mortality. Adequate treatment of psoriasis is cardioprotective. Implementing and regular monitoring of treatment goals is necessary to ensure adequate and effective long-term control. The main barrier to successful implementation of this guidance is likely to be insufficient training or understanding about psoriasis among HCPs, as undergraduate dermatology training is rudimentary. Formal assessment of psoriasis with BSA/PASI/DLQI and implementation of treatment goal is a substantial change in approach since there is, currently, no culture to measure skin diseases with validated tools and no treatment standard.

Appendix 1. Dermatology Life Quality Index

DERMATOLOGY LIFE QUALITY INDEX

DLQI

Hospital No: Date:
Name: Score:
Address: Diagnosis:

The aim of this questionnaire is to measure how much your skin problem has affected your life OVER THE LAST WEEK. Please tick one box for each question.

1.	Over the last week, how **itchy, sore, painful** or **stinging** has your skin been?	Very much ☐ A lot ☐ A little ☐ Not at all ☐	
2.	Over the last week, how **embarrassed** or **self conscious** have you been because of your skin?	Very much ☐ A lot ☐ A little ☐ Not at all ☐	
3.	Over the last week, how much has your skin interfered with you going **shopping** or looking after your **home** or **garden**?	Very much ☐ A lot ☐ A little ☐ Not at all ☐	Not relevant ☐
4.	Over the last week, how much has your skin influenced the **clothes** you wear?	Very much ☐ A lot ☐ A little ☐ Not at all ☐	Not relevant ☐
5.	Over the last week, how much has your skin affected any **social** or **leisure** activities?	Very much ☐ A lot ☐ A little ☐ Not at all ☐	Not relevant ☐
6.	Over the last week, how much has your skin made it difficult for you to do any **sport**?	Very much ☐ A lot ☐ A little ☐ Not at all ☐	Not relevant ☐
7.	Over the last week, has your skin prevented you from **working** or **studying**?	Yes ☐ No ☐	Not relevant ☐
	If "No", over the last week how much has your skin been a problem at **work** or **studying**?	A lot ☐ A little ☐ Not at all ☐	
8.	Over the last week, how much has your skin created problems with your **partner** or any of your **close friends** or **relatives**?	Very much ☐ A lot ☐ A little ☐ Not at all ☐	Not relevant ☐
9.	Over the last week, how much has your skin caused any **sexual difficulties**?	Very much ☐ A lot ☐ A little ☐ Not at all ☐	Not relevant ☐
10.	Over the last week, how much of a problem has the **treatment** for your skin been, for example by making your home messy, or by taking up time?	Very much ☐ A lot ☐ A little ☐ Not at all ☐	Not relevant ☐

Please check you have answered EVERY question. Thank you.

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