Overview
Psoriasis is a chronic inflammatory skin condition that affects 1.7% of Canadians. It peaks in two age groups, ages 20-30 and 50-60. There are various types of psoriasis including psoriasis vulgaris, pustular psoriasis, psoriatic erythroderma, and guttate psoriasis. This one-pager will focus on psoriasis vulgaris, also known as plaque psoriasis.

Clinical Presentation
Appears as erythematous papules coalescing into plaques with silvery-white scales, and well-defined borders. It can be localized or generalized, and classical sites include elbows, knees, sacral-gluteal region, scalp, lower back, palms, and soles. Triggers include physical trauma, stress, infections (e.g. HIV), medications (e.g. systemic glucocorticoids, oral lithium, interferon, b-blockers), and alcohol.

<table>
<thead>
<tr>
<th>Severity</th>
<th>Impact on quality of life</th>
<th>Symptomatic control</th>
<th>Clinical measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild</td>
<td>Minimal</td>
<td>Adequate</td>
<td>Affected BSA &lt;5%</td>
</tr>
<tr>
<td>Moderate</td>
<td>Significant</td>
<td>Cannot attain acceptable control</td>
<td>Affected BSA 5-10%</td>
</tr>
<tr>
<td>Severe</td>
<td>Severe degradation</td>
<td>Cannot attain satisfactory control with topical therapy</td>
<td>Affected BSA &gt;10%</td>
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Special Types of Plaque Psoriasis
► Scalp psoriasis – 86% patients have scalp symptoms such as pruritus and scaling. Scalp psoriasis does not cause hair loss.
► Nail psoriasis - 25% patients have nail involvement, and even higher frequency in patients with psoriatic arthritis. Nail symptoms include pitting, leukonychia, red spots in lunula, nail plate crumbling, subungual hyperkeratosis, onycholysis, splinter hemorrhage, and oil spot.
► Inverse psoriasis – psoriasis in body folds, perianal, or genital regions.

Diagnosis
Clinical diagnosis. May need biopsy if uncertain.

Differential Diagnoses
Small scaling plaques: seborrheic dermatitis, lichen simplex chronicus, psoriasiform drug eruptions (b-blockers, gold, methylpopa), tinea corporis, mycosis fungoides
Large geographic plaques: tinea corporis, mycosis fungoides
Scalp psoriasis: seborrheic dermatitis, tinea capitis

Initial Evaluation and Investigations
Total body physical examination.
Findings associated with psoriasis: Koebner phenomenon (new psoriatic lesions appearing at site of injury or trauma) and Auspitz’s sign (bleeding after removal of psoriatic scales).
Assessment of comorbidities +/- screening as needed.
Biopsy if confirmation of diagnosis needed.

Comorbidities
► Affective disorders due to significant psychological burden.
► Cardiovascular diseases: psoriasis patients are at increased risks for CVD and metabolic syndrome.
► Psoriatic arthritis occurs in up to 30% psoriasis patients, and the risk is even higher in those with severe skin disease.
► Inflammatory bowel disease: psoriasis is 7 times more common in Crohn’s patients. Psoriasis patients are also at increased risks for Crohn’s.

Treatment
► Emollients
► 1st line for mild chronic plaque psoriasis: topical corticosteroids, topical Vitamin D3 analogues, calcipotriol/betamethasone propionate combination (see Table 1)
► Different options exist for moderate/severe plaque psoriasis, and special types of plaque psoriasis (see Tables 1 and 2)
► Follow up every 3-6 months if stable, sooner if unstable

When to Refer
► Generalized psoriasis, scalp psoriasis, palmoplantar psoriasis, facial psoriasis, and inverse psoriasis
► Uncertain of diagnosis
► Inadequate treatment response, or need for systemic treatment
► Psoriatic arthritis – refer to rheumatology

Patient Resources
► Psoriasis Support Canada http://www.psoriasissupport.ca/en/home
► National Psoriasis Foundation www.psoriasis.org

Dr. Michael Evans developed the One-Pager concept to provide clinicians with useful clinical information on primary care topics.
Table 1: Management Options for Mild Chronic Plaque Psoriasis

<table>
<thead>
<tr>
<th>Medication class</th>
<th>Medication</th>
<th>Indications and evidence</th>
<th>Dosing</th>
<th>Adverse drug effects</th>
<th>Other notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topical corticosteroids</td>
<td>See Table 1 from eczema handout</td>
<td>• 1st line for mild disease</td>
<td>See Table 1 Same as for AD</td>
<td>See Table 1</td>
<td>Combined topical Vitamin D analogue and corticosteroid are more efficacious than either alone</td>
</tr>
<tr>
<td>Topical Vitamin D3 analogues</td>
<td>Calcipotriol</td>
<td>• “Steroid sparing”</td>
<td>Do not use for more than 40% body surface area or 100g/week</td>
<td>Mild irritant contact dermatitis (worse than topical steroids), hypercalcemia</td>
<td>Combined topical Vitamin D analogue and corticosteroid have reduced skin irritation compared to calcipotriol alone</td>
</tr>
<tr>
<td>Topical retinoids</td>
<td>Tazarotene 0.05%, 0.1%</td>
<td>• Equal efficacy and longer remission compared to high potency corticosteroids</td>
<td>Once daily</td>
<td>Skin irritation, erythema, burning, stinging, teratogenic</td>
<td>*More ADEs compared to topical corticosteroids or Vitamin D3 analogues Combine with mid-potency topical corticosteroid to reduce irritation</td>
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Other topical agents: Tar, anthralin
Tar and anthralin can cause significant skin irritation, staining and odor.
*Although both have similar efficacy compared to Vitamin D3 analogues, their significant ADEs limit their uses.

Systemic treatments: Methotrexate, cyclosporine, oral retinoids, biologics
Indicated for moderate to severe psoriasis. Very effective but considerable systemic ADEs that are variable depending on specific medication. ADEs can include hepatotoxicity, nephrotoxicity, teratogenicity.

Phototherapy: Narrow band UVB, PUVA
Indicated for moderate to severe psoriasis. Both should be combined with other therapies to increase effectiveness and to limit exposure to phototherapy. PUVA increases risk of non-melanoma skin cancers, especially squamous cell carcinoma, and should be limited to <200 treatments over lifetime.

Table 2 – Management Options for Special Types of Plaque Psoriasis

<table>
<thead>
<tr>
<th>Type of plaque psoriasis</th>
<th>Treatment options</th>
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</table>
| Scalp psoriasis | • Mid to high potency topical corticosteroids and calcipotriol  
• Available shampoo formulations: clobetasol propionate solution or shampoo |
| Nail psoriasis | • Mild/moderate symptoms: topical salicylic acid and betamethasone dipropionate, topical steroid combined with calcipotriol  
• 2nd line option includes topical tazarotene  
• Severe symptoms: intralesional corticosteroid injections with triamcinolone acetonide | *If there are extra-nail manifestations of psoriasis, can consider systemic treatments with medications of phototherapy |
| Inverse psoriasis | • Mild symptoms: mild to mid potency topical corticosteroids, topical calcineurin inhibitors  
• Moderate/severe symptoms: topical calcineurin inhibitors; if non-responsive then can try stronger corticosteroids  
*Avoid Vitamin D3 analogues because of local irritation |
| Palmoplantar psoriasis | First line: topical coal tar and salicylic acid under occlusion, topical PUVA, and topical calcipotriol with or without occlusion |

References can be found online at http://www.dfcm.utoronto.ca/programs/postgraduateprograme/One_Pager_Project_References.htm