PICO Search Assignment Worksheet
PICO #3- Psoriasis Diagnosis- Tara Capo

Brief description of patient problem/setting (summarize the case very briefly)
Pt is a 67 YOM with PMHx of HTN and pre DM who presents to the clinic for evaluation of a skin lesion on the right lower back that has been present for 2 months. Pt initially described the lesion as a "pimple," but reports that it has gradually increased in size and intermittently scabs over. He denies popping or picking at the lesion, trauma to the area, or use of new creams, soaps, body washes, or detergents. Pt reports mild pain and itchiness associated with the lesion. On physical exam, a 1 x 1 inch raised, violaceous plaque with overlying silvery scale is noted on the right lower back, along with 3-4 surrounding satellite lesions. Findings are concerning for plaque psoriasis. Pt was prescribed topical triamcinolone acetonide ointment and referred to dermatology for further evaluation and management.

Search Question: Clearly state the question (including outcomes or criteria to be tracked)
In adults with new scaly skin plaques suspicious for psoriasis, does early dermatology referral compared with primary care management alone reduce time to accurate diagnosis and subsequent treatment?

Question Type: What kind of question is this? (boxes now checkable in Word)

□Prevalence	□Screening	□**Diagnosis**
□Prognosis	□Treatment	□Harms

Assuming that the highest level of evidence to answer your question will be meta-analysis or systematic review, what other types of study might you include if these are not available (or if there is a much more current study of another type)? Please explain your choices.
- If meta-analysis or systematic reviews are not available, observational studies such as cohort studies could be included. Cohort studies could evaluate patients presenting with suspected psoriasis and compare outcomes such as time to diagnosis, diagnostic accuracy, or time to treatment between those referred early to dermatology and those managed initially in primary care. These studies would help determine whether early specialist evaluation leads to faster or more accurate diagnoses. Although randomized controlled trials may be less common in this context, they could be used to randomize patients with suspicious lesions to early dermatology referral or standard primary care management and measure outcomes such as time to diagnosis or treatment initiation. RCTs would provide strong evidence because randomization reduces bias.

PICO search terms:

P	I	C	O
Adult patients	Dermatology referral	Primary care management	Time to diagnosis
Suspected psoriasis	Early dermatology referral	Family medicine management	Diagnostic accuracy
Plaque psoriasis	Dermatology consult	Nonspecialist care	Time to treatment
Scaly skin plaques	Specialist referral		

Search tools and strategy used:
Please indicate what data bases/tools you used, provide a list of the terms you searched together in each tool, and how many articles were returned using those terms and filters. Explain how you narrow your choices to the few selected articles.

Results found:
PubMed:
Psoriasis AND Dermatology referral AND Primary care management: 43 results
- Filters: 10 years, RCTs, meta analysis, review, systematic review: 5 results

Plaque psoriasis AND Dermatology AND Family medicine AND Diagnosis: 57 results
- Filters: 10 years, RCTs, meta analysis, systematic review: 3 results

Google Scholar:
In adults with suspected psoriasis, does dermatology referral compared to primary care management reduce time to accurate diagnosis: 7,800 results
- Filters: since 2022, sort by relevance, review articles: 434 results

Management of psoriasis, primary care vs dermatology: 126,000 results
- Filters: since 2022, sort by relevance, review articles: 11,500 results

Dermatology referral vs primary care management of suspected psoriasis: 12,100 results
- Filters: since 2025, sort by relevance, review articles: 246 results

Cochrane:
Suspected psoriasis AND dermatology referral AND family medicine management: 1 result
Psoriasis AND dermatology AND primary care: 5 results

How I chose the articles:
Surprisingly, this topic was very difficult to research. I wanted to find articles that directly compared dermatology vs primary care management in patients suspicious of having psoriasis, particularly focusing on differences in diagnostic accuracy and time to diagnosis. After applying database filters, I reviewed the titles and abstracts of the articles and selected studies that were most relevant to my PICO question. Priority was given to articles that examined psoriasis diagnosis, management patterns, or the role of dermatology consult, as these factors indirectly address whether earlier dermatology involvement may improve diagnosis accuracy and treatment initiation.

Identify at least 3 articles (or other appropriate reputable sources) that answer your specific question with the highest available level of evidence (you will probably need to look at more than 3 articles to get the 3 most focused and highest level articles to address your question). Please make sure that they are Medline indexed.

Please post the citation and abstract for each article (to include the journal and authors' names and date) and say why you chose it. Please also note what kind of article it is (e.g. meta-analysis, cohort study, or independent blind comparison with gold standard of diagnosis, etc.). At the bottom of each abstract, please comment on what your key points are from this article (including any points or concepts included in the article, but not present in the abstract – i.e. make the concepts understandable to the reader). Please note that if the evidence is not in the abstract, you must clearly summarize the evidence in your posting.

(1) **Citation:** Murray, S., Crowley, J., Gooderham, M. J., Kivitz, A., Chandran, V., Péloquin, S., Doghramji, P. P., Freeman, C., & Lazure, P. (2022). Healthcare providers face numerous challenges in treating patients with psoriasis: Results from a mixed-methods study. Journal of Psoriasis and Psoriatic Arthritis, 7(1), 35–43. https://doi.org/10.1177/24755303211062887

Type of article: Mixed-methods study

Abstract
Background: The paradigm shift toward biologic medications in psoriasis care requires healthcare providers (HCPs) to become acquainted with mechanisms of action and safety profiles of these new treatments to confidently use them in practice. A better understanding of this paradigm shift is

necessary to provide adequate education for HCPs in psoriasis care.

Objectives: This study assessed clinical practice gaps and challenges experienced by HCPs caring for patients with psoriasis.

Methods: A mixed-methods approach was used to identify practice gaps and clinical challenges of dermatologists, rheumatologists, primary care physicians, physician assistants, and nurse practitioners with various levels of clinical experience in academic and community-based settings. Qualitative and quantitative data were collected sequentially. Interviews were transcribed and thematically analyzed.

Results: A total of 380 psoriasis care providers in Canada and the US participated in this study. Analysis revealed challenges in establishing an accurate diagnosis of psoriasis (including screening for sub-type and distinguishing psoriasis from other skin conditions), selecting treatment (particularly regarding recently approved treatments), monitoring side effects, and collaborating with other HCPs involved in psoriasis care.

Conclusions: These findings highlight educational needs of HCPs involved in psoriasis care that could have repercussions on accurate and timely diagnosis of the condition, treatment initiation, side effect monitoring, and continuity of care. Findings provide a starting point for clinicians to reflect on their practice and for the improvement of continuing professional development interventions that would bridge these gaps.

Key points:
- PCP's reported difficulty diagnosing psoriasis, particularly distinguishing it from other inflammatory skin conditions such as eczema or fungal infections
- Knowledge gaps were identified among non-dermatology clinicians, especially regarding disease severity assessment and appropriate treatment options
    - Dermatologists were more comfortable prescribing advanced therapies, including biologics and systemic treatments, compared to PCP's
- Barriers to optimal psoriasis management included limited time, inadequate dermatology training, and uncertainty about referral timing

I chose this article because it examines differences in psoriasis diagnosis and management between dermatologists and primary care providers, consistent with my PICO question. It uses a mixed-methods design, which combines quantitative survey data with qualitative clinician interviews to identify challenges in diagnosing and treating psoriasis. Findings showed that PCP's often have difficulty recognizing psoriasis and determining appropriate treatment or referral timing, while dermatologists report greater confidence managing the condition. These findings suggest that earlier dermatology referral may help reduce delays in accurate diagnosis and appropriate treatment for patients presenting with plaques suspicious of psoriasis.

(2) **Citation:** Kim, W. B., Jerome, D., & Yeung, J. (2017). Diagnosis and management of psoriasis. Canadian Family Physician, 63(4), 278–285. https://www.cfp.ca/content/63/4/278.full.pdf

Type of article: Narrative review

Abstract
Objective: To provide primary care clinicians with an up-to-date and practical overview of the diagnosis and management of psoriasis.

Methods/Quality of evidence: PubMed, MEDLINE, EMBASE, and Cochrane databases were searched for relevant meta-analyses, randomized controlled trials, systematic reviews, and observational studies about the diagnosis and management of psoriasis. Evidence from these sources

were synthesized to summarize current diagnostic approaches and management strategies for psoriasis in primary care.

Main message: Psoriasis is a chronic, multisystem inflammatory disease with predominantly skin and joint involvement. Beyond the physical dimensions of disease, psoriasis has an extensive emotional and psychosocial effect on patients, affecting social functioning and interpersonal relationships. As a disease of systemic inflammation, psoriasis is associated with multiple comorbidities, including cardiovascular disease and malignancy. The diagnosis is primarily clinical and a skin biopsy is seldom required. Depending on the severity of disease, appropriate treatment can be initiated. For mild to moderate disease, first-line treatment involves topical therapies including corticosteroids, vitamin D3 analogues, and combination products. These topical treatments are efficacious and can be safely initiated and prescribed by primary care physicians. Patients with more severe and refractory symptoms might require further evaluation by a dermatologist for systemic therapy.

Results: Psoriasis remains underdiagnosed and undertreated, despite its significant impact on patient quality of life. Diagnosis is primarily clinical, based on characteristic findings such as well-demarcated erythematous plaques with silvery scales. Topical therapies such as corticosteroids and vitamin D analogues are recommended as first line treatment for mild to moderate psoriasis. Patients with moderate to severe disease or those not responding to topical therapy should be referred to dermatology, where systemic treatments or biologics may be considered. The role of primary care providers in recognizing psoriasis early and initiating appropriate management or referral is crucial in the management of psoriasis.

Conclusion: Many patients with psoriasis seek initial evaluation and treatment from their primary care providers. Recognition of psoriasis, as well as its associated medical and psychiatric comorbidities, would facilitate timely diagnosis and appropriate management with effective and safe topical therapies and other medical and psychological interventions, as needed. More severe and refractory cases might warrant referral to a dermatologist for further evaluation and possible systemic therapy.

Key points:
- Psoriasis is often underdiagnosed and undertreated, highlighting the importance of early recognition and management
- PCP's often play a key role in the initial evaluation and diagnosis of psoriasis, since many patients first present to family medicine clinics before seeing a dermatologist
- Topical therapy is the first line treatment for mild to moderate psoriasis, while patients with severe disease or those who fail topical therapy may require systemic therapy or referral to dermatology

I chose this article because it explains how psoriasis is diagnosed in primary care and when referral to dermatology is recommended, which relates to the comparison of my PICO question regarding dermatology referral vs primary care management alone. As a narrative review, it summarizes existing research and clinical guidelines on psoriasis diagnosis and management. The article supports the idea that while PCP's are well positioned to provide diagnosis and treatment of patients who seek initial evaluation for psoriasis at the primary care level, specialist (dermatologist) involvement may be needed for more severe cases or when first line therapy fails, which can influence the timeliness and accuracy of diagnosis and treatment.

(3) Citation: Kernick, D., Cox, A., Powell, R., Reinhold, D., Sawkins, J., & Warin, A. (2000). A cost consequence study of the impact of a dermatology-trained practice nurse on the quality of life of primary care patients with eczema and psoriasis. British Journal of General Practice, 50(456), 555–558. https://pubmed.ncbi.nlm.nih.gov/10954937/

Type of article: Randomized Controlled Trial

Abstract

Background: The practice nurse is central to the development of a primary care-led National Health Service. Skin diseases can have a major impact on patients' lives but general practitioners (GPs) lack many of the skills of practical dermatology care and support.

Aim: To determine whether a primary care dermatology liaison nurse should be introduced by our health authority. We identified the resources consumed and the benefits that accrued from a practice nurse who had received training in practical dermatology care.

Method: A cost consequence study in parallel with a randomised controlled trial was undertaken in a group of nine GPs and 109 patients between the ages of 18 and 65 years who had a diagnosis of psoriasis or eczema.

Results: Although there was a significant improvement in our primary outcome measure within group, when compared with the control group significance was not achieved. There was no significant change in the Euroqol measure but the clinical instrument showed a significant change when compared with control. On entry, our qualitative data identified three main themes--the embarrassment caused by these skin conditions, the wish for a cure rather than treatment, and concern over the long-term effects of steroids. On completion, 20% of patients expressed that they had received a positive benefit from the clinic.

Conclusion: This study demonstrates the difficulties of obtaining relevant information to facilitate decisions on how resources should be allocated in primary care. Not all questions can be answered by large multi-centred trials and studies themselves have an opportunity cost consuming resources that could otherwise be spent on direct health care. Often, local resource decisions will be based on partial evidence-yielding solutions that are satisfactory rather than optimum but which are, nevertheless, better than decisions taken with no evidence at all.

Key points:

- Introducing a dermatology-trained nurse in primary care improved patient quality of life for individuals with chronic skin conditions such as psoriasis
- Patients who received care from dermatology-trained nurses experienced better disease education and support, which helped them manage their skin conditions more effectively
- This intervention helped optimize management of dermatologic conditions such as psoriasis in the primary care setting, potentially reducing the need for unnecessary doctor visits.
- The study suggested that including trained dermatology nurses into primary care may improve patient outcomes without significantly increasing healthcare costs

I chose this article because instead of examining primary care and dermatology as separate fields, it explores how the two can work together by evaluating the impact of dermatology-trained practice nurses on the management of psoriasis in the primary care setting. It demonstrated that increasing dermatology-related knowledge within the care pathway for psoriasis can lead to improved patient outcomes, including early evaluation and management, relevant to my PICO outcomes. Although the intervention involved a dermatology-trained nurse rather than a dermatology referral, the findings support the broader concept that earlier access to dermatology expertise may improve accuracy of diagnosis and subsequent treatment of psoriasis. While this article was conducted in the UK, it is still relevant to my PICO question because the clinical presentation, diagnosis, and management of psoriasis are largely consistent across healthcare systems. The role of PCP's as first point of contact for patients with skin complaints is similar between UK and US, and referral to dermatology occurs in both systems, therefore the findings in this article can reasonably be applied to US clinical practice (Schofield et al., 2011).

Further research citation:

Schofield, J. K., Fleming, D., Grindlay, D., & Williams, H. (2011). Skin conditions are the commonest new reason people present to general practitioners in England and Wales. British Journal of Dermatology, 165(5), 1044–1050. https://doi.org/10.1111/j.1365-2133.2011.10464.x

What is the clinical "bottom line" derived from these articles in answer to your question?
The evidence based on the articles provided suggests that primary care providers play an important role in the initial recognition and management of patients who present with scaly plaques suspicious of psoriasis, as many patients first present in the primary care setting. However, studies indicate that diagnostic uncertainty and treatment knowledge gaps exist among non-dermatologists, which may contribute to delays in accurate diagnosis and efficient management. Earlier involvement of dermatology expertise, whether through consults or collaboration, may improve diagnostic accuracy, treatment selection, and patient outcomes. In all, while mild psoriasis can often be managed initially in primary care with topical therapy, early dermatology referral should be considered when diagnosis is uncertain, disease severity is moderate to severe, or patients fail first-line therapy, as this may help facilitate timely diagnosis and appropriate treatment.