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**A systematic search and literature review of knowledge, attitudes, beliefs, and practices regarding skin cancer among population in Gulf countries**



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**Introduction:** Considering skin cancer is a growing public health issue in the Gulf countries, the aim of the present literature review was to examine and describe skin cancer related knowledge, attitudes, beliefs, and practices (KAP) among population in Gulf countries.

**Methods:** We conducted a computer-based literature search in Medline (PubMed), Science Direct, and Saudi Digital Library. The search was not restricted by publication date. The inclusion eligibility requirements were: 1) original research articles, 2) carried out in Gulf countries, 3) written in the English language, 4) published in peer-reviewed journals, and 5) used an observational study design.

**Results:** This review included 11 studies conducted from 2010 to 2019, primarily in Saudi Arabia (n = 7). The number of participants ranged from 193 to 2622 with mean age ranging from 21 to 35.9 and a fairly even ratio of male to female respondents, except four studies which solely targeted females. The skin cancer-related knowledge of respondents was variable, but awareness scores were primarily low to moderate. Many of the attitudes and beliefs of respondents across the studies were unfavorable, suggesting an increased propensity towards risky sun-related behaviors. All studies reported inadequate levels of sun protection behaviors among participants.

**Conclusions:** The findings of this review reveal that targeted campaigns to improve skin cancer education among populations of Gulf countries are needed in order to increase awareness of the harms of excessive ultraviolet radiation exposure and the efficacy of sunscreen, protective clothing, and other strategies to prevent future skin cancer risk.

*Commercial disclosure: None identified.*

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**Secukinumab demonstrated high efficacy in clearing nail psoriasis: Results from posthoc analyses from the phase III programs**



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**Introduction:** Nail psoriasis occurs in 50%-70% of patients with psoriasis (PsO) and 60%- 80% of patients with psoriatic arthritis (PsA). Secukinumab, a human monoclonal antibody that selectively neutralizes IL-17A, has proven highly efficacious in the long-term treatment of the multiple manifestations of psoriatic disease, with a favorable safety profile. Here, we report the long-term results of post hoc analyses of clearing (ie achieving clear or almost clear) nail psoriasis from the secukinumab PsA FUTURE program, and from the PsO TRANSFIGURE study.

**Methods:** These post hoc descriptive analyses focused on the year 2 NAPSI (range: 0-80) or mNAPSI (range: 0-130)  $\leq 2$  outcomes, defining clear or almost clear nails, in patients treated with 300 mg secukinumab in the TRANSFIGURE and the pooled FUTURE 2-5 studies. Analyses were performed based on observed data from all 10 fingernails.

**Results:** In the TRANSFIGURE secukinumab 300 mg treatment group (n = 66), the mean baseline NAPSI was 45.5; at year 2, 25.0% of patients had achieved a NAPSI  $\leq 2$ . In the pooled FUTURE secukinumab 300 mg treatment group (n = 220), the mean baseline mNAPSI was 20.9; at year 2, 66.7% of patients had achieved a mNAPSI  $\leq 2$ .

**Conclusions:** Secukinumab demonstrated a high level of efficacy in clearing nail PsO, in patients with or without concomitant PsA, even in patients with severe baseline nail involvement seen in the TRANSFIGURE study.

*Commercial disclosure: This study was sponsored by Novartis Pharma, Basel, Switzerland.*

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**Comparing biologic therapies in psoriasis: A bayesian network meta-analysis**



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The recent rapid expansion of biologic treatments for psoriasis has led to an urgent need to understand the relative efficacy and tolerability of these agents, to better inform treatment decisions in psoriasis. We searched Medline, PubMed, Embase, and Cochrane databases for RCTs of available biologics targeting TNF $\alpha$  (adalimumab, etanercept, infliximab, certolizumab pegol), IL-12/IL-23p40 (ustekinumab), IL-17A (secukinumab, ixekizumab), IL-17RA (brodalumab), and IL-23p19 (guselkumab, tildrakizumab, risankizumab). We performed a network meta-analysis (NMA) using the Bayesian approach to identify direct and indirect evidence comparing biologics with one another, methotrexate or placebo, followed by hierarchical cluster analysis to consider efficacy and tolerability outcomes. Objective (90% improvement in PASI (PASI90), PGA clear/nearly clear, drug withdrawal due to adverse effects), and subjective (change in Dermatology Life Quality Index) outcomes were analyzed. We identified 54 RCTs published up to September 2018 (n = 24,713 participants). Only licensed doses of biologics were included. All biologics were efficacious when compared with placebo or methotrexate at 12-16 weeks. Cluster analysis revealed that adalimumab, certolizumab pegol, ustekinumab, secukinumab, brodalumab, guselkumab, tildrakizumab, and risankizumab were comparable with respect to high efficacy and tolerability. Infliximab and ixekizumab demonstrated high efficacy but lower tolerability when compared with other agents, although data on ixekizumab was limited. Etanercept and methotrexate showed lower efficacy and moderate tolerability compared with other agents. Although limited by a paucity of long-term data, these data identify three distinct groups of biologics based on efficacy and tolerability outcomes, which has promising clinical utility. Real-world data is required to assess the generalisability of our findings.

*Commercial disclosure: None identified.*

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**Treatment monitoring in psoriasis by reflectance confocal microscopy**



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**Background:** Reflectance confocal microscopy (RCM) is a noninvasive technique for real time imaging of the epidermis and superficial papillary dermis. Over last two decades RCM has been integrated in real time clinic for diagnosis of skin cancers. Its role in diagnosing and monitoring inflammatory skin conditions is being evaluated due to its noninvasive technique and ease of application. Despite increasing interest in application of confocal microscopy for inflammatory conditions, there is paucity of comparative studies evaluating the role of RCM in various stages of inflammation. The aims of our study were to investigate the role of RCM in monitoring response of psoriasis to treatment and evaluate its clinical application in predicting treatment outcome.

**Methods:** After obtaining institutional review board approval, patients with new diagnosis of psoriasis are selected. Confocal microscopy images are obtained before (day 0) and during the treatment (days 90 and 180). The RCM features were then analyzed and compared by experts.

**Results:** We selected 20 patients with psoriasis: 2 at day 0, 2 at day 90, and 1 at day 180 after treatment initiation. RCM of untreated psoriasis lesions showed features of hyperkeratosis, acanthosis, papillomatosis, neutrophilic abscesses, dilated capillary loops. Late lesions showed epidermal thickening and hyperkeratosis with chronic inflammatory infiltrate of large bright cells. Resolving lesions showed features of post inflammatory hyperpigmentation with minimal inflammation.

**Conclusions:** RCM reveals diagnostic histopathologic features of acute and chronic inflammation and may be used as a noninvasive tool for diagnosing and monitoring inflammatory skin conditions like psoriasis and predicting treatment response.

*Commercial disclosure: None identified.*