

## **ELECTIVE (SSC5a) REPORT (1200 words)**

A report that addresses the above four objectives should be written below. Your Elective supervisor will assess this.

### **Challenges and Advances in Dermatology: An Insightful Overview of Acne Vulgaris and Healthcare System Reforms in Cyprus**

Acne Vulgaris is a pervasive inflammatory skin disorder that presents significant challenges to healthcare systems throughout Europe, echoing complexities seen in other chronic conditions such as Atopic Dermatitis. This condition predominantly affects adolescents, with up to 90% of this demographic in Western societies experiencing some form of acne, highlighting its substantial impact during these crucial developmental years. Notably, while the prevalence of acne diminishes with age, a considerable number of adults, approximately 1% of men and 5% of women, continue to battle symptoms into their 40s, underscoring the enduring nature of this skin ailment.<sup>1</sup>

The implications of acne are not merely limited to physical manifestations but also extend to significant psychological and social consequences, emphasizing the need for effective management strategies. Studies focusing on regional demographics, such as those conducted in Cyprus, are instrumental in understanding the epidemiological characteristics of Acne Vulgaris. These studies reveal that the general trend across Europe, including Cyprus, is influenced by genetic, lifestyle, and environmental factors, with a notable increase in disability-adjusted life years (DALYs); 31 for males and 42 for females per 100,000 from 1990 to 2017, highlighting the growing importance of addressing this condition comprehensively.<sup>2</sup> In the broader European context, the impact of acne reaches far beyond individual patients, affecting healthcare systems at large. For instance, in the United Kingdom, acne is responsible for over 3.5 million annual visits to general practitioners, marking it as a significant healthcare burden.<sup>2</sup> This extensive impact calls for targeted treatments and informed health policies to alleviate the dermatological challenge effectively.

Acne Vulgaris also showcases stark global health disparities, particularly in Western industrialized nations where treatment accessibility and outcomes vary significantly. In Ontario, Canada, factors such as socioeconomic status and urban-rural dwelling substantially influence dermatological care.<sup>3</sup> According to Haider et al., only 17% of patients from the lowest income neighborhoods are referred to a dermatologist compared to 24% from the highest income neighborhoods, and urban residents are 43% more likely to be referred to a dermatologist than their rural counterparts.<sup>3</sup> This disparity in healthcare access underscores the broader societal challenges that influence acne treatment availability and effectiveness. Moreover, contrasting studies between Western and non-Western populations, such as the Kitavan Islanders and the Aché hunter-gatherers, where acne is virtually non-existent, suggest that lifestyle and environmental factors play a significant role in the prevalence of acne.<sup>4</sup> These findings highlight the need for healthcare systems to address the underlying socioeconomic and environmental influences to enhance treatment accessibility and effectiveness.

In Cyprus, the delivery of dermatology healthcare services involves a combination of private and public provisions. The country is currently transitioning towards a National Health System to address challenges like fragmented service delivery and long waiting times. Recent reforms aim to improve continuity of care, integrate services between the private and public sectors, and enhance the management of healthcare

resources. The introduction of a General Health Insurance System (GHIS) marks a significant step towards universal health coverage, promising more equitable access across all levels of care.<sup>5</sup> Comparatively, in the rest of Europe and the United Kingdom, dermatological services are well-integrated within national health systems that emphasize primary care and specialist referrals through general practitioners.<sup>6</sup> These systems generally provide broader public coverage and regulated private care, with the UK's NHS coordinating care effectively to manage both acute and chronic dermatological conditions.

From a personal perspective, my elective clinical rotation at the dermatology office of SV Skin Science under the guidance of consultant dermatologist Dr. Stamatina Verykiou offered a unique opportunity to delve into the complexities of dermatological medicine. This three-week period significantly enhanced my understanding of various skin conditions, stressing the importance of empathy and the impact of advanced research in patient care.

During this rotation, I observed a wide range of dermatological treatments. A significant number of teenage patients presented with Acne Vulgaris, where antibiotic therapy was frequently utilized. This approach involved Doxycycline to reduce inflammation and bacterial overgrowth, playing a crucial role in managing severe and moderate acne, preventing progression to cystic forms, and minimizing scarring. Additionally, treatments for fungal nail infections were administered, with Terbinafine prescribed as a primary antifungal medication. This treatment often included lifestyle modifications, such as advising patients on better foot hygiene and the importance of wearing breathable footwear to reduce fungal growth. The clinic also managed several cases of Basal Cell Carcinoma (BCC), the most common form of skin cancer. The surgical removal of BCCs was performed with meticulous techniques to ensure complete excision while minimizing damage to surrounding tissues, thus preserving aesthetic outcomes. Moreover, many patients sought treatment for viral warts on their fingers, which were carefully treated using laser therapy. This method provided a precise way to target affected areas without significant damage to the adjacent skin, offering a safe and effective resolution to these often stubborn lesions.

In conclusion, the insights gained during my clinical elective have provided a comprehensive view into the management of various skin conditions, mirroring broader trends in European healthcare systems. The persistent high prevalence of acne among adolescents, and its extension into adulthood for some, emphasizes the significant societal and healthcare challenges posed by this condition. These challenges, reflected in Cyprus' statistics and similar trends across Europe, underscore the need for specific treatments and informed health policies. Additionally, the integration of private and public healthcare services, especially with recent reforms aimed at establishing a National Health System in Cyprus, marks substantial progress toward more efficient and accessible dermatological care. These reforms are crucial for overcoming previously fragmented service delivery in the region and are indicative of wider European shifts toward structured, primary care-driven healthcare systems. The experiences from this rotation have not only enhanced my understanding of dermatological conditions and their treatments but also illuminated the intricate relationship between patient care, healthcare policy, and socioeconomic factors, shaping my future endeavors in dermatology to contribute effectively to both clinical practice and policy-making to enhance patient outcomes more broadly.

## References:

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5. WHO (2021) *Reforms move cyprus closer to Universal Health Coverage*, World Health Organization. Available at: <https://www.who.int/europe/news/item/07-03-2021-reforms-move-cyprus-closer-to-universal-health-coverage> (Accessed: 08 May 2024).
6. HealthManagement.org (2014) *Healthcare Services in cyprus: In transition to a National Health System*, HealthManagement. Available at: <https://healthmanagement.org/c/healthmanagement/issuearticle/healthcare-services-in-cyprus-in-transition-to-a-national-health-system-1> (Accessed: 08 May 2024).