

## LETTER

# Impact of COVID-19 outbreak on dermatology services: Dermatology in isolation

Dear Editor,

The current pandemic of COVID-19 demanded fast reorganization, as well as the necessity to adapt existing and administered extraordinary working protocols of dermatological services worldwide.<sup>1</sup> We present a unique experience from Republic of Macedonia where an abrupt interruption of the dermatology service on a national level, and the COVID-19 outbreak, occurred simultaneously, with a significant impact on the quality of care.

The fourth diagnosed case of COVID-19 in the Republic of Macedonia was a dermatologist employed at the University Clinic for Dermatology in Skopje, the only tertiary care hospital in the country. Prior to being diagnosed, the doctor made direct contact with nearly all medical and non-medical personnel of the Clinic. The doctor also held a previously scheduled seminar, which was attended by an additional 95 dermatologists and dermatology residents from across the country.

In the first hours following the diagnosis, rapid action was taken by government officials, and 128 dermatologists and dermatology residents were put in home quarantine for 14 days. Only 9 dermatologists in secondary care could resume practice in the period from 9 March 2020 to 26 March 2020, unevenly distributed geographically and in terms of subspecialty.

At the same time, a number of socially restrictive measures were implemented, further reducing the availability of the dermatological services.

The Macedonian dermatological body reacted with notable initiative and self-organization. In the absence of an official teledermatology platform, commonly used social media platforms and conventional telecommunications were used to sustain communication with other specialties and patients. As a result, the management of the majority of chronic patients proceeded without interruption.

In an effort to discover which of the dermatological conditions demanded immediate attention, we conducted a survey where we asked colleagues about the number and reasons for teledermatological consults.

Overall, 77 dermatologists participated in the survey. Ninety-one percent of respondents had received requests for consultations by patients. Eighty-two percent felt that consultation via a communication application was useful for patient follow-up; however, these methods were appropriate in less than 30% of cases for initial consultations.

The most common motives for consultations with patients were therapy follow-ups, acute exacerbations of chronic diseases, and deficiencies of certain medications due to difficulties in drug importations.

Most frequently, dermatology input was requested from general practitioners (GPs) and pediatrics (Table 1).

The dermatologists, who were not subject to the home isolation measure, held 163 outpatient examinations, in the majority of which pediatric dermatological pathology dominated (Table 2).

A total of 11 patients were admitted during this period in a secondary care hospital; the most frequent admissions were for bullous dermatoses and cutaneous infections (Table 2).

Korting, Hammerschmidt, and Mioviski constituted the initial development of the University Clinic for Dermatology in 1947, as part of the Medical Faculty in Skopje,<sup>2</sup> with the treatment of the vast number of patients with skin infections as its main purpose.<sup>3,4</sup> Since then,

**TABLE 1** Most common dermatological input by specialty and by reason

Specialties which asked for dermatological consult	Common reasons for patient consultation
GPs (43)	Treatment modifications (pemphigus, AD, pemphigoid, psoriasis, acne)
Pediatrics (23)	Acute exacerbations of chronic diseases (AD, acne, psoriasis, pemphigus)
Infectious disease (4)	Patient education (AD, contact dermatitis)
OBGYN (4)	Initial consultation (skin trauma, contact dermatitis, drug reactions)
Hematology (2)	Deficiencies of medications (retinoids, dapsone, antimalarials)
Rheumatology (2)	
Plastic surgery (1)	

**TABLE 2** Undelayable visits and admissions in 2 weeks period

Outpatient visits N = 163	Primary reason for admission to hospital N = 11
Pediatric (<18 years)	Skin and soft tissue infections
Atopic dermatitis (54)	• Erysipelas
Diaper dermatitis (13)	• Diabetic foot
Acne (11)	• Chronic venous ulcers
Skin infections (9)	Pemphigus
Drug rash (8)	Bullous pemphigoid
Other (12)	Psoriasis
Adult patients	Stevens-Johnson syndrome
Drug rash (16)	Toxic epidermal necrolysis
Dermatoses in pregnancy (6)	Melanoma, surgical treatment
Acne (6)	Pyoderma gangrenosum
Esthetic procedures (6)	
Other (22)	

the dermatological services on the national level have continued to develop and have not once ceased work, not even during the events of the great 1963 Skopje earthquake.

Dermatology is largely considered a nonacute, outpatient-centered specialty, with a continued reduction in dedicated dermatology beds.<sup>5,6</sup> Our survey contributes by presenting the dermatoses, which demanded dermatological consult and which were a diagnostic and therapeutic challenge to the GPs and other specialties. These included pediatric dermatoses, dermatoses of pregnancy, patients with perennial retinoid therapy, bullous dermatoses, and cases of drug eruptions, including SJS and TEN. This is deducted from a 14-day period and concerned a population of a little over 2 million.

Pediatric dermatoses constitute roughly 50% of both urgent visits and telecommunication consultations. The present results are broadly in line with those of previous studies,<sup>7</sup> confirming the role of the dermatologist in the pediatric care.

## CONFLICT OF INTEREST

The authors declare no conflict of interest.

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[Correction added on 2 July, after first online publication: The authors' surnames and given names were inverted in the original publication. They have been corrected.]

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