INTRODUCTION

For the first time since 1999 Germany was the World's largest recipient of individual asylum application [1]. This has a manifold impact on society and last not least on health care. Health care is regulated by law and this is also the case for asylum seeker, i.e. national Law on Services for Asylum Seekers (AsylBLG sections 4 and 6). Health care service based on this law is free for asylum seekers. Since the German health care system does not collect data on health status and health care provision to asylum seekers important data are missing to deal with this growing problem for planning organizing and optimizing health care efforts [2]. Searching on PUBMED® we could identify a single paper on dermatologic problems in asylum seekers from Turkey [3] but none from Germany.

Therefore, we present here an empiric study from Dresden, Germany.

MATERIAL AND METHOD

The increasing numbers of asylum seekers coming from Syria, Iraq, Libya, Eritrea, Afghanistan, Pakistan and Eastern Europe has been a challenge for Europe and in particular for Germany. This has resulted in emergency situations to provide shelter for asylum seekers. On July 23rd, 2015 the German Red Cross (DRK) and the Federal Agency for Technical Relief (THW) established overnight a temporary Refugee Camp with 33 tents, where during the following weeks until October 9, 2015, up to 1,100 asylum seekers found shelter. Each tent had space for about 30 people which translates into 1.5 m² per person. Due to the circumstances, no systematic...
preparation of the health care needs was possible. The first local service was provided within the camp by volunteers. With some delay a stable arrangement of first aid services in the camp could be established.

The nearest hospital was the Hospital Dresden-Friedrichstadt, where the Department of Dermatology and Allergology provided dermatologic support. Initially the hospital was the only professional provider of health service except for volunteers. The circumstances caused an additional workload for nurses and doctors mainly in the morning and night shift. Patients usually were accompanied by several other people. Health services were free for the asylum seekers.

The major cause for consultations, in- and outpatient treatment was communicable disorders (bacterial and viral infections, scabies and mycosis) in our setting.

Demographics of asylum seekers

On average 60% of asylum seekers were adult males, 20% adult females and 20% children and adolescents. The male to female ratio of all asylum seekers was 5.3. 46% of asylum seekers were married, 11% unmarried, and in 6% the status was unknown.

About 40% of asylum seekers came from Syria, 15% from Afghanistan, 10% from Iraq, 5% from Pakistan, and 30% of various other countries.

Dermatologic service

Dermatologic service was provided as counselling, outpatient treatment and inpatient treatment. Dermatologic service was requested in 19% of all asylum seekers treated by the hospital. Consultations were ordered 8 times for scabies (2x), skin ulcers (2x), Varicella (1x), allergic sting reaction (1x), acute urethritis (1x), and xerosis cutis (1x).

A significant issue is availability of interpreters. English was not spoken by many of the refugees, Arabic interpreters were available. More difficult was communication with people speaking Dari, Pashto, Urdu or Tigrinya. Interpreters were generated from hospital staff and municipal interpreter service (Gemeinde-Dolmetscherdienst).

Outpatient care was the dominant type of service engaged. We saw 52 patients with a wide range of skin diseases. The leading diagnosis was scabies (16x), followed by eczematous dermatitis (5x), and impetigo (4x). About 65% of outpatient diagnoses were infectious diseases and infestations. For further details see Table 1.

Follow-up was realized by the Health Service that had been established in the refugee camp later. After closure of the tent camp and accommodation of refugees in houses, a central outpatient health service was opened in Dresden (https://www.slaek.de/de/01/03Empfehlung/en/08Asylbewerber.php).

Inpatient treatment

Only 4 patients needed an inpatient treatment. Three of them had infectious diseases (Varicella, cheek abscess, impetiginized eczema). The other patient suffered from anaphylaxis after an insect sting.

DISCUSSION

There are currently more displaced people around the world since 2nd World War. This has led to emergency situations with an enormous impact on Europe.

In 2011 the Civil War in Syria has started. This had a great impact on neighboring countries such as Jordan, Lebanon, and Turkey. In a study from the southeastern Turkish city of Kahramanmaras, a more than six-fold increase of cutaneous leishmaniasis had been observed between 2011 and 2013. Studies from Jordan where a large population of refugees from Syrian Civil War found shelter suggest that there is a significant percentage of

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Number of patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scabies</td>
<td>16</td>
</tr>
<tr>
<td>Eczematous dermatitis</td>
<td>5</td>
</tr>
<tr>
<td>Impetigo</td>
<td>4</td>
</tr>
<tr>
<td>Varicella</td>
<td>3</td>
</tr>
<tr>
<td>Folliculitis</td>
<td>3</td>
</tr>
<tr>
<td>Abscess</td>
<td>3</td>
</tr>
<tr>
<td>Urticaria</td>
<td>2</td>
</tr>
<tr>
<td>Cysts</td>
<td>2</td>
</tr>
<tr>
<td>Sting reactions</td>
<td>2</td>
</tr>
<tr>
<td>Leg and foot ulcer</td>
<td>2</td>
</tr>
<tr>
<td>Erysipelas</td>
<td>1</td>
</tr>
<tr>
<td>Mycosis</td>
<td>1</td>
</tr>
<tr>
<td>Polymorphic light eruption</td>
<td>1</td>
</tr>
<tr>
<td>Pyoderma</td>
<td>1</td>
</tr>
<tr>
<td>Psoriasis</td>
<td>1</td>
</tr>
<tr>
<td>Mollusca contagiosa</td>
<td>1</td>
</tr>
<tr>
<td>Gonorrhoea</td>
<td>1</td>
</tr>
<tr>
<td>Hyperpigmentation after chemical burn</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 1: Diagnoses in outpatient treatment of asylum seekers
patients with non-communicable diseases, in particular chronic diseases like cardiovascular, diabetes or chronic respiratory [4].

In our specific situation in Dresden, the establishment of an emergency refugee camp in from 23 July to 9 October 2015, with up to 1,100 inhabitants has challenged the organization and structures of the neighboring hospital due to a lack of other official structures of health care. Volunteers cannot replace official and stable infrastructure of health service [5].

More than 65% of dermatological cases were due to communicable infectious (bacterial, viral and mycotic) diseases and scabies. Surprisingly, we did not observe cutaneous leishmaniasis amongst those asylum seekers, although a major part came from Syria. Syria is one of the hotspots for cutaneous leishmaniasis among the Mediterranean countries with *Leishmania major* and *Leishmania tropica* as the main aetiological agents [6]. Other hotspots are Afghanistan and Pakistan with a rising prevalence [7]. Although we found no case of cutaneous leishmaniasis in the temporary refugee camp, the disease will not stop at the borders and we must be aware of this disease [8].

The high prevalence of scabies and infectious disorders argues for a screening when displaced people enter a refugee camp. This was not established in the first weeks after opening of the camp. By this important tool, however, spread of communicable diseases can be prevented.

In case of endemic scabies ivermectin is an alternative to permethrin [9]. In Germany, ivermectin is off-label for scabies. Therefore the treatment was realized by topical permethrin for index patients and family members.

Health service, however, can only be successful when the communication with asylum seekers and health care professionals can be ensured. This is not restricted to the service of interpreters but other issues like overcome of cultural barriers [10].

This is the first empirical study of dermatologic health care needs in refugees/asylum seekers in Germany. Our study is limited by the fact of a temporary tent camp, what will not reflect the situation after prolonged stay of people, and the single center experience. Nevertheless, the data argue for the importance of dermatologic care and treatment in displaced people [11,12].

### STATEMENT OF HUMAN AND ANIMAL RIGHTS

All procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional and national) and with the Helsinki Declaration of 1975, as revised in 2008.

### STATEMENT OF INFORMED CONSENT

Informed consent was obtained from all patients for being included in the study.

### REFERENCES


Copyright by Uwe Wollina, et al. This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Source of Support: Nil, Conflict of Interest: None declared.