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Perspective

Caring for the Wave of Refugees in Munich

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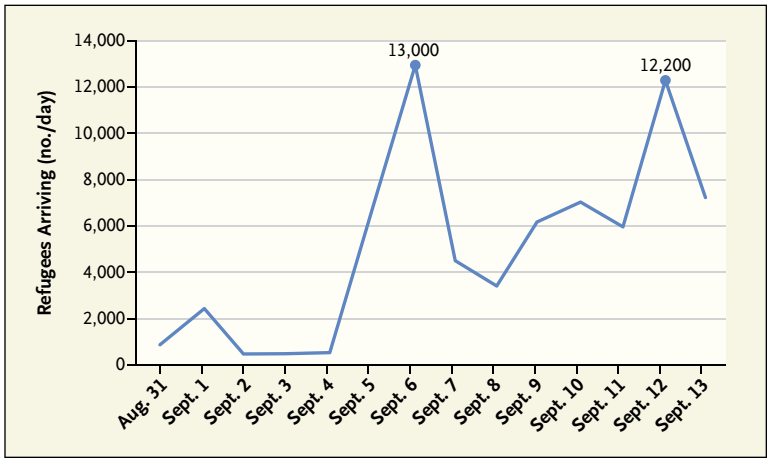
Another train carrying about a thousand refugees has arrived at Munich's main station, and the passengers are quickly escorted to the medical reception tent. A pediatrician from the volunteer group examines his share of the arrivals, using a few words in hastily learned Arabic or broken English to take histories: a 14-year-old boy who has been tortured with 40 cigarette burns because he wanted to keep going to school in a region of Syria controlled by the Islamic State, a girl with an untreated jaw fracture from a car accident during her family's trek across the Balkans, patients with old shrapnel wounds and burns from bomb detonations, many people with sore feet from unimaginably long walks, and children who are dehydrated and hypothermic after long trips on crowded trains. Grown men are in tears, for fear of being sent to a hospital. A whole segment of society in the Middle East seems to have fled war and destruction.

The doctors and nurses in this tent are moved by the dignity that most arriving refugees have managed to maintain under these circumstances. The great flow of people that politicians and the media tend to describe only in numbers — or in terms such as swarm, threat, or problem to be somehow ignored or removed — has arrived at this medical facility and turns out to consist of individuals, many of whom have horrific personal histories.

The current so-called refugee crisis in Europe has drawn considerable media interest worldwide. According to the United Nations High Commissioner for Refugees (UNHCR), European countries received 714,000 asylum applications in 2014, an increase of 45% over 2013, and 2015 has seen an even steeper increase; the United States had 134,600 applications in 2014. Whereas in 2014 refugees and migrants came from diverse countries in the Middle East and Africa, in 2015 the intensifying civil war in Syria has caused a large number of people from that country and neighboring areas to flee across the Mediterranean or land borders to the European Union (EU). Germany alone has received asylum applications from 413,000 people in 2015, and 25% of those people arrived in August, according to the German interior ministry.

In theory, the new arrivals should be registered and medically screened at the point of entry



Numbers of Refugees Arriving at the Munich Central Station, August 31–September 13, 2015.

Data are from the government of Southern Bavaria.

into the EU, but owing to their sheer numbers, local facilities have been unable to cope with the task. So hundreds of thousands of people have made their way over land, with very limited resources, toward central and northern EU countries. This migration has led to the unexpected arrival of large numbers of people at points throughout Europe. Germany has waived Europe's previous political decision that asylum seekers should be hosted in the country in which they first arrive. In Germany, the southern Bavarian city of Munich (which has 1.5 million inhabitants) has seen the largest influx of refugees, most of whom arrive at its central station — as many as 20,000 people over a single weekend (see graph). The way in which the medical needs of such a large number of arrivals have been handled may shed some light on the main difficulties that arise in such situations and possible solutions to them.

Aside from the administrative problems of registering and housing large numbers of arrivals, every refugee was offered a rapid medical screening procedure so that health care workers could identify patients with urgent medical needs or potentially contagious conditions that could pose a problem during further transport and housing. (A mandatory full medical exam was performed later, as part of the asylum application, to check for infectious diseases such as tuberculosis and to administer immunizations to the mostly unvaccinated arrivals, among other requirements.) Tents were erected adjacent to the central railway station (see photo), and the organization of the initial screening and transfer of identified patients was partly outsourced to private health care providers and emergency physicians' services. However, the need for doctors and nurses was met primarily by a great number of volunteers, most of them hospital staff working in the tents during their free time and often organized through local hospitals. To date, 137 doctors and 86 nurses and paramedics have participated in this effort. Only with this combination of resources was it possible to quickly screen the thousands of people arriving by train or bus at all hours of the day. Those identified as needing immediate medical attention were transferred to local hospitals.

Major challenges included communication, since most arrivals spoke neither English nor German, and even translators had problems with the various local dialects spoken by the refugees. Many people had preexisting disease that was obvious to examiners, but in most cases no documentation of earlier diagnoses or treatment was available. Hospitals and emergency departments caring for patients with medical problems identified through screening found the use of pictorial and symbol cards useful in explaining symptoms and diagnostic procedures, establishing medical histories, and giving prescriptions.

Families were understandably fearful about being separated if one member was found to need medical treatment. For that reason, some people had hidden even severe injuries sustained during a long trek or boat crossing and had remained untreated. Although local housing for such families had been established to avoid separation, that information was hard to convey convincingly, which sometimes made it difficult to initiate treatment.

Children may be the most medically vulnerable subpopulation in situations such as refugee crises. Although no representative data are available at this early point of the surge, the diagnoses made at our hospital, which is near Munich's central station, may offer some insight into the common medical complexities.

A considerable number of patients were unaccompanied minors, who required special attention. Many of these children appeared to be traumatized, and

Medical Checkup Tents for Arriving Refugees.

Dr. H. Schmidt, Munich

some fled as quickly as possible from the medical institutions to which they were brought. Many children were acutely dehydrated. Some neonates who were born during the flight and needed medical support were premature or small for gestational age, and some of them had feeding difficulties.

Conditions not normally seen today in developed countries included louseborne relapsing fever (one patient required intensive care treatment, intubation, and vasopressor support), severe tuberculosis, and other infections. A surprising number of children had preexisting conditions such as diabetes, asthma, arterial hypertension, cystic fibrosis, or renal failure — conditions that had been exacerbated by a lack of medication.

With the growing numbers of refugees and migrants worldwide, public health planners at least in Europe need to be aware of the possibility that great numbers of people may arrive at unexpected rates and in places distant from borders. Ideally, standard operating procedures should be established in advance for primary and secondary medical screening, vaccination programs, and pathways to provision of medical care for identified patients. Munich's experience suggests that volunteer work is key to the successful medical management of these situations.

The full range of medical expertise may be needed for individual patients, and it's important for knowledge of serious communicable infections to be maintained in the medical community — even if the prevalence of a given disease is low in the local resident population. Challenges in further management that the medical system will face include dealing with extensive multidrug-resistant tuberculosis and psychosocial care for traumatized patients.

Refugees are subsequently distributed within Germany to secondary housing centers according to a politically defined allocation formula. Many refugees are expected to settle in Germany, and many will remain in Munich. The city administration is working to create new housing, medical and psychosocial counseling institutions, language schools, and other integration steps and has set aside funding for this effort. A specific statute regulates the financing of health care requirements of refugees claiming asylum. All necessary medical follow-up care will be paid for by the public welfare system and will be administered by local medical practitioners and hospitals.

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