REFUGEE CAMPS, FIRE DISASTERS AND BURN INJURIES CAMPS DE RÉFUGIÉS, INCENDIES ET BRÛLURES

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SUMMARY. In the past five years, no fewer than 15 conflicts have brought unspeakable tragedy and misery to millions across the world. At present, nearly 20 people are forcibly displaced every minute as a result of conflict or persecution, representing a crisis of historic proportions. Many displaced persons end up in camps generally developing in an impromptu fashion, and are totally dependent on humanitarian aid. The precarious condition of temporary installations puts the nearly 700 refugee camps worldwide at high risk of disease, child soldier and terrorist recruitment, and physical and sexual violence. Poorly planned, densely packed refugee settlements are also one of the most pathogenic environments possible, representing high risk for fires with potential for uncontrolled fire spread and development over sometimes quite large areas. Moreover, providing healthcare to refugees comes with its own unique challenges. Internationally recognized guidelines for minimum standards in shelters and settlements have been set, however they remain largely inapplicable. As for fire risk reduction, and despite the high number of fire incidents, it is not evident that fire safety can justify a higher priority. In that regard, a number of often conflicting influences will need to be considered. The greatest challenge remains in balancing the various risks, such as the need/cost of shelter against the fire risk/cost of fire protection.

Keywords: refugee burden, refugee camps, fire disasters, burn injuries, essential surgery

RÉSUMÉ. Dans les 5 années écoulées, ce ne sont pas moins de 15 conflits armés qui ont propulsé des millions de personnes à travers le monde dans une tragédie et une misère indescriptibles. Actuellement, 20 personnes sont déplacés de force chaque minute en raison d'un tel conflit ou de persécutions, ce qui est une crise historique. Nombre d'entre elles se retrouvent dans des camps de réfugiés de fortune, totalement dépendants de l'aide humanitaire. Les conditions précaires de survie dans ces quelque 700 camps placent ces réfugiés dans une situation de risque non seulement de santé mais aussi de violence physique, sexuelle et mentale (enfants soldats, « recrutement » terroriste). La densité d'habitations installées sans plan est un facteur pathogénique majeur, dans lesquelles les incendies peuvent toucher une superficie très importante. En outre, la dispensation de soins aux réfugiés pose des problèmes spécifiques. Des standard minimums de déploiement ont été édictés au niveau international, mais ils restent largement inapplicables. La prévention des incendies reste une préoccupation secondaire, malgré leur fréquence car il s'agit de trouver une priorité entre la réalisations d'abris sûrs pour dispenser les soins et la prévention des incendies, à coût peu extensible.

Mots-clés: soins, camps, réfugiés, incendies, brûlures, chirurgie

Global refugee burden and refugee camps

For one to leave his country of origin in search of a better, safer life is indeed an extremely difficult decision. Migrants leave home to get a job or an education; many, however, are forced to flee human rights violations, torture and persecution because of ethnicity, religion, sexuality or political opinions, or are displaced due to an armed conflict or another type of crisis. These are usually referred to as refugees or asylumseekers. At present, nearly 20 people are forcibly displaced

every minute as a result of conflict or persecution.²

In the past five years, no fewer than 15 conflicts (some new, some old) have brought unspeakable tragedy and misery to millions across the world. The current overall number of displaced persons globally represents a crisis of historic proportions. The number of refugees, asylum-seekers and internally displaced people worldwide has, for the first time in the post-World War II era, exceeded 50 million. It is estimated that currently 244 million people live outside the country where they were born. An unprecedented 65.6 million people around the

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world have been forced from home due to conflict, persecution or natural disasters, and among them nearly 22.5 million have fled across a border as refugees, over half of whom are under the age of 18.1,2 Women and children comprise 75-80% of refugees worldwide. As the nature of conflicts has changed in the last few decades, with more and more internal conflicts replacing wars among countries, the number of internally displaced persons (IDPs) that have been forced to flee their homes for the same reason as refugees has increased significantly, and they are in need of assistance to the same degree as other refugees.3 Lately, Syria's bloody civil war has created the largest involuntary migration since World War II, with more than 4.6 million refugees and another 7.6 million IDPs. It has caused an enormous refugee burden in Lebanon; more than one in four people currently living in Lebanon are refugees from Syria's civil war, giving Lebanon, already hosting many Palestinian refugees, more refugees per capita than any other country in the world.

Almost all refugees in camps are totally dependent on humanitarian aid. All refugees are under the care of the United Nations High Commission for Refugees (UNHCR), the leading international agency coordinating refugee protection, except for the Palestinian refugees, who are under the care of UNRWA, the second office for refugees of the United Nations.⁴ UNHCR's mandate has gradually been expanded to include protecting and providing humanitarian assistance to internally displaced persons (IDPs) and people in IDP-like situations.⁵ The UNHCR is mandated to lead and co-ordinate international action to protect refugees and to resolve refugee problems worldwide. Its primary purpose is to safeguard the rights and wellbeing of refugees. It strives to ensure that everyone can exercise the right to seek asylum and find safe refuge in another state or territory, and to offer "durable solutions" to refugees and refugee hosting countries.4 Residency status in the host country whilst under temporary UNHCR protection is very uncertain as refugees are only granted temporary status. Rather than only safeguarding the rights and basic wellbeing of refugees in the camps or in urban settings on a temporary basis, the UNHCR's ultimate goal is to find one of the three durable solutions for refugees: integration, repatriation, resettlement.5

Refugee camps generally develop in an impromptu fashion. They are usually designed to offer acute and temporary accommodation and services to refugees, internally displaced persons or sometimes also other migrants for only a short time. They are usually built and managed by governments, the United Nations, international organizations (such as the International Committee of the Red Cross), or NGOs (such as the Red Cross). There are also unofficial refugee camps, like Idomeni in Greece or the Calais jungle in France, where refugees are largely left without the support of governments or international organizations. To avoid placing the burden for care on the government and primarily because of internal political reasons, the Lebanese government has resisted the formation of refugee camps for the Syrians. As a consequence, Syrian refugees have become scattered over 1,000 municipalities, mostly in impoverished urban areas where services are already under severe strain.

Host country governments invariably prohibit the establishment of facilities that make a refugee camp look or feel more permanent. Even though the structure of refugee camps is temporary, people may stay for many years in harsh living conditions, receiving emergency food, education and medical aid until it is safe enough for them to return to their country of origin. Many countries of asylum do not recognize the human rights of refugees, who are typically not allowed to work, send their kids to school, or access local health care. Refugees often can't walk down the street without fear of arrest, detention and deportation. Despite the plea of human rights organizations to treat refugees with dignity and respect, many countries are treating refugees like convicted criminals as a result of the current wave of terrorism.

Although camps are intended to be a temporary solution, some of them have existed for decades. Two-thirds of all refugees around the world have been displaced for over three years, which is known as being in 'protracted displacement'. 50% of refugees – around 10 million people – have been displaced for over ten years, housed in a closed refugee camp and left on the margins of society. Palestinian refugee camps in Lebanon are some of the oldest, most densely populated refugee camps in the world. After more than six decades, Palestinian refugees live in poor conditions and under a host of restrictions that, among other things, limit where they can live and work.

The precarious condition of temporary installations puts the nearly 700 refugee camps worldwide at high risk of disease, child soldier and terrorist recruitment, and physical and sexual violence. Most camps are totally dependent on humanitarian aid. Due to over-crowding and lack of infrastructure, refugee camps are often unhygienic, leading to a high incidence of infectious diseases and epidemics, exacerbated by endemic malnutrition. Moreover, rape, violence and delinquency are endemic in refugee camps. Refugee camps sometimes serve as headquarters for the recruitment, support and training of fighters and guerilla organizations.

Fire disasters in refugee camps

Poorly planned, densely packed refugee settlements are one of the most pathogenic environments possible, representing high risk for fires with potential for uncontrolled fire spread and development over sometimes quite large areas. Tents or other shelters are usually built with combustible shelter materials assembled without firebreaks, and may sometimes be built by refugees themselves with locally available materials. Moreover, most camps completely lack water or firefighting capabilities.⁷

Reports of many major fires in camps, some with multiple fatalities and spreading rapidly over wide areas, often leaving thousands of people without shelter, are common. Some are deliberate, but the majority appears to be due to carelessness caused by open fires, kerosene stoves, lamps, candles, smokers' materials and faulty electrical equipment. Further risks include improper storage of fuels such as gasoline or other combustible or flammable materials. Findings from many fire risk assessment investigations indicated that the majority of fires are secondary to cooking practices and use of candles. Moreover, overcrowding fuels tensions among camp residents. Almost daily clashes are the norm as migrants complain of overcrowding and neglect, and with frustration and anger spreading, riots and open clashes with police and security are not uncommon. Often violence erupts at sprawling refugee camps with mobs of migrants setting fire to tents before looting nearby stores. In one fire incident in Britain, police believed the migrants, mainly Afghans and Sudanese, were fighting over disputed

trafficking routes. In another refugee incident in Dusseldorf, migrants burned down their camp because they were "furious they had not received a wake-up for Ramadan breakfast". Another large fire destroyed parts of the Moria refugee camp on the Greek island of Lesbos. Apparently the fire was started after rumors of mass deportations. Arson attacks on planned facilities and riots against refugee camps are also becoming more frequent. The nature of many refugee-camp fires, in particular, inside tents and huts as a result of carelessness, results in children being at a particularly high risk.⁷

Refugee camp fire risk reduction

It is clear that fire is a major problem in refugee camps. The question arises of how to reduce fire risk and how to achieve reasonable fire protection monitoring in refugee camps.

There are a number of guidance documents and standards published by aid agencies and non-governmental organizations (NGOs), which give recommendations for the layout of camps. Internationally recognized guidelines for minimum standards in shelters and settlements have been agreed and published by aid agencies and NGOs. These guides and standards offer recommendations on spacing between occupancies and between groups or blocks of occupancies (firebreaks), as well as general fire management advice.⁷

Obviously better camp designs with adequate shelter spacing would reduce the risk of fires spreading. Even though registered with the UNHCR as official "refugee camps", most camps are not in compliance with international standards and conditions. Many factors limit the application of these standards: financial, cultural, social and political. In most cases the displaced population has settled on a site before any site planning can be carried out. Only solutions to improve the situation can be sought. This generally requires compromise solutions that take into account the practical physical condition on site as well as available resources. Improving shelter conditions can very often become a highly political issue, with local authorities obstructing the building of semi-permanent housing and preventing the establishment of camps that would offer displaced populations better and safer shelter and living conditions than what they had in their homeland. Moreover, cultural and social traditions may be a determining factor in ensuring refugee acceptance of the infrastructure and services provided. Practical, structural, environmental or social reasons might exist as well to explain why preventive measures as determined by international standards cannot, or are not, adopted.

Burn injury management in refugee camps

Burn injury management in refugee camps is another major hurdle. The complexities of burn management and risk factors are many. When a refugee is burned, those risk factors are exaggerated, particularly in low and middle-income countries. Necessary surgical facilities are usually lacking, which makes it all the more necessary for limited staff to be able to depend on essential surgery techniques, as recommended by the World Health Organization and W. Gunn. Sick or injured refugees rely on free health care provided by aid agencies in camps, and may not have access to health services outside of a camp setting.

Refugee populations tend to have poorer health indicators

than the communities from which they came. They usually have the highest risk of mortality immediately after reaching their country of asylum. The most commonly reported causes of death among refugees include diarrheal diseases, measles, acute respiratory infections, malaria, malnutrition and other infectious diseases. They also have higher rates of sexually transmitted infections and increased rates of HIV.

Providing healthcare to refugees comes with its own unique challenges, with even greater barriers to care than most other settings in the developing world due to the extreme poverty, limited resources, over crowding, limited power supply, and remote settings of many refugee camps. Combined with growing populations, great strains are also placed on basic available resources. Moreover, the high mobility of the refugee setting, and the constant inflow and outflow of people, presents a unique challenge for providing sustained care over a period of time. Politics, media, social justice, isolation, language barriers and poverty are some of the compounding factors that need to be taken into consideration as well when planning interventions and hospital admission for a refugee. In some situations, such as Sheder refugee camp in eastern Ethiopia on the border of Somalia, home to over 10,700 refugees, there may be only one doctor for all the refugees in the camp. In Greece, recent financial crises seriously weakened the country's ability to support refugees held in centers amidst political tension. In Turkey, massive numbers of refugees in need of care have exerted an enormous pressure on the country's health system. The combination of grossly inadequate support from the international community and barriers imposed by the government of Jordan are leaving Syrian refugees unable to access health care and other vital services. In Iraq, access to treatment is supposedly free but in reality, due to frequent breakdowns in supply, refugees have to buy their medicines in private pharmacies. In Lebanon, Syrian refugees have to pay fees to use public health facilities and have no free health access. Syrian refugees, living outside official camps, are increasingly unable to pay for medical treatment and access health services. Interviewing Syrian refugees in the Bekaa Valley and Saida in Lebanon, more than half (52%) could not afford treatment for chronic diseases, and nearly one-third (30%) had to suspend treatment because it was too expensive to be continued.

Conclusion

There are significant barriers that must be overcome to provide effective healthcare to refugee populations. In a camp, a comprehensive and centralized system can be designed theoretically to ensure proper shelter and access to healthcare. Unfortunately, health policies and interventions have not kept up with the profound global changes in conflict settings and increasing demands. Humanitarian actors need to adapt their strategies to the reality of refugees today and their specific disease burdens. Moreover, barriers to access to secondary and tertiary healthcare have to be taken into account. The Syrian crisis has shown a huge gap between the need for assistance and actual response to their needs, which has been massively underfunded. This type of long-term crisis needs long-term planning and commitment from donors, states and agencies.

As for fire risk reduction, the greatest challenge is balancing the various risks, such as the need/cost of shelter against the fire risk/cost of fire protection. Unfortunately, fire is not necessarily the worst or most important problem facing dis-

placed persons; the need for shelter against the elements, security and health are more immediate and pressing problems and, despite the high number of fire incidents, it is not evident that fire safety can justify a higher priority. In that regard, a number of often conflicting influences will need to be considered. Often, if the focus is on fire alone, the recommendations

may have unintended consequences; the recommendations for providing tents with increased fire performance will result in fewer tents being provided due to high costs and finite resources. Therefore, a holistic approach is required to the problem to minimize the overall risk to the occupants, not just the fire risk.

BIBLIOGRAPHY

- 1. Refugee Definition Amnesty International. www.amnesty.org/refugees
- 2. UNHCR Figures at a Glance www.unhcr.org/figures-at-a-glance.html
- 3. What is a Refugee? Definition and Meaning | USA for UNHCR. www.unrefugees.org/what-is-a-refugee/
- 4. "UNRWA | United Nations Relief and Works Agency for Palestine Refugees in the Near East". *UNRWA*. Retrieved 2017-08-23.
- 5. Refugee Wikipedia. https://en.wikipedia.org/wiki/Refugee
- 6. Refugee camp Wikipedia. https://en.wikipedia.org/wiki/Refugee-camp
- 7. Fire Safety in Refugee Camps IFSEC Global, https://www.ifsec-global.com/fire-safety-in-refugee-camps/

 Gunn SWA: The essentiality of essential surgery in disaster situations and developing countries. J Humanitarian Med, 14: 46-48, 2014

For a comprehensive coverage of refugee health problems see: Refugee Community Health Care, by S. Simmonds, P. Vaughan, S.W. Gunn, Oxford University Press, Oxford, 1985.

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