

# REFUGEE MEDICINE

**A Aggrawal**, Maulana Azad Medical College,  
New Delhi, India

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## Introduction

Throughout history wars, battles, civil strife, and in general human conflict of all kinds have caused death and permanent disability for millions of people. A number of people who survive are displaced from their homeland, because of widespread destruction and devastation. Many of them flee to neighboring regions or countries as refugees. A number of others are forced to flee, because of persecution in their own country for reasons of race, caste, creed, or political affiliation.

These displaced persons or refugees face a unique set of ethnic, sociocultural, medical, and medicolegal problems within their host country. These problems arise not only because of overcrowding, ethnic and sociocultural differences, lack of sanitation, water, shelter, nutritious food, and medicines, but also because refugees are sometimes seen as potential threats to citizens of the host country. Instances of human rights violations and various kinds of physical, mental, and psychological trauma including sexual assaults by the citizens, enforcement officials, and army personnel of the host country are not entirely unknown. Sometimes these insults also come from fellow refugees. To deal with various medicolegal

and sociocultural problems of refugees effectively, there is a need for medical and paramedical personnel, who are specifically equipped and trained to deal with them. Over the years, the branch of medicine that caters specifically to the medical needs of refugee populations, has become highly specialized and can be referred to as “refugee medicine.”

## History of Refugee Movements

### Refugee Movements due to Religious Persecution

Movements of homeless people across frontiers during and after wars have occurred throughout human history. Many such migrations occurred as a result of religious and racial intolerance. For instance, more than 400 000 French Huguenots (Protestants) were forced to leave France after Louis XIV pronounced the revocation of the Edict of Nantes in 1685. Jews have perhaps suffered the most from such forced migrations. The first significant Jewish Diaspora was the result of the Babylonian Exile of 586 BC. Since then Jews have suffered forced expulsion regularly from several countries and regions, including England (1290), France (fourteenth century), Germany (1350s), Portugal (1496), Provence (1512), and the Papal States (1569). Intensifying persecution in Spain in 1492, culminated in the forced expulsion of that country’s large and long-established Jewish population. More recently, Jews were expelled again from Germany, Austria, and Sudetenland (now in the Czech Republic) in the 1930s.

### **Refugee Movements due to Wars and Political Persecution**

Refugee problems intensified in the late nineteenth century after the boundaries of states became more or less fixed, and citizens of a neighboring country were more often than not made to feel unwelcome. The twentieth century saw the movement of people more on political grounds than on religious grounds as had occurred earlier.

The Russian Revolution of 1917 and the postrevolutionary civil war (1917–21) caused the exodus of 1.5 million opponents of communism. Between 1915 and 1923 over 1 million Armenians left Turkish Asia Minor. In the wake of the 1936–39 Spanish Civil War, several hundred thousand Spanish Loyalists fled to France. When the People's Republic of China was established in 1949, more than 2 million Chinese fled to Taiwan and to the British Crown Colony of Hong Kong.

Four major conflicts during the 1950s caused the flight of more than 1 million refugees. These were (1) the Korean War (1950–53), (2) the Hungarian Revolution (1956), (3) the Cuban Revolution (1959), and (4) the Chinese invasion of Tibet (1959). In 1961 the Communist regime of East Germany erected the Berlin Wall to stop these very migrations, but before the creation of that wall – between 1945 and 1961 – over 3.7 million refugees from East Germany found asylum in West Germany. During the 1970s a large number of Vietnamese refugees and during 1980s a still larger number of Afghan refugees left their homes due to wars in their countries.

The Persian Gulf War of 1990–91 created 1.4 million Iraqi refugees who took shelter in Iran; the unresolved Arab–Israeli conflict produced more than 2.5 million Palestinian refugees in the early 1990s; and the political upheavals of eastern Europe produced a large number of refugees throughout the 1990s. The break-up of Yugoslavia produced more than 2 million refugees by mid-1992.

Wars and civil strife in various African countries resulted in a number of refugees. By 1992, there were 6 775 000 refugees within Africa. War in Rwanda created more than 2 million additional refugees in 1994. When the USA and its allies attacked the erstwhile Taliban regime in Afghanistan after the September 11, 2001 attacks, it caused a movement of about 200 000 Afghan refugees to Pakistan (2001). The latest conflict between USA and Iraq (2003) also created a large number of Iraqi refugees.

### **Refugee Movements due to Territorial Partitions**

Several major refugee movements have been caused by territorial partition. After the defeat of Germany in World War II, about 12 million Germans were

dumped on the truncated territory of Germany, which was split into east and west regions. Nearly 10 million people were temporarily made refugees by the creation of Bangladesh in 1971. However, the event that has caused the greatest population transfer in history was the partition of the Indian subcontinent in 1947, which resulted in the exchange of as many as 18 million Hindus from Pakistan and Muslims from India. Most of them resided for many months in refugee camps in cramped and overcrowded conditions with limited food, water, medicines, and proper sanitation.

### **International Action for Refugees**

Excellent international work on refugee problems and refugee healthcare has earned as many as four Nobel Peace Prizes – in 1922, 1938, 1954, and 1981. The first significant step addressing the refugee problem was taken in 1921, when the Norwegian explorer and statesman Fridtjof Nansen (1861–1930) was appointed by the League of Nations as High Commissioner for Refugees.

#### **The Nansen Passport**

Being aware of the problems of refugees, Nansen devised a so-called “League of Nations Passport”, a travel document that gave the holder the right to move more freely across national boundaries. This document later came to be known as the “Nansen Passport.” For his work on the refugees of World War I, he was awarded a Nobel Peace Prize in 1922. After his death in 1930, the protection of refugees was entrusted by the League of Nations to the Office International Nansen pour les Réfugiés (Nansen International Office for Refugees, Geneva), whose mandate lasted from 1930 to 1938. In 1938, this office won the Nobel Peace Prize for its work on refugee problems. The majority of refugees at that time were Russians and Armenians, who had become refugees during and after World War I.

Three other major refugee assistance organizations have been the Intergovernmental Committee on Refugees (1938–47), the United Nations Relief and Rehabilitation Refugee Organization (1947–52), and the Intergovernmental Committee for European Migration. The latter was founded in 1951 and was renamed the Intergovernmental Committee for Migration in 1980.

#### **United Nations High Commission for Refugees**

The International Refugee Organization (IRO) was a temporary specialized agency, established by the United Nations in 1946. It continued work till

January 1952, and was finally succeeded by the Office of the United Nations High Commission for Refugees (UNHCR) established by the United Nations General Assembly. The UNHCR had however started work much earlier (on January 1, 1951) and it assisted refugees and displaced persons in many countries of Europe and Asia who either could not return to their countries of origin or were unwilling to return for political reasons. Among its main functions was the healthcare and maintenance of refugees in camps. It remains the largest and most significant refugee assistance organization. It has helped an estimated 50 million refugees around the world. For its excellent work on refugees, it earned two Nobel Peace Prizes – in 1954 and 1981.

### **1951 Refugee Convention**

Following the increasing problem of refugees arising as a result of World War II, the General Assembly of the United Nations, by Resolution 429 (V) of December 14, 1950, decided to convene in Geneva a Conference of Plenipotentiaries to complete the drafting of, and to sign, a Convention relating to the Status of Refugees and a Protocol relating to the Status of Stateless Persons. The Conference held at the European Office of the United Nations in Geneva from July 2 to 25, 1951, approved the convention on July 28, 1951, now widely known as the “1951 Refugee Convention.”

The Convention consolidated previous international instruments relating to refugees and provided the most comprehensive codification of the rights of refugees yet attempted on the international level. It laid down basic minimum standards for the treatment of refugees, without prejudice to the granting by states of more favorable treatment. The Convention was to be applied without discrimination as to race, religion, or country of origin, and contained various safeguards against the expulsion of refugees. It also made provision for documentation, including a refugee travel document in passport form, a modern version of the older “Nansen Passport.” It also defined the term “refugee” for the first time – in clear and unambiguous terms.

### **1967 Protocol**

This Convention was limited to protecting mainly European refugees in the aftermath of World War II, but a 1967 Protocol (signed and adopted on January 31, 1967) expanded the scope of the Convention as the problem of displacement spread around the world.

### **1969 Africa Refugee Convention**

The Organization of African Unity (OAU) was formed in 1963, and since its very inception it was

concerned with the refugee problem on the continent of Africa, which had tended to foment trouble between member states. On September 6 to 10, 1969, 41 heads of African states assembled in Addis Ababa, and signed the Convention governing the Specific Aspects of Refugee Problems in Africa, which became effective on June 20, 1974. It was mostly based on the 1951 Refugee Convention, but with some changes and modifications taking into account the specific problems related to African refugees.

### **1984 Cartagena Declaration on Refugees**

During the 1980s serious conflicts occurred in Central American countries, giving rise to an alarming refugee problem in Latin America. To address their specific problems, heads of 10 Latin American States met in Cartagena, Colombia from November 19 to 22, 1984 and adopted the Cartagena Declaration on Refugees, which specifically addressed the problems of Latin American refugees.

### **Women’s Commission for Refugee Women and Children, 1989**

Realizing that refugee women face special problems, the Women’s Commission for Refugee Women and Children was founded in 1989, as an independent affiliate of the International Rescue Committee.

### **Declaration on the Protection of Refugees and Displaced Persons in the Arab World, 1992**

From November 16 to 19, 1992, a group of Arab experts met in Cairo at the Fourth Arab Seminar on “Asylum and Refugee Law in the Arab World.” It was organized by the International Institute of Humanitarian Law in collaboration with the Faculty of Law of Cairo University, under the sponsorship of the UNHCR. It noted the suffering which the Arab World had endured from large-scale flows of refugees and displaced persons. Considering that asylum and refugee law constituted an integral part of human rights law, respect for which should be fully insured in the Arab World, it adopted a declaration that aimed at protecting refugees and other displaced persons within the Arab world.

### **Who is a Refugee?**

The term refugee may mean different things to different people, but the most widely accepted definition of a refugee is that provided by the 1951 Refugee Convention. Article 1A(2) of this Convention defines a refugee as:

a person who is outside his/her country of nationality or habitual residence; has a well-founded fear of

**Table 1** Numbers of people (in millions) of concern to UNHCR (1985–2001)

Year	Africa	Asia	Europe	Latin America	North America	Oceania	Total
1985	3.0	5.1	0.7	0.4	1.4	0.1	10.7
1990	4.6	6.8	0.8	1.2	1.4	0.1	14.9
1995	11.81	7.92	6.52	0.20	0.92	0.05	27.4
1996	9.1	7.7	7.7	0.2	1.3	0.05	26.1
1997	8.09	7.9	5.7	0.1	0.7	0.07	22.7
1998	7.4	7.4	6.0	0.1	1.3	0.07	22.3
1999	6.3	7.5	6.2	0.1	1.3	0.07	21.5
2000	6.3	7.3	7.3	0.09	1.2	0.08	22.3
2001	6.1	8.4	5.6	0.6	1.0	0.08	21.8

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persecution because of his/her race, religion, nationality, membership in a particular social group or political opinion; and is unable or unwilling to avail himself/herself of the protection of that country, or to return there, for fear of persecution.

The 1969 Africa Refugee Convention holds this definition (via Article 1(1)), but makes an addition to it via Article 1(2). Article 1(2) says:

The term ‘refugee’ shall also apply to every person who, owing to external aggression, occupation, foreign domination, or events seriously disturbing public order in either part or the whole of his country of origin or nationality, is compelled to leave his place of habitual residence in order to seek refuge in another place outside his country of origin or nationality.

Internally Displaced Persons (IDP) are people who have been forced to flee their home for the same reasons as refugees, and also because of natural disasters such as famines, cyclones, floods, etc. but have not crossed an internationally recognized boundary.

**Table 1** describes the official statistics provided by the office of the UNHCR.

The office of the UNHCR categorizes “people of concern” into four subcategories. They are: (1) refugees, (2) internally displaced persons, (3) asylum seekers or asylees (refugees who have applied for asylum in the host country), and (4) returnees (refugees who have returned to their country, but are still living precariously). Out of a total of 21 793 300 people of concern to the UNHCR in 2001, there were 12 071 700 refugees, 8 021 500 internally displaced persons, 914 100 asylum seekers, and 786 000 returnees, and all face similar problems.

### Legislation Related to Refugee Medicine

Several countries have specific legislation related to refugees and their healthcare. In 1980, the USA passed the Federal Refugee Act. It created a uniform

system of services for refugees resettled in the USA. The Act entitled all newly arriving refugees to a comprehensive health assessment, to be initiated as soon as possible following arrival. One agency in each state was designated to monitor the provision of these health assessment services.

### Health Problems of Refugees

Refugees face unique health problems as a result of overcrowding, lack of shelter, food, water, blankets, sanitation, and medicines and also physical and mental trauma arising from their past experiences and current precarious situation.

Conditions that account for most deaths in refugees and displaced populations are malnutrition, diarrhea, malaria, and acute infections such as measles. Other conditions of concern are hepatitis B, sexually transmitted infections including human immunodeficiency virus (HIV), tuberculosis and other pulmonary infections such as melioidosis and paragonimiasis, parasitic diseases such as hookworms, *Ascaris lumbricoides*, *Strongyloides stercoralis*, *Giardia lamblia*, *Opisthorcis viverrini*, and *Trichuris trichiura*, and psychological disorders such as posttraumatic stress disorder (PTSD).

At the center of refugee medicine lies primary healthcare and prevention. After supplying water, food, and shelter, the number one health priority in a refugee camp is vaccination. Vaccination for hepatitis A and B, cholera, typhoid, and measles must be considered in all refugee camps.

### Some Important Considerations in Refugee Medicine

Refugee medicine and healthcare present unique challenges to the medical practitioner. Healthcare providers of the host country may not be fully aware and conversant with the disease pattern of the regions refugees may be coming from. Their languages and



**Figure 1** Dispensing medicine to Somali refugee children in New Delhi at the Primary Health Center, run by the Voluntary Health Association of Delhi, supported by UNHCR. (Reproduced with permission of UNHCR/S. Akbar.)

sociocultural codes and mores may be so completely alien that serious difficulties may arise in proper and adequate communication. A professional interpreter may be required. At times – as in cases of female refugees explaining some of their intimate diseases – not only a female interpreter may be necessary, but even a female healthcare provider (**Figure 1**).

Sometimes while healthcare providers may distribute western-style medicines, the refugee population – due to their beliefs in their own local and herbal remedies — may not want to take prescribed medicines and these may be secretly discarded (**Figures 2 and 3**).

Healthcare officials may have to build a personal relationship with refugee patients (**Figure 4**). Many of them may be ignorant or mistrustful of the healthcare system of the host country, be highly traumatized, or suffering from grief, depression or feelings of guilt for surviving. They also may feel shame and rejection for having a communicable disease such as tuberculosis or HIV or may be stigmatized by their community for having a mental illness.

Before a refugee or asylum seeker is admitted in a host country, it is desirable to screen him or her for some basic infections and harmful behaviors that may prove detrimental to the host population. Screening for the following conditions is recommended before admitting a refugee into a host country:

1. Communicable diseases of public health significance:
  - a. infectious tuberculosis
  - b. HIV
  - c. Hansen's disease (leprosy)

- d. syphilis and other sexually transmitted infections
- e. parasitic diseases
2. Physical and mental disorders with associated harmful behaviors
3. Psychoactive substance abuse and dependence
4. Other physical or mental abnormalities, disorders, or disabilities.

#### **Tuberculosis and Associated Pulmonary Disorders**

According to the World Health Organization (WHO), about one in three persons worldwide is infected with tuberculosis. The incidence has increased due to the current HIV pandemic. It is typically high in undernourished, starved, and deprived persons living in overcrowded conditions. It is important to realize that many refugees may have come from such conditions and that conditions in refugee camps are not very different. Chest X-rays and Mantoux test must be done in all refugees, and if tuberculosis is suspected, the patient must immediately be referred to antitubercular treatment (ATT). The physician must keep in mind that many patients having an active disease may already have been taking ATT in their home country, and may have developed single-drug or multidrug resistance. It is also important to appreciate that many patients may be suffering from extrapulmonary tuberculosis. It has been said that tuberculosis can mimic everything except pregnancy and if the physician finds that symptoms do not fit in any coherent clinical picture, tuberculosis must be considered.



**Figure 2** The mobile van for refugees run by the Voluntary Health Association of Delhi which goes to areas where refugees live in New Delhi, dispensing free medicine. The project is supported by UNHCR. (Reproduced with permission of UNHCR/S. Akbar.)



**Figure 3** Afghan refugees lining up for medicines from the mobile van run by the Voluntary Health Association of Delhi which goes to areas where refugees live in New Delhi, dispensing free medicine. The project is supported by UNHCR. (Reproduced with permission of UNHCR/S. Akbar.)

In several regions of the world where refugees come from, tuberculosis is considered a stigma, and it is not uncommon for family and friends of the patient to ostracize him or her. Thus education of the patient and their families may be of utmost importance.

Two conditions that may mimic tuberculosis, and which may be quite common in refugee populations, are melioidosis and paragonimiasis. Melioidosis is caused by a Gram-negative motile bacillus *Burkholderia* (formerly *Pseudomonas*) *pseudomallei*. This

bacillus is a saprophyte which can be isolated from ponds, soil, rice paddies, and market produce in endemic areas. Humans contract it by soil contamination of skin abrasions, and less commonly through ingestion and inhalation. The latency period is more than 25 years; the disease was once called the Vietnamese time bomb, reflecting both its origin and long latency period. The symptoms can be remarkably similar to those of tuberculosis, with productive cough, fever, weight loss, and upper-lobe cavitory lesions. The disease is



**Figure 4** A family of Afghan refugees being examined in New Delhi at the Primary Health Center, run by the Voluntary Health Association of Delhi, supported by UNHCR. (Reproduced with permission of UNHCR/S. Akbar.)

endemic in Southeast Asia. Cases have been reported from Madagascar, Chad, Central West Africa, Iran, and Turkey. If a refugee comes from an endemic area, has a febrile illness, shows a radiographic pattern similar to that of tuberculosis, but from whom *Mycobacterium tuberculosis* cannot be isolated, melioidosis should be considered. Treatment includes antibiotic therapy with levamisole as an adjunct.

Paragonimiasis or endemic hemoptysis is caused by the trematode *Paragonimus westermani* (lung fluke), and is common in countries where raw or partially cooked crab, shrimp, or crayfish (the second intermediate hosts) are consumed. According to one estimate, close to 3 million people worldwide are infected with this disease, the vast majority of them in Asia, particularly China, Korea, Japan, Taiwan, the Philippines, and Southeast Asia. Patients with paragonimiasis may present with cough and hemoptysis. Serology and sputum testing for ova and parasites would confirm the diagnosis. The drug of choice is praziquantel.

#### Parasitic Diseases

Intestinal parasites are very common in refugee populations. All inmates of refugee populations should be screened for intestinal and other parasites, even if they are asymptomatic. Because of unsanitary and crowded conditions in most refugee camps, this condition can spread rapidly, if not controlled early.

Most parasites cause eosinophilia; a differential blood count is thus essential along with a vigorous stool examination, this may include more than 10 examinations of stools, even if they are found repeatedly negative. In one study of Southeast Asians with

eosinophilia and three negative screening stools for ova and parasites, 95% were found to have a pathogenic parasite on further evaluation. Laboratory investigation schedule for a patient with eosinophilia must include stool microscopy for ova and parasites (repeated several times); day (*Loa loa*) and night (*Wuchereria bancrofti*) blood samples for microfilariae; skin snips for *Onchocerca volvulus*; rectal snips for *Schistosoma mansoni*, *S. japonicum*, and *S. haematobium*; terminal urine for *S. haematobium* ova; and duodenal juice test for *Strongyloides stercoralis*.

The most common pathogenic parasites seen in refugee populations are hookworm, *Clonorchis sinensis*, *S. stercoralis*, *G. lamblia*, *A. lumbricoides*, *T. trichuria*, and *O. viverrini*. Many patients may have multiple parasites. It is important to realize that some helminth infections (strongyloids, opisthorchis, schistosomiasis) may be asymptomatic and persist for many years before causing serious disease. Documented length of infection is more than 20 years in hydatid disease, 32 years in schistosomiasis, and more than 60 years in strongyloidiasis.

#### HIV Infection and Other Sexually Transmitted Diseases

Refugee camps typically have high rates of HIV and sexually transmitted diseases (STD). Several recent mass population migrations have taken place in areas where HIV infection prevalence rates are high, for example, in Burundi, Rwanda, Malawi, Ethiopia, and Zaire. Conditions that may increase the spread of HIV and other STDs in refugee camps are the high prevalence of infection among commercial sex

workers living in the vicinity of camps, prostitution, high rates of blood transfusions due to increasing violence-related trauma, and shortages of laboratory reagents to test blood for HIV.

Furthermore, HIV is generally regarded as a source of shame and fear among most refugee groups. For this reason, many refugees choose not to tell anyone in their community that they are HIV-positive. They therefore live with an enormous burden of silence and a constant fear of exposure and ostracism. Even disclosure to spouses can be difficult, and presents a challenge to healthcare providers. Secrecy increases the potential for spreading HIV infection. Women are particularly vulnerable if partners who are HIV-positive resist the use of condoms.

### **Mental Health Issues**

Most refugees arriving in host countries will have been exposed to traumatic events. These may include threats to their own lives or those of their family or friends, witnessing death squad killings and mass murder and other cruelties inflicted on family or friends, disappearances of family members or friends, perilous flight or escape with no personal protection, separation from family members, extreme deprivation – poverty, unsanitary conditions, hunger, lack of healthcare, forced marches, persistent and long-term political repression, deprivation of human rights and harassment, removal of shelter or forced displacement from homes, refugee camp experiences involving prolonged squalor, malnutrition, physical, psychological, and sexual abuse, absence of personal space, and lack of safety. These psychological burdens are complicated not only by the demands of adjustment to a new country including lack of social codes, mores, and the new language, and concomitant loss of homeland, sociocultural ties, and economic status, but also can be affected by other disease states and malnutrition. This can give rise to several psychological conditions such as anxiety, depression, posttraumatic stress disorder (PTSD), and psychosomatic disorders, which can lead to substance abuse.

Modern research on refugees began after World War II, with studies of Jewish victims of Nazi concentration camps. They suffered from a constellation of symptoms including fatigue, irritability, restlessness, anxiety, and depression. This has been termed as the “concentration camp syndrome” and is often seen in refugee populations, who live in almost identical conditions.

Intervention may include standard western style therapies such as pharmacotherapy, psychotherapy, and counseling. One must also consider community approaches and traditional healing. It is important to

realize that the traumatized patient may not want to tell his or her story because of fears of exacerbation of symptoms or breach of confidentiality. A cautious approach on the part of the healthcare provider, where the patient is allowed to narrate at his or her own pace with or without an interpreter, may be very helpful.

### **Other Disease Entities**

Apart from the above, certain other disease entities may be seen more commonly in refugee populations. These include dental caries, pterygium significant enough to interfere with vision, chronic otitis media resulting in partial hearing loss, hematologic disorders such as  $\alpha$ - and  $\beta$ -thalassemias, glucose-6-phosphate dehydrogenase (G6PD) deficiency, and hemoglobin E trait (HbE). These conditions should be diagnosed and properly addressed.

### **General Medical Care**

Finally there may be certain medical conditions that are not directly related to a person’s refugee status, for example, asthma, cardiac disease, diabetes. It is possible that the patient was deliberately delaying their treatment in their homeland for lack of finances or simple nonavailability of healthcare. The availability of free medical care in the new host nation may mean those problems can be addressed. The need to treat these conditions on a priority basis in a refugee population, where the host nation’s citizens themselves may urgently be in need, presents challenging ethical issues. The situation appears more paradoxical when we take into account that several citizens of the host nation may be paying hefty taxes for those very services.

### **Ethical Issues**

Ethics is the application of values and moral rules to human activities. Bioethics is the application of ethical principles and decision-making to solve actual or anticipated dilemmas in medicine. Refugee healthcare raises a number of ethical issues. Some ethically difficult decisions include life-ending triage choices, allocation of scarce and meager resources, and the paradox of preferentially treating refugees in a land where residents of the host country may be equally in need. Using such appropriate ethical standards, one cannot differentiate between the health needs of a refugee and those of the citizens of the host country in the event of refugee status being granted by the host nation. A host nation may perhaps be able to apply some discretion in granting refugee status. But once it has been granted, all refugees must be treated at par with the nation’s own citizens, as far as basic health needs are concerned.



It is obvious that the impact of refugees would most strongly be felt in countries with limited resources. Therefore a proper assessment of burden or responsibility sharing should take into account the national resources of countries hosting refugees and displaced persons. Two key indicators of national capacity are (1) the gross domestic product (GDP) per capita and (2) national population. By considering these factors in relation to the scope of displacement, an indication of the relative capacity of countries to host refugees is obtained. **Table 2** lists the top 10 countries in terms of spending the most on refugees in relation to their own GDP. A significant amount of assistance is granted by UNHCR.

**Table 3** lists the top 10 countries in terms of hosting the greatest number of refugees in relation to their own population. This could be an indication of the additional burden placed on the citizens of the host country.

Another important ethical issue to consider is the employment of a female practitioner in the

examination of female patients. Merely the presence of a female chaperone may not be enough. Many refugees may come from countries where touching of a female by a male other than her husband may be an anathema. The moral and ethical values held by the refugee must be respected. A careless approach in this regard may invite needless allegations of sexual misconduct or even molestation. The patient may be encouraged to use diagrams and charts, if she is uncomfortable pointing to some sensitive areas of her own anatomy.

It is important to appreciate that some refugees may need a professional interpreter. Failure to use their services may result in wrong interpretations.

Many refugees may not be comfortable with the western system of medicine. In such cases, alternative therapies as those prevalent in the refugee's own homeland may be more useful.

Medical research on refugees raises ethical issues too. Refugees are vulnerable as subjects of medical research for several reasons. First they inherently

**Table 2** Top 10 countries hosting refugees in relation to their own GDP per capita 1997–2001

2001		1997–2001	
Country	Rank	Country	Rank
Pakistan	1	Sierra Leone	1
Democratic Republic of the Congo	2	Pakistan	2
United Republic of Tanzania	3	Democratic Republic of the Congo	3
Ethiopia	4	United Republic of Tanzania	4
Islamic Republic of Iran	5	Ethiopia	5
Burundi	6	Burundi	6
Zambia	7	Rwanda	7
Federal Republic of Yugoslavia	8	Eritrea	8
Sudan	9	Islamic Republic of Iran	9
Azerbaijan	10	Federal Republic of Yugoslavia	10

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**Table 3** Top 10 countries hosting in relation to their own national population, 1997–2001

2001		1997–2001	
Country	Rank	Country	Rank
Bosnia and Herzegovina	1	Bosnia and Herzegovina	1
Liberia	2	Cyprus	2
FYR Macedonia	3	Sierra Leone	3
Federal Republic of Yugoslavia	4	Liberia	4
Azerbaijan	5	Federal Republic of Yugoslavia	5
Kuwait	6	Azerbaijan	6
Armenia	7	Guinea-Bissau	7
Afghanistan	8	Armenia	8
Georgia	9	Kuwait	9
Congo	10	Eritrea	10

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possess lesser political rights. Since they are outside their own country, they are liable to arbitrary action on the part of host country. Second, little technical guidance is available from the usual international instruments on biomedical ethics, such as the Declaration of Helsinki or guidelines from the Council for International Organizations of Medical Sciences (CIOMS).

One of the excuses offered by medical researchers is that the research is directed towards refugees' own welfare (e.g., cause of a diarrhea outbreak, percentage of the population vaccinated for measles, etc.). While this may be correct to some extent, it cannot be denied that all medical research on refugees must observe the key principles of bioethics, namely, informed consent, confidentiality, the principle of "do no harm," and beneficence.

The WHO Advisory Group on Research in Refugee Populations proposed the following guidelines for research in refugee and internally displaced populations:

- undertake only those studies that are urgent and vital to the health and welfare of the study population
- restrict studies to those questions that cannot be addressed in any other context
- restrict studies to those that would provide important direct benefit to the individuals recruited to the study or to the population from which the individuals come
- ensure the study design imposes the absolute minimum of additional risk
- select study participants on the basis of scientific principles without bias introduced by issues of accessibility, cost, or malleability
- establish highest standards for obtaining informed consent from all individual study participants and where necessary and culturally appropriate from heads of household and community leaders (but this consent cannot substitute for individual consent)
- institute procedures to assess for, minimize, and monitor the risks to safety and confidentiality for individual subjects, their community, and for their future security
- promote the well-being, dignity, and autonomy of all study participants in all phases of the research study.

### Medicolegal Considerations

Refugee populations consist of people who are terrified, and are away from familiar surroundings. There can be instances of exploitation at the hands of enforcement officials, citizens of the host country,

and even United Nations peacekeepers. Instances of human rights violations, child labor, mental and physical trauma/torture, violence-related trauma, and sexual exploitation, especially of children are not entirely unknown. In many refugee camps in three war-torn West African countries, Sierra Leone, Guinea, and Liberia, young girls were found to be exchanging sex for money, a handful of fruit, or even a bar of soap! Most of these girls were between 13 and 18 years of age. This happened as recently as in 2001. Parents tended to turn a blind eye because sexual exploitation had become a "mechanism of survival" in these camps.

After the civil war restarted in Congo–Brazzaville in December 1998, about 250 000 people fled into the forests of the neighboring Pool region. A total of 1600 cases of rape were reported between May and December 1999, from the hospitals of Brazzaville, which highlights the high prevalence of sexual violence directed against women and girl refugees.

Children and women in refugee camps may be forced to resort to prostitution because of poverty. The clients may include fellow refugees, or more commonly citizens of the host country residing in peripheral areas to the camps, or visiting in order to obtain cheap sex. Besides having legal connotations, the situation can lead to the rapid spread of HIV and other sexually transmitted infections.

Female genital mutilation is common in many African countries. If the refugee population is from these countries, female genital mutilation may still be practiced in refugee camps by local doctors (refugees themselves). In most countries this is a penal offence and may attract relevant penal provisions.

It would be useful for the practitioner to keep in mind the practice of body modification/alteration in several cultures. It is very easy to mistake these "normal" body modifications for injury. One of the most common instances causing misinterpretation is the practice of "cao gio" or "coin rubbing" among several Southeast Asian cultures. This refers to a form of traditional healing where the edge of a coin is rubbed over the skin. It produces a red stripe that may easily be mistaken for child abuse by someone who is not aware of this phenomenon.

Similarly, amputation of the uvula and producing scars or lesions in some African groups is a traditional healing practice. These scars are found on the trunk or face, and other parts of the body. The cutting or burning procedures producing the scars or lesions are usually done for ritual reasons, body enhancement, or for traditional healing. The physician would do well to ask the patient discreetly about those lesions – perhaps with the help of an interpreter – rather than jumping to conclusions.

Another finding that one may encounter during examination of refugees is the finding of artificial penile nodules especially in Southeast Asian men. In these cultures foreign bodies are often implanted under the skin of the penis to enhance sexual performance.

Instances of bribery are known to occur. In 2001, five employees of UNHCR (Nairobi office) were charged with taking money from refugees in exchange for resettlement in western countries. Three of these were Kenyans and one Italian. They were either assigned new duties, or their contracts with UNHCR were not renewed.

There are instances of several people injuring themselves (deliberate selfharm) in order to gain admission in more affluent countries as refugees. In the past, Cubans were allowed to immigrate relatively easily to the USA. But in November 1994, Attorney General Janet Reno issued a policy allowing entry to only those under age 18, pregnant women, or anyone who had a medical condition that could not be treated in Cuba; several Cuban detainees attempted to gain a "medical parole" by injuring themselves. Most of the time, a detainee copied another who had legitimately become ill or injured and who was consequently evacuated to the USA.

In one case, a young man was granted medical parole after he suffered genuine severe burns on his hands after burning himself with melted plastic while molding a sculpture. Seeing this, several other people burned themselves with melted plastic. Similarly, when patients with severe prolapsed hemorrhoids were given medical parole, several people produced bleeding from their rectums by deliberately injuring themselves.

Several other unique cases show that individuals go to any extent to gain illegal entry to a western country as a refugee. One man swallowed a large, metal hog ring, another injected diesel fuel into his scrotum, and five men cut their Achilles' tendons when faced with deportation back to Cuba because of criminal activity. The doctors also reported that so many Cubans presented with symptoms of angina that a cardiologist was brought in for a 3-month term to conduct tests.

All these conditions raise medicolegal issues that must be considered by the healthcare providers. Forensic physicians may be required to differentiate genuine cases of injury from those related to deliberate self-harm. Violations of law and human rights must be reported to the local law enforcement agencies, and to the Human Rights Commission.

### Future of Refugee Medicine

The importance of refugee medicine is increasingly being recognized. Several medical universities are

now starting postgraduate training courses in refugee medicine. In 1999, the Medical School of University of Pécs in Hungary in association with the International Organization for Migration (Geneva, Switzerland) started one of the first postgraduate courses in migrational medicine. The 1-year course focuses on the health needs of refugees, immigrants, and victims of civil war.

As political and social upheavals increase around the world, the numbers of the refugee population around the world are also on the increase. With close to 12 million refugees currently found across the globe, more specialists in refugee medicine could do much to mitigate refugees' suffering. The introduction of techniques such as telemedicine may be useful in delivering appropriate care.

### See Also

**Children:** Sexual Abuse, Overview; **Deliberate Self-Harm, Patterns;** **Female Genital Alteration;** **Human Rights, Controls and Principles;** **Torture:** Physical Findings; Psychological Assessment

### Further Reading

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