



# Surgical Care in Refugee Populations: Addressing the Unmet Needs and Overcoming Challenges

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The global refugee population, currently estimated at 35.3 million by the United Nations High Commissioner for Refugees (UNHCR), is one of the most vulnerable groups in the world, facing daily threats of violence, conflict, and persecution<sup>1</sup>. While international efforts to address these crises are ongoing, the increasing number of displaced individuals underscores the urgent need for sustainable solutions. Among the myriad challenges refugees face, access to adequate healthcare remains a critical concern, particularly in the domain of surgical care<sup>2</sup>.

Refugees often find themselves in overcrowded camps or informal settlements with substandard living conditions, which significantly increases the risk of communicable diseases and exacerbates chronic health issues. The incidence of surgical disorders in these populations is notably high, further compromising their already fragile health status<sup>1</sup>. Meeting the surgical needs of refugees requires a comprehensive approach, encompassing increased funding for health programs, improved training and retention of healthcare workers, and enhanced collaboration among humanitarian agencies and local health systems<sup>1,3</sup>.

According to the UNHCR, the countries with the highest number of refugees under international protection are Syria, Venezuela, and Afghanistan, with approximately 6.8 million, 5.6 million, and 2.8 million refugees, respectively<sup>2</sup>. The majority of these refugees seek asylum in neighboring countries, resulting in Turkey, Colombia, and Pakistan hosting the most refugees, with 3.9 million, 2.5 million, and 1.7 million individuals, respectively<sup>2</sup>. Lebanon, hosting 1.5 million Syrian refugees, has the highest number of refugees per capita and per square kilometre in the world<sup>2</sup>.

Addressing the surgical needs of refugees requires strong political commitment and well-designed

strategies. Political commitment is crucial in mobilizing resources, enacting policy changes, and securing funding for sustainable, evidence-based efforts to improve health outcomes for refugees through surgical interventions<sup>4</sup>. An effective strategy should begin with a thorough assessment of the unmet surgical needs within refugee populations. This assessment should evaluate the frequency and impact of surgical diseases, the risks of infectious disease outbreaks, the nutritional status of refugees, and the societal barriers to accessing healthcare<sup>5</sup>.

Following the needs assessment, it is essential to engage all relevant stakeholders in a comprehensive discussion. These stakeholders may include refugee organizations, civil society groups, public health agencies, healthcare providers, and government representatives<sup>4</sup>. Collaborative discussions are critical for developing strategies and interventions that respond to the unique needs and challenges faced by refugees. By acknowledging and respecting the diverse perspectives of all stakeholders, we can work together to ensure that refugees receive the care and support they need to overcome the obstacles they encounter<sup>4</sup>.

The prevalence of surgical diseases in refugee populations is high, and addressing these needs is not just a humanitarian issue but also a public health priority<sup>1</sup>. Timely and appropriate surgical care can prevent long-term disability, reduce healthcare costs, and improve overall health outcomes<sup>5</sup>. Establishing surgical centers specifically designed to meet the needs of refugees, staffed with personnel proficient in their native languages, can greatly enhance the effectiveness of these interventions<sup>4</sup>.

However, there are significant challenges to providing adequate surgical care to refugees. The sheer volume of patients often overwhelms existing healthcare facilities,



leading to long waiting times and reduced quality of care<sup>3</sup>. Financial constraints are another major issue, as many host countries struggle to meet the healthcare needs of both refugees and their own citizens<sup>2</sup>. Cultural and language barriers further complicate the provision of care, highlighting the need for more social workers and

and educational initiatives that ensure equitable access to comprehensive healthcare<sup>5,6</sup>. By addressing cultural and language barriers, we can work towards providing universal healthcare access to refugees, regardless of their background or circumstances<sup>3</sup>.

**Table:** Summary of Main Surgical Needs of Refugee Populations

Surgical Need	Description	Challenges	References
Trauma Surgery	High prevalence of trauma-related injuries due to conflict, violence, and dangerous living conditions.	Limited access to surgical facilities, lack of specialised trauma surgeons, inadequate post-operative care.	1, 4, 5
Emergency Surgical Interventions	Immediate surgical care for acute conditions such as appendicitis, hernias, and obstetric emergencies.	Delays due to overcrowded facilities, scarcity of resources, and inadequate emergency surgical setups.	1, 2, 3
Infectious Disease-Related Surgeries	Complications from abscesses, gangrene, and late-stage infectious diseases.	Lack of antibiotics, delayed diagnosis, and poor hygiene conditions in camps.	1, 3, 5
Chronic Condition Surgeries	Surgical management of chronic diseases such as gallstones, varicose veins, and cancer-related surgeries.	Limited availability of surgical specialists, lack of follow-up care, and inadequate medical infrastructure.	2, 4, 5
Obstetric and Gynecological Surgery	Caesarean sections, treatment of obstetric fistulas.	Cultural barriers, insufficient number of trained obstetric surgeons, and lack of maternal health services in camps.	3, 4, 5
Pediatric Surgery	Addressing congenital anomalies, trauma, and infectious complications.	Shortage of pediatric surgeons, inadequate pediatric care facilities, and delayed treatment due to limited resources.	1, 2, 4
Orthopaedic Surgery	Surgeries for fractures, joint dislocations, and limb amputations due to trauma or infections.	Inadequate orthopaedic equipment, lack of rehabilitation services, and limited access to prosthetic and orthotic devices.	1, 3, 5
Reconstructive Surgery	Surgeries for burn victims, injury reconstruction, and repair of congenital anomalies like cleft palate.	Limited access to specialized surgeons, scarcity of necessary surgical materials, and high demand for post-operative care.	1, 4, 5

interpreters in these settings<sup>4</sup>.

To overcome these challenges, it is crucial to develop a robust public health strategy that expands access to healthcare and surgical services while also addressing legal obstacles<sup>5</sup>. Preventive measures, such as administering antibiotics before surgery to reduce the risk of postoperative infections, are also vital<sup>1</sup>. Furthermore, increasing the workload of community health workers, who play a critical role in delivering care to refugee populations, should be addressed to prevent burnout and ensure the sustainability of healthcare efforts<sup>4</sup>.

Improving surgical care for refugees requires coordinated efforts between local and international health organizations, active community involvement,

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