

# **Collapse of the Health Care System in Gaza and its impact on patients with Rheumatic Diseases. Current status and future needs.**

**Danyal Butt MD<sup>1</sup>, Yousef AlSaba'a MD<sup>2</sup>, Dana Mustafa<sup>2</sup>, Shaher Hamdan<sup>2</sup>, Nezam Altorok<sup>3</sup>**

1. Department of Internal Medicine, Internal Medicine Residency Program. The University of Toledo, Toledo, OH
2. AlQuds University, Al-Azhar branch, Gaza, Palestine
3. Department of Internal Medicine, Division of Rheumatology. The University of Toledo, Toledo, OH

The Siege on Gaza for the past 16 years, and subsequently the war that was waged on Gaza for the past 11 months, led to an unprecedented collapse of the social and healthcare systems in Gaza that we have not seen on such a scale in our lifetime.

The healthcare system in Gaza was already facing challenges due to chronic illnesses before the recent war. Unfortunately, the incidence of these illnesses is not expected to decrease during wartime and may even lead to higher mortality and morbidity rates. Additionally, there is a risk of widespread pandemics, including hepatitis A, cholera, scabies, and poliomyelitis, which has been recently reported in Gaza. Now, the people of Gaza are left with no diagnostic tools to uncover chronic illnesses and no appropriate treatment, even if they have a diagnosis.

Additionally, war injuries induced by lethal and deadly weapons targeting civilian populations lead to serious comorbidities such as infected wounds and lost limbs, with no proper healthcare services to address these issues.

Conflict zones place immense strain on existing healthcare systems, where life-saving interventions take precedence over chronic conditions. The ongoing war on Gaza has resulted in the large-scale destruction of hospitals and clinics on an unprecedented level in modern history

and the complete collapse of primary care services in Gaza. In April 2024, the World Health Organization (WHO) called for an end to the systemic dismantling of the healthcare system (1). As of July 2024, frequent attacks, closures, and evacuations have rendered hospitals non-functional and in ruins (2). Al Shifa Hospital in North Gaza was raided, not once, but twice, and was completely destroyed (3).

One group of these chronic illnesses is autoimmune and musculoskeletal diseases, which represent the most common cause of disability worldwide, contributing significantly to Years Lived with Disability (YLD). They account for approximately 149 million YLDs, which is 17% of all YLDs globally (4). Regular disease monitoring and interventions are crucial to prevent disability, flare-ups, and recurrences. Regarding the rheumatology workforce in Gaza, there has been no rheumatology subspecialist to serve a population of 2.3 million people, ever.

Rheumatology patients are usually managed by Internists who have an interest in rheumatology. The data from Gaza estimate that most of the rheumatology patients are managed by four Internal Medicine doctors, one of them was Dr. Rafat Lobbad, the director of Internal Medicine at Al Shifa Hospital, who was killed in Gaza.

Rheumatological conditions are commonly prevalent in Palestine. In 2021, a study reported that 32% of Palestinians over the age of 60 years reported having at least one musculoskeletal condition (5). Before the current conflict in Gaza, access to rheumatologists and medications varied widely across Palestine. In the West Bank, some rheumatologists practiced within better-established healthcare systems, but patients struggled to have access to hospitals in Jerusalem. Furthermore, patients struggled to have access to biological medications, which are now considered the standard of care for many rheumatological conditions, due to the limited financial resources of the Palestinian Ministry of Health (MOH). Medications were often donated through

Non-Governmental Organizations, such as the Palestinian American Medical Association (PAMA) and Anera (6). In Gaza, the situation was even more dire due to economic hardships, conflicts, and a lack of skilled providers. Patients often face years-long waiting lists for medications or transfers to other countries (6).

Additionally, more than 500 healthcare workers have been killed in Gaza, along with first responders. Many healthcare workers are abducted in prisons in both the West Bank and Gaza. One of them is Dr. Anas Muhanna (picture 1), who is one of the leaders of Internal Medicine and the founder of rheumatology in Palestine, with over 35 years of experience in medical education and patient care. He was detained in Ramallah for his social media activity, a common occurrence for many others. (7) He has been detained for three months with no assigned court date up to writing this communication.

Mental health is another concern in Gaza. The entire population of Gaza has been exposed to conflicts, leading to the emergence of stress disorders, including acute stress disorder and post-traumatic stress disorder. There is evidence that individuals with stress-related disorders are more susceptible to developing autoimmune conditions in the future; the plausibility of people in Gaza developing autoimmune rheumatological diseases is alarmingly high (8). Similar concerns have been raised regarding the conflict in Ukraine and its potential future ramifications (9).

It is imperative that patients with rheumatological conditions receive care. The world must unite to mitigate current and potential future challenges. International collaboration is crucial, including financial aid, the resumption of medical supply chains, and capacity building. It is also important for rheumatological organizations, such as the American College of Rheumatology (ACR) and the European Alliance of Associations for Rheumatology (EULAR), to support rheumatologists in Palestine, like their commendable support for colleagues in Ukraine (10).

Recently, the UN reported that over 10,000 patients in Gaza require specialized care outside the region, with pregnant women and individuals with chronic diseases being the most vulnerable (11).

The priority is to stop this unfair war on civilians in Gaza. Provide humanitarian aid immediately to Gaza with no restrictions. Non-Governmental and Aid Organizations should participate in running their hospitals or taking over operations of existing hospitals. The next step will be to restore and rebuild these hospitals and build their capacity to provide immediately needed patient care. There is a tremendous need to improve access to immunological testing, imaging, and diagnostic tools, including pathology. We should support physicians from Gaza to train in specialties and subspecialties in Medicine and Surgery, and we should have, for the first time, which is way overdue, a rheumatology sub-specialty in Gaza with a goal of having a rheumatology training program in the future. Finally, access to advanced therapies and biological medications should improve and be available to rheumatology patients in the West Bank and Gaza. There is tremendous work that needs to be done, and it is our moral duty as physicians to be part of it. The people of Gaza and Palestine deserve this support.

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