

## Continuity of thyroid diseases care in conflict areas: An overlooked global health priority

*Entela Puca<sup>1,2</sup>, Edmond Puca<sup>3</sup>, Suela Këllici<sup>4</sup>, Najada Çomo<sup>3,5</sup>*

<sup>1</sup>Service of Endocrinology, American Hospital, Tirana, Albania; <sup>2</sup>Western Balkan University, Tirana, Albania; <sup>3</sup>Service of Infectious Diseases, University Hospital Center, Tirana, Albania; <sup>4</sup>Department of Pharmacy, Faculty of Medicine, University of Medicine, Tirana, Albania; <sup>5</sup>Department of Infectious Diseases and Dermatology, Faculty of Medicine, University of Medicine, Tirana, Albania

### To the Editor,

Thyroid diseases, encompassing a broad spectrum of conditions such as hypothyroidism, hyperthyroidism, autoimmune thyroiditis, nodular thyroid disease, and thyroid cancer (TC), representing a significant global public health concern. The prevalence of differentiated thyroid cancer (DTC) is increasing globally, and patients require highly structured, lifelong follow-up to detect persistent or recurrent disease, following international guidelines. In fact, TC remains one of the most common endocrine malignancies worldwide or, Hashimoto thyroiditis prevalence varies from 4.8% to 25.8%, with higher rates observed in iodine-replete populations (1–4). Management of these disorders is complex and requires long-term follow-up, regular laboratory monitoring, access to imaging studies, and sustained availability of medications. In settings with functioning healthcare systems, thyroid patients typically undergo close monitoring to prevent complications, adjust treatments appropriately, and ensure optimal outcomes. But, in conflict-affected regions, like in Ukraine, Palestine and other parts of the world, the continuity of care for thyroid patients is severely disrupted due to instability, destruction of health infrastructure, displacement of populations, and significant challenges in healthcare access (3,5). The burden of thyroid diseases in these settings is not well documented, yet available data suggest substantial unmet needs. In conflict zones, patients with thyroid diseases experience devastating barriers to continuity of

care, which compromise outcomes and quality of life. Armed conflict and political instability profoundly affect healthcare delivery. As documented in several recent analyses (5), conflict situations result in:

- a. Destruction of health facilities;
- b. Loss of healthcare professionals;
- c. Severe shortages of medicines and diagnostic tools;
- d. Collapse of health system governance;
- e. Increased barriers to patient mobility and access to care.

For patients with thyroid disease, these challenges are particularly acute. Lifelong dependency on thyroid hormone replacement (levothyroxine), antithyroid drugs (methimazole, carbimazole, propylthiouracil), regular diagnostic monitoring (TSH, free T4, thyroglobulin, neck ultrasound), and in cancer patients, access to radioactive iodine therapy, is jeopardized by conflict. Supply chain disruptions can result in long-term unavailability of essential medications. Even short interruptions in thyroid hormone therapy can lead to significant morbidity, particularly in vulnerable groups such as pregnant women, elderly patients, and children with congenital hypothyroidism. For hyperthyroid patients, inconsistent access to antithyroid drugs increases the risk of uncontrolled disease, which can precipitate thyroid storm — a life-threatening endocrine emergency (6). In DTC patients, international guidelines recommend lifelong surveillance with serum thyroglobulin, neck ultrasound,

and periodic whole-body scanning with radioactive iodine (4). In conflict settings, these services are often unavailable, leading to delayed detection of disease recurrence or progression, which compromising survival outcomes. Gender-based barriers, stigma, and cultural factors can further restrict women's access to health services. It is known that thyroid diseases disproportionately affect women, with autoimmune thyroiditis and Graves disease having a clear female predominance compare with males (2,3). Pregnant women with thyroid dysfunction are at increased risk of miscarriage, preterm birth, and neurodevelopmental impairment in the offspring. Adequate monitoring and dose adjustment of levothyroxine during pregnancy are critical to prevent such complications. In conflict areas, however, antenatal care is severely disrupted, and pregnant women with thyroid disease often cannot access proper monitoring or therapy adjustments. Children with congenital hypothyroidism, who require strict adherence to levothyroxine therapy during early development to prevent intellectual disability, are also highly vulnerable in these settings. Disruptions in care, interruptions in drug supply, or parental displacement can result in irreversible cognitive impairment (6). Internally displaced persons and refugees face additional barriers too. They often lose access to medical records, prescriptions, and continuity of care during displacement. Refugee camps and mobile health clinics may not be equipped to manage chronic diseases such as thyroid disorders, which require longitudinal follow-up and specialized diagnostics (3,5). So, thyroid care disparities in conflict settings are magnified by social determinants of health. Populations affected by armed conflict often experience extreme poverty, malnutrition, food insecurity, and inadequate living conditions (3). Moreover, health system governance often collapses in conflict areas, with fragmentation of services and loss of standardized care protocols (5). Public health programs, including those aimed at iodine supplementation and thyroid disease screening, may be suspended, increasing the risk of new cases of iodine deficiency disorders or exacerbation of existing thyroid conditions. But, what can we do to resolve these problems? There is a critical need for more research to quantify the impact of conflict on thyroid disease outcomes. Only few published data exist from these settings (3,5), and most humanitarian health surveillance

systems do not routinely capture chronic disease indicators such as thyroid disease burden. Future studies should evaluate the prevalence of thyroid dysfunction in displaced populations, the clinical outcomes of interrupted treatment, and the effectiveness of simplified care models in conflict areas. Such evidence is essential to inform future guidelines and advocate for greater attention to thyroid disease care in humanitarian health strategies. What strategies can we find to improve thyroid care in conflict settings? Simply stop the conflicts, but this isn't easily. So we need to find new strategies that requires a multipronged approach. Several strategies can help improve thyroid disease management in conflict-affected areas (6):

1. Prioritization of essential thyroid medications in humanitarian supply chains, ensuring consistent access to levothyroxine and antithyroid drugs.
2. Mobile health clinics and telemedicine can help extend care to displaced and isolated populations, providing at least basic thyroid follow-up services.
3. Training of local healthcare workers and community health workers in simplified management protocols for thyroid disease, adapted to low-resource settings.
4. Development of conflict-sensitive guidelines for thyroid disease management, by professional societies and international organizations, emphasizing clinical-based monitoring when laboratory diagnostics are unavailable.
5. Integration of thyroid disease care into primary healthcare services and essential health packages for humanitarian response.
6. Strong emphasis on continuity of care for vulnerable groups, particularly pregnant women and children with congenital hypothyroidism, through targeted outreach and prioritization of these populations in health programs.

International collaboration is needed to support these efforts. Endocrinology societies, humanitarian organizations, and global health actors must work together to ensure that thyroid patients are not forgotten in the broader response to conflict-driven health crises.

As conclusion, ensuring continuity of thyroid disease management in conflict-affected regions is a critical yet underrecognized challenge. Thyroid patients face high risks of morbidity and mortality due to disrupted care pathways, medication shortages, and loss of access to essential monitoring. A concerted global effort is required to integrate thyroid care into humanitarian health responses, prioritize vulnerable populations, and develop flexible, adaptive care protocols suitable for resource-limited environments. Protecting the health and dignity of thyroid patients must be recognized as a core component of the right to healthcare in conflict settings.

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## Correspondence:

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Edmond Puca, MD

Service of Infectious Diseases, University Hospital Center, Tirana, Albania.

Rruga e Dibrës 372, 1007, Tirana, Albania.

E-mail: Edmond\_puca@yahoo.com

ORCID: 0000-0002-0621-4865