Review of: "Demographic and Clinical Characteristics of Refugee Children Utilizing Healthcare Services of Türkiye (2021-2022): A Single-Centre Study"

Narendra Kumar

Potential competing interests: No potential competing interests to declare.

This retrospective study analyzed healthcare utilization patterns of 4,383 pediatric refugees admitted to emergency, outpatient, and inpatient services at a hospital in Istanbul, Turkey over one year (June 2021-June 2022). The majority (81.9%) presented to the emergency department (ED), with upper respiratory infections and gastroenteritis as the top diagnoses. Most ED visits were non-urgent (58% categorized as green triage). Only 2.1% resulted in hospitalization, frequently for lower respiratory infections. In the outpatient clinic (15.2% of patients), common issues were routine exams, vitamin D deficiency, malnutrition, and neonatal jaundice. Key lab findings showed borderline ferritin and vitamin D levels across age groups. Among the 128 patients hospitalized (2.9% overall), 64% were under 12 months old, with lower respiratory infections as the top admission diagnosis. 17% of inpatients had malnutrition based on weight percentiles. Nearly 90% of hospitalized children had routine vaccinations recorded. Only 1.3% of total pediatric refugees had confirmed COVID-19.

The key strengths of this manuscript include:

- Large sample size of over 4,000 pediatric refugees analyzed over a full year at a single center provides robust data on healthcare utilization patterns.

- Inclusion of patients from all major pediatric settings (emergency, outpatient, inpatient) allows comprehensive understanding of refugee access and needs.

- Use of electronic records enables objective quantification of demographics, diagnoses, acuity levels, and key lab findings.

- Reporting of granular data on issues like triage categories, chief complaints, isolation of COVID-19 rates, and oxygen support requirements paints a detailed picture of refugee disease burden.

- Discussion section comprehensively compares and contrasts findings to existing literature on refugee children's health status and outcomes.

- Implications are clearly spelled out in terms of preparing hospital systems and improving primary care infrastructure to better serve this population.

- Analysis of malnutrition, developmental screening, and vitamin D deficiency as salient issues expands understanding of

impacts beyond just acute infectious diseases.

Overall, the large sample size, breadth of services analyzed, objective EHR-based methodology, granular quantified results, thorough discussion, and focus on prevention/infrastructure provide significant value. The manuscript meaningfully advances knowledge on the healthcare needs and gaps for pediatric refugees.

Some potential weaknesses and areas for improvement in the manuscript include:

- As a single-center study, the findings may not be generalizable to other healthcare settings and refugee populations. A multi-center analysis could provide more robust data.

- Lack of outpatient blood work on all patients limits full understanding of issues like anemia or micronutrient deficiencies across the cohort. More complete lab testing is needed.

- Details on vaccination records were presented only for inpatients. Inclusion of full vaccination data across the cohort could further elucidate healthcare access issues.

- Sociodemographic factors like income level, parental education, and transit status were not reported. Addition of social determinants could allow analysis of related disparities.

- Qualitative data from patient/provider interviews regarding barriers to care and decision factors could supplement the quantitative results.

- Longer-term analysis following patients across time could better delineate health trajectories based on pediatric care received.

- Providing comparisons to Turkish resident children or pre-conflict Syrian data would give helpful benchmarks for interpreting disease rates.

- Concrete next steps for healthcare quality improvement or policy changes were lacking. Clear recommendations could guide refugee care enhancements.

In summary, a wider scope across centers/regions, more comprehensive lab/vaccine data, social factor analysis, qualitative methods, longitudinal tracking, population comparisons, and actionable improvements represent potential areas for strengthening an already robust analysis.

To conclude, refugee children at this hospital utilized the ED for mostly non-urgent care and had suboptimal outpatient follow-up, despite a higher likelihood of nutritional deficiencies and developmental issues. Hospitalization rates were relatively low, but complexity was high for those admitted, frequently related to acute infectious diseases. Ensuring adequate primary care and public health resources for this vulnerable population could improve outcomes.