

Background

It is anticipated that the population will reach 8 billion in 2025 of which an estimated 750 million will be aged 65 and over.¹ While innovative cancer therapies are improving survival outcomes, the aging population is expected to account for the majority of new cancer diagnoses and related deaths.^{2,3} This demographic shift challenges healthcare systems to manage older cancer patients' complex needs. Understanding volume and acuity trends in oncologic EDs is vital to optimizing care and resources. This study focuses on examining trends in patient volume and acuity among older adults presenting to an oncologic emergency department (ED).

Methods

Using the institutional warehouse data, ED visits from January 1, 2018, through December 31, 2023 were used for this study. Patients were stratified by age into geriatric (≥ 65 years) and non-geriatric (< 65 years) groups. Descriptive statistics summarized the geriatric cohort, and the Cochran-Armitage test was applied to examine trends in both visit frequency and acuity, as classified by the five-level emergency severity index (ESI).

Surging emergency care demand and increasing clinical acuity in the geriatric oncology population

GERIATRIC EMERGENCY

By the numbers:

- Nearly 41% of oncologic ED visits involve patients aged ≥ 65 years
- Proportion of geriatric ED visits increased from 39.2 to 43.0% in 5 years
- Emergent visits nearly doubled 19.3 \rightarrow 38.6% during the same period (2018-2023)

**ONCOLOGIC,
GERIATRIC-FOCUSED
CARE MODELS ARE
NEEDED**

Results

During the study period, there were 165,616 ED visits, with 40.9% ($n = 67,678$) involving patients aged ≥ 65 years, corresponding to 29,591 unique geriatric patients. The median age of these patients was 72 years (IQR 68–77). The majority were White/Caucasian (76.0%) or Black/African American (11.2%). Most visits were classified as emergent (ESI 2, 31.0%) or urgent (ESI 3, 66.2%). The proportion of geriatric visits increased significantly from 39.2% in 2018 to 43.0% in 2023 ($P < 0.001$). Concurrently, acuity rose, with emergent visits nearly doubling from 19.3% to 38.6%, while urgent visits declined from 76.8% to 59.2% over the same period ($P < 0.001$).

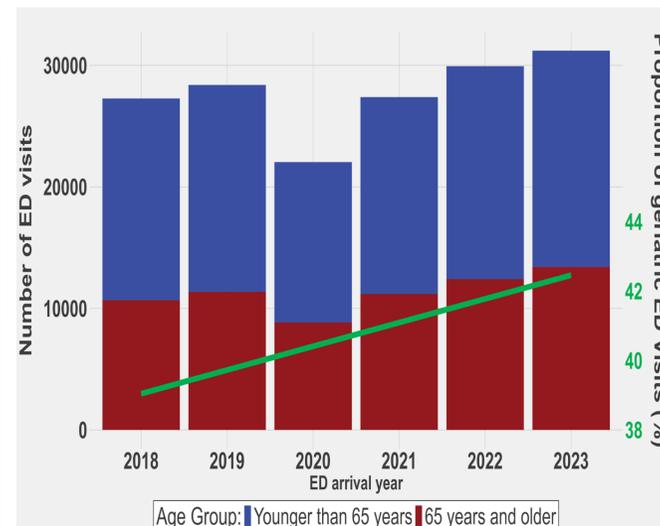
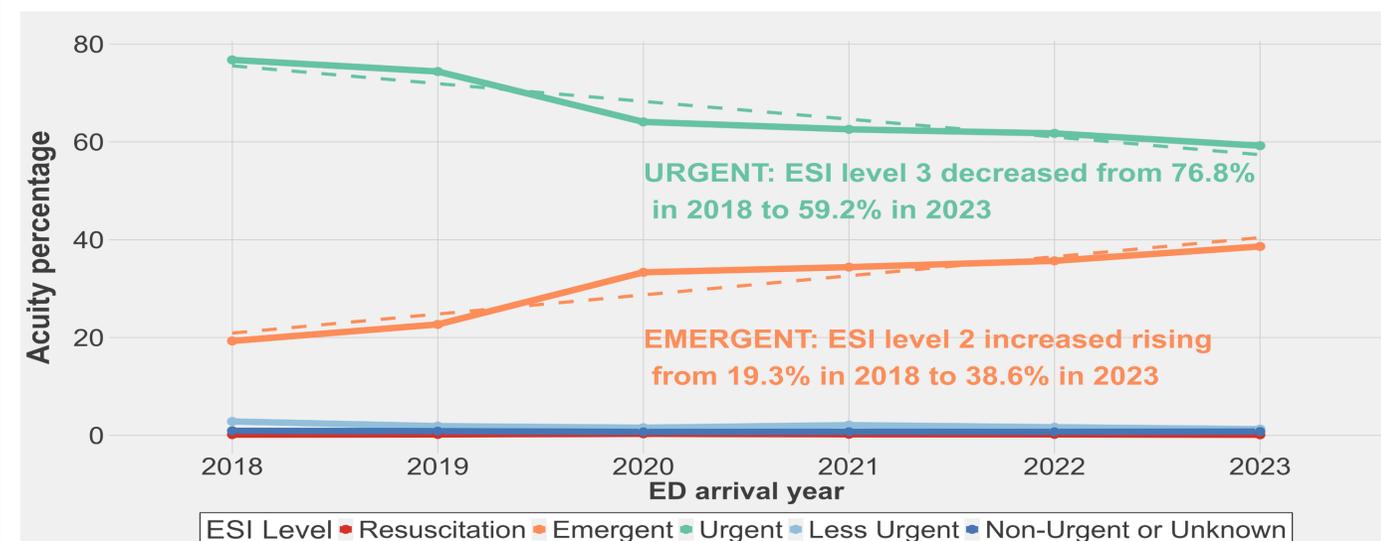


Figure 1. Trends in Volume and Acuity of Geriatric Patients Presenting to the Oncologic ED



References

- 1) Jain N, Kourampi I, Umar TP, et al. Global population surpasses eight billion: Are we ready for the next billion?. AIMS Public Health. 2023;10(4):849-866. Published 2023 Oct 25. doi:10.3934/publichealth.2023056.
- 2) Prathap R, Kirubha S, Rajan AT, Manoharan S, Elumalai K. The increasing prevalence of cancer in the elderly: An investigation of epidemiological trends. Aging Med (Milton). 2024;7(4):516-527. Published 2024 Aug 18. doi:10.1002/agm2.12347
- 3) Wagle NS, Nogueira L, Devasia TP, et al. Cancer treatment and survivorship statistics, 2025. CA Cancer J Clin. 2025;75(4):308-340. doi:10.3322/caac.70011

Conclusion

The volume of geriatric cancer patients seeking care in oncologic EDs is rising, accompanied by an increase in the severity of their conditions. Implementing geriatric-focused care models, including specialized triage, education, tailored physical environment and treatment pathways, is crucial to meet the unique needs of this population and enhance clinical outcomes.