

The case for better hospitalisation selection in cancer patients

Darren Wan-Teck Lim^{1,2}*MRCP (UK)*, Quan-Sing Ng^{1,2}*MD*

Public hospital occupancy rates and resource utilisation in Singapore are perennially high. In the last 2 years of the COVID-19 pandemic, there has been a significant strain on public healthcare systems to balance the demands of the pandemic and usual medical care.

There is little literature detailing emergency department (ED) attendance in Singapore. Hsu et al. described the characteristics of ED visits in the US.¹ Unsurprisingly, cancer patients were more ill, with more attendant need for medication and scans. Adler et al., using the Emergency Severity Index (ESI) employed in American EDs, validated the use of the ESI in cancer patients, and determined that cancer patients had higher acuity scores, which correlated with admissions for increased care.² However, in contrast to the recent study by Zhang et al.,³ they had not look at length of stay (LOS) in ED, as the authors argued that cancer patients had higher acuity leading to a shorter ED LOS, and they were rapidly escalated out of ED to inpatient care. Delivery of care for individuals with cancer places unequal demands on EDs as these are frequently complex and often require a period of observation for evolution of symptoms and signs, related to complications of disease or treatment. Existing tools for triage in EDs have not been specifically studied in patients with cancer, and yet the application of existing tools would enhance current triage protocols.

In this issue of the *Annals*, Zhuang et al. addressed gaps in local data with the implementation of a triage index consisting of clinical characteristics and incorporating a validated clinical severity score (National Early Warning Score).³ Using this index, they defined subgroups of cancer patients who are at greater risk for admission to hospital. More importantly, they defined patient subgroups who could be safely discharged after a period of observation. This would have implications on processes and planning for managing cancer patients in long-stay ED wards to address acute bed shortages in the hospital, especially during the COVID-19 pandemic, where hospitals may be overwhelmed.⁴

Future work would be needed to further address how we can better triage these patients prior to ED visits,^{5,6} and how we can minimise or prevent a proportion of visits so that EDs can optimise care to those who require it. Frequent visits to the ED made near the end of life have been used as an indicator of poor-quality care for patients with cancer.⁷ In a retrospective cohort study in Singapore, the cumulative incidence of frequent attenders among patients with cancer was 10.3% at 3 years post-discharge and frequent attenders accounted for 35.4% of all ED visits made after discharge from hospitalisation.⁸ However, almost one-fourth of ED visits by patients with advanced cancer who were receiving palliative care may have been potentially avoidable, where the medical problem may have been more appropriately managed in the outpatient setting or by a telephone consult.⁹ Patients with cancer often have complex psychosocial needs and multisystemic medical issues, which will not be comprehensively addressed in a busy ED. Therefore, an increased effort to address the care needs of patients and their caregivers would help in reducing patient visits to the ED and their subsequent admission. Effective and enhanced home palliative care team interventions may also contribute to reducing visits to the ED.¹⁰

More Singapore data will be needed to assess the feasibility and impact of this new triage protocol, and the cost-effectiveness of this in a prospective manner in a future study.

REFERENCES

1. Hsu J, Donnelly JP, Moore JX, et al. National characteristics of Emergency Department visits by patients with cancer in the United States. *Am J Emerg Med* 2018;36:2038-43.
2. Adler D, Abar B, Durham DD, et al. Validation of the Emergency Severity Index (Version 4) for the Triage of Adult Emergency Department Patients With Active Cancer. *J Emerg Med* 2019; 57:354-61.
3. Zhuang Q, Chan JSE, See LKY, et al. Characteristics of unplanned hospitalisations among cancer patients in Singapore. *Ann Acad Med Singap* 2021;50:882-91.

¹ Duke-NUS Medical School, Singapore

² Division of Medical Oncology, National Cancer Centre Singapore, Singapore

Correspondence: Prof Darren Wan-Teck Lim, Division of Medical Oncology, National Cancer Centre Singapore, 11 Hospital Cres, Singapore 169610.
Email: darren.lim.w.t@singhealth.com.sg

4. Lai AG, Pasea L, Banerjee A, et al. Estimating excess mortality in people with cancer and multimorbidity in the COVID-19 emergency. *BMJ Open*. doi: 10.1101/2020.05.27.20083287.
 5. Hong AS, Chang H, Courtney DM, et al. Patterns and Results of Triage Advice Before Emergency Department Visits Made by Patients With Cancer. *JCO Oncol Pract* 2021;17:e564-74.
 6. Barbera L, Taylor C, Dudgeon D. Why do patients with cancer visit the emergency department near the end of life? *CMAJ* 2010; 182:563-8.
 7. Earle CC, Park ER, Lai B, et al. Identifying potential indicators of the quality of end of life cancer care from administrative data. *J Clin Oncol* 2003;21:1133-8.
 8. Wong TH, Lau ZY, Ong WS, et al. Cancer patients as frequent attenders in emergency departments: A national cohort study. *Cancer Med* 2018;7:4434-6.
 9. Delgado-Guay MO, Kim YJ, Shin SH, et al. Avoidable and unavoidable visits to the emergency department among patients with advanced cancer receiving outpatient palliative care. *J Pain Symptom Manage* 2015;49:497-504.
 10. Hsu HS, Wu TH, Lin CY, et al. Enhanced home palliative care could reduce emergency department visits due to non-organic dyspnea among cancer patients: a retrospective cohort study. *BMC Palliat Care* 2021;20:42.
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