

Acute symptomatic complications among patients with advanced cancer admitted to acute palliative care units: A prospective observational study

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Reference: Hui D., dos Santos R., et al. 2015.. *Palliative Medicine* 29(9): 826-833

Abstract

Background: Limited information is available on the symptomatic complications that occur in the last days of life.

Aim: We documented the frequency, clinical course, and survival for 25 symptomatic complications among patients admitted to acute palliative care units.

Design: Prospective longitudinal observational study.

Measurements: Their attending physician completed a daily structured assessment of symptomatic complications from admission to discharge or death.

Setting/participants: We enrolled consecutive advanced cancer patients admitted to acute palliative care units at MD Anderson Cancer Center, USA, and Barretos Cancer Hospital, Brazil.

Results: A total of 352 patients were enrolled (MD Anderson Cancer Center=151, Barretos Cancer Hospital=201). Delirium, pneumonia, and bowel obstruction were the most common complications, occurring in 43%, 20%, and 16% of patients on admission, and 70%, 46%, and 35% during the entire acute palliative care unit stay, respectively. Symptomatic improvement for delirium (36/246, 15%), pneumonia (52/161, 32%), and bowel obstruction (41/124, 33%) was low. Survival analysis revealed that delirium ($p < 0.001$), pneumonia ($p = 0.003$), peritonitis ($p = 0.03$), metabolic acidosis ($p < 0.001$), and upper gastrointestinal bleed ($p = 0.03$) were associated with worse survival. Greater number of symptomatic complications on admission was also associated with poorer survival ($p < 0.001$).

Conclusion: Symptomatic complications were common in cancer patients admitted to acute palliative care units, often do not resolve completely, and were associated with a poor prognosis despite active medical management.

Strengths:

- Considered only symptomatic complications, rather than complications in general (for example subclinical hypernatremia).
- Results are in keeping with the studies performed previously.
- Used experienced palliative-care physicians involved in day-to-day management (as opposed to retrospective, data mining).
- Used 25 symptoms in their data.
- Dual-center study.

Weaknesses:

- Of the 25 symptoms, missing some key ones, such as ascites, pleural effusion, urinary retention, and dehydration.
- Symptom intensity (ie. Using ESAS) was not reported- as such, symptoms were only yes/no.
- Treatment difference for symptomatic complications was not considered. For example, would a different prognosis be the outcome for various treatments?
- No reporter standardization/calibration. The reporting of a symptomatic complication was based on expertise, allowing for variability between centers.
- (May also be a strength): Daily monitoring of symptoms with no blinding. This may lead to a surveillance bias; however the strength is in first-hand reporting.
- Some symptoms were infrequent- higher statistical power to determine significance is required.

Application to Palliative Care:

- Similar patient population- patients with advanced cancer.
- Similar setting- Palliative care units.
- Similar goals of care- focus on *symptomatic* complications, rather than complications overall (which, without symptoms, might not be investigated if asymptomatic).
- Provides information that symptoms may not resolve for cancer patients admitted to palliative care. They also point to a poorer prognosis, and can help inform decisions on risk-versus-benefit investigations and outcomes.