Symptom Burden and Performance Status in a Population-Based Cohort of Ambulatory Cancer Patients
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ABSTRACT
BACKGROUND. For ambulatory cancer patients, Ontario has standardized symptom and performance status assessment population-wide, using the Edmonton Symptom Assessment System (ESAS) and Palliative Performance Scale (PPS). In a broad cross-section of cancer outpatients, the authors describe the ESAS and PPS scores and their relation to patient characteristics.

METHODS. This is a descriptive study using administrative healthcare data.

RESULTS. The cohort included 45,118 and 23,802 patients’ first ESAS and PPS, respectively. Fatigue was most prevalent (75%), and nausea least prevalent (25%) in the cohort. More than half of patients reported pain or shortness of breath; about half of those reported moderate to severe scores. Seventy-eight percent had stable performance status scores. On multivariate analysis, worse ESAS outcomes were consistently seen for women, those with comorbidity, and those with shorter survivals from assessment. Lung cancer patients had the worst burden of symptoms. CONCLUSIONS. This is the first study to report ESAS and PPS scores in a large, geographically based cohort with a full scope of cancer diagnoses, including patients seen earlier in the cancer trajectory (ie, treated for cure). In this ambulatory cancer population, the high prevalence of numerous symptoms parallels those reported in palliative populations and represents a target for improved clinical care. Differences in outcomes for subgroups require further investigation. This research sets the groundwork for future research on patient and provider outcomes using linked administrative healthcare data.

Strengths
• Large sample size: first ESAS (n=45,118) and PPS (n=23,802)
• Detailed description of data collection methods
• First and largest study to report ESAS and PPS scores in a large geographically based cohort

Weaknesses/Limitations
• Patients included in study were not systematically screened at regular intervals; “opportunistic” recruitment; limited to ambulatory patients
• Lack of information about location of patients along cancer trajectory
• Data entry issues with excluded patients (e.g. when first assessment date was before patient’s diagnosis or after patient’s death)
• Substantive amount of missing data for PPS scores
• Apparent interpretation of fatigue as combination of drowsiness and tiredness (not clearly described in manuscript)
• Number of patients with “survival from assessment date <90 days” not stated

Relevance to Palliative Care
This is the first study to report ESAS and PPS scores across a diverse sample of ambulatory cancer patients, ranging from early diagnosis to end of life. Although this is a high functioning sample of cancer outpatients (78% with PPS ≥ 70), this study offers some foundational findings for evaluating clinical outcomes, particularly for specific subgroups (e.g. gender, co-morbidities, survival times).