



## of Oncology Inpatients at an Academic Cancer Centre

Carla O. Rosario<sup>1</sup>, Martine Puts<sup>2</sup>, Raymond Jang<sup>3</sup>, Andrea Bezjak<sup>3</sup>, Daniel Yokom<sup>4</sup> and Shabbir MH. Alibhai<sup>1,3</sup>

<sup>1</sup> Internal Medicine, University of Toronto

<sup>2</sup> Faculty of Nursing, University of Toronto

<sup>3</sup> Princess Margaret Cancer Centre, UHN

<sup>4</sup> Medical Oncology, University of Toronto

### BACKGROUND

-In the next 10 years in the United States the number of older adults over age 65 will double, contributing to about a 45% increase in the number of cancer patients<sup>1</sup>. The statistics in Canada are very similar.

-Clinical trials in oncology lack data that include older patients therefore making it more difficult to make treatment decisions for this age group that are evidence-based<sup>2,3</sup>

-Over the last few years it has been shown that Geriatric Assessments (GA's) in older adults with cancer have informed treatment decision making and refined survival prediction, however most centres have not adopted this as routine practice.

-Moreover, although studies of GA in older cancer patients have been shown to be feasible in both inpatient and outpatient settings, the vast majority of studies have taken place in outpatient settings.<sup>4</sup>

-In contrast, in the world of geriatric medicine, the strongest evidence of benefit from GA and management that have been shown in randomized controlled trials were done in inpatient settings.

-Oncology patients have been assessed in ACE units and results have shown these patients have a high prevalence of geriatric syndromes and disability.

-Older cancer patients are admitted to hospital often for initiation of treatment, symptom control related to their cancer diagnosis or complications of treatment.

-Often in large centres they are not cared for directly by their primary oncologist during their hospital stay.

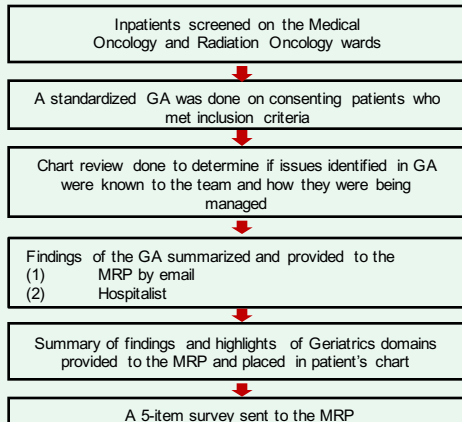
-Hospitalization of these patients provides an opportunity to address issues that might have gone undetected in the outpatient setting.

### METHODS

Cross-sectional academic single-centre Observational pilot study

#### Inclusion Criteria

- (1) Age 65+
- (2) Life expectancy >30 days
- (3) Able to speak English
- (4) Admitted to PMH to either Medical or Radiation oncology



356 inpatients screened → 139 (39%) over age 65 → 100 patients did not meet inclusion criteria → 39 patients approached → 33 Patients included in the study (85% of patients approached)

### RESULTS

**TABLE 1**

**Patient characteristics**

Characteristics	Results
Total N of patients	33
Age, mean and range (65-85)	75
Gender (n)	
Male	14
Female	19
Tumour type	
GI	3
GU	9
Breast	2
Lung	2
H&N	17
Stage	
Local	7
Locally advanced	16
Metastatic	10
Admission unit	
Medical Oncology	8
Radiation Oncology	25
Medical Comorbidities	
Charlson score 0-3	28
Charlson score >=4	5
Number of Medications	
<5	6
5 to 10	17
>10	10

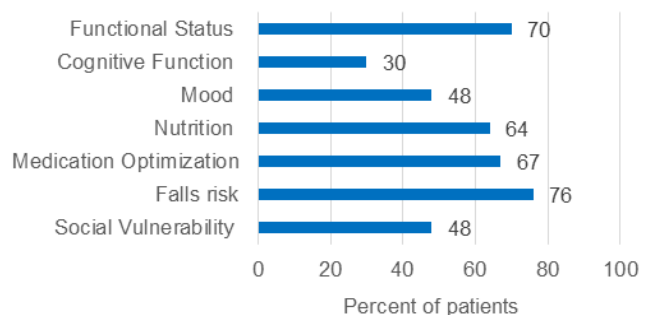
**TABLE 2**

**Geriatric Domains**

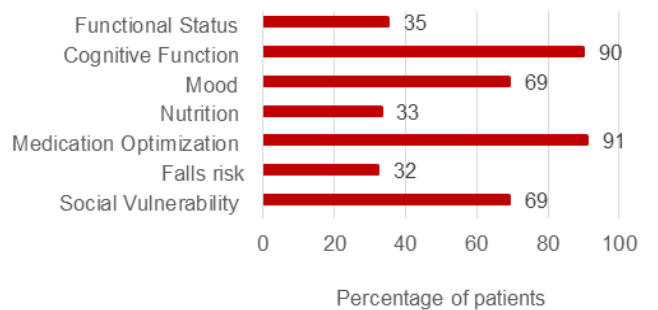
Functional status	% of patients
ECOG 0-1	39
ECOG 2-3	61
<b>Mini-Cog</b>	
Abnormal	45
<b>Mobility</b>	
History of Falls	40
>= 1 fall in the last 6 months	43
<b>Pain and fatigue affecting ability to manage daily activities</b>	
Pain	60
Fatigue	73
<b>Mood</b>	
Abnormal PHQ-9	45
<b>Sleep</b>	
Sleep concerns or using a sleeping aid	40
<b>Vision</b>	
Fair or poor	40
<b>Hearing</b>	
Fair or poor	39
<b>Social History and vulnerability</b>	
Alcohol use (>5 servings per week)	12
Smoking history	76
Home safety concerns	9
Community supports (>1 of family/CCAC/private help)	30
<b>Medication management post discharge</b>	
Forgot to take medications within two weeks of admission	24
Difficulty following current treatment plan	24
Blister pack or dosette use	27

### ABNORMAL GERIATRIC DOMAINS

Abnormal domains identified



Abnormal domains NOT known to the Medical team



### FEEDBACK FROM CLINICIANS

GA results were helpful: 67% (10/15)  
GA results would have an impact on management of my patient: 33% Agree (5/15). Overall response rate: 45% (15/33)

### LIMITATIONS

- Small sample size and single institution study.
- This study was conducted at one time point during the patient's hospital admission
- Some of the physical performance tests used as frailty markers were not always feasible to complete

### CONCLUSIONS

1. Feasibility: This pilot study **demonstrated the feasibility of a GA in an inpatient oncology setting** with 95% (37/39) recruitment rate and 34/36 patients able to successfully complete the assessment with an average time of 35mins.
2. High Number of abnormal geriatric domains: On average each patient had 5/7 abnormal domains.  
-The most common abnormal domains identified were falls risk, functional status, medication optimization and nutrition (in >50% of patients).  
-Cognitive function, mood and social vulnerability were identified as abnormal in 30-50% of our patient population.
3. **The most common abnormal domains that were NOT known to the medical team** include medication optimization (91%), cognitive function (90%), mood (69%) and social vulnerability (69%).
4. Hospital admissions of older cancer patients provide an opportunity to give high quality care to this vulnerable population of patients. This is especially true in helping address areas under-recognized such as medication optimization, cognition, mood and social vulnerability.

### REFERENCES

1. Moy, B., Flaig T., Muss H., Clark B., Tse W. & Windham C. Geriatric Oncology for the 21<sup>st</sup> Century: A call for Action. Journal of Oncology Practice, ASCO, 1-3, 2014.
2. Yee, K.W., Pater, J.L., Pho, L., Zee, B. & Siu, L.L. Enrollment of older patients in cancer treatment trials in Canada: why is age a barrier? Journal of Clinical Oncology, 21, 1618-1623, 2003.
3. Townsley, C., Pond, G.R., Pelozo, B., Kok, J., Naidoo, K., Dale, D., Herbert, C., Holowaty, E., Straus, S. & Siu, L.L. Analysis of treatment practices for elderly cancer patients in Ontario, Canada. Journal of Clinical Oncology, 23, 3802-3810, 2005.
4. Puts MT, Hardt J, Monette J, Girre V, Springall E, Alibhai SM: Use of geriatric assessment for older adults in the oncology setting: a systematic review. Journal of the National Cancer Institute 104:1134-64, 2012.