

# Proficiency of NP assessment in outpatient palliative radiotherapy: a prospective descriptive study

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## ABSTRACT

Palliative radiotherapy (PRT) is a common and effective therapy for painful bone metastases. However, such referrals are often urgent, making timely access to a radiation oncologist (RO) challenging, and prolonging devastating symptoms for the patient (PT). We hypothesized that an experienced nurse practitioner (NP) may contribute to efficient and expert holistic assessment in this area of high PT need.

**Objective: To prospectively evaluate symptom burden and functional status in advanced cancer PTs referred for PRT assessed by a NP or RO.**

## METHODS

Patient data were retrieved from the Rapid Access Palliative Radiotherapy Program (RAPRP) dataset from 1 January 2008 – 31 December 2010. This specific timeframe was identified as the NP and RO providers were consistent RAPRP consultants. Patients (PTS) attending RAPRP were randomly consulted by the NP or the RO, and were assessed with the Edmonton Symptom Assessment System [ESAS], Karnofsky Performance Status [KPS], and whether or not PRT was prescribed. Data were prospectively entered into an ethics approved database. T-tests were used to analyze ESAS and KPS values, Chi-square test for whether or not PRT prescribed. P-value for all tests was set at 0.05.

## RESULTS (1)

- N =316 patients attended RAPRP consultation in the 3 year timeframe. PTS assessed by trainees (n = 79) or with missing data (n = 2) were excluded.
- The NP completed consults in n = 137 PTS, 115 initial consults and 22 repeat consults.
- The RO completed consults in 98 PTS, 80 initial consults and 18 repeat consults.

## RESULTS (2)

PT Characteristics		
	NP	RO
n	137	98
Average age	71	74
Gender	M 99 (72%)	M 68 (69%)
Cancer Type		
Prostate	59(43%)	42(43%)
Lung	33(24%)	31(32%)
Gastrointestinal	17(13%)	6(6%)
Breast	15(11%)	8(8%)
PRUNK	6(4%)	11(11%)
Genitourinary	4(3%)	0
Hematologic	3(2%)	0

### Average ESAS and KPS Scores by Consultant Mean and Standard Deviation

	NP	RO	p-value
Pain	6.1 (2.8)	5.3(3)	0.067
Fatigue	5.4(2.8)	5.7(2.7)	0.391
Appetite	4.9(3)	4.7(3.2)	0.622
Wellbeing	4.2(3)	4(2.8)	0.471
Depression	2.8(2.7)	2.8(3)	0.953
SOB	2.7(3)	2.7(2.8)	0.892
Anxiety	2.6(2.7)	3.2(2.9)	0.118
Nausea	1.4(2.1)	1.8(2.5)	0.174
KPS	60(17.3)	56(24.4)	0.191

### Palliative Radiotherapy Prescription

Consultant	N	RT yes	RT no
NP	137	108	29
RO	98	72	26
P value		0.643	0.402

## CONCLUSIONS

No significant differences in PT symptom burden or functional status were observed between the two providers. An experienced NP allowed 58% (137/235) more consultations than if the RO was working alone. Additionally, the NP consulted 29 PTS deemed not eligible for PRT, further extending RO capacity. **Such collaborative models of multidisciplinary care improve clinic efficiency, enhance timely access to PRT and attenuate burden of suffering for PTS.** Our findings warrant replication in other settings.