# Muscle-invasive bladder cancer: palliative radiotherapy outcomes

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#### **Aims**

A retrospective audit to assess outcomes in patients with muscle-invasive bladder cancer treated with palliative radiotherapy.

#### Methods

61 patients were treated with palliative radiotherapy between January 2011 and December 2013. The following data were collected: date of diagnosis, cystoscopy findings, date of referral for radiotherapy, dose and fractionation and acute toxicity, follow-up cystoscopy and date of disease progression (if applicable) and date of death. Data such as WHO performance status and symptoms prior to and following radiotherapy were retrospectively assessed from case notes and clinic letters. Toxicity was assessed using the Radiation Therapy Oncology Group scoring system side effects of radiotherapy. Problems collecting data included date of transurethral resection of bladder tumour (TURBT) not documented (6/61), no histology report (28/61), no cystoscopy report (11/61), and 56 patients did not have post-radiotherapy cystoscopy for the following reasons: passed away (26), not documented (23), patient declined (12). Audit standards are outlined in Table 1.

## **Results**

The median age (range) was 80 (34–99) years, the majority of the patients (100/130; 77%) were male and with a WHO performance status of 2 or greater. 97% of patients had radiotherapy within 31 days of the first decision to treat. Palliative radiotherapy resolved haematuria in 84%, pain and frequency in 62%, and nocturia in 86% of patients. Three patients (5%) had grade 3 acute urinary toxicity but no patients had grade 3 bowel toxicity. The most regularly used schedule was 21 Gray / three fractions / 1 week (34%), followed by 36 Gray / six fractions / 6 weeks(21%). The median survival of patients in our cohort was 7 months.

### **Conclusions**

We have shown that the time between decision to treat and radiotherapy treatment was within 31 days, 97% of the time.

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Table 1. Audit standards		
Audit criterion	Target	Exception
Patients with suspected muscle- invasive bladder cancer must undergo TURBT and histology staging	100%	Patient not fit for surgery
Time between decision for radiotherapy and first treatment must be less than 31 days	100%	
Median survival is 7 months	100%	
TURBT = transurethral resection of bladder tumour		

Palliative radiotherapy aids symptom resolution in the majority of the patients, in line with that reported in literature. We have also concluded that haematuria is resolved much more easily than dysuria and frequency. Therefore, palliative radiotherapy is safe with no significant grade >3 toxicity.

## Conflict of interest statement

No conflicts of interest to declare.