

Abstract Form

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Title of abstract: Does socio-economic disadvantage affect radiotherapy utilisation in rectal cancer?

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Background:

There is evidence that radiotherapy is underutilised for the treatment of cancer in Australia. Factors that influence the actual use of radiotherapy are not well identified. Age and socio-economic status have been reported as predictors of underutilization of health services and as a deviation from standard care.¹⁻²

Aims:

To calculate the actual radiotherapy utilisation rate (A-RUR) for rectal cancer (proportion treated with radiotherapy within one year of diagnosis over all patients diagnosed with cancer during the specified period), to assess any shortfall from previously developed optimal radiotherapy utilization models³ (O-RUR) and corresponding benefit estimates,² to identify the influencing factors, and to explore whether patient's socio-economic status is a risk factor for underutilization of radiotherapy service with effect on patient outcome.

Method:

A-RUR for rectal cancer in NSW (2009-2011) was quantified from NSW Central Cancer Registry data linked with radiotherapy service data. Shortfalls from the optimal benefit proportions⁴ in 5-year loco-regional control (LC) and overall survival (OS) were estimated. Influencing factors assessed were age, sex, country of birth, socio-economic status (SES) measured as Index of relative socio-economic disadvantage (IRSD) quintile, remoteness of residence and degree of tumour spread at diagnosis.

Results:

A-RUR for rectal cancer in NSW during 2009-2011 was 36% compared to the optimal rate of 55%. The overall shortfall of radiotherapy in rectal cancer potentially resulted in 165 LC failures and 51 deaths. Older age, lower tumour stage and SES disadvantage predicted lower A-RUR ($p < 0.05$). Patients residing in less disadvantaged areas had significantly higher (1.5 times) rates of radiotherapy utilisation compared to those living in most disadvantaged areas.

Implications that impact on your project:

Our study highlighted that demographic and socio-economic factors influence radiotherapy utilisation and has direct effects on patient outcomes that require addressing. Adverse effects on patients could have been avoided if A-RUR was comparable with the estimated O-RUR. Policy-driven evidence-based estimates demonstrated in this study could help ensure planning of efficient and equitable radiotherapy services throughout Australia.

References

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