were 52/42%, 56/44%, and 43%/35% compared to 61%, 66%, and 61%, for CEBEST and 41%, 61% and 37% for CBB models.

Methods: We identified all registered cases of cancer in BC in the years 1997 to 2004, and the number treated with RT within 1 year and within 5 years of diagnosis. The proportion of cases receiving RT within 1 and 5 years of diagnosis for each health region and year were calculated. RT rates were compared to published CBB and EBEST estimates of the need for RT.

Results: The 1 year RT rates in urban/rural regions for lung, breast, and prostate cancer were 76%/74%, 59%/44%, and 37%/20% compared to 40%, 57%, and 52% for CEBEST and 41%, 61%, and 37% for CBB models.

Conclusions: The actual RT rates in the province are close to the CEBEST and EBEST rates for cases in urban health regions, but lower than the CBB estimates for lung, breast, and prostate cancer. The RT rates in rural health service delivery areas are lower and are generally lower than rates in urban areas and most of the estimates of need.

Introduction: Our analysis was performed using different methods: Criterion based benchmarking - CBB, and Canadian (C), and Australian (A) Evidence Based Estimates (EBEST), and Australian (Aus) EBEST models. The EBEST models estimate the need for RT at any point after diagnosis for specific cancer sites (breast, lung, prostate).

The RORU EBEST models estimated the need for early RT (as part of initial therapy) and the need for RT at any point after diagnosis for specific cancer sites using different methods: Criterion based benchmarking - CBB, and Canadian (C), and Australian (A) Evidence Based Estimates (EBEST), and Australian (Aus) EBEST models. The EBEST models estimate the need for RT at any point after diagnosis for specific cancer sites (breast, lung, prostate).

The RORU EBEST estimates have been published elsewhere (2,3,4,5,6,7,8). The EBEST estimates have been published elsewhere (2,3,4,5,6,7,8).

Discussion: There are significant differences in the estimates of need arising from the different models that would be important in their application to strategic planning and audits of utilization. We are unable to say which model is correct based on our analysis.

Comparison of Model Estimates of Radiotherapy Needs with Estimated RT Utilization in Urban vs Rural Areas of British Columbia

Abstract:
Purpose: Estimates of the need for radiotherapy (RT) using different methods: Criterion based benchmarking - CBB, and Canadian (C), and Australian (A) Evidence Based Estimates (EBEST) have been published for various cancer sites. We compare the estimate appropriate rates of RT to actual RT rates for lung, breast, and prostate cancer in primarily rural and primarily urban health service delivery areas of British Columbia in an attempt to estimate whether variation in utilization exists in relation to need.

Materials and methods: We identified all registered cases of lung, breast, and prostate cancer for the years 1997 to 2004, and the number treated with RT within 1 year and within 5 years of diagnosis. The proportion of cases receiving RT within 1 and 5 years of diagnosis for each health region and year were calculated. RT rates were compared to published CBB and EBEST estimates of the need for RT.

Results: The 1 year RT rates in urban/rural regions for lung, breast, and prostate cancer were 76%/74%, 59%/44%, and 37%/20% compared to 40%, 57%, and 52% for CEBEST and 41%, 61%, and 37% for CBB models.

Conclusions: The actual RT rates in the province are close to the CEBEST and EBEST rates for cases in urban health regions, but lower than the CBB estimates for lung, breast, and prostate cancer. The RT rates in rural health service delivery areas are lower and are generally lower than rates in urban areas and most of the estimates of need.

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