# PV-0252 From theory to practice: assessing the use of radiotherapy in population based cancer registries

J.M. Borras<sup>1</sup>, J. Corral<sup>1</sup>, J. Galceran<sup>2</sup>, R. Marcos-Gragera<sup>3</sup>, L. Vilardell<sup>3</sup>, J. Solà<sup>1</sup>, A. Ameijide<sup>2</sup>, M. Carulla<sup>2</sup>, X. Cardó<sup>2</sup>, À. Izquierdo<sup>3</sup>, J.A. Espinàs<sup>1</sup>

<sup>1</sup>IDIBELL, Catalan Cancer Plan, Hospitalet del Llobregat, Spain; <sup>2</sup>FUNCA, Registre de Càncer de Tarragona, Reus, Spain; <sup>3</sup>IDIBGI, Unitat d'Epidemiologia i Registre del Càncer de Girona, Girona, Spain

## **Purpose or Objective**

Planning for radiotherapy services requires evidence based information on the optimum and the actual use of this therapy in a population in order to assess the potential gaps in the utilization of external beam radiotherapy.

The objective of this study was to assess the actual utilization of external beam radiotherapy in two population based cancer registries in Girona and Tarragon, Catalonia, Spain. In addition, problems of access due to distance between patients residence to radiotherapy departments were analysed.

## Material and Methods

There are two cancer registries in Catalonia, Girona (750,000 inhabitants) and Tarragona (800,000 inhabitants), in both cases only one Radiation oncology department is available in each health region. All incident cancer patients (with the exception of non-melanoma skin cancers) of both regions diagnosed during the years 2009-2011 were linked to the reimbursement database of the Catalonian Health Care Service. We calculated the proportion of patients receiving a external radiotherapy treatment during the first year after the diagnosis of the cancer, by type of tumour. Only the first radiotherapy treatment was included in this analysis, even if they subsequently received a retreatment.

### Results

The proportion of incident cases receiving radiotherapy treatment during the first year after diagnosis was 24.3%. The proportion of treatments decreased significantly at older ages (from 21.3% younger than 40 years old and 32% for 40-64 to 14.3% in patients older than 75 years). There were no differences in uptake of radiotherapy by distance from the residence of the patient to the Radiation oncology department.

The tumour sites (all stages at diagnosis) with highest proportion of radiotherapy use in the first year after diagnosis were breast (58%), head and neck (42%), Rectum (41%), Prostate (33%) and lung (30%).

### Conclusion

There is a significant gap between optimal use and actual use (although this study is focused on first year after diagnosis) and this is especially relevant in some tumour sites like bladder and haematological cancers. Population based data on actual use is an essential element for planning resources needed and it makes feasible to assess potential factors to explain the optimum-actual utilization gap and to reduce it when required to increase evidence based indications of radiation oncology.