

To what extent is it exhaustive a tumour hospital registry that covers a well-defined area of Barcelona?

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Objectives

Cancer incidence is provided by population-based cancer registries. However, hospital-based tumour registries may also provide useful cancer clinical data for patients attended in a hospital. Since there is not a population-based cancer registry in Barcelona, we aimed to compare the theoretical incidence rates obtained from a hospital with those obtained by the Tarragona Cancer Registry (TCR).

Methods

TCR is the population-based cancer registry of Tarragona province in Catalonia, covering almost 800,000 inhabitants. Hospital del Mar Tumour Registry (HMTR) is an hospital-based tumour registry that covers an area of 317,000 inhabitants in Barcelona city. Age-standardized to the Standard European Population incidence rates (ASR) of the period 2009-2013 for selected cancers were obtained for TCR and for HMTR using direct standardization method.

Results

The estimated ASRs in males were: Prostate 157.3 TCR vs. 115.5 HMTR. Colorectal 121.6 vs. 142.2. Lung 109.7 vs. 132.8. Urinary bladder 88.0 vs. 85.1. Stomach 20.6 vs. 23.4. Pancreas 19.8 vs. 16.9 (Figure 1). In females: Breast 124.6 vs. 166.3. Colorectal 66.0 vs. 69.0, Endometrial 24.2 vs. 22.9, Lung 19.7 vs. 25.8. Ovary 12.9 vs. 9.7. Urinary Bladder 11.3 vs. 11.6. Stomach 9.1 vs. 11.3. Pancreas 13.3 vs. 11.4 (Figure 2).

Figure 1. Age-standardized incidence cancer rates in males diagnosed from 2009 to 2013

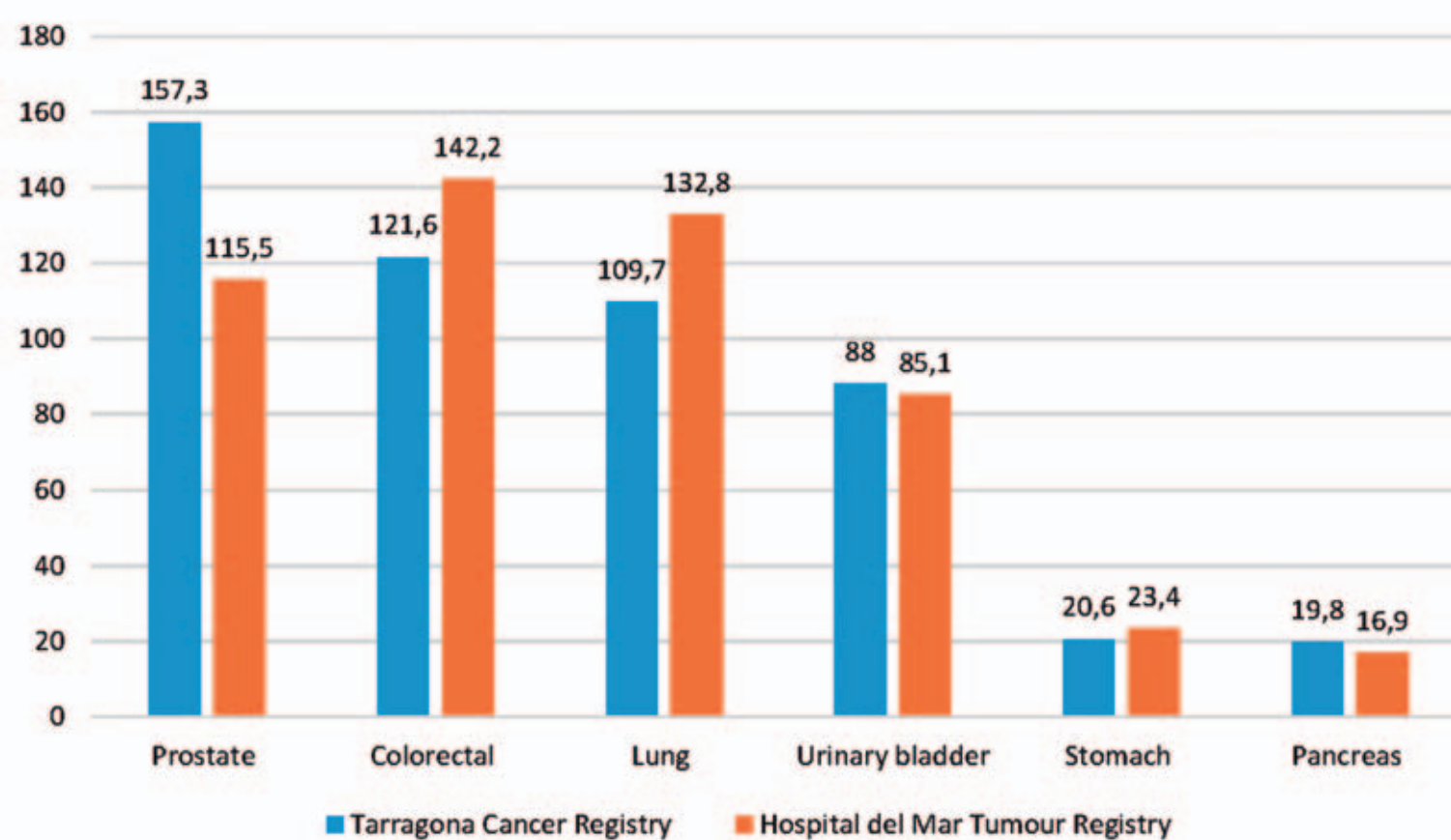
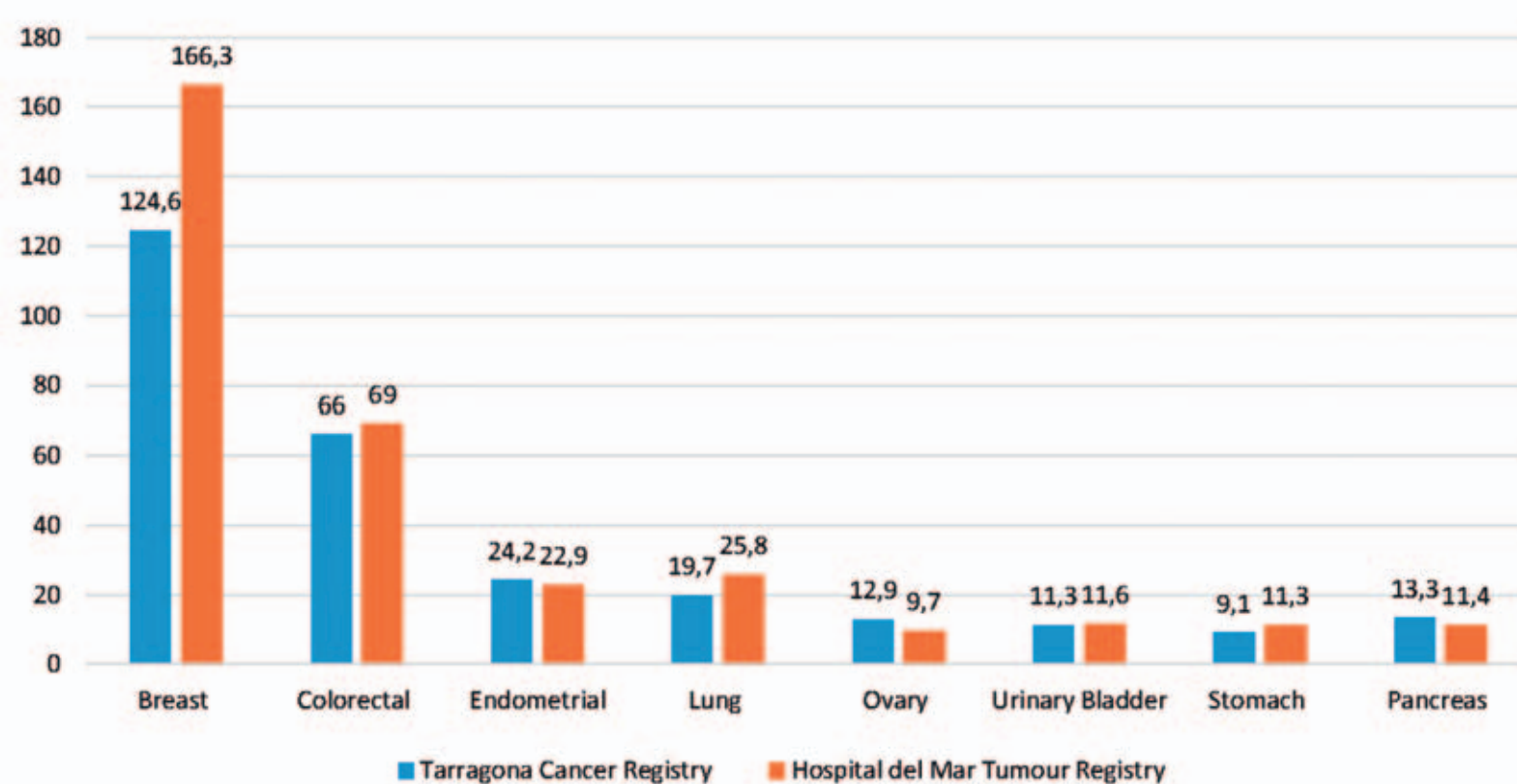


Figure 2. Age-standardized incidence cancer rates in females diagnosed from 2009 to 2013



Conclusions

In the selected cancers, there seems to be an over-attraction of HMTR for lung cancer in both sexes, colorectal cancer in males and breast cancer in females. Conversely, a low attraction seems to be observed in prostate cancer and slightly in ovary cancer. Nevertheless, the real incidence between the two compared areas (Tarragona province and Barcelona city) could be different (as mortality is). In conclusion, hospital-based tumour registries are useful in providing clinical data but variations in attraction rates could prevent obtaining adequate estimates of the incidence. However, the completeness of the HMTR seems quite high for the majority of studied tumours.