

OC25: The impact of using a geographic information systems in the assessment of oncological surgery response

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Introduction: Between 2002 and 2012 malignant tumours were responsible for almost 24% of deaths registered in Portugal (INE,2014). Annually reports provide the latest information and recommendations. Geographic Information System is a powerful tool to generate and obtain relevant information and find relationships between factors that apparently were not associated.

Objectives: Create a model that exemplifies the use of a Geographic Information System to make a simple analysis with published data in a traditional way, can be powerful and relevant, providing a different perspective through more complete information.

Materials and Methods: Data providers: Carta Administrativa Oficial de Portugal 2013 (DGT); Mortality due to Malignant Tumours rate, 2009-2012 by NUTSIII (INE/DGS/MS,PORDATA); Hospitals with Planned Oncological Surgery and Registry List for Malignant Tumours Surgery / Hospital with Time Maximum Response Guaranteed rates, 2013 (ACSS/SIGIC,2014). Data analysis: QGIS2.0. Methods: Mapping mortality rate by NUTSIII; hospitals by coordinates; Registry list by Hospital.

Results and Discussion: Urgent measures are needed to relieve the overloaded hospitals. This method allows to easily identify solutions that are not evident without the geographical component, such as establish collaboration protocols with nearby hospitals with lower rates.

Conclusion: The developed model through a rich graphic data representation, allows to cross data from different study factors with its geographical location.

The identification of asymmetries and potential patterns, hardly detectable in the initial report, becomes more evident. More and better information allows better definition of future strategies.

References

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