[3]Comprehensive Health Research Center, Universidade NOVA de Lisboa, Lisbon, Portugal
Contact: jpa.santos@outlook.pt

Background:
Tuberculosis (TB) imposes a great pressure on healthcare resources, particularly in terms of hospital-based treatment and extended hospitalization. Understanding the space-time clustering of pulmonary TB (PTB) hospitalizations leads to a richer knowledge to assist decision makers in Public Health to develop strategic interventions to reduce these hospitalizations. Our objective was to identify space-time clusters of PTB hospitalizations at municipality level in mainland Portugal.
Methods:
Ecologic study using data from nationwide hospitalization database of Portugal. All patients with a diagnosis of PTB (primary or secondary) and reference to place of residence were included in the study (n = 22760). Space-time analysis was used to define clusters with high rates of hospitalizations at the municipality level between 2002 and 2016.
Results:
Overall hospitalization rate was 17.7/105population/year, with hospitalization rates decreasing by 64.9% during this period (2002:29.4/105; 2016:9.6/105). Space-time analysis of the overall period identified five different clusters, with the clusters in Lisboa and Porto metropolitan areas presenting the highest hospitalization rates (51.5/105 and 43.6/105population, respectively). In a more recent period (2011-2016), were identified four clusters with Lisboa metropolitan area and a northeast rural region presenting the highest hospitalization rates (27.6/105 and 46.2/105population, respectively).
Conclusions:
PTB hospitalization rates in continental Portugal presented a constant decrease between 2002 and 2016. We identified a cluster of PTB hospitalizations in a rural region of northeast mainland Portugal, an area where the incidence of TB is below 20/105population. A closer look is needed to understand the reasons behind this high number of hospitalizations. Our results show that space-time analysis can be a resource to monitor the dynamic of the disease and identify possible areas needing Public Health intervention.
Key messages:
- Pulmonary tuberculosis hospitalizations are decreasing in mainland Portugal, with the two major urban areas (Lisboa and Porto) presenting the clusters with highest hospitalization rates.
- A cluster of hospitalizations for pulmonary tuberculosis was identified in a rural region in the northeast of mainland Portugal, an area with a low incidence of tuberculosis.

Space-time analysis of pulmonary tuberculosis hospitalizations in mainland Portugal (2002-2016)

Joao Almeida Santos

J Almeida Santos[1,2,3], C Nunes[1,3]
[1]NOVA National School of Public Health, Public Health Research Centre, Universidade NOVA de Lisboa, Lisbon, Portugal
[2]National Health Institute Dr. Ricardo Jorge, Lisbon, Portugal