

# Comparative effectiveness research for shared decision making on traditional and new treatment modalities in localized prostate cancer.

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## SUMMARY

### Objectives:

1. To compare the effectiveness in patients with localized prostate cancer in terms of mortality, cancer control and patient-reported outcomes (PROs), between:
  - open radical prostatectomy, pre-planned brachytherapy, and 3D conformal external radiotherapy, 20 years after treatment;
  - active surveillance, robotic prostatectomy, real-time brachytherapy and image-guided radiation therapy (IGRT), 5 years after treatment.
2. To develop a decision aid that incorporates patient-reported outcomes for each treatment option, together with cancer control endpoints, which ensures adequate patient knowledge about localized prostate cancer and treatment alternatives for facilitating the process of shared decision making.

### Methodology:

Data comes from two cohorts of men with localized prostate cancer established by the 'Multicentric Spanish Group of Localized Prostate Cancer':

- In the first cohort, men diagnosed in 2003-2005 were recruited (N=704) and followed prospectively up to 10 years (currently alive N=465); we will carry out the 20th year follow-up evaluation of all surviving patients.
- In the second cohort, men diagnosed in 2013-2019 were recruited (N=587) and followed prospectively up to now (currently alive N=575); we will carry out the annual follow-up evaluations of all surviving patients.

To compare the treatments' effectiveness, Cox models will be applied for survival and Generalized Estimation Equation (GEE) for PRO repeated measures, adjusting by propensity scores. Patient-centered outcomes research methods will be applied in the whole project to develop a decision aid that incorporates relevant endpoints for all stakeholders for facilitating the process of shared decision making.