

**Title:** PIONEER - Prioritisation of the most important questions in the field of prostate cancer

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**Introduction & objectives:** PIONEER is a European network of excellence for big data in prostate cancer, consisting of 32 private and public stakeholders from 9 countries across Europe. PIONEER is led by the European Association of Urology (EAU) to answer key questions for patients with prostate cancer, funded through the IMI2 Joint Undertaking under grant agreement No.777492.

**Methods & materials:** The EAU Prostate Cancer Guideline panel and other Key Opinion Leaders were contacted to identify the most important questions. Afterwards, the PIONEER consortium performed a prioritisation survey among two stakeholder groups: healthcare professionals including pharmaceutical companies and prostate cancer patients.

**Results:** In total, 73 healthcare professionals and 57 patients participated in round one of the surveys. 12 questions were proposed during the first round. For the second round the patients' surveys were also translated into French, German, Italian and Spanish. 49 healthcare professionals and 169 patients (including 53 English; 19 French; 31 German; 53 Italian; 13 Spanish) participated in round two of the surveys. The results were analysed by calculating the percentage of respondents scoring each question as not important, important or critically important. These 56 questions were then re-ordered according to the highest percentage for "critically important", enabling identification of the top 5 questions from the two each stakeholder groups (Table 1).

What are the relevant tumour-specific and patient-specific variables that affect prognosis of PCa patients suitable for active surveillance?
What is the natural history of PCa patients undergoing conservative management (i.e., watchful waiting) and what is the impact of comorbidities and life expectancy on long-term outcomes?
Currently, the scientific community generally applies the EAU Guidelines PCa risk stratification, stratifying patients into low-, intermediate- and high-risk PCa. This is based on the risk of recurrent disease of patients after radical treatments. However, this risk stratification still has its limits and patients still have very heterogeneous outcomes especially in the high-risk group. What we still do not know is what differentiates patients with lethal vs non-lethal disease, irrespective of their risk stratification.
When should we treat patients, who experience prostate cancer recurrence after primary treatment, and which are the most effective therapeutic approaches?
Which specific patient groups benefit most of upfront chemotherapy? What are the side effects and What is impact on quality of life in real-life practice of chemotherapy in this setting?

**Conclusions:** PIONEER has identified and prioritised the most important questions in the field of prostate cancer. Identification of critical questions will help the PIONEER consortium to prioritise and answer those questions first that are important to stakeholders.