PIO: The International Network of Excellence for Big Data in Prostate Cancer announces the release of their core outcome sets for localised, locally advanced, metastatic and non-metastatic castration resistant prostate cancer.

Core outcome sets (COS) are an agreed minimum set of outcomes that should be measured and reported in all clinical trials. However, different studies looking at treatments for the same condition often measure different outcomes. When the two studies are finished, we cannot compare or combine their results because they have used different outcomes. This makes it nearly impossible to give a conclusive recommendation about the effectiveness of the intervention or treatment, since the evidence can’t be properly combined. Evidence generated from combined studies (systematic reviews and meta-analyses) is generally considered more useful for making important health decisions, as it is often less prone to bias than individual studies. The use of core outcome sets also helps to resolve outcome reporting bias, where researchers collect data on multiple outcomes but then only report specific, usually favourable, outcomes in the results of trials. All of the above are common drawbacks of current intervention effectiveness trials for prostate cancer.

In order to address these problems for prostate cancer PIONEER, has developed, in collaboration with all relevant stakeholders, methodologically robust COSs for localised, locally advanced, metastatic and non-metastatic castration resistant prostate cancer. This work has been jointly led by Prof. Mieke Van Hemelrijck from the Translational Oncology and Urology Research Team in the School of Cancer & Pharmaceutical Sciences at King’s College London, Dr. Steven MacLennan from the Academic Urology Unit at the University of Aberdeen and Dr. Jihong Zong Head Epidemiology Pipeline, Real World Evidence at Bayer Pharmaceuticals working together with all partners in the PIONEER Disease Understanding and Outcome Definitions Work Package.

The PIONEER team followed a four-stage process to develop the PIONEER Prostate Cancer COSs:

1. Four systematic reviews of effectiveness trials to identify currently reported outcomes were completed.
2. Qualitative interviews with 27 European patients to understand patients’ perspectives on important outcomes were conducted.
3. Four multidisciplinary expert group consensus meetings to agree standardised terminologies were held. The participants for the consensus meeting were purposively sampled for expertise in prostate cancer management and research and represented key stakeholder groups including patients, urologists, radiation oncologists, medical oncologists, nurses, and pathologists.
4. Recommendations for the most appropriate definitions of clinician reported outcomes were formulated.
PIONEER has involved multiple stakeholders to make the PIONEER Prostate Cancer COSs as applicable as possible, for both prospective and retrospective research. We strongly recommend that researchers who use the PIONEER COSs in their studies also apply the terminology and definitions proposed to effectively minimise future study heterogeneity. The PIONEER Prostate Cancer COSs have also been endorsed by the European Association of Urology, Europe’s leading medical authority on urologic practice, research, and education. A reflection on the importance of COS for the advancement of clinical practice.

The PIONEER Prostate Cancer COSs are a continually evolving resource. They represent a minimum set of outcomes, which can be amended with defendable justification, depending on clinical setting and changes in the treatment landscape. These integrated COSs for all stages of prostate cancer will be used by the PIONEER Consortium as a basis for data harmonisation across the diverse range of data sources in the PIONEER Prostate Cancer Big Data platform.

For more information on the PIONEER Prostate Cancer COSs you can read the group’s latest publication in European Urology: Updating and Integrating Core Outcome Sets for Localised, Locally Advanced, Metastatic, and Nonmetastatic Castration-resistant Prostate Cancer: An Update from the PIONEER Consortium - ScienceDirect

For a comprehensive overview of the PIONEER Prostate Cancer COSs visit our website: Core Outcome Sets - PIONEER - European Network of Excellence for Big Data in Prostate Cancer (prostate-pioneer.eu)

Listen to PIONEER researchers Prof. Mieke Van Hemelrijck and Dr. Steven MacLennan (academic Urology Unit, University of Aberdeen) explain the PIONEER COSs and their importance for clinical practice and patients: https://youtu.be/6oA024N0xtE
PIONEER is funded through the IMI2 Joint Undertaking and is listed under grant agreement No. 777492. IMI2 receives support from the European Union’s Horizon 2020 research and innovation programme and the European Federation of Pharmaceutical Industries and Associations (EFPIA).

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