



# PIONEER's systematic review of outcomes reported in effectiveness trials for interventions in locally advanced prostate cancer

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## Background and aims

Heterogeneity in outcome reporting, definitions and measurement is a problem in the prostate cancer (PCa) evidence base. This negatively impacts clinical and patient decision making. A solution is to develop a core outcome set (COS) which consists of an agreed minimum set of outcomes to be reported in all PCa clinical trials.

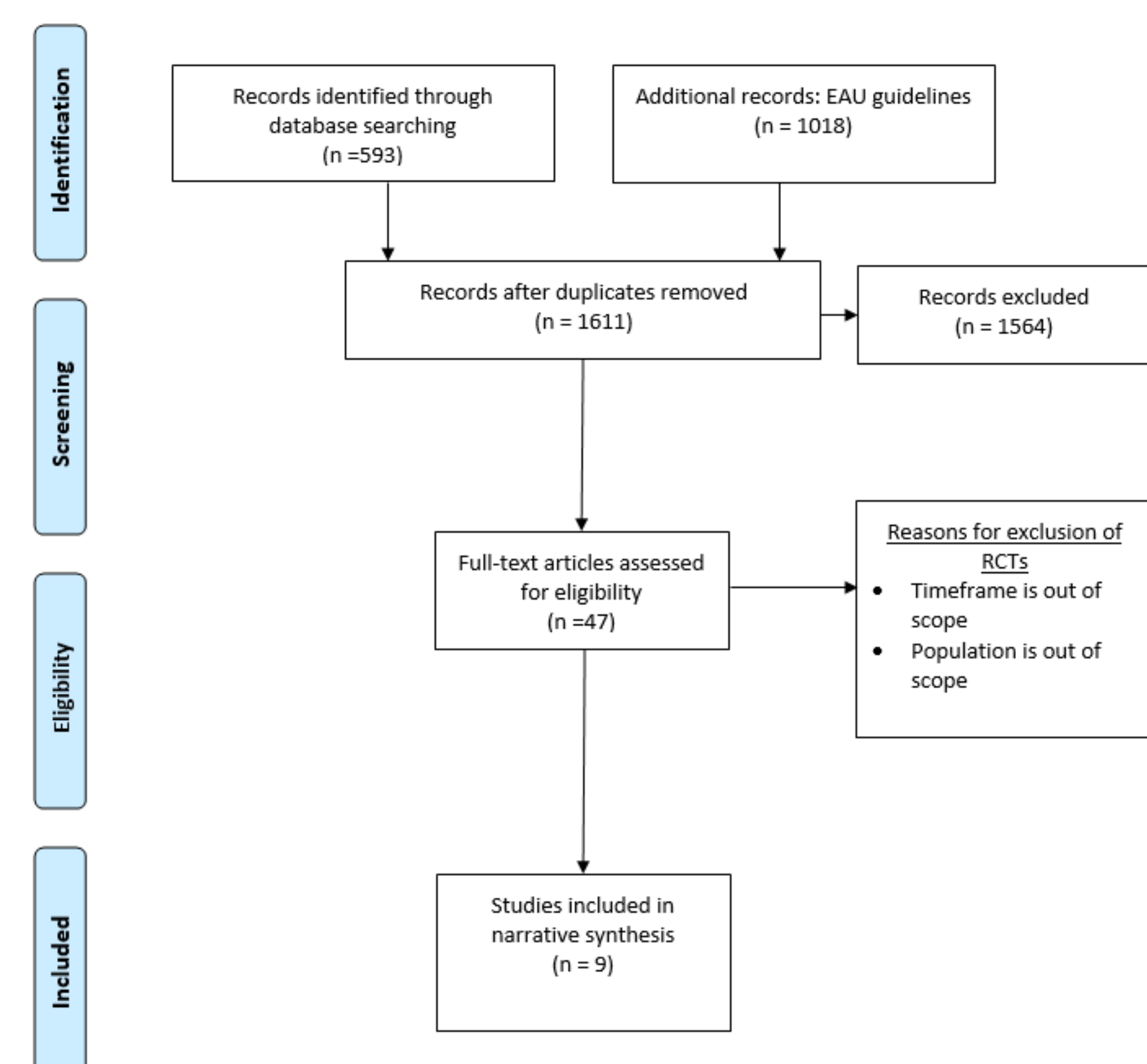
- This systematic review aimed to ascertain whether any new outcomes have been reported for men with locally advanced PCa, which are not already included in the already defined localised or metastatic COS.

## Methods

A systematic review was conducted including randomised controlled trials (RCTs). Eligibility:

- Any intervention for men with locally advanced PCa (T3 or T4 and/or N1)
- Published between 1st of January 2013 and 31st of March 2019.

Figure 1. PRISMA Flow Diagram.



- Verbatim outcome names, definitions and reported data were coded to common names.

## Results

- The identified outcomes can be found in Table 1 below, which also indicates how these outcomes correspond to the localised PIONEER COS.

Table 1. Identified outcomes for men with localised and locally advanced PCa.

PIONEER Localised PCa COS – publication under review	Locally advanced PCa outcomes as identified in our systematic review	Locally advanced PCa outcomes standardised according to common clinical terminology
Overall survival	Overall Survival	Overall Survival
Prostate cancer specific survival	Cause specific survival; PCa-specific 15-yr mortality	Cause specific survival
Biochemical recurrence	Biochemical failure (BF); Time to biochemical recurrence; Biochemical recurrence-free survival; PSA response; Rising PSA $\geq 0.5$ ng/ml	Biochemical recurrence
Local disease recurrence	Time to subjective progression; Time to objective progression; Disease-free survival (DFS); Local progression (LP); Distant metastasis; Relapse-free survival; Clinical relapse-free survival; Metastasis free survival; Progression-free survival (PFS); Time to progression (TTP)	Progression; Metastases
Distant disease recurrence/metastases		
Need for salvage therapy		
Positive surgical margins (surgery)		
Bowel dysfunction	Adverse events; Toxicity; Early adverse events	Adverse events; Toxicity; Early adverse events
Faecal incontinence		
Urinary dysfunction		
Stress incontinence		
Sexual dysfunction		
Side effects of hormonal therapy		
Major surgical complications		
perioperative deaths (surgery specific); thromboembolic disease (Surgery specific); bothersome or symptomatic urethral or anastomotic stricture (Surgery specific)		
Radiation toxicity	Acute RT toxicities	Acute RT toxicities
Overall quality of life	Quality of Life	Quality of Life
	PSA doubling time at recurrence	PSA doubling time at recurrence
	Safety	Safety
	Testosterone recovery	Testosterone recovery

- The outcomes identified in the current systematic review are already included in PIONEER's COS for localised.
- Discrepancies observed were related to measurement rather than underlying outcome construct

## Conclusion

PIONEER does not recommend a specific COS for locally advanced PCa. In the future, if further treatment options for this specific population warrant new RCTs and different outcome measurements, then this recommendation may change. We propose that the outcomes reported in the PIONEER COS for localised PCa adequately cover the locally advanced PCa population and should be used for clinical trials and clinical audit in this population.