

available at [www.sciencedirect.com](http://www.sciencedirect.com)  
journal homepage: [www.europeanurology.com](http://www.europeanurology.com)



European Association of Urology



Platinum Priority – Review – Prostate Cancer

Editorial by XXX on pp. x–y of this issue

## Quality of Life Outcomes after Primary Treatment for Clinically Localised Prostate Cancer: A Systematic Review

Michael Lardas<sup>a</sup>, Matthew Liew<sup>b</sup>, Roderick C. van den Bergh<sup>c</sup>, Maria De Santis<sup>d,e</sup>, Joaquim Bellmunt<sup>f,g</sup>, Thomas Van den Broeck<sup>h,i</sup>, Philip Cornford<sup>j</sup>, Marcus G. Cumberbatch<sup>k</sup>, Nicola Fossati<sup>l,m</sup>, Tobias Gross<sup>n</sup>, Ann M. Henry<sup>o</sup>, Michel Bolla<sup>p</sup>, Erik Briers<sup>q</sup>, Steven Joniau<sup>h</sup>, Thomas B. Lam<sup>r,s</sup>, Malcolm D. Mason<sup>t</sup>, Nicolas Mottet<sup>u</sup>, Henk G. van der Poel<sup>v</sup>, Olivier Rouvière<sup>w</sup>, Ivo G. Schoots<sup>x</sup>, Thomas Wiegel<sup>y</sup>, Peter-Paul M. Willemse<sup>z</sup>, Cathy Yuhong Yuan<sup>aa</sup>, Liam Bourke<sup>ab,\*</sup>

<sup>a</sup> Department of Urology, Leto Hospital, Athens, Greece; <sup>b</sup> Department of Urology, Wrightington, Wigan and Leigh NHS Foundation Trust, Wigan, UK; <sup>c</sup> Department of Urology, Canisius-Wilhelmina Hospital, Nijmegen, The Netherlands; <sup>d</sup> Clinical Trials Unit, University of Warwick, UK; <sup>e</sup> Department of Urology, Medical University of Vienna, Austria; <sup>f</sup> Bladder Cancer Center, Dana-Farber Cancer Institute, Boston, MA, USA; <sup>g</sup> Harvard Medical School, Boston, MA, USA; <sup>h</sup> Department of Urology, University Hospitals Leuven, Leuven, Belgium; <sup>i</sup> Laboratory of Molecular Endocrinology, KU Leuven, Leuven, Belgium; <sup>j</sup> Royal Liverpool and Broadgreen Hospitals NHS Trust, Liverpool, UK; <sup>k</sup> Academic Urology Unit, University of Sheffield, Sheffield, UK; <sup>l</sup> Unit of Urology/Division of Oncology, URI, IRCCS Ospedale San Raffaele, Milan, Italy; <sup>m</sup> Università Vita-Salute San Raffaele, Milan, Italy; <sup>n</sup> Department of Urology, University of Bern, Inselspital, Bern, Switzerland; <sup>o</sup> Leeds Cancer Centre, St. James's University Hospital and University of Leeds, Leeds, UK; <sup>p</sup> Department of Radiation Therapy, CHU Grenoble, Grenoble, France; <sup>q</sup> Hasselt, Belgium; <sup>r</sup> Academic Urology Unit, University of Aberdeen, Aberdeen, UK; <sup>s</sup> Department of Urology, Aberdeen Royal Infirmary, Aberdeen, UK; <sup>t</sup> Wales Cancer Bank, Cardiff University, School of Medicine, Health Park, Cardiff, UK; <sup>u</sup> Department of Urology, University Hospital, St. Etienne, France; <sup>v</sup> Department of Urology, Netherlands Cancer Institute, Amsterdam, The Netherlands; <sup>w</sup> Hospices Civils de Lyon, Radiology Department, Edouard Herriot Hospital, Lyon, France; <sup>x</sup> Department of Radiology & Nuclear Medicine, Erasmus MC University Medical Center, Rotterdam, The Netherlands; <sup>y</sup> Department of Radiation Oncology, University Hospital Ulm, Ulm, Germany; <sup>z</sup> Department of Urology, University Hospital Groningen, Groningen, The Netherlands; <sup>aa</sup> Department of Medicine, McMaster University, Hamilton, ON, Canada; <sup>ab</sup> Faculty of Health and Wellbeing, Sheffield Hallam University, Sheffield, UK

### Article info

#### Article history:

Accepted June 22, 2017

#### Associate Editor:

Giacomo Novara

#### Keywords:

Localised prostate cancer  
Quality of life  
Patient-reported outcome measures  
Radical prostatectomy

### Abstract

**Context:** Current evidence-based management for clinically localised prostate cancer includes active surveillance, surgery, external beam radiotherapy (EBRT) and brachytherapy. The impact of these treatment modalities on quality of life (QoL) is uncertain. **Objective:** To systematically review comparative studies investigating disease-specific QoL outcomes as assessed by validated cancer-specific patient-reported outcome measures with at least 1 yr of follow-up after primary treatment for clinically localised prostate cancer.

**Evidence acquisition:** MEDLINE, EMBASE, AMED, PsycINFO, and Cochrane Library were searched to identify relevant studies. Studies were critically appraised for the risk of bias. A narrative synthesis was undertaken.

**Evidence synthesis:** Of 11 486 articles identified, 18 studies were eligible for inclusion, including three randomised controlled trials (RCTs; follow-up range: 60–72 mo) and 15 nonrandomised comparative studies (follow-up range: 12–180 mo) recruiting a total of 13 604 patients. Two RCTs recruited small cohorts and only one was judged to have a

\* Corresponding author. Collegiate Hall, Collegiate Campus, Sheffield Hallam University, Sheffield, S10 2BP, UK.  
E-mail address: [l.bourke@shu.ac.uk](mailto:l.bourke@shu.ac.uk) (L. Bourke).

Radiotherapy  
Active surveillance  
Brachytherapy  
Systematic review

low risk of bias. The quality of evidence from observational studies was low to moderate. For a follow-up of up to 6 yr, active surveillance was found to have the lowest impact on cancer-specific QoL, surgery had a negative impact on urinary and sexual function when compared with active surveillance and EBRT, and EBRT had a negative impact on bowel function when compared with active surveillance and surgery. Data from one small RCT reported that brachytherapy has a negative impact on urinary function 1 yr post-treatment, but no significant urinary toxicity was reported at 5 yr.

**Conclusions:** This is the first systematic review comparing the impact of different primary treatments on cancer-specific QoL for men with clinically localised prostate cancer, using validated cancer-specific patient-reported outcome measures only. There is robust evidence that choice of primary treatment for localised prostate cancer has distinct impacts on patients' QoL. This should be discussed in detail with patients during pretreatment counselling.

**Patient summary:** Our review of the current evidence suggests that for a period of up to 6 yr after treatment, men with localised prostate cancer who were managed with active surveillance reported high levels of quality of life (QoL). Men treated with surgery reported mainly urinary and sexual problems, while those treated with external beam radiotherapy reported mainly bowel problems. Men eligible for brachytherapy reported urinary problems up to a year after therapy, but then their QoL returned gradually to as it was before treatment.

© 2017 European Association of Urology. Published by Elsevier B.V. All rights reserved.

## 1. Introduction

Since the introduction of prostate-specific antigen testing, there has been a substantial shift to a more favourable stage in newly diagnosed prostate cancer (PCa), with approximately 81% of cases being diagnosed as clinically localised [1]. Currently, evidence-based management for clinically localised PCa includes active surveillance (AS), surgery, external beam radiotherapy (EBRT), and brachytherapy (BT) [2]. Knowledge of the adverse events of different management options is critical for making informed treatment decisions, considering that the survival benefit is uncertain, especially in men with favourable-risk PCa [3].

The adverse effects of primary treatments for localised disease can negatively impact disease-specific quality of life (QoL) [4]. The concept of QoL is subjective; however, in cancer cohorts, specific tools or patient-reported outcome measures (PROMs) have been developed and validated. These questionnaires assess common issues that affect men after PCa diagnosis and treatment and generate scores, which reflect the impact on perceptions of health-related quality of life (HRQoL). It is currently unclear which primary treatment for localised disease offers superior disease-specific QoL outcomes. The primary objective of this systematic review was to compare cancer-specific QoL data as measured by PROMs for intermediate (1–10 yr) to long-term (>10 yr) follow-up, among competing treatments.

## 2. Evidence acquisition

### 2.1. Search strategy

The review was performed according to the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) guidelines [5] and Cochrane review principles [6]. An experienced research librarian performed the search strategy in consultation with a multidisciplinary panel of expert clinicians and patient representative (European Association of Urology [EAU] Prostate Cancer Guideline

Panel). The database searched were EMBASE, MEDLINE, AMED, PsycINFO, Cochrane Database of Systematic Reviews, and Cochrane Central Register of Controlled Trials. Searches were limited to studies published from the year 2000 onwards. No language restrictions were imposed. Full details of the search strategies used are described in Appendix A.

All abstracts and full-text articles were screened by two independent reviewers (M.I.L. and M.A.L.). Disagreement was resolved by discussion; if no agreement was reached, a third independent party acted as an arbiter (L.B.).

### 2.2. Types of study design included

Randomised and nonrandomised comparative studies where outcome data were collected prospectively after primary intervention for PCa was initiated (see section 2.4 for included interventions) with a sample size of at least 10 patients per arm, reporting cancer-specific QoL outcomes measured by validated PROMs [7] with at least 12 mo of follow-up, were eligible for inclusion.

### 2.3. Types of participants included

The study population was adult men ( $\geq 18$  yr of age) diagnosed with clinically localised PCa (T1–T2c), who had not undergone any previous treatment prior to their primary treatment for PCa (with the exception of neoadjuvant androgen deprivation therapy [ADT] preceding radiotherapy).

### 2.4. Types of interventions included

The following interventions were eligible for inclusion:

1. AS/monitoring (as defined by primary authors)
2. Radical prostatectomy (RP; open or laparoscopic or robot assisted)
3. Radiotherapy (3D conformal or intensity-modulated [IMRT] or stereotactic [SBRT] radiotherapy)  $\pm$  BT boost

Download English Version:

<https://daneshyari.com/en/article/8778650>

Download Persian Version:

<https://daneshyari.com/article/8778650>

[Daneshyari.com](https://daneshyari.com)