



**QUEEN'S
UNIVERSITY
BELFAST**

Factors associated with current and severe physical side-effects after prostate cancer treatment: what men report

Steentjes, L., Siesling, S., Drummond, F.J., van Manen, JG., Sharp, L., & Gavin, A. (2015). *Factors associated with current and severe physical side-effects after prostate cancer treatment: what men report*. Poster session presented at The 37th Annual IACR Conference, Mumbai, India. <https://doi.org/10.1111/ecc.12589>

Queen's University Belfast - Research Portal:

[Link to publication record in Queen's University Belfast Research Portal](#)

Publisher rights

© 2015 The Authors

General rights

Copyright for the publications made accessible via the Queen's University Belfast Research Portal is retained by the author(s) and / or other copyright owners and it is a condition of accessing these publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy

The Research Portal is Queen's institutional repository that provides access to Queen's research output. Every effort has been made to ensure that content in the Research Portal does not infringe any person's rights, or applicable UK laws. If you discover content in the Research Portal that you believe breaches copyright or violates any law, please contact openaccess@qub.ac.uk.

Factors associated with current and severe physical side-effects after prostate cancer treatment: what men report

L Steentjes, S Slesling, F.J Drummond, J.G van Manen, L Sharp, A Gavin

Background:

Prostate cancer (PCa), the second most common male cancer in the developed world is increasing. Ongoing side-effects post-treatment were reported by 75% of PCa survivors in population-based research (Ref below).

Aim:

To identify patient-related and disease-related characteristics that are associated with a range of current and ever experienced severe physical side-effects among prostate cancer survivors.

Methods:

Questionnaire survey to 6,937 PCa Survivors identified from 2 population based Cancer Registries on the Island of Ireland (National Cancer Registry of Ireland (RoI) and N. Ireland Cancer Registry (NI)) diagnosed 2-18 years previously. Survey included symptoms at diagnosis, primary treatments and physical side-effects - ever and current at time of questionnaire completion. Clinical staff checked eligibility of survivors for (I) aware of their PCa diagnosis, (II) well enough to complete a survey, (III) usually a resident of RoI/NI and (IV) able to understand English.

METHODS continued

Outcome variables post treatment were: incontinence, loss of libido, impotence, bowel problems, breast changes, hot flushes and fatigue.

Men were grouped according to 'early' stage I/II and Gleason Grade (GG) 2-7 at diagnosis (localised) and 'late' stage III/IV and any GG at diagnosis (n=689) (locally advanced/advanced) disease at diagnosis. Univariate and multivariate logistic regression analysis were performed to identify patient and disease-related factors associated with current side-effects of any severity and (ii) severe side-effects ever experienced.

Survivors with other combinations of stage and Gleason Grade (GG), or unknown stage or GG, were excluded from analysis (n=959) leaving 2,389 PCa survivors for analysis.

Potential explanatory variables: age and comorbidities at diagnosis, highest level of education completed, jurisdiction (RoI, NI), pre-treatment symptoms, biopsy complications, TURPs and treatment ever had. Univariate and multivariate logistic regression analysis were performed to identify patient and disease-related factors associated with side-effects.

Results:

3348 Men (54) Responded

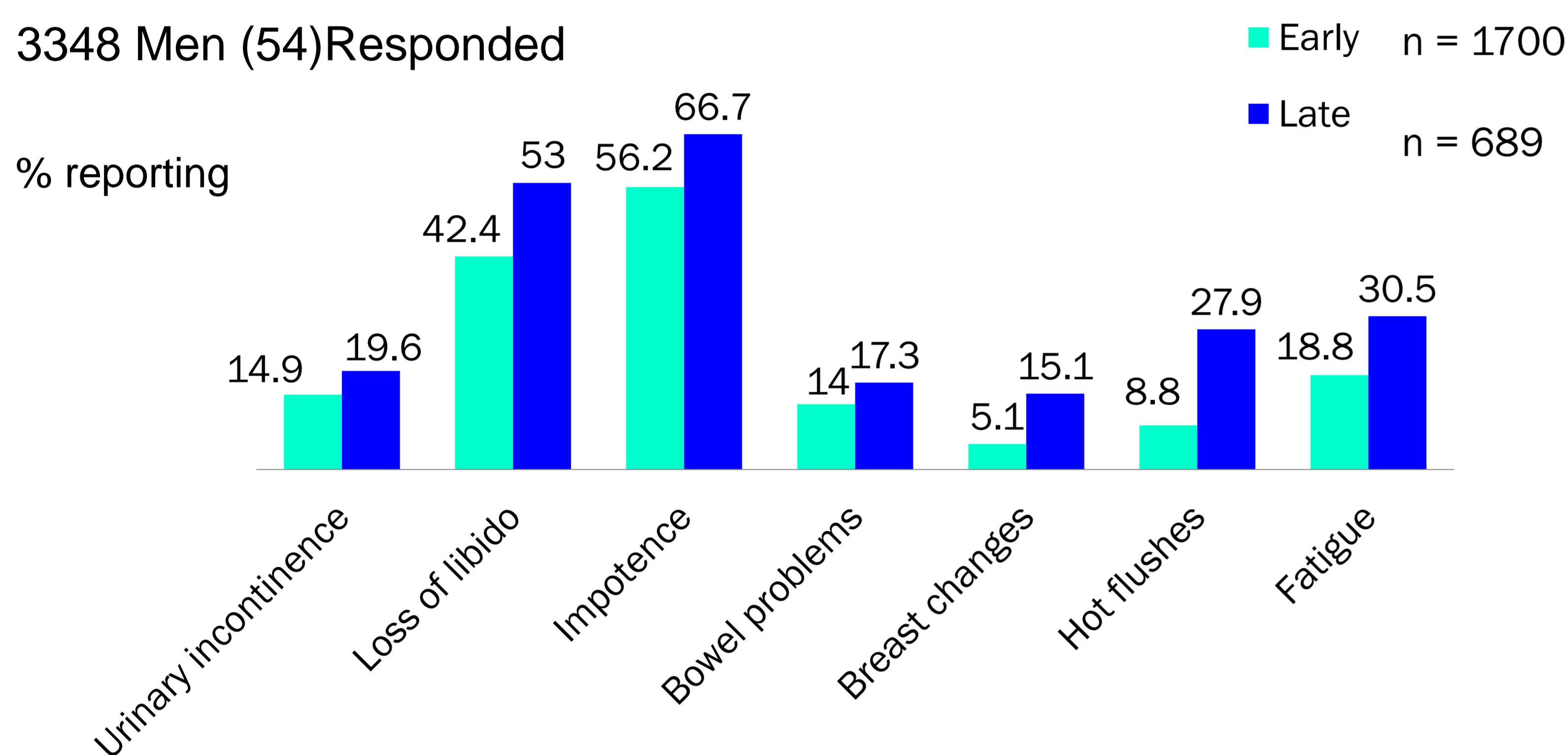


Figure 1a: 'Current' side-effects in early and late disease (%)

- 'Current' and 'Ever Had' side effects were more common in late than early disease (Fig 1a).
- Severe side effects were common with impotence highest at 40% in early patients and 53% in late PCa survivors (Fig 1b).

Factors associated with 'current' side-effects in early disease

- Radical Prostatectomy (RP) was associated with a higher risk of incontinence and Erectile dysfunction. Brachy therapy (BT) was associated with a lower risk of fatigue while Active Surveillance / Watchful waiting was associated with a lower risk of incontinence, sexual dysfunction, and fatigue (p<0.05).
- Multiple comorbidities at diagnosis and complications post-biopsy were associated with a higher risk of bowel problems (p<0.05).

Conclusions:

Treatment is the most important factor associated with post-treatment side-effects with radical prostatectomy associated with most side effects and most severe side effects of all treatments. After treatment, various other factors such as pre-treatment function, comorbidities and a history of biopsy complications were strongly associated with a higher risk of side-effects. These findings may be used to better inform PCa patients and physicians about the potential side-effects associated with specific treatments and which patients may be at risk of these as well as informing strategies for post-treatment follow-up and monitoring. This could ultimately lead to better informed treatment decision-making and better support after treatment.

Ref. Gavin AT, Drummond FJ, Donnelly C, O'Leary E, Sharp L, Kinnear HR. [Patient reported "ever had" and "current" long term physical symptoms following prostate cancer treatments.](#) BJU International 2015, Jan. <http://onlinelibrary.wiley.com/doi/10.1111>.

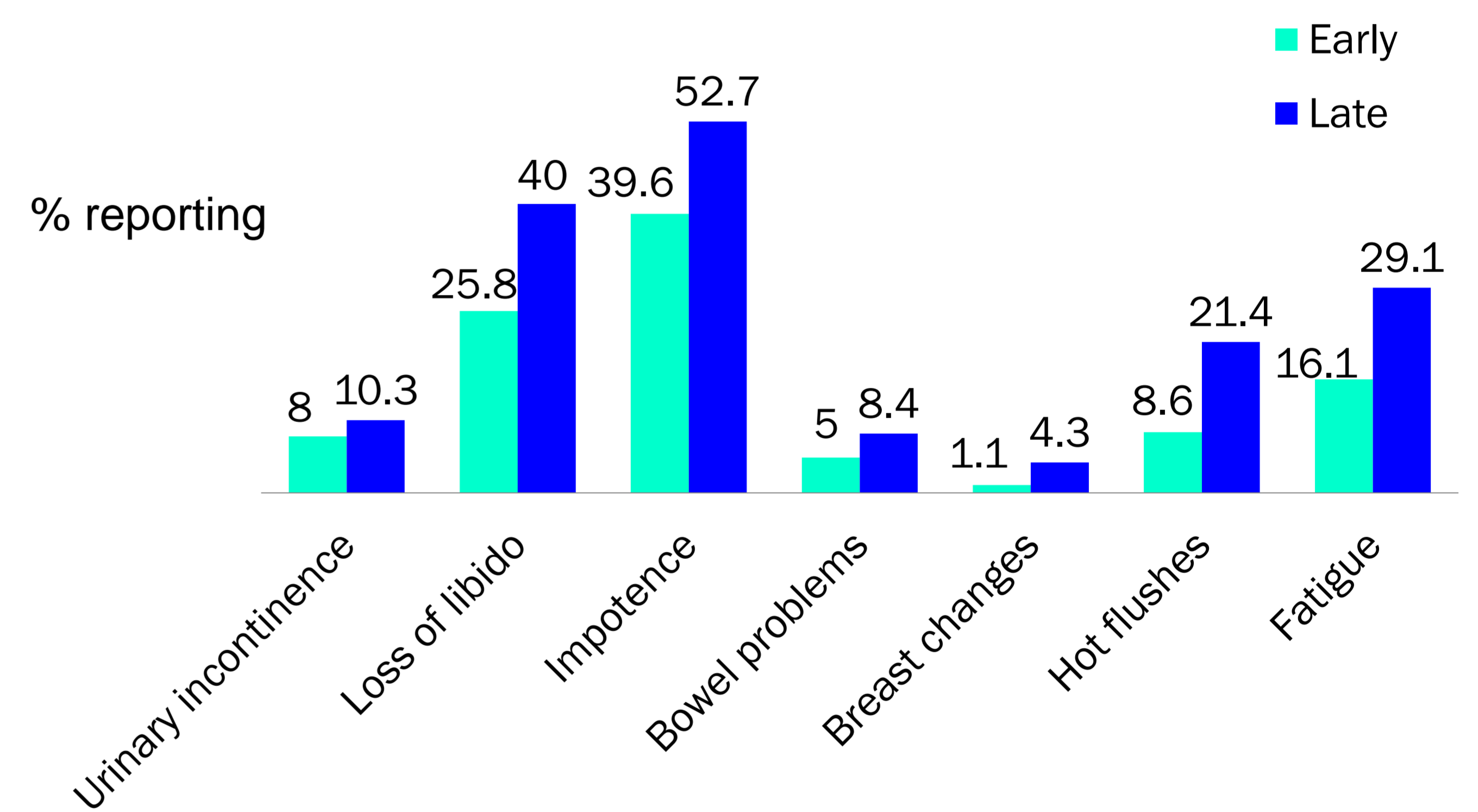


Figure 1b: 'Severe side-effects ever experienced' in early and late disease (%)

Factors associated with 'severe' side-effects ever experienced in early disease

- RP was associated with a higher risk of hot flushes and fatigue and the side-effects mentioned for 'current'. BT was associated with a lower risk of impotence (p<0.05).

Factors associated with 'current' side-effects in late disease

- Complications post-biopsy were associated with a higher risk of sexual dysfunction (p<0.05).
- Comorbidities at diagnosis is associated with a higher risk of incontinence, bowel problems and fatigue (p<0.05).

Factors associated with 'severe' side-effects ever experienced in late disease

- Complications post-biopsy were associated with higher risk of incontinence, hot flushes and fatigue (p<0.05).
- Multiple comorbidities at diagnosis was associated with a higher risk of bowel problems and fatigue (p<0.05).

Acknowledgements:

The N. Ireland Cancer Registry is funded by the Public Health Agency for Northern Ireland. This work was funded by Prostate Cancer UK, R&D of PHA, N. Ireland, Health Research Board, RoI. Thanks to men who completed the survey and Dr Heather Kinnear for her work and management of the N. Ireland part of the project.