Development and usability testing of an interactive web-based decision aid for the treatment of low- and intermediate risk prostate cancer

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Background

Since there are multiple treatment options with equal oncological outcomes for low- and intermediate risk prostate cancer, there is a high need for a decision making support tool.

Based on a pre-existing decision aid (DA) from Canada, developed by Feldman-Stewart and colleagues (Med Decis Making, 2012). We built a new Dutch DA for the treatment for prostate cancer (Dutch Prostate Cancer Decision Aid: DPCDA).

This DPCDA includes values clarification exercises (VCEs) and a printable summary of patients’ preferences and clinical characteristics.

Purpose

To support value based, patient tailored, shared decision making in individual patient prostate cancer treatment.

Methods

The DPCDA was developed by a multidisciplinary team of urologists, psychologists and engineers. Content structure was modified to step-by-step information provision which is consistent with the Dutch clinical setting.

- Original English texts were translated and (risk)numbers were brought in accordance with Dutch and European guidelines.
- VCEs were developed in consultation with 2 physicians and a psychologist based on the most frequent risks and side effects as reported in the literature.
- Usability evaluation was conducted among 11 participants consisting of 5 patients, a radiotherapist, 2 oncology nurses and 3 urologists. Each participant was instructed to use the DPCDA while imagining he was diagnosed with prostate cancer himself. We conducted semi-structured interviews at the end of the session.

Results

- We derived 212 usability and content comments.
- All participants (100\%) reported that content language was comprehensible and structure and navigation were clear.
- Clinicians mainly reported feedback about content, need for descriptive notes with the illustrations and presentation of risks while patients mainly reported usability remarks and items concerning the comprehensibility of the summary section. All participants would recommend the use of the decision aid to others.
- The usability evaluation resulted in the following adjustments:
  1: accompanying legends were added
  2: specific radiotherapy content was adjusted
  3: simplification of the summary section

Conclusion

An interactive web-based DA for the treatment of low- and intermediate risk prostate cancer has been developed and adjusted after a usability evaluation to improve support of value based and patient tailored treatment decisions. A randomized cluster controlled trial has been launched august 1st to evaluate the effectiveness of the DA.

www.prostaatkeuzehulp.nl
www.zorgkeuzelab.nl
www.trialregister.nl, Dutch Trial Register: NTR-4554

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