Conservative treatment of urinary incontinence in men: a review of the literature

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Authors' objectives
To give an overview of the conservative treatment of urinary incontinence in men.

Searching
MEDLINE, and CINAHL were searched from 1976 to the present day; manual searches were performed from 1850 to 1976, as described by Moore and Paul (see Other Publications of Related Interest). Additional material was located by handsearching conference proceedings of the International Continence Society (1982 to present), the Society of Urology Nurses and Associates (1989 to present) and the Urodynamics Society (1977 to present), and by examining the reference lists of all retrieved articles. Published abstracts appear to have been excluded from the results but were included in the discussion.

Study selection
Study designs of evaluations included in the review
All study designs were eligible for inclusion in this review. Three were randomised controlled trials (RCTs) and five were pre-post treatment comparisons.

Specific interventions included in the review
Conservative treatment strategies. These included: behavioural training; scheduled voiding; biofeedback; pelvic floor muscle exercises (PFME); electrical stimulation; urge suppression; bladder retraining; counselling, urethral milking (bulbar urethral massage). Control groups varied: no instruction in PFME; other conservative strategy (one of those listed previously); or standard treatment (not specified).

Participants included in the review
Men who suffered post-operative urinary incontinence following transurethral resection of the prostate (TURP) or radical prostatectomy (RP), or who were treated prophylactically prior to TURP or RP. Studies of men with any aspect of urinary incontinence were included (stress, urge, mixed, and post-micturition dribble); papers were not restricted to post-prostatectomy incontinence.

Outcomes assessed in the review
Standard outcome measures were included in the review. These included frequency/volume chart, self-reported leakage; number of pads used; digital assessment of pelvic muscle strength, patient's report of improvement; measure of urine lost (weight); quality of life questionnaire.

How were decisions on the relevance of primary studies made?
The authors do not state how the papers were selected for the review, or how many of the reviewers performed the selection.

Assessment of study quality
The authors do not state that they assessed validity.

Data extraction
The authors do not state how the data were extracted for the review, or how many of the reviewers performed the data extraction. Categories of data extracted included: author, year of publication, number and description of participants, method of treatment of urinary incontinence, parameter or equipment, outcome measures, and results.
Methods of synthesis
How were the studies combined?
A narrative synthesis was undertaken. Results were grouped by type of treatment: PFME; PFME with biofeedback; pre-operative PFME with biofeedback; electrical stimulation; electrical stimulation for incontinence after prostatectomy; electrical stimulation plus pelvic floor exercises; bulbar urethral massage for post-micturition dribble; bladder retraining for urgency and urge incontinence.

How were differences between studies investigated?
Difference between the studies were investigated by grouping studies of similar treatments only.

Results of the review
Eight studies were included in the review: 3 RCTs and 5 pre-post test studies.

PFME augmented by biofeedback may help patients suffering from stress or urge incontinence. The effectiveness may be enhanced with an individualised urge suppression programme. Electrical stimulation may play a role in the treatment of incontinence, but the current research does not support stimulation as a routine intervention. For post-micturition dribble, both PFMEs and bulbar massage are recommended. Overall, the current evidence on the effectiveness of treatment of male incontinence with conservative measures is limited.

Authors' conclusions
PFMEs with biofeedback appear promising as strategies of treatment of urinary incontinence in men, but further research is required to determine which men are most likely to benefit from therapy. There is no strong evidence to support electrical stimulation as a routine treatment for post-prostatectomy incontinence.

CRD commentary
This review addressed an appropriate question. The interventions to be considered in the review are not specified clearly in the inclusion criteria and, therefore, the reader cannot be certain that there are not other interventions that might have been considered, but which were not found in the published literature. The literature search for relevant studies was reasonably thorough, including two electronic databases and handsearching of relevant conference proceedings. The failure to search more databases and not to investigate potentially unpublished studies does mean that some studies may have been missed. The validity of the studies included in the review was not assessed. There is nothing to indicate that the selection of papers or data extraction was duplicated or checked independently and, therefore, the risk of bias has not been minimised. The individual primary studies are presented in sufficient detail in the review, in both tables and in the text. The narrative synthesis is appropriate given the limited number of studies. It would have been useful for the reader if the number of studies to be included under each heading of the narrative synthesis had been provided. The authors' conclusions are supported by the findings of this systematic review, but the limitations on the quality of the review should be borne in mind.

Implications of the review for practice and research
Practice: PFME augmented by biofeedback may help patients suffering from stress or urge incontinence. The effectiveness may be enhanced with an individualised urge suppression programme. Electrical stimulation may play a role in the treatment of incontinence, but the current research does not support stimulation as a routine intervention. For post-micturition dribble, both PFMEs and bulbar massage are recommended. Overall, the current evidence on the effectiveness of treatment of male incontinence with conservative measures is limited. The authors also state 'At present, therapists should maintain a healthy scepticism and challenge commonly held assumptions concerning current continence care'.

Research: The authors state 'The small but growing body of knowledge about pelvic floor muscle exercises, biofeedback and electrical stimulation needs to be extended by more research, in particular directed by physiotherapists'.

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Record Status
This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.