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| Title | Systematic Review and Economic Modeling of the Effectiveness and Cost Effectiveness of Non-Surgical Treatments for Women with Stress Urinary Incontinence |
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Aim

To assess the clinical and cost effectiveness of nonsurgical treatments for women with stress urinary incontinence (SUI) through systematic review and economic modeling.

Conclusions and results

Direct pairwise comparison and mixed treatment comparison (MTC) analysis showed that the treatments were more effective than no treatment. Delivering PFMT in a more intense fashion, either through extra sessions or with biofeedback, appeared to be the most effective treatment (PFMT extra sessions vs NT odds ratio [OR] 10.7, 95% CrI 5.03 to 26.2; PFMT + BF vs NT OR 12.3, 95% credible interval 5.35 to 32.7). Only when success was measured by improvement was there evidence that basic PFMT was better than no treatment (PFMT basic vs NT OR 4.47, 95% CrI 2.03 to 11.9). Cost-effectiveness analysis showed that for cure rates, the strategy using lifestyle changes and PFMT with extra sessions followed by tension-free vaginal tape (TVT) (lifestyle advice–PFMT extra sessions–TVT) had a probability >70% of being considered cost effective for all threshold values for willingness to pay (WTP) for a QALY up to 50 000 pounds sterling (GBP). For improvement rates, lifestyle advice–PFMT extra sessions–TVT had a probability >50% of being considered cost effective when society's WTP for an additional QALY exceeded GBP 10 000. The results were most sensitive to changes in the long-term performance of PFMT and also in the relative effectiveness of basic PFMT and PFMT with extra sessions. More intensive forms of PFMT appear worthwhile, but further research must define an optimal form of more intensive therapy that is feasible and efficient for the NHS, and provide more evidence from large, well-designed studies.

Recommendations

See Executive Summary link www.hta.ac.uk/project/1612.asp.

Methods

1) A survey of women with SUI to identify outcomes important to them (using a Patient Generated Index [PGI]); 2) A systematic review and meta-analysis of nonsurgical treatments for SUI to identify the most effective; 3) Economic modeling of nonsurgical and surgical treatments for SUI to find out which combinations are most cost effective. The survey identified areas of importance to women suffering from SUI, using a PGI. In total, 188 women were invited to take part. Literature searching included the Cochrane Incontinence Group Specialized Register (March 2008), electronic databases (1980 to March 2008), and websites of relevant professional organizations and manufacturers. Randomized controlled trials (RCTs) and quasi-RCTs (alternate allocation) were eligible.

Further research/reviews required

Conclusions are based on data from a limited number of small trials. More intensive forms of PFMT appear worthwhile, but research is required to define an optimal form of more intensive therapy that is feasible and efficient for the NHS to provide. Further evidence from large, well-designed studies is required to provide a definitive answer. Any further research on long-term outcomes, benefit assessment, or costs should be incorporated into an updated economic evaluation.