



<b>Title</b>	<b>Systematic Review of the Clinical Effectiveness and Cost-effectiveness of Tension-free Vaginal Tape for Treatment of Urinary Stress Incontinence</b>
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<b>Reference</b>	Health Technol Assess 2003;7(21). Sept 2003. <a href="http://www.ncchta.org/execsumm/summ721.htm">www.ncchta.org/execsumm/summ721.htm</a>

## Aim

To evaluate the effectiveness and cost effectiveness of tension-free vaginal tape (TVT) in comparison with the standard surgical interventions currently used.

## Conclusions and results

Based on limited data from direct comparisons with TVT and from systematic reviews, laparoscopic colposuspension and traditional slings have broadly similar cure rates to TVT and open colposuspension, whereas injectable agents appear to have lower cure rates. TVT is less invasive than colposuspension and traditional sling procedures and is also usually performed under regional or local anaesthesia. The principal operative complication is bladder perforation. No data beyond 2 years post-surgery are yet available from randomized controlled trials (RCTs). Hence, long-term effects are not reliably known. TVT was more likely to be considered cost effective compared with the other surgical procedures.

## Recommendations

The long-term performance of TVT is not reliably known, although the short- to medium-term effectiveness appears to approach that of alternative procedures currently available, and the cost is lower. Possibly, some women who would currently be managed non-surgically will be considered eligible for TVT as it is less invasive. Increased adoption of TVT will require additional surgeons proficient both in the technical aspects of the procedure and the choice of women suitable for the operation. It is likely that some of the higher complication rates are related to a 'learning curve'.

## Methods

A systematic review was conducted of studies including comparisons of TVT with any of the comparators. Alternative treatments considered were abdominal retropubic colposuspension (including both open and laparoscopic colposuspension), traditional suburethral sling procedures, and injectable agents (periurethral bulking agents). The studies were critically appraised and

their results summarized. A Markov model comparing TVT with the comparators was developed using the results of the review of effectiveness and data on resource use and costs from previous studies. The Markov model was used to estimate costs and quality-adjusted life-years for up to 10 years following surgery, and it incorporated a probabilistic analysis and a sensitivity analysis around key assumptions of the model.

## Further research/reviews required

Further research suggestions include unbiased assessments of longer term performance from followup of controlled trials or population-based registries; more data from methodologically sound RCTs using standard outcome measures; a surveillance system to detect longer term complications, if any, associated with the use of tape; and rigorous evaluation before extending the use of TVT to women who are currently managed non-surgically.