Costing statement

Urinary incontinence: the management of urinary incontinence in women

Published: September 2013

http://guidance.nice.org.uk/CG171
1 **Introduction**

1.1 This costing statement considers the cost implications of implementing the recommendations made in *Urinary incontinence in women* (NICE clinical guideline 171).

1.2 A costing statement has been produced for this guideline update as it is anticipated that many of the variables could not be estimated by users, and because there is considerable variation in local practice in a number of the areas where recommendations have been changed. For example, prescribing patterns for drugs treating overactive bladder; the cost of these drugs; the increase in the use of botulinum toxin A, and the decrease in the use of sacral nerve stimulation will all depend on local circumstances.

1.3 Therefore, we encourage organisations to evaluate their own practices against the recommendations in the NICE guideline and assess costs locally. Some of the resource effects to be considered are discussed in this statement.

2 **Background**

2.1 Urinary incontinence (UI) is defined by the International Continence Society as 'the complaint of any involuntary leakage of urine'. UI may occur as a result of a number of abnormalities of function of the lower urinary tract or as a result of other illnesses, which tend to cause leakage in different situations.

- Stress UI is involuntary urine leakage on effort or exertion or on sneezing or coughing.
- Urgency UI is involuntary urine leakage accompanied or immediately preceded by urgency (a sudden compelling desire to urinate that is difficult to delay).
- Mixed UI is involuntary urine leakage associated with both urgency and exertion, effort, sneezing or coughing.
• Overactive bladder is defined as urgency that occurs with or without urgency UI and usually with frequency and nocturia.

2.2 Since the publication of the 2006 guideline, new methods of managing urinary incontinence have become available on the NHS. Botulinum toxin A and sacral nerve stimulation are now more commonly used for treating overactive bladder symptoms. Synthetic tape procedures have become increasingly popular for the treatment of stress UI, and there have been reported improvements in the effectiveness and advances in the types of procedure offered since 2006.

2.3 Differences in study populations, definitions, measurement methods, and the methodology used result in a wide range of prevalence estimates for UI. The severity or frequency of symptoms being measured can have a significant effect on the estimate given. Where the most inclusive definitions have been used (‘ever’, ‘any’, ‘at least once in the last 12 months’), prevalence estimates in the general population range from 5% to 69% in women 15 years and older, with most studies in the range 25–45% (Hunskaar et al. 2005). In 1 study cited in the guidance (Perry et al. 2000) 34.2% of women reported UI at times, only 3.5% experienced the symptom on a daily basis, 11.8% weekly, 7.3% monthly and 11.6% yearly.

2.4 Not all of those experiencing even moderate or severe symptoms inform their GP. Only 1 in 9 of those reporting clinically significant symptoms in the above study felt the need for help with their symptoms. In another study (Thomas et al. 1980), the prevalence of UI known to the health and social service agencies was 0.2% in women aged 15–64 years and 2.5% in those aged 65 and over – considerably lower than the estimates of underlying prevalence.

2.5 Stress UI appears to be the most common UI type and overall 50% of incontinent women in the Epidemiology of Incontinence in the County of Nord-Trondelag (EPINCONT) survey, (Hannestad et al. 2000) reported this as their only symptom; 11% described only urgency UI and 36%
reported mixed UI. There are relatively few epidemiological data on the prevalence of overactive bladder. Overall prevalence has been estimated at around 9–20% of women over the age of 18 (McGrother et al. 2006; Stewart et al. 2003).

3 Recommendations with potential resource impact

3.1 Pharmacological treatment

3.1.1 In comparison to current practice, it is anticipated that the recommendations on prescribing overactive bladder drugs are likely to lead to savings on drug spend in most areas.

3.1.2 For first-line treatment, 3 drug options have been recommended on the basis of clinical and cost effectiveness – oxybutynin (immediate release), tolterodine (immediate release) or darifenacin (once daily preparation). It is not believed that this will represent a major change from current practice, but could represent a saving in some areas where currently a more expensive or less effective drug is being prescribed.

<table>
<thead>
<tr>
<th>First-line drug</th>
<th>Dosage(^a)</th>
<th>4-weekly drug cost (£)(^b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxybutynin (immediate release)</td>
<td>3×5 mg daily(^c)</td>
<td>4.71</td>
</tr>
<tr>
<td>Tolterodine (immediate release)</td>
<td>2×2 mg daily</td>
<td>4.36</td>
</tr>
<tr>
<td>Darifenacin (once daily preparation)</td>
<td>7.5 mg daily</td>
<td>20.90</td>
</tr>
</tbody>
</table>

\(^a\) Recommended doses are based on the British national formulary
\(^b\) Unit costs taken from the NHS Electronic Drug Tariff as of June 2013. Prices may vary, and users are recommended to check the most recent list prices.
\(^c\) Based on the non-proprietary formulation price. Recommended dose is 5 mg, between 2 and 4 times daily. An average of 3 times daily has been used here.

3.1.3 For second-line treatment, it is advised that the cheapest suitable drug is chosen from those reviewed\(^1\). Drug costs range between approximately £4 and £30 for a 4-week period, and between £48 and £360 annually.

\(^1\) This could be any drug with the lowest acquisition cost from any of the drugs reviewed, including an untried first-line drug. The evidence review considered the following drugs: darifenacin, fesoterodine, oxybutynin (immediate release), oxybutynin (extended release), oxybutynin (transdermal), oxybutynin (topical gel), propiverine, propiverine (extended release), solifenacin, tolterodine (immediate release), tolterodine (extended release), trospium and trospium (extended release). See chapter 6 of the full guideline.
Total annual management costs\(^2\) range between approximately £365 and £580. The drug costs can vary considerably, and should be checked locally. It is believed that this will increase the efficiency of prescribing, because there are potentially only limited efficacy benefits in choosing more expensive second-line options.

3.1.4 Opinion from the Guideline Development Group suggests that in some cases 3 or more lines of overactive bladder drug treatments are currently being prescribed in succession, whereas the guideline specifies 2 before potentially progressing to treatment with botulinum toxin A. This is considered to be a more effective and efficient pathway than continuing with additional prescribing options. Any potential saving on drug costs is dependent on adherence to the guideline.

3.1.5 Although mirabegron was not one of the drugs assessed in the guideline, it has separately been approved for use in the treatment of overactive bladder where other treatments are contraindicated, ineffective, or have unacceptable side effects. Where this is used, a local assessment of cost impact should be made.

3.2 The multidisciplinary team

3.2.1 Recommendation 1.8.4 specifies the staff roles and areas of specialty that should be included in the multidisciplinary team. Although organisations may already have a multidisciplinary team in place, they should ensure that it meets the recommendations, which may involve reviewing working practices.

3.3 Botulinum toxin A

3.3.1 It is anticipated that the guidance will increase the use of botulinum toxin A, which is likely to involve additional spend. Based on the health economic model developed alongside the guidance update,

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\(^2\) These include drug costs, along with costs relating to adverse events; follow-up attendances and monitoring.
treatment with botulinum toxin A costs £449, with additional drug cost for 200 units of £276. Each nursing review costs £70, and botulinum toxin A is expected to last around 6–12 months. An average total treatment cost is around £1100 per person treated, per annum.

3.3.2 Those choosing treatment with botulinum toxin A would otherwise choose additional lines of drug treatment, and a small number would have progressed to sacral nerve stimulation. As a result, it is anticipated that savings are likely where other treatments are avoided.

3.3.3 Whether these savings exceed the additional spend on botulinum toxin A is dependent on local practice.

3.4 Percutaneous sacral nerve stimulation

3.4.1 The increased use of botulinum toxin A is expected to decrease the number of women being treated with percutaneous sacral nerve stimulation. This procedure can require 2 stages of treatment. The initial stage for all women treated is typically £1500. Under half of these are expected to progress to receiving the second stage, with a typical cost of £8600. The level of saving is dependent on local use of percutaneous sacral nerve stimulation, and the proportion who require a second treatment.

4 Other considerations

4.1 For those people not choosing drug treatment, alternative management involves spend on areas such as incontinence pads (where these are provided, costs are £8 per week) and GP visits.

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3 Based on NHS Reference costs for 2010/11 – ‘LB14E Bladder Intermediate Endoscopic Procedure 19 years and over - £449’.
4 Drug cost for Allergan 200 unit vial for injection - £276.40, based on British national formulary as of 27 August 2013.
5 Based on an estimate from the health economic analysis developed alongside the guidance.
6 The second stage is more expensive because of the higher cost of the permanent implant used. Guideline Development Group opinion suggests that the battery will need to be changed approximately every 7 years, at a cost of around £6600.
7 Guideline Development Group opinion based on NHS costs for a continence service in England, with additional costs added for overheads.
4.2 **Mirabegron** is recommended as an option for treating the symptoms of overactive bladder only for people in whom antimuscarinic drugs are contraindicated or clinically ineffective, or have unacceptable side effects. It was not part of the guidance, and should be assessed separately.
5 Conclusion

NHS organisations are advised to assess the resource implications of this guidance locally. Potential areas for additional costs are:

- Use of botulinum toxin A.
- Use of the multidisciplinary team.

Potential areas for savings are:

- Treatment costs associated with the use of overactive bladder drugs.
- Decreased use of percutaneous sacral nerve stimulation.

Overall costs or savings should be assessed locally.
6 References


About this costing statement

This costing statement accompanies the clinical guideline: Urinary incontinence: the management of urinary incontinence in women (NICE clinical guideline 171).

Issue date: September 2013

This statement is written in the following context

This statement represents the view of NICE, which was arrived at after careful consideration of the available data and through consulting healthcare professionals. It should be read in conjunction with the NICE guideline. The statement is an implementation tool and focuses on those areas that were considered to have potential impact on resource utilisation.

The cost and activity assessments in the statement are estimates based on a number of assumptions. They provide an indication of the potential impact of the principal recommendations and are not absolute figures.

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