Nocturnal Enuresis
Practical Guidance for Primary Care

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Declaration of interests

Paediatric Advisor for ACA
Member of NHS England EICC Programme Board
Member of APPG Bladder and Bowel Care
Member of Paediatric Continence Forum
Member of NICE Guideline development group for Childhood Constipation
Member of NICE QS’s group for Bedwetting and Childhood Constipation
Clinical Advisor for CQC
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Bedwetting the facts – true or false?

• Bedwetting is a common problem that all children will grow out of  
  **False**
• Bedwetting is usually not treated until the age of 7 years 
  **False**
• Bedwetting is mainly a behavioral problem or caused by deep sleep 
  **False**
• Bedwetting can run in families  
  **True**
• Treating bedwetting has been shown to improve a child’s overall health and well-being 
  **True**
Consider....

• Primary or secondary enuresis?
• Monosymptomatic or non-monosymptomatic enuresis?
• Severity of bedwetting?
• Impact of bedwetting on child and family?
Overview

• Principles of Care
• Assessment and investigation
• Planning management
• Advice on fluid intake and toileting
• Reward systems
• Initial treatment recommendations
• Lack of response to initial treatment recommendations
Nocturnal enuresis: A heterogeneous disorder

- Nocturnal polyuria (Reduced nocturnal ADH release)
- Reduced nocturnal functional bladder capacity
- Impaired arousal response to bladder fullness from sleep
- Constipation
- Genetics?
- Bed time routine
- Nocturnal OAB
- Fluid intake
- Diet
- OAB
- Snore?

Diet

Nocturnal OAB Snore?

Impaired arousal response to bladder fullness from sleep

Reduced nocturnal functional bladder capacity

Genetics?

Bed time routine

Fluid intake
Ask about...

- Night time symptoms
- Day time symptoms
- Bowel movements
- Fluid intake
- Diet
- Bedtime routine
- Family history
- Any worries or concerns
Bedwetting and constipation

- A number of studies have highlighted the link between constipation and bedwetting.1,2.
- However the problem arises when both the child and their parents are totally unaware that constipation is present and fail to report it.3.
- As a result the underlying constipation can be missed and can contribute towards increasing problems and treatment failures.4.
- This again reinforces the need for a comprehensive initial assessment, of both bladder and bowel, to identify any potential underlying pathology.
- The historical practice of having isolated ‘enuresis’ only clinics is no longer therefore an acceptable practice.

Any evidence of bladder/bowel problems?

• Constipation - treat first

• Bladder problems?

Overactive bladder / dysfunctional voiding

Treat as appropriate

If necessary refer on to professional with specific expertise
Initial lifestyle changes

- Exclude / treat any underlying constipation
- Adjust fluid intake as necessary
- Advise re appropriate toileting routine
- Discuss timing / content of evening meal
- Discuss bedtime routine including ‘quiet time’ with removal of lap tops / tablets etc
- Discuss motivators for behavioural aspects
Children’s Continence Care Pathway
Enuresis (Bedwetting) - level 1

Child identified with enuresis (Bedwetting)

Child under 5 years
- Initial assessment to exclude underlying constipation and any delay/problems with daytime bladder control
- Explanations to parents or carers. Give fluid/toileting/lifestyle advice
- If child has been dry in day for > 6 months suggest trial removal of night time nappy/pull up if worn
- Bedwetting persists at age 5 years
- Refer to Nurse (level 1)

Child over 5 years
- Nurse (level 1)
- Initial assessment to exclude underlying constipation and any delay/problems with daytime bladder control
- Give fluid/toileting/lifestyle advice. Discuss rewards for achievable behaviour
- No progress after 6 weeks

Parallel plans for all children
- Liaise with relevant healthcare professionals
- Provide written information
- Consider compliance and safeguarding issues

Red Flags
- Reported weight loss or excessive thirst – refer to GP for urinalysis and blood sugar
- Concern about parental intolerance or safeguarding issues – refer to local safeguarding policy

Consider medical intervention e.g. desmopressin or alarm, or discussion with/referral to continence service (level 2)

References:
NICE Guideline Bedwetting in children and young people
https://www.nice.org.uk/guidance/cg111
NICE Quality Standard Bedwetting in children and young people
https://www.nice.org.uk/guidance/cs70
HELP YOUR CHILD STOP BEDWETTING

Bedwetting is a very common childhood problem. It affects almost one in five children aged 5 and one in ten children aged 7. Children will not just ‘grow out’ of this problem. We now know that this is a medical condition and is easily treatable.
Helping parents understand about bedwetting

**BEDWETTING IS NOT YOUR CHILD’S FAULT**
Your child may feel that wetting their bed is their fault, but it is not. Most children are dry at night by their fifth birthday. If your child is five years old and still wetting their bed, there may be a reason why.

Learn more

**WHAT CAUSES BEDWETTING?**
As a parent or carer, you may feel like you've tried all options to stop your child's bedwetting. There can be many reasons why your child is wetting the bed.

Learn more

**BEDWETTING IS A TREATABLE CONDITION**
It is important that bedwetting is treated early. There are many ways to help your child overcome bedwetting. Medical options are also available and can be discussed with your child’s doctor or nurse.

Learn more
# Super Hero checklist

After ticking off the tips you have tried in the checklist, click 'Go' below to get your own personalised discussion guide. This guide will help you prepare for the appointment with your child's doctor or nurse. Speaking to your child's doctor or nurse can make all the difference in treating your child's bedwetting.

<table>
<thead>
<tr>
<th>Tip</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encouraged my child to have 6–8 water-based drinks per day</td>
<td>✓</td>
</tr>
<tr>
<td>Ensured my child is not having any fizzy drinks, except as an occasional treat</td>
<td>✓</td>
</tr>
<tr>
<td>Made sure that my child is not eating in the hour before they go to sleep</td>
<td>✓</td>
</tr>
<tr>
<td>Made sure that my child is going for a wee before they go to sleep</td>
<td>✓</td>
</tr>
<tr>
<td>Done a trial with my child of a few nights without night-time pants/nappies</td>
<td>✓</td>
</tr>
<tr>
<td>Ensured my child is not having drinks that contain caffeine (tea, coffee, cola and hot chocolate)</td>
<td>✓</td>
</tr>
<tr>
<td>Made sure my child does not have a drink in the hour before they go to sleep</td>
<td>✓</td>
</tr>
<tr>
<td>Made sure they have switched the TV and other screens off for an hour before bedtime</td>
<td>✓</td>
</tr>
<tr>
<td>Made sure my child goes to bed at about the same time most nights</td>
<td>✓</td>
</tr>
<tr>
<td>Printed and completed the superhero diary (urine and stool)</td>
<td>✓</td>
</tr>
</tbody>
</table>
Children's Continence Care
Bedwetting – Level 2

Child presents with nocturnal enuresis

- Bladder and bowel assessment including bladder diary and bowel charts
- Explanations to child and family. Give fluid/toileting/lifestyle advice

Assessment indicates monosymptomatic enuresis

- Yes
- No

Nocturnal polyuria – offer desmopressin

- Yes
- No

Treat any constipation as per appropriate pathway prior to treating enuresis then reassess

Progress?

- Yes
- No

Review assessment, check adherence, consider combination treatment

- Yes
- No

Continue with regular reviews until dry

If no progress liaise with paediatrician

Parallel plans for all children
Liaise with relevant healthcare professionals
Provide written information
Consider compliance and safeguarding issues

Small bladder capacity/over active bladder/daytime wetting

- Commence standard bladder training. Add in anticholinergics if acceptable and desirable
- Consider combination therapy

Review every 4-6 weeks and adjust treatment as appropriate

References:
NICE Guideline Bedwetting in children and young people https://www.nice.org.uk/guidance/cg111
NICE Quality Standard Bedwetting in children and young people https://www.nice.org.uk/guidance/qs70

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Initial treatment: desmopressin

Consider desmopressin if child / young person is:

- Over the age of 5 years
- Evidence of nocturnal polyuria
- Rapid-onset and/or short-term improvement in bedwetting is the priority of treatment or
- An alarm is inappropriate or undesirable

(see NICE recommendation 1.8.1)
Desmopressin-the evidence


Desmopressin treatment regimen

DesmoMelt initial dose: 120 mcg oral, for 1-2 weeks

Dry nights?

Yes:
DesmoMelt for 3 months

No:
Increase dose 240 mcg max. evaluate after 2 weeks

Dry nights?

Yes:
Stop treatment

No:
1-week drug-free period. Dry without DesmoMelt?

Yes:
Continue DesmoMelt for further 3 months

No:
Continue DesmoMelt for further 3 months

DesmoMelt SPC 120mcg, 240 mcg
Improving outcomes with Desmopressin

- DesmoMelt shown to have increased bio availability\(^1\)
- Suggest administering an hour before bed
- Check bladder capacity
- Consider if night time OAB
  - add in trial anticholinergic
  - such as Lyrinel XL
- Consider if polyuria due to osmotic diuresis - trial exclusion of high salt/protein foods

Alarm

Consider alarm if child / young person

• is considered mature enough to cope with alarm and motivated to use it
• Is wetting the bed at least x 3 per week
• has family support with no indication of intolerance
• has conducive sleeping arrangements
• appears to have good arousability
• medication not appropriate / contra indicated
Alarm – the evidence


Improving outcome with alarm

• Decision to use alarm based on outcome of assessment and discussion with child and family

• Consider using alarm clock if unsure of treatment adherence / success

• Suggest using mobile phone as alarm for older children / teenagers

• Combine ‘over-learning’ as part of treatment
Nocturnal enuresis: treatment options
Exclude/treat underlying constipation and take note of genetics/underlying co-morbidities and family dynamics

Nocturnal polyuria
(Reduced nocturnal ADH release)

Desmopressin

Reduced nocturnal functional bladder capacity

Bladder training/fluid adjustment / anticholinergics

Enuresis Alarm
(Monosymptomatic bedwetting)

Impaired arousal response to bladder fullness from sleep – affects ALL children with bedwetting to a greater or lesser degree

30% – 50% of children will require combined treatments
### Improving treatment outcomes for children with bedwetting

**Matching treatment to assessment outcome**

**NICE Bedwetting Quality Standard 2:** All children with bedwetting should undergo a comprehensive assessment

<table>
<thead>
<tr>
<th>Findings from history</th>
<th>Possible interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large wet patches within a few hours of sleep</td>
<td>Typical pattern of bedwetting as a result of nocturnal polyuria (lack of vasopressin).</td>
</tr>
<tr>
<td>Wetting more than once with variable wet patches</td>
<td>Typical pattern of bedwetting as a result of possible underlying bladder problem such as overactive bladder.</td>
</tr>
<tr>
<td>Bedwetting every night</td>
<td>Classed as severe bedwetting which is less likely to resolve spontaneously than infrequent bedwetting.</td>
</tr>
<tr>
<td>Bedwetting after a period of more than 6 months with no night time wetting</td>
<td>Bedwetting is defined as secondary.</td>
</tr>
<tr>
<td>Day time symptoms including:</td>
<td></td>
</tr>
<tr>
<td>* Frequency</td>
<td></td>
</tr>
<tr>
<td>* Urgency</td>
<td></td>
</tr>
<tr>
<td>* Abdominal straining</td>
<td></td>
</tr>
<tr>
<td>* Poor stream</td>
<td></td>
</tr>
<tr>
<td>* Wetting accidents</td>
<td></td>
</tr>
<tr>
<td>* History of UTI</td>
<td></td>
</tr>
<tr>
<td>Constipation</td>
<td>A common co morbidity that can cause bedwetting. It requires treatment (see <code>Constipation in children and young people</code> [NICE clinical guideline 99]).</td>
</tr>
<tr>
<td>Inappropriate fluid intake including:</td>
<td></td>
</tr>
<tr>
<td>* Inadequate fluid intake</td>
<td></td>
</tr>
<tr>
<td>* Consumption of fizzy/caffeinated drinks</td>
<td></td>
</tr>
<tr>
<td>* High fluid intake late in the day</td>
<td></td>
</tr>
<tr>
<td>Behavioural and emotional problems</td>
<td></td>
</tr>
<tr>
<td>Inadequate fluid intake may mask an underlying bladder problem such as OAB and also may affect the development of an adequate bladder capacity. Fizzy and caffeinated drinks have been shown to irritate the bladder in some cases. Having a high fluid intake later in the day can contribute to bedwetting.</td>
<td></td>
</tr>
<tr>
<td>Practical issues</td>
<td>Easy access to a toilet at night, sharing a bedroom or bed, and proximity of parents to provide support are important issues to take into account and address when considering treatment, especially with an alarm.</td>
</tr>
<tr>
<td>Family issues, including parental intolerance</td>
<td>A difficult or 'stressful' environment may be a trigger for bedwetting. These factors should be addressed alongside the management of bedwetting.</td>
</tr>
</tbody>
</table>

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**TREATMENT - Tailor to underlying pathophysiology**

**NICE Bedwetting Quality Standard 4**: Children and young people who are bedwetting receive the treatment agreed in their initial treatment plan.

The choice of treatment (either alarm or desmopressin) should be informed by the initial assessment, and should take into account the preference of the child and their parents or carers. Factors such as age, associated functional difficulties and disabilities, financial burdens and living situations may affect their preferences. Refer to the BNF for Children and the manufacturers ‘Summaries of Product Characteristics’ for full prescribing information.

<table>
<thead>
<tr>
<th>Presenting symptom</th>
<th>Suggested treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal night time urine output / no day time bladder symptoms / average bladder capacity for age using the formula: Age x 30 + 30 = Maximum voided volume</td>
<td>Consider either alarm or desmopressin (DesmoMelt) as first line treatment, taking into account child’s age / motivation / previous experiences / parental expectations and preferences</td>
</tr>
<tr>
<td>Nocturnal Polyuria (indicated by wetting large patches within a few hours of going to sleep)</td>
<td>Consider Desmopressin (DesmoMelt) as first line treatment</td>
</tr>
<tr>
<td>Small bladder capacity / apparent high arousability / good motivation and good family support</td>
<td>Consider alarm as first line treatment, taking into account child’s age and motivation</td>
</tr>
<tr>
<td>Day time bladder symptoms, including frequency (&gt; 7 voids per day) or urgency suggestive of an overactive bladder (OAB)</td>
<td>Initiate bladder retraining programme and introduce anticholinergics (e.g., oxybutynin – Lyrinel XL) if necessary</td>
</tr>
<tr>
<td>If single first line treatment fails consider the following:</td>
<td></td>
</tr>
<tr>
<td>- nocturnal polyuria with voided volumes (small bladder) / high arousal threshold</td>
<td>Desmopressin (DesmoMelt) plus alarm</td>
</tr>
<tr>
<td>- nocturnal polyuria with suspected nocturnal OAB</td>
<td>Desmopressin (Desmomelt) plus anticholinergic</td>
</tr>
<tr>
<td>- OAB / small voided volumes / high arousal threshold</td>
<td>Anticholinergic plus alarm</td>
</tr>
</tbody>
</table>

Please also refer to NICE Bedwetting Guidelines and treatment Pathway


Bedwetting in Children and Young People Quality Standard 70 (NICE September 2014)

[https://www.nice.org.uk/Guidance/QU70](https://www.nice.org.uk/Guidance/QU70)
Summary

• Address any underlying comorbidities
• Advise on fluid intake, diet and toileting behaviour
• Address fluid intake (excessive or insufficient)
• Consider a reward system for achievable outcomes
• Consider alarm or medication (depending on circumstances)

For young children who have some dry nights:
• Start with a reward system.

For all children and young people:
• If no response to rewards and advice, consider desmopressin or alarm.

For those children and young people who require immediate dryness, or where an alarm is inappropriate, or undesirable.
• Consider desmopressin for children over the age of 5 years.
Discussion

• Bedwetting is a heterogeneous problem
• It can have a negative impact on the child’s health and well being
• It is often linked to underlying co- morbidities.
• All affected children should have a comprehensive initial assessment
• Assessment outcome enables any treatment to be tailored specifically to the child, taking into account family dynamics and treatment preferences.
Thank you!