



NICE Bites

Nocturnal enuresis

NICE CG111; 2010

This guideline covers the management of bedwetting in children and young people up to 19 years of age.

Assessment and investigation – see full guideline

- ◆ Take a history of symptoms. Ask about bedwetting, daytime symptoms, toileting patterns and fluid intake.
- ◆ Ask the parents/carers to keep a diary of these symptoms as this is useful for assessing and treating bedwetting.
- ◆ Assess for comorbidities and other factors that may be associated with bedwetting.
- ◆ **Do NOT** perform urinalysis routinely unless the child/young person has:
 - > started bedwetting recently (last few days or weeks),
 - > daytime symptoms,
 - > any signs of ill health,
 - > a history, symptoms or signs suggestive of urinary tract infection or diabetes mellitus.

Treatment and management

- ◆ Offer support, assessment and treatment tailored to the circumstances and needs of the child/young person and parents/carers.
- ◆ **Do NOT** exclude younger children (< 7 years) from the management of bedwetting on the basis of age alone.
- ◆ Explain that bedwetting is not the child/young person's fault and that punitive measures should not be used for the management of bedwetting.

Treatment response

- ◆ A response to an intervention is when the child has achieved 14 consecutive dry nights or 90% improvement in the number of wet nights per week.
- ◆ A partial response is when the child's bedwetting has improved but the above criteria have not been achieved.

Non-pharmacological treatments

Fluid intake, diet and toileting patterns

- ◆ Before starting treatment for bedwetting, advise children/young people and their parents/carers:
 - > about the importance of adequate daily fluid intake,
 - > about recommended fluid intake and that requirements vary according to ambient temperature, dietary intake and

- physical activity,
- > to avoid caffeine-based drinks,
- > to eat a healthy diet and not to restrict diet to treat bedwetting,
- > about the importance of using the toilet regularly, during the day and before sleep (between four and seven times a day is recommended).

Rewards system

- ◆ Use a reward system alone or with other treatments.
- ◆ Give rewards for agreed behaviour rather than dry nights. For example:
 - > drinking recommended levels of fluid during the day,
 - > using the toilet to pass urine before sleep,
 - > taking medication.

Lifting and waking

- ◆ Offer advice on lifting and waking – see full guideline

Children <5 years – see full guideline

Alarm - see algorithm in full guideline

- ◆ Inform the child/young person and parents/carers that:
 - > alarms have a high long-term success rate,
 - > using an alarm needs commitment, involvement and effort,
 - > combining alarm treatment with a reward system is beneficial.
- ◆ **Do NOT** exclude alarm treatment in children/young people:
 - > with daytime symptoms as well as bedwetting,
 - > with secondary onset bedwetting.
- ◆ Assess the response to an alarm by 4 weeks of use.
- ◆ Stop treatment only if there are no early signs of response.
- ◆ If responding to alarm treatment:
 - > continue until a minimum of 2 weeks uninterrupted dry nights have been achieved,
 - > assess progress at 3 months.
- ◆ If complete dryness is not achieved after 3 months:
 - > assess whether appropriate to continue with alarm,
 - > only continue if bedwetting is improving and the child/young person and parents/carers are motivated to continue.

Table 1: Initial treatments Use in conjunction with treatment algorithms in full guideline

For ALL children/young people with bedwetting

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| <ul style="list-style-type: none"> ◆ Provide advice on fluid intake, diet and toileting patterns. ◆ Address excessive or insufficient fluid intake and abnormal toileting patterns before starting other treatments. ◆ Advise on using a reward system. | <ul style="list-style-type: none"> ◆ Suggest a trial without nappies or pull-ups for children/young people wearing them at night. ◆ Assess the ability of the family to cope with an alarm. ◆ Consider whether an alarm or drug treatment is appropriate. |
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Initial treatment options

Advice	Alarm	Desmopressin
<ul style="list-style-type: none"> ◆ For a young child who has some dry nights: <ul style="list-style-type: none"> > advise parents or carers to try a reward system alone. 	<ul style="list-style-type: none"> ◆ If bedwetting has not responded to advice on fluids, toileting and reward system and alarm treatment is desirable and appropriate: <ul style="list-style-type: none"> > give alarm as first-line treatment. ◆ For children < 7 years consider an alarm depending on their ability, maturity, motivation and understanding. 	<ul style="list-style-type: none"> ◆ If rapid-onset and/or short-term dryness is a priority or alarm treatment is undesirable or inappropriate: <ul style="list-style-type: none"> > give desmopressin to children > 7 years > consider as an option for children 5 to 7 years if treatment is required.

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Lack of response to treatments

- ◆ If there is no response to initial **alarm** treatment:
 - give combination treatment with an alarm and desmopressin **OR**
 - desmopressin alone if alarm is no longer acceptable.
- ◆ If there is a partial response to **alarm and desmopressin**:
 - give desmopressin alone.
- ◆ If there is still no response to treatment with an **alarm and/or desmopressin**:
 - refer for further review and assessment of factors that may be associated with poor response e.g. overactive bladder, underlying disease or social/emotional factors.

Pharmacological Treatments

Desmopressin* - see algorithm in full guideline

- ◆ **Do NOT** exclude desmopressin as an option for bedwetting in children/young people who also have daytime symptoms.
- ◆ **Do NOT** use in children/young people who only have daytime wetting.
- ◆ Start with oral desmopressin 200microgram at bedtime (Desmotabs) or sublingual desmopressin 120microgram at bedtime (DesmoMelt).
- ◆ If not completely dry after 1 to 2 weeks at initial dose increase the dose to 400microgram (Desmotabs) or 240microgram (DesmoMelt) at bedtime.
- ◆ Assess response at 4 weeks. Signs of a response may include smaller wet patches, fewer wetting episodes per night, fewer wet nights. If there is:
 - a response continue treatment for 3 months, then stop,
 - a partial or no response - advise taking desmopressin one to two hours *before* bedtime, if the child can comply with fluid restrictions,
 - if still no response - stop treatment.
- ◆ Use repeated courses of desmopressin for bedwetting that has responded to desmopressin.
- ◆ If using long-term:
 - stop treatment for one week every 3 months to check that dryness has been achieved,
 - withdraw gradually if using repeated courses.
- ◆ Refer for assessment by a specialist before considering other treatment options.

Desmopressin + Anticholinergic**

- ◆ After specialist assessment, consider giving desmopressin in combination with an anticholinergic (e.g. oxybutynin*) to children/young people with bedwetting that:
 - has partially responded to or has not responded to desmopressin alone,
 - has not responded to an alarm combined with desmopressin,
 - also involves daytime symptoms.
- ◆ **Do NOT** use an anticholinergic:
 - alone for children/young people with bedwetting without daytime symptoms,
 - in combination with imipramine.
- ◆ Continue treatment if a partial response is achieved with desmopressin and an anticholinergic as bedwetting may further improve for up to 6 months.
- ◆ If treatment with desmopressin with an anticholinergic is successful, repeated courses can be given.

Imipramine***

- ◆ Give imipramine only:
 - if no other treatments are successful, **AND**
 - after assessment by a specialist.
- ◆ Review treatment every 3 months.
- ◆ When stopping treatment, withdraw imipramine gradually.

Recurrence of bedwetting

- ◆ If bedwetting stopped when using an alarm but has restarted after treatment ended, give an alarm again.
- ◆ Consider alarm treatment as an alternative to continuing drug treatment for children/young people who have recurrences of bedwetting, if an alarm is now appropriate and desirable.
- ◆ Perform regular medication reviews for children/young people on repeated courses of drug treatment for bedwetting.

Counselling Desmopressin

- ◆ Inform the child/young person and parents/carers:
 - how desmopressin works,
 - that many children will experience reduction in wetness, but many relapse when treatment is withdrawn,
 - not to have any drinks from 1 hour before until 8 hours after taking desmopressin,
 - to take desmopressin at bedtime,
 - how to increase the dose if the response to the initial treatment is not adequate,
 - to continue treatment for 3 months,
 - that repeated courses can be used.

Desmopressin + anticholinergic

- ◆ Inform the child/young person and parents/carers:
 - that success rates are difficult to predict, but more children/young people are drier with a combination of desmopressin and an anticholinergic than with desmopressin alone,
 - to take the combination together at bedtime,
 - to continue treatment for 3 months,
 - that repeated courses can be used.

Imipramine

- ◆ Inform the child/young person and parents/carers:
 - how imipramine works,
 - that the majority of children/young people will experience a reduction in wetness, but many will relapse after treatment is stopped,
 - to take imipramine at bedtime,
 - to gradually increase the dose,
 - to continue treatment for 3 months,
 - that repeated courses may be required,
 - about the dangers of overdose and importance of taking only the prescribed dose,
 - about safe storage of the medicine.

Monitoring

Desmopressin

- ◆ **Do NOT** routinely measure:
 - weight,
 - serum electrolytes,
 - blood pressure,
 - urine osmolarity.

Further information

The Eric (Education and Resources for Improving Childhood Continence) website provides information on childhood bedwetting, daytime wetting, constipation and soiling for children/young people, parents and professionals. See www.eric.org.uk

* Licensed for use in children > 5 years. See Summary of Product Characteristics (SPC) for full prescribing information.

** Not all anticholinergics are licensed for treatment of bedwetting. See Summary of Product Characteristics for each agent.

*** Licensed for use in children > 6 years. See Summary of Product Characteristics (SPC) for full prescribing information.