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.

**Initial treatment**

- 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.
- 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.

**Initial treatment options**

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| For a young child who has some dry nights:
  - advise parents or carers to try a reward system alone. |
| If bedwetting has not responded to advice on fluids, toileting and reward system and alarm treatment is desirable and appropriate:
  - give alarm as first-line treatment, |
| For children < 7 years consider an alarm depending on their ability, maturity, motivation and understanding. |
| If rapid-onset and/or short-term dryness is a priority or alarm treatment is undesirable or inappropriate:
  - give desmopressin to children > 7 years |
| consider as an option for children 5 to 7 years if treatment is required. |
**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](http://www.eric.org.uk)