Optimizing response to desmopressin in patients with monosymptomatic nocturnal enuresis

Konstantinos Kamperis et al. Pediatr Nephrol 2017; 32: 217–26

What we know already:

- Desmopressin and enuresis alarm are the two first-line treatments for monosymptomatic nocturnal enuresis
- Desmopressin tends to be most successful in patients with nocturnal polyuria and normal (or large) maximum voided volumes (i.e. bladder capacity)
- •Treatment could be more effective in more children in primary care if used optimally

Aims of this review:

•This review aims to offer expert advice on best practice in the use and administration of desmopressin to enhance response rates and avoid unnecessary delays in successful treatment

Expert recommendations:

- •1. Select the most appropriate formulation

 Most often the oral lyophilisate formulation (reduced food interaction, no concomitant water intake, and child-friendly)
- •2. Ensure optimal timing of administration and consider possible impact of meals

One hour before bedtime and at least 2 h after the evening meal is recommended; oral lyophilisate is preferable if the 2 h interval is not possible.

- •3. Ensure fluid restriction before and after desmopressin Fluid intake must be restricted from 1 h before to 8 h after desmopressin administration, to minimise risk of hyponatraemia and optimise treatment response.
- •4. If needed, tailor treatment dose and timing to the individual Pharmacodynamic data show that a small dose range of lyophilisate (120–240 µg) is likely to control diuresis for a night's sleep (mean of 7–11 h) in most children; however, interindividual variation is large and time to reach maximal concentrating capacity may be longer than 1 h in some children, meaning the drug should be taken earlier (but fluid restriction must still be observed from one hour before)
- •5. Consider the possible impact of body weight

 There is some evidence of weight-dependency in dosing of the oral lyophilisate
- 6. Ensure patients are adherent to treatment and administration recommendations

Desmopressin is only effective on the night following administration and high adherence to medication, as well as instructions on fluid intake, voiding before sleep etc., is needed

•7. Consider structured withdrawal if the patient wishes to discontinue medication

Studies are inconsistent, but gradual or tapered withdrawal is sometimes reported to encourage maintenance of response

•8. Consider combination therapy where appropriate
Some patients may have enuresis with mixed aetiology and combination therapy may be beneficial

