Cochrane Corner

Nocturnal enuresis

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Nocturnal enuresis is the involuntary loss of urine at night, in the absence of organic disease, at an age when a child could reasonably be expected to be dry (by consensus, at a developmental age of five years). Although bedwetting in itself is pathologically benign and has a high rate of spontaneous remission, it may bring social and emotional stigma, stress and inconvenience to both the person with enuresis and their families. Children who wet the bed may experience parental disapproval, sibling teasing and repeated treatment failure which may lower self esteem. The children may also be at increased risk of emotional and physical abuse. Consequently, it is important that enuresis is properly managed on 'humane grounds'.

Although daytime wetting is a significant problem and is often associated with bedwetting, it is usually considered separately. It has been suggested that there are different aetiologies underlying monosymptomatic nocturnal enuresis and daytime wetting. If daytime symptoms are present, investigations to identify physical causes such as urinary tract dysfunction, congenital malformation and neurogenic disorders are usually necessary. An organic cause is more often found in children with daytime wetting; for example more structural abnormalities and functional disorders of the urinary tract are found in daytime wetters than controls.

A wide variety of methods have been studied including alarms, tricyclic antidepressants, Desmopressin, alarm plus medication and reward systems and waking at three hours. The effective treatments are on the table below. Amphetamine, frusemide and meprobamate were all shown to be ineffective.

Table showing effective treatments for bedwetting

	Initial success	Long term success	Advantages	Disadvantages
Alarm	Yes, 14 dry nights	9x less likely to relapse than on Desmopressin	Safe	Takes time to have effect and needs parent and child cooperation
Tricyclic	Yes, 5x better than placebo	No better than placebo	Effective within days	Risk of overdose and adverse effects
Desmopressin	5x better than placebo	No better than placebo	Effective within days few side effects	Some reports of water intoxication
Alarm and medication	Yes	Not studied	More rapid effect than alarm alone	Adverse effects of medication
Reward systems, lifting and waking at three hours	Better than controls	Benefit not sustained	Safe	More input from family

References

1. Tricyclic and related drugs for nocturnal enuresis in children. This review should be cited as: Glazener CMA, Evans JHC. Tricyclic and related drugs for nocturnal enuresis in children (Cochrane Review). In: The Cochrane Library, Issue 2, 2002. Oxford: Update Software.
2. Simple behavioural and physical interventions for nocturnal enuresis in children: Glazener CMA, Evans JHC. Simple behavioural and physical interventions for nocturnal enuresis in children (Cochrane Review). In: The Cochrane Library, Issue 2, 2002. Oxford:Update Software.
3. Alarm interventions for nocturnal enuresis in children: Glazener CMA, Evans JHC. Alarm interventions for nocturnal enuresis in children (Cochrane Review). In: The Cochrane Library, Issue 2, 2002. Oxford: Update Software.
4. Desmopressin for nocturnal enuresis in children: Glazener CMA, Evans JHC. Desmopressin for nocturnal enuresis in children (Cochrane Review). In: The Cochrane Library, Issue 2, 2002. Oxford: Update Software.
5. Drugs for nocturnal enuresis in children (other than desmopressin and tricyclics): Glazener CMA, Evans JHC. Drugs for nocturnal enuresis in children (other than desmopressin and tricyclics) (Cochrane Review). In: The Cochrane Library, Issue 2, 2002. Oxford: Update Software.
6. Clinical evidence from the British Medical Journal http://www.clinicalevidence.com/l

ADDENDUM to previous Cochrane Corner

There have been a number of requests for the dose of nortriptyline needed for smoking cessation.

The dosing for the study by Prochazka et al. was to start 10 days before the quit day with 25 mg of Nortriptyline increasing to two capsules per day after three days and finally three capsules per day. The dose of 75mg needs to be continued for eight weeks after the quit day and then titrated down to zero over about 14 days.

The numbers needed to treat were both about 10 patients per one patient to quit at 6–16 months. The advantage of Nortriptyline over the unfunded Bupropion is that it is fully funded by Pharmac. Many of my patients cannot afford the initial outlay to purchase Buproprion and hence are attracted to the chance to obtain a prescription for $3 (with a community services card). Many of them have already been unsuccessful with nicotine patches.

A doctor from the National Health Committee has checked with Medsafe and their advice was that if there is a Cochrane Review supporting its use then there is little risk in practitioners prescribing it. Pharmac were also consulted and stated that it would fund it for smoking cessation.

1. Hughes JR, Stead LF, Lancaster T. Antidepressants for smoking cessation. (Cochrane Review). In: The Cochrane Library, Issue 2, 2002. Oxford: Update Software.
2. Prochazka AV, Weaver MJ, Keller RT, Fryer GE, Licari PA, Lofaso D. A randomized controlled trail of nortriptyline for smoking cessation. Arch Int Med 1998;158: 2035-2039.
3. Hall SM, Reus VI, Munoz RF, Sees KL, Humfleet G, Hartz DT, et al. Nortriptyline and cognitive-behavoiural therapy in the treatment of cigarette smoking. Arch Gen Psych 1998;55: 683-90.