WORKSHOP A8 — THE COCHRANE INCONTINENCE GROUP — THE EVIDENCE SO FAR

Chair: Adrian Grant, Jean Hay-Smith

THE PRINCIPLES AND PRACTICES OF THE COCHRANE INCONTINENCE REVIEW GROUP

The Cochrane Incontinence Review Group

The Rationale and Value of Systematic Reviews

Healthcare providers, consumers, researchers, and policy makers are inundated with unmanageable amounts of information. We need systematic reviews to efficiently integrate valid information and provide a basis for rational decision making. Systematic reviews establish where the effects of healthcare are consistent and research results can be applied across populations, settings, and differences in treatment (e.g. dose); and where effects may vary significantly. The use of explicit, systematic methods in reviews limits bias (systematic errors) and reduces chance effects, thus providing more reliable results upon which to draw conclusions and make decisions. Meta-analysis, the use of statistical methods to summarise the results of independent studies, can provide more precise estimates of the effects of healthcare than those derived from the individual studies included in a review.

Wider recognition of the key role of reviews in synthesizing and disseminating the results of research has prompted people to consider the validity of reviews. In the 1970s and early 1980s, psychologists and social scientists drew attention to the systematic steps needed to minimise bias and random errors in reviews of research. It was not until the late 1980s that people drew attention to the poor scientific quality of healthcare review articles. However, recognition of the need for systematic reviews of healthcare has grown rapidly and continues to grow, as reflected by the number of articles about review methods and empirical studies of the methods used in reviews, the number of systematic reviews published in healthcare journals, and the rapid growth of the Cochrane Collaboration (Clarke and Oxman 2001).

The Cochrane Collaboration is an international organisation that aims to help people make well-informed decisions about healthcare by preparing, maintaining and promoting the accessibility of systematic reviews of the effects of healthcare interventions.

The Cochrane Incontinence Review Group undertakes systematic reviews concentrating on interventions where incontinence is the primary problem. The problems covered include urinary and faecal incontinence, enuresis – day-time wetting in children, encopresis; post prostatectomy incontinence, use of urinary catheters including catheter-related urinary tract infections (but not other infections), enterocutaneous and enterovesical fistulae, neurogenic incontinence and retention, post-operative urinary retention and rectal or vaginal prolapse. We predominantly use evidence from randomised or quasi-randomised controlled trials for evaluating a range of relevant health care interventions.

The Cochrane Incontinence Group is one of 50 Collaborative Review Groups (CRGs) of the Cochrane Collaboration which generate systematic reviews for submission to the Cochrane Library. The Group is made up of researchers, health care professionals, health care consumers and others, from around the world, with a shared interest in incontinence.

The co-ordinating editor manages the Group with the support of the editorial team. The Group is responsible for identifying and assembling a specialised register with as high a proportion as possible of all the studies relevant to our declared scope. The group drawing on the studies in the register will take responsibility for preparing and maintaining reviews.

The Cochrane Library. The systematic reviews are published in the Cochrane Library, an electronic publication, distributed on a CD-ROM and via the Internet on an annual subscription basis. The Library currently includes the following databases:

The Cochrane Database of Systematic Reviews (CDSR), contains protocols and reviews prepared and maintained by Collaborative Review Groups. It includes a Comments and Criticisms System to enable users to help improve the quality of Cochrane Reviews.

The Database of Abstracts of Reviews of Effectiveness (DARE), assembled and maintained by the NHS Centre for Reviews and Dissemination in York, England, contains critical assessments and structured abstracts of other systematic reviews, conforming to explicit quality criteria.

The Cochrane Controlled Trials Register (CCTR), contains bibliographic information of tens of thousands of controlled trials, including reports published in conference proceedings and many other sources not currently listed in other bibliographic databases.

The Cochrane Review Methodology Database, contains references to articles and books on the science of reviewing research. The Cochrane Library also contains a handbook on how to conduct a systematic review, and a glossary of terms.

The Cochrane Collaboration section in the Cochrane Library contains contact details and other information about Collaborative Review Groups and other contributing entities within the Cochrane Collaboration.

Reference

Clarke M, Oxman AD, editors. Cochrane Reviewers Handbook 4.1.4.
In: The Cochrane Library, Issue 4, 2001. Oxford: Update Software.

PELVIC FLOOR MUSCLE TRAINING FOR WOMEN

Jean Hay-Smith

Based on review by Jean Hay-Smith, Bary Berghmans, Kari Bø, Erik Hendriks, Rob de Bie, Ernst van Waalwijk van Doorn

Background
Pelvic floor muscle training is the most commonly recommended physical therapy treatment for women with stress leakage of urine. It is also used in the treatment of women with mixed incontinence, and less commonly for urge incontinence. Adjuncts, such as biofeedback or electrical stimulation, are also commonly used with pelvic floor muscle training. The content of pelvic floor muscle training programmes is highly variable.

Objectives
To determine the effects of pelvic floor muscle training for women with symptoms or urodynamic diagnoses of stress, urge and mixed incontinence, in comparison to no treatment or other treatment options.

Search strategy
Search strategy: We searched the Cochrane Incontinence Group trials register (May 2000), Medline (1980 to 1998), Embase (1980 to 1998), the database of the Dutch National Institute of Allied Health Professions (to 1998), the database of the Cochrane Rehabilitation and Related Therapies Field (to 1998), Physiotherapy Index (to 1998) and the reference lists of relevant articles. We hand-searched the proceedings of the International Continence Society (1980 to 2000). We contacted investigators in the field to locate studies. Date of the most recent searches: May 2000.

Selection criteria
Randomised trials in women with symptoms or urodynamic diagnoses of stress, urge or mixed incontinence that included pelvic floor muscle training in at least one arm of the trial.

Data collection & analysis
Two reviewers assessed all trials for inclusion/exclusion and methodological quality. Data were extracted by the lead reviewer onto a standard form and cross checked by another. Disagreements were resolved by discussion. Data were processed as described in the Cochrane Handbook. Sensitivity analysis on the basis of diagnosis was planned and undertaken where appropriate.

Main results
Forty-three trials met the inclusion criteria. The primary or only reference for 15 of these was a conference abstract. The pelvic floor muscle training programs, and comparison interventions, varied markedly. Out-

come measures differed between trials, and methods of data reporting varied, making the data difficult to combine.

Many of the trials were small. Allocation concealment was adequate in five trials, and nine trials used assessors masked to group allocation. Thirteen trials reported that there were no losses to follow up, seven trials had dropout rates of less than 10%, but in the remaining trials the proportion of dropouts ranged from 12% to 41%.

Pelvic floor muscle training was better than no treatment or placebo treatments for women with stress or mixed incontinence. 'Intensive' appeared to be better than 'standard' pelvic floor muscle training. PFMT may be more effective than some types of electrical stimulation but there were problems in combining the data from these trials. There is insufficient evidence to determine if pelvic floor muscle training is better or worse than other treatments.

The effect of adding pelvic floor muscle training to other treatments (e.g. electrical stimulation, behavioural training) is not clear due to the limited amount of evidence available. Evidence of the effect of adding other adjunctive treatments to PFMT (e.g. vaginal cones, intravaginal resistance) is equally limited. The effectiveness of biofeedback assisted PFMT is not clear, but on the basis of the evidence available there did not appear to be any benefit over PFMT alone at post treatment assessment.

Long-term outcomes of pelvic floor muscle training are unclear. Side effects of pelvic floor muscle training were uncommon and reversible. A number of the formal comparisons should be viewed with caution due to statistical heterogeneity, lack of statistical independence, and the possibility of spurious confidence intervals in some instances.

Reviewers' conclusions
Pelvic floor muscle training appeared to be an effective treatment for adult women with stress or mixed incontinence. Pelvic floor muscle training was better than no treatment or placebo treatments. The limitations of the evidence available mean that is difficult to judge if pelvic floor muscle training was better or worse than other treatments. Most trials to date have studied the effect of treatment in younger, pre-menopausal women. The role of pelvic floor muscle training for women with urge incontinence alone remains unclear. Many of the trials were small with poor reporting of allocation concealment and masking of outcome assessors. In addition there was a lack of consistency in the choice and reporting of outcome measures that made data difficult to combine. Methodological problems limit the confidence that can be placed in the findings of the review. Further, large, high quality trials are necessary.

CONSERVATIVE MANAGEMENT FOR MEN WITH INCONTINENCE

Katherine Moore

Based on review by Katherine Moore, June Cody, Charis Glazener

Background
Urinary incontinence after prostatectomy is a common problem. Conservative management of this condition includes pelvic floor muscle training, biofeedback, electrical stimulation using a rectal electrode, transcutaneous electrical nerve stimulation, or a combination of methods. Conservative management is often combined with lifestyle adjustments including: decreased or elimination of caffeine, physical exercise, cessation of smoking, and bladder retraining

Objectives
To assess the effects of conservative management for urinary incontinence after transurethral, suprapubic, radical retropubic or perineal prostatectomy.

Search strategy
The Cochrane Incontinence Group's trials register, Medline, Cinahl, Embase, PsycLit (all up to January 2001) and ERIC all up to January 1999, and reference lists of relevant articles. We contacted investigators to locate studies and we handsearched the following conference proceedings: American Urological Association (1989-2000); Society of Urologic Nurses and Associates (1991-2001); Wound Ostomy and Continence Nurses

(1996-2000); and International Continence Society (1980-2000). Date of most recent searches: January 2001.

Selection criteria
Randomised or quasi-randomised trials which evaluated conservative management aimed at improving urinary continence after prostatectomy.

Data collection & analysis
Two reviewers independently assessed the methodological quality of studies and abstracted data from included trials onto a standard form.

Main results
Only six randomised trials were identified which included 381 men, each evaluating different treatments, five studying men after radical prostatectomy and one post transurethral prostatectomy. The trials were of moderate quality and data were not available for many of the pre-stated outcomes. Confidence intervals for both dichotomous and continuous data were wide; it was not possible to reliably identify or rule out a useful effect. Men's symptoms tended to improve over time, irrespective of management.

Reviewers' conclusions
The value of the various approaches to conservative management of post prostatectomy incontinence remains uncertain. Further well designed trials are needed.

ABDOMINAL AND LAPAROSCOPIC COLPOSUSPENSION

Mela Lapitan, Don Wilson

Based on reviews by Mela Lapitan, June Cody

Open abdominal retropubic suspension for urinary incontinence in women

Background
Urinary incontinence is a common and potentially debilitating problem. Open retropubic colposuspension is one type of surgical procedure used to treat urinary incontinence, particularly stress incontinence.

Objectives
A systematic review was undertaken to assess the effects of open retropubic colposuspension in comparison to other types of treatment methods in the management of urinary incontinence. A secondary aim was to assess its safety in terms of occurrence of adverse events with its application.

Search strategy
A systematic search of the Cochrane Incontinence Group trials register, reference lists of relevant articles, correspondence of investigators in the field and handsearching of conference proceedings was done. The date of the most recent search was March 2002.

Selection criteria
All randomised or quasi-randomised controlled trials in women with symptoms or urodynamic diagnoses of stress or mixed incontinence that included open retropubic colposuspension surgery in at least one arm of the study were included in the review. Comparison interventions included conservative therapy, anterior colporrhaphy, sling procedures, needle suspension procedures, laparoscopic colposuspension, and periurethral injection therapy.

Data collection and analysis
Studies were evaluated for methodological quality and appropriateness for inclusion by two reviewers. Data were extracted and analysed by intervention. Where appropriate, a summary statistic was calculated.

Main results
A total of 33 trials were included in the review. There were no trials identified comparing open retropubic colposuspension with no treatment or sham operation.

Overall, open retropubic colposuspension has been shown to provide significantly better cure rates, both sub-

jectively and objectively, compared to all the other management options. More importantly, effectiveness of open retropubic colposuspension has been shown to be durable, even beyond 5 years. Comparing the different techniques of open colposuspension, data showed better cure rates with the Burch technique compared to the Marshall-Marchetti- Krantz procedure. Limited data comparing Burch technique and the paravaginal repair precludes any definite conclusion on any difference in effectiveness.

Of all the comparison methods studied, the sling procedure seems to approximate the efficacy of the open colposuspension. The latter studies utilizing the tension-free vaginal tape, although still lacking in long term results, do not show any significant difference in the cure rates compared to the open retropubic colposuspension. Cure rates associated with laparoscopic colposuspension also approximates that of open retropubic colposuspension.

Improvement rates are equivalent between open colposuspension and conservative therapy. Data is not available on improvement rates with other interventions.

There is some evidence that open retropubic colposuspension increases the risk for new or recurrent prolapse, particularly in comparison with anterior colporrhaphy and sling procedures. However, there is insufficient evidence to demonstrate significant difference in the risk of the occurrence of other adverse events such as de novo detrusor instability, urge symptoms and urge incontinence, voiding difficulty and nonspecific peri-operative complications between open colposuspension and the other treatment modalities.

Hospital stay is significantly shorter for open colposuspension compared to anterior colporrhaphy. Operative time is shorter for open colposuspension compared to the laparoscopic approach. One trial comparing open colposuspension and a sling procedure showed lower costs associated with the TVT (sling) technique.

Very few studies focused on the impact of the various treatment modalities on the quality of life of the incontinent patient preventing any definite conclusions to be drawn.

Reviewer's conclusions
The review highlighted the need for more rigorous trials with well-described sequence generation and better concealment of allocation, standardized procedures with minimal co-interventions and confounders, with larger sample size to provide enough power, proper blinding and longer follow-ups. Specific populations must be studied separately to minimize confounding factors. These include those with previous surgery for incontinence, coexisting prolapse, mixed incontinence, and low MUCP or leak point pressures or those suspected to have a significant component of intrinsic sphincter deficiency. Outcomes must include standardized, clinically relevant measures with more particular focus on quality of life measures and post-operative complications, which have been noticeably neglected in the past studies.

LAPAROSCOPIC COLPOSUSPENSION FOR URINARY INCONTINENCE IN WOMEN
Based on reviews by Mela Lapitan, June Cody, Birgit Moehrer, Marcus Carey, Don Wilson

Background
Laparoscopic colposuspension is a relatively new operation for the treatment of women with stress urinary incontinence with the presumed advantages over traditional Burch colposuspension of avoiding major incisions, shorter hospital stay, and quicker return to normal activities. A variety of approaches and methods are used.

Objectives
To determine the effects of laparoscopic colposuspension surgery on urinary incontinence.

Search strategy
We searched the Cochrane Incontinence Group specialised register. The date of the most recent search was April 2001. Additional trials were sought from other sources such as reference lists, conference proceedings, reviews and unpublished research.

Selection criteria
Randomised or quasi-randomised controlled trials in women with symptomatic or urodynamic diagnosis of stress or mixed incontinence that included laparoscopic surgery in at least one arm of the study.

Data collection & analysis
Trials were evaluated for methodological quality and appropriateness for inclusion by the reviewers. Data were extracted by two of the reviewers and cross checked by another. Trial data were analysed by intervention. Where appropriate, a summary statistic was calculated.

Main results
Eight eligible trials were identified. Five included 233 women receiving a laparoscopic and 254 women an open colposuspension. Whilst the women's subjective impression of cure seemed similar for both procedures up to 18 months there was some evidence of poorer results on objective outcomes. A single trial suggested poorer long-term performance, but this may reflect surgical inexperience of laparoscopic colposuspension.

No significant differences were observed for post-operative urgency, voiding dysfunction or de novo detrusor instability. Trends were shown towards a higher complication rate, longer operating time, less intraoperative blood loss, less postoperative pain, shorter hospital stay, quicker return to normal activities, and shorter duration of catheterisation for laparoscopic compared with open colposuspension.

Significantly higher subjective and objective (dry on 'ultrashort' pad test) one year cure rates were found for women randomised to two paravaginal sutures compared with one suture in a single trial (89% vs 65% and 83% vs 58% respectively).

One study compared sutures with mesh and staples for laparoscopic colposuspension but it was too small to allow a reliable comparison.

One study compared transperitoneal with extraperitoneal access for laparoscopic colposuspension but it was also small and of poor quality.

Reviewers' conclusions
The long-term performance of laparoscopic colposuspension is uncertain. Currently available evidence suggests that it may be poorer than open colposuspension. Like other laparoscopically performed operations, laparoscopic colposuspension leads to a quicker recovery, but takes longer to perform and may be associated with more surgical complications. If it is performed, two paravaginal sutures appear to be more effective than one. The place of laparoscopic colposuspension in clinical practice should become clearer when ongoing trials are reported and when there are more data available describing long-term cure results.

SLING PROCEDURES (INCLUDING TVT)

June Cody, Adrian Grant

Based on reviews by June Cody, Adrian Grant, Carlos Bezerra, Homero Bruschini

Background
Suburethral slings are surgical operations used to treat women with urinary incontinence. They were originally designed for recurrent stress incontinence, but have also been used recently for primary cases.

Objectives
To determine the effects of suburethral slings on stress or mixed urinary incontinence in comparison with other management options.

Search strategy
We searched the Cochrane Incontinence Group's trials register, The UK National Research Register (Issue 1, 2001) and the reference lists of relevant articles. We hand searched the proceedings of the Brazilian Congress of Urology from 1991 to 1999, inclusive. Date of most recent search: March 2001.

Selection criteria
Randomised or quasi-randomised trials that included suburethral slings for the treatment of urinary incontinence.

Data collection & analysis
Both reviewers independently extracted data from included trials onto a standard form and assessed trial

methodological quality. The data abstracted were relevant to predetermined outcome measures. Where appropriate, a summary statistic was calculated: a relative risk for dichotomous data and a weighted mean difference for continuous data.

Main results
Seven trials were identified including 682 women - 457 treated with suburethral slings and 225 with other procedures. Four compared suburethral slings with open abdominal retropubic suspensions (Burch/Marshall-Marchetti-Krantz) and one compared suburethral slings with needle suspension (Stamey). In the two last trials, different types of suburethral sling were compared with each other. Six types of slings were included (Teflon, polytetrafluoroethylene, prolene used for tension free vaginal tape (TVT), porcine dermis, lyophilized dura mater and rectus fascia). There were no comparisons of suburethral sling with anterior repair, laparoscopic retropubic suspension, peri-urethral injections, artificial sphincters or conservative management.

In respect of short-term cure, overall rates are similar (RR 0.93; 95% CI 0.68 to 1.27) in comparison to open abdominal retropubic suspension. This mainly reflects the results of one larger trial on TVT. However, for long term results, data are too few to give a reliable estimate. Data were too few to address whether other types of suburethral slings were as effective as open abdominal retropubic suspension or needle suspension. There were no detectable differences in terms of voiding dysfunction, urge incontinence or detrusor instability between suburethral slings and abdominal or needle suspensions, but the data were few and the confidence intervals wide. About one in 11 had a complication during TVT, most commonly bladder perforation, but none had serious consequences.

In the small trial which compared autologous (rectus fascia) with synthetic (Goretex) slings, 11/32 vs 2/16 women were not cured after a year (RR 0.36, 95% CI 0.09 to 1.45) which is not statistically significant but fewer women with autologous slings had complications (0/32 vs 5/16; RR 21.35, 95% CI 1.25 to 363.78). Two women in the Goretex group had late sling erosion of the urethra requiring removal of the Goretex, although their incontinence remained cured.

Reviewers' conclusions
Preliminary results from a larger trial provide reassuring evidence about the performance of the less invasive TVT sling procedure. Cure rates after TVT were similar to those following open abdominal retropubic suspension, but with confidence intervals of around 10% absolute difference. About one in 11 women had a complication during TVT, most commonly bladder perforation, but none had serious consequences. Long term results are awaited.

The data were too few to address whether other types of suburethral slings were as effective as open abdominal retropubic suspension or needle suspension. There was limited evidence from one small trial that slings made of Goretex had more complications than slings made of rectus fascia. The broader effects of suburethral slings could not be established since trials did not include appropriate outcome measures such as general health status, health economics, pad testing, third party analysis and time to return to normal activity level.

Evidence that suburethral slings may be better or worse than other surgical or conservative management is lacking because no trials addressed these comparisons.

ANTICHOLINERGIC THERAPY FOR ADULTS WITH INCONTINENCE

Jean Hay-Smith

Based on review by Jean Hay-Smith, Gaye Ellis, Peter Herbison

Background
Around 16% of adults have symptoms of overactive bladder (urgency with frequency and/or urge incontinence). The prevalence increases with age. Anticholinergic drugs are commonly used to treat this condition.

Objectives
To determine the effects of anticholinergic drugs for the treatment of overactive bladder syndrome.

Search strategy
The Cochrane Incontinence Group trials register was searched to January 2002.

Selection criteria
Randomised or quasi-randomised trials in adults with overactive bladder syndrome that compared an anticholinergic drug with placebo treatment or no treatment.

Data collection & analysis
Two reviewers independently assessed eligibility, trial quality and extracted data. Data were processed as described in the Cochrane Collaboration Handbook.

Main results
Fifty one trials, 32 parallel designs and 19 crossover designs were included (6713 adults). Most trials were described as double-blind, but were variable in other aspects of quality. The crossover trials did not present data in a way that allowed inclusion in the meta-analysis. Seven medications were tested: darifenacin; emepronium bromide or carrageenate; oxybutynin chloride; propiverine; propantheline; tolterodine; and trospium chloride. One trial included the newer, slow release, formulation of tolterodine.

After treatment, cure/improvement (RR 1.41, 95%CI 1.29 to 1.54), changes in leakage episodes in 24 hours (WMD -0.56, 95%CI -0.73 to -0.39), number of voids in 24 hours (WMD -0.59, 95%CI -0.83 to -0.36), maximum cystometric volume (WMD 53.85 ml, 95%CI 42.28 to 65.41), and volume at first contraction (WMD 52.25 ml, 95%CI 37.45 to 67.06), were significantly in favour of medication. Medication was associated with significantly higher residual volumes (WMD 4.06 ml, 95%CI 0.73 to 7.39) and more than two and a half times the rate of dry mouth (RR 2.61, 95% CI 2.27 to 3.00). Sensitivity analysis, while limited by small numbers of trials, showed little likelihood that these effects were modified by age, sex, diagnosis, or choice of drug.

Reviewers' conclusions
The use of anticholinergic drugs by people with overactive bladder syndrome results in statistically significant improvement in symptoms. However, the clinical significance of these differences is uncertain, and the longer-term effects are not known. Dry mouth is a common side effect of therapy.

DESMOPRESSIN FOR CHILDHOOD ENURESIS

Adrian Grant

Based on reviews by Cathryn Glazener, Jonathan Evans

Background
Enuresis (bedwetting) is a socially disruptive and stressful condition which affects around 15-20% of five year olds, and up to 2% of young adults.

Objectives
To assess the effects of desmopressin on nocturnal enuresis in children, and to compare desmopressin with other interventions.

Search strategy
We searched the Cochrane Incontinence Group trials register. Date of the most recent search: March 2002. The reference list of a previous version of this review was also searched.

Selection criteria
All randomised trials of desmopressin for nocturnal enuresis in children were included in the review. Comparison interventions included placebo, other drugs, alarms or behavioural methods. Trials focused solely on daytime wetting were excluded.

Data collection & analysis
Two reviewers independently assessed the quality of the eligible trials, and extracted data.

Main results
Forty one randomised trials involving 2760 children (of whom 1813 received desmopressin) met the inclusion criteria. The quality of many of the trials was poor. Desmopressin was compared with another drug in four trials, and with alarms in seven.

Desmopressin was effective in reducing bedwetting in a variety of doses and forms. Each dose of desmopressin reduced bedwetting by at least one night per week during treatment compared with placebo (e.g. 20µg: 1.34 fewer wet nights per week, 95% CI 1.11 to 1.57). Children on desmopressin were more likely to become dry (e.g. RR for failure to achieve 14 dry nights with 20 mcg 0.84, 95% CI 0.79 to 0.91). However, there was no difference after treatment was finished. There was no clear dose-related effect of desmopressin, but the evidence was limited. Data which compared oral and nasal administration were too few to be conclusive.

While desmopressin was better than diclofenac or indomethacin, and comparison with tricyclic drugs (amitriptyline and imipramine) suggested that they might be as effective as desmopressin, the data were inconclusive due to small numbers. There were more side effects with the tricyclics.

In one small trial, desmopressin resulted in more wet nights than alarms towards the end of treatment (WMD 1.4, 95% CI: 0.14 to 2.66) and the chance of failure or relapse after alarms was less (RR 9.17, 95% CI 1.28 to 65.90). Although there were fewer wet nights during alarm treatment supplemented by desmopressin compared with alarms alone (WMD -1.35, 95% CI -2.32 to -0.38), the data are inconclusive about whether this is reflected in lower failure (RR 0.88, 95%CI 0.52 to 1.50) or subsequent relapse rates (RR 0.58, 95% CI 0.31 to 1.10).

Reviewers' conclusions

Desmopressin rapidly reduced the number of wet nights per week, but there was some evidence that this was not sustained after treatment stopped. Comparison with alternative treatments suggested that desmopressin and tricyclics had similar clinical effects, but that alarms may produce more sustained benefits. However, based on the available limited evidence, these conclusions can only be tentative. Children should be advised not to drink more than 240 ml (8 oz) fluid during desmopressin treatment in order to avoid the possible risk of water intoxication.