tage of LMWH demonstrated in this study.

Recommendations for clinical practice **LMWH significantly reduces mortality rates after acute DVT. They are also as safe and effective as UFH with regard to major bleeding episodes and preventing recurrence of DVT. Perhaps most important, using LMWH is easier and more convenient, allowing for early hospital discharge or outpatient treatment. This well-done meta-analysis supports similar findings in earlier studies. An article that accompanies this one in the same issue of *Annals of Internal Medicine*[2] adds to the mounting evidence that LMWH is a more cost-effective treatment option as well. The best available evidence regarding treatment of acute DVT in terms of efficacy, safety, cost, and convenience suggests that LMWH should replace UFH.**

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REFERENCES

1. Schultz KF, Chalmers I, Hayes RJ, Altman DG. Empirical evidence of bias: dimensions of methodological quality associated with estimates of treatment effects in controlled trials. JAMA 1995; 273:408-12.
2. Gould MK, Dembitzer AD, Sanders GD, Garber AM. Low-molecular-weight heparins compared with unfractionated heparin for treatment of acute deep venous thrombosis: a cost-effectiveness analysis. Ann Intern Med 1999; 130:789-99.

Urethral Barriers for Stress Incontinence

Brubaker L, Harris T, Gleason D, Newman D, North B, and the Miniguard Investigators Group. The external urethral barrier for stress incontinence: a multicenter trial of safety and efficacy. Obstet Gynecol 1999; 93:932-7.

Clinical question **Is the use of an external urethral barrier a safe and effective treatment for stress urinary incontinence in women?**

Background Stress urinary incontinence is the most common type of incontinence in women and has a very significant impact on their daily lives. This manufacturer-supported study was designed to evaluate the safety and efficacy of the Miniguard external urethral barrier.

Population studied A total of 411 women with self-reported symptoms of mild to moderate stress urinary incontinence were enrolled from 12 centers in the United States. Women were excluded for the following reasons: symptoms of urinary tract infection, vaginitis, or intralabial irritation; skin sensitized by soaps, lotions, or feminine products; a urethral meatus inside the vaginal opening; a postvoid residual urine >200 cc; pelvic surgery within the last 5 months; inability to understand instructions for use; or inability to properly place barrier. Women ranged in age from 18 to 78 years (average age = 49 years). Approximately 25% of the study population were postmenopausal, and more than half of them were taking estrogen preparations.

Study design and validity This was an uncontrolled trial designed to evaluate the safety and efficacy of this particular device. Of the 411 women who entered the study, 390 began device use and 346 completed the study. The authors verified the dropout reasons for each of the 65 women who did not complete the study.

The study period was 21 weeks, consisting of a 1-week qualifying period, a 4-week baseline assessment, 12 weeks of device use, and 4 weeks of follow-up. Patients received an instruction sheet and a toll-free number for assistance and were required to be able to place the device properly within 3 attempts. They were also given a daily journal, a 7-day voiding journal, and materials for a home pad test (12 waking hours) to be completed before the second visit. They were given devices every 4 weeks and instructed to use the device as their normal incontinence protection. Efficacy was evaluated through the use of questionnaires, voiding diaries, and pad testing. Safety was evaluated through monitoring for urinary tract infection, vulvar irritation, vaginitis, urinary retention, and detrusor overactivity. There was no comparison made between this barrier method and any other nonsurgical treatment method for urinary incontinence. Major weaknesses of the study include its convenience sample, lack of a comparison group, manufacturer support, and lack of blinding of raters for evaluation of data.

Outcomes measured The primary patient-oriented outcomes for this study were a reduction in the number of leakage episodes recorded in a 7-day voiding diary, subjective leakage severity scores, incontinence impact scores, and pad-test loss during device use. Safety outcomes included lack of statistically and clinically significant change in the percentage of patients with a urinary tract infection during device use or in the postvoid residual urine volume.

Results The study participants used an average of 4 devices per day for approximately 9 hours per day. Most participants reported that the device was comfortable (89% by week 9, 93% by week 17). Women reported a significant decrease in the urinary leakage severity score while wearing the device from a baseline average score of 10 to an average score of 3 by week 9. When the device was discontinued for 4 weeks, the average score increased to 7. The incontinence impact questionnaire results revealed a positive impact on the quality of life. There was no statistically significant change in the percentage of women with positive urine cultures during

the study, there were no occurrences of urinary retention, and there were no cystometric differences in women before or after device use. Fewer than 1% of the women reported any vulvar irritation.

Recommendations for clinical practice **Is this barrier device more effective than other nonsurgical treatments of urinary stress incontinence? All of the women in this study had mild or moderate stress incontinence, and the Kegel's exercises recommended by the Agency for Health Care Policy and Research's guidelines are known to be 80% to 90% effective for women with this condition.[1] Although this device may be a safe and relatively effective alternative, I am not convinced that it is preferable to doing simple exercises.**

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REFERENCE

1. Urinary Incontinence Guideline Panel. Urinary incontinence in adults: clinical practice guideline. Agency for Health Care Policy and Research publication no. 92-0038. Rockville, Md: Agency for Health Care Policy and Research, Public Health Service, US Department of Health and Human Services; 1992.

Treatments for Atopic Eczema

Charman C. Clinical evidence: atopic eczema. BMJ 1999; 318:1600-4.

Clinical question **Which interventions are effective for the treatment and prevention of atopic eczema?**

Background Atopic eczema is an increasingly common skin disease with inflammatory erythematous pruritic eruptions usually found in the skin creases. In the United Kingdom, where this study was done, 15% to 20% of school children and 2% to 3% of adults are affected. The etiology of atopic eczema is multifactorial—genetics, environmental exposures, and infections all play a part. The author of this paper conducted a systematic review of the literature for the following treatment and prevention options: topical steroids, combination of topical steroids and topical antimicrobials, control of house dust mites, dietary manipulation, and prolonged breastfeeding.

Population studied The author searched for systematic reviews and controlled clinical trials using *The Cochrane Library* (1998), *Best Evidence* (1998), MEDLINE (1966-1998), and EMBASE (1988-1998). He included randomized controlled trials that met the criteria for quality of the "Clinical Evidence" series of systematic reviews. These criteria were not described in the article. The author did state that some studies with methodologic shortcomings were included in review.

Study design and validity This is a clinical review, not a meta-analysis. The author searched specific databases looking for systematic reviews and randomized controlled trials. The quality assessment of the articles is not clearly described, and since there is only one author, it is unlikely that the quality assessment was checked for reproducibility. The author presents each intervention option and then states whether randomized controlled trials and systematic reviews were found. No aggregation of the data from the studies was performed.

Outcomes measured The outcomes reported in this review included symptom scores and skin-related quality of life. The scoring systems used were SCORAD (scoring atopic dermatitis), SASSAD (six-sign atopic dermatitis), the Rajka and Langeland scoring system, and the dermatology life quality index.

Results No systematic reviews were identified in the literature search. The most beneficial intervention was topical steroids. Nine randomized controlled trials compared steroids with placebo. In the 3 best, 75% to 87% of patients in the treatment groups responded, compared with 8% to 29% in the control groups. No serious or systemic side effects were noted in these studies. The combination of topical steroids and antimicrobials was no better than topical steroids alone. This conclusion was made using the results of 2 randomized controlled trials comparing hydrocortisone and fusidic acid with hydrocortisone alone (186 participants for 2 weeks) and betamethasone and fusidic acid with betamethasone alone (60 participants for 1 week). Control of house dust mites may reduce the eczema severity score, according to 1 of 3 controlled trials that showed mixed results. Dietary manipulation did not have an effect on atopic eczema according to the results of 4 randomized controlled trials (1 in infants, 2 in children, and 1 in adults). Prolonged breastfeeding and restricting the mother's diet during lactation did not seem to prevent atopic eczema, although no randomized controlled trials addressed these questions.

Recommendations for clinical practice **The author of this article did a nice job of reviewing the literature on atopic eczema. He demonstrates how there may be only 1 or 2 studies on which we base our recommendations, even for common clinical problems. It is reasonable to continue to recommend topical steroids and house dust mite control measures for our patients with atopic eczema. Antimicrobials do not improve outcomes when added to topical steroids, and the different types of topical steroids all had effects similar to one another. Even if breastfeeding does not decrease the inci-**