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INSIDE

Coming Soon to a Pharmacy Near You: 'Son of Prilosec'

By William T. Elliott, MD, FACP

The fda has approved astrazeneca's esomeprazole (nexium), a new **proton pump inhibitor** for the treatment of **gastroesophageal reflux disease** (GERD). The drug, commonly called "Son of Prilosec," is being introduced just as the company is losing its patent for **omeprazole** (Prilosec), AstraZeneca's billion dollar drug. **Esomeprazole** is the S-isomer of omeprazole. The new drug was also approved for treatment of erosive esophagitis and as part of a multidrug regimen for treatment of ***Helicobacter pylori***.

The FDA has also approved the first **non-CFC propelled steroid inhaler** for the long-term treatment of **asthma**. Marketed under the name QVAR, 3M pharmaceuticals has formulated **beclomethasone dipropionate** in a solution that results in smaller particle sizes and better lung penetration. This increased penetration allows for twice-a-day dosing and the option of not using a spacer device, since little of the medication is deposited in the mouth and throat. QVAR is indicated for the long-term treatment of asthma in patients 12 years of age and older.

PBMs Offer Electronic Prescribing

The nations three largest **pharmacy benefit management companies** (PBMs) are joining together to provide each other with electronic information, linking patients, pharmacies, and health plans. The new joint venture, called RxHub LLC, is the result of a collaboration between PBM giants Merck-Medco, AdvancePCS, and Express Scripts, companies that provide pharmaceutical coverage accounting for more than 1 billion prescriptions per year. The basis of the new company is **electronic prescribing**, allowing doctors to send electronic prescriptions from their offices to pharmacies, thus saving time, cutting down on errors, and alerting physicians of potential drug interactions. The system will also be able to help doctors with formulary compliance and suggest generic drugs when available. RxHub will be funded by the PBMs and will be free to participating physicians.

Dietary Supplements

Many patients swear by **dietary supplements**, claiming improved sense of well-being and sleep. If they have been taking **Anso Comfort Capsules** made by NuMeridian, the reason could be that the capsules contain chlordiazepoxide (Librium). The FDA ordered a nationwide recall of the capsules after an investigation showed the capsules contained the **Schedule IV drug benzodiazepine**.

Company officials report that the raw materials for the Comfort Capsules were imported from China.

Is Aspirin Harmful?

Are there patients that should not be taking **aspirin**? A new study suggests that patients at low risk for **heart disease** will not benefit from daily aspirin and may actually be harmed by the drug. The findings are the result of a meta-analysis of 4 large, randomized, controlled trials of aspirin for primary prevention. Aspirin significantly reduced the risk of **cardiovascular events** and myocardial infarction but increased the risk of bleeding complications. In patients with high or moderate risk of cardiovascular disease, the benefit outweighed the risk. But in patients with low risk of cardiovascular disease (defined as coronary event risk < 0.5%/y), aspirin was associated with higher mortality (*Heart.* 2001;85:265-271). The findings from a different study point out how useful aspirin is within the first 48 hours of **acute myocardial infarction** (AMI). Researchers in Germany compared the outcomes of AMI patients who did not receive aspirin to those who did and found that no aspirin was associated with a 27% in-hospital mortality, while only 11% of those who received aspirin in the first 48 hours died (*Am Heart J.* 2001;141:200-205).

Generic Prozac?

Eli Lilly is losing patent protection on its **antidepressant fluoxetine** (Prozac) later this year. The August patent expiration means that the market will soon be flooded with inexpensive generic Prozac capsules, with Lilly losing one of its major revenue sources. But the company is not going down without a fight. Last year Lilly reformulated fluoxetine and reintroduced it as "Sarafem" for the treatment of **premenstrual dysphoria**; now, the company has received FDA approval to market a once-a-week fluoxetine under the trade name "Prozac Weekly." The new preparation provides 90 mg of fluoxetine in an enteric-coated tablet. The drug is indicated for depression in patients who are being treated with long-term therapy and have been stabilized.

Inhaled Insulin

Inhaled insulin may soon be a reality. Type 1 **diabetics** were given preprandial inhaled insulin along with a bedtime injection of a long-acting insulin in a recent study. After close monitoring and adjustments in dose at 12 weeks, HbA1c levels, as well as fasting and postprandial glucose levels, and the incidence of hypoglycemia was not significantly different than in a control group using injectable insulin (*Lancet.* 2001;357:331-335). The inhaled insulin preparation was also found to be well tolerated in type 2 diabetics, improving glycemic control and showing no short-term adverse pulmonary effects (*Ann Intern Med.* 2001;134:203-207).

SERMs

The **selective estrogen receptor modulator** (SERM) **raloxifene** (Evista – Eli Lilly) has been shown to reduce the risk of **breast cancer** in women who are taking it for **osteoporosis**. SERMs have pro-estrogen effects on some tissues, and anti-estrogen effects in others. The Multiple Outcomes of Raloxifene Evaluation (MORE) trial is following more than 7500 women, with one-third each randomly assigned to raloxifene 60 mg/d, raloxifene 120 mg/d, or placebo.

Women taking raloxifene were found to have lower incidence of all breast cancers. The incidence of invasive breast cancer was reduced by 72% in women taking the drug. Side effects such as hot flashes were more common in the treatment group, and the incidence of thromboembolic disease was double in the treatment group (*Breast Cancer Res Treat.* 2001;65:125-134). ■

Protopic Ointment: A New Agent for Atopic Dermatitis

By William T. Elliott, MD, FACP, and James Chan, PharmD, PhD

The fda recently approved a topical preparation of the immunosuppressant tacrolimus for the treatment of atopic dermatitis. Tacrolimus was originally developed as an immunosuppressant for preventing allograft rejection in organ transplantation and is currently in wide usage in this role, along with cyclosporine. But unlike cyclosporine, tacrolimus is active topically and may represent the first in an important new class of drugs for the treatment of inflammatory skin disorders. Tacrolimus ointment is marketed as Protopic by Fujisawa Healthcare, Inc.

Indications

Tacrolimus is indicated for short-term and intermittent long-term therapy in the treatment of patients with moderate to severe atopic dermatitis in whom the use of alternative, conventional therapies are deemed inadvisable because of potential risks, or in the treatment of patients who are not adequately responsive to or are intolerant of alternative conventional therapies.[1]

Dosage

Tacrolimus ointment is available in two strengths for adults, 0.03% and 0.1%, and one strength for children 2-15 years of age, 0.03%. A thin layer is applied to the clear, dry, affected skin twice daily and should be rubbed in gently and completely. Treatment should be continued for one week after the clearing of signs and symptoms of atopic dermatitis.[1] The 0.1% strength may be more appropriate in patients with severe disease and/or extensive body surface involvement or in African- Americans.[1,4,6]

Tacrolimus is supplied as 0.03% and 0.1% ointment as 30 g or 60 g.

Potential Advantages

Tacrolimus offers an alternative to corticosteroids for the treatment of atopic dermatitis. In contrast to corticosteroids, atrophogenic effects have not been reported with tacrolimus, thus the drug can be used safely on the face and neck.

Potential Disadvantages

Side effects include burning (47%), pruritus (24%), and erythema (12%). The frequency of side effects tends to decline over time.[1,3] Topical tacrolimus may be associated with increased risk of chicken pox or shingles (eczema herpeticum), although the latter is a recognized complication of atopic dermatitis. The drug should not be used in patients who are pregnant, breast feeding, or have on-site infections. Lymphadenopathy has been reported in a small percent (0.8%) of patients. Exposure to ultraviolet radiation of natural or artificial sources should be minimized as tacrolimus has been shown to shorten the time to skin tumor development in animals.[1] Tacrolimus can be absorbed after topical application of the 0.1% strength, although levels are at least 30-fold less than levels achieved with oral administration.[1]

Comments

The topical mechanism of action of tacrolimus is not known but may involve interference of the epidermal cytokine networks, suppression of T-cell activation, and inhibition of the release of preformed mediators from skin mast cells and basophils.[1,2] Tacrolimus has been studied in adults and children in vehicle-controlled trials in subjects with moderate to severe atopic dermatitis and percent of body surface involvement of 45-48%.

Twelve-week randomized, double blind, vehicle-controlled, efficacy trials were conducted in pediatric (n = 351) and adult patients (n = 632).[4-6] Primary efficacy end point was the Physician's Global Evaluation of Clinical Response at the end of treatment. This was defined as a rating of cleared or excellent improvement (at least 90%) compared to baseline. Tacrolimus treated subjects had a success rate of 27.5-35.9% for the 0.03% ointment, 36.8-40.7% for the 0.1% ointment, and 6.6-6.9% for vehicle. Results may be achieved during the first week and maximized at three months.[3] Success will begin to regress about two weeks after discontinuation of treatment.[1]

One-year open-label studies in adults (n = 316) and children (n = 255) reported that tacrolimus was generally safe and well tolerated.[3,7] Quantifiable blood tacrolimus levels were considered transient and isolated, although Fujisawa is required by the FDA to conduct pediatric pharmacokinetic studies. Skin atrophy was not reported and some authors reported reversal of skin atrophy, although this may also be attributed to discontinuation of topical corticosteroids. These studies suggest that efficacy was maintained for at least the 12-month period. However, a long-term efficacy study in patients with atopic dermatitis and recalcitrant facial erythema resistant to topical corticosteroids did show tachyphylaxis.[8]

Clinical Implications

Atopic dermatitis is a chronic relapsing inflammatory skin disease that affects up to 15% of children. In about 50% of these children, the disease persists into adulthood. Moderate to severe disease can have a significant effect on the patient's quality of life. Topical corticosteroids are the mainstay of therapy; however, these drugs are plagued with the problem of skin atrophy, striae, and even systemic effects. High potency corticosteroids are indicated for limited areas, for short periods, and cannot be used on the face and other sensitive skin at all. Tacrolimus appears modestly effective as about one-fourth to two-fifths of patients achieve excellent improvement (≥ 90%) and two-thirds to three-fourths of patients achieve moderate success (≥ 50% improvement).

The relative efficacy of tacrolimus vs. corticosteroids is not clear as results from comparative trials are not available. Tacrolimus provides an alternative to corticosteroids for moderate to severe atopic dermatitis and represents the first topical immunosuppressants for the treatment of inflammatory skin diseases. Tacrolimus is expensive, the cost is about $50 for 30 g and about $100 for 60 g. ■

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Starlix: A New Oral Agent for Type 2 Diabetes

By William T. Elliott, MD, FACP, and James Chan, PharmD, PhD

Nateglinide is the newest oral agent for the management of type 2 diabetes. Nateglinide is a D-phenylalanine derivative, nonsulfonylurea that has a short duration of action similar to repaglinide (Prandin). These agents are taken at mealtime to stimulate the release of insulin—thus reducing mealtime blood glucose excursions. Nateglinide is marketed as Starlix by Novartis.

Indications

Nateglinide is indicated as monotherapy in patients with type 2 diabetes who have not achieved adequate glycemic control by diet and physical exercise and who have not been chronically treated with other antidiabetic agents. It is also indicated for use in combination with metformin. Nateglinide should not be initiated in patients who have been inadequately controlled on other agents that act by stimulating insulin secretion.[1]

Dosage

The recommended starting dose for monotherapy or in combination is 120 mg three times a day, 1-30 minutes before meals. A lower 60 mg dose may be used in patients who are near HbA1c goal when therapy is initiated.[1]

No dosage adjustment is required in patients with mild to severe renal impairment or mild hepatic impairment.[1] The drug is available in 60, 120, and 180 mg tablets.

Potential Advantages

Compared to repaglinide, the other marketed shortacting insulin secretagogue, nateglinide appears to have a lower incidence of hypoglycemia. In placebo-controlled trials, the frequency of hypoglycemia was 2.4% for nateglinide vs. 0.4% for placebo and 31% vs. 7% for repaglinide vs. placebo.[1,2] Short-acting secretagogues permit mealtime flexibility and reduce between meal and nocturnal hypoglycemia. The patient can skip a tablet if a meal is missed thus avoiding hypoglycemia, which could be problematic with a long-acting secretagogue such as glyburide. Insulin profiles after repaglinide or nateglinide reflect more closely those of nondiabetic patients.[3,4]

Nateglinide appears to be tissue specific. At concentrations that stimulate insulin secretion, nateglinide is least likely to inhibit cardiovascular potassium-dependent adenosine triphosphate (K [ATP]) channels in animal models compared to glyburide or repaglinide.[5]

Potential Disadvantages

Nateglinide appears to be less potent than repaglinide and glyburide for inhibition of K (ATP) channels.[6] Results from clinical trials reported by the manufacturer indicated a 1% point reduction in HbA1c compared to placebo in treatment-naive patients (mean baseline, 8.1%) and 0.6% reduction nonnaive patients (baseline, 8.5%).[1] There are no published comparative trials between nateglinide and repaglinide.

In general, sulfonylureas or repaglinide as monotherapy generally decrease HbA1c by 1.5-2%.[7] Nateglinide is only recommended for use in sulfonylurea-naive patients while repaglinide is not restricted to use in treatment-naive patients.[1,2] Nateglinide is a potential inhibitor of cytochrome P450 2C9 and may inhibit drugs metabolized by this isoenzyme. Nateglinide requires three times a day dosing, with each meal.

Comments

Nateglinide is a rapid and short-acting phenylalanine derivative that releases insulin from pancreatic beta cells by inhibiting the K (ATP) channels. It is a less potent inhibitor and the inhibition may be of shorter duration.[6] It restores early insulin secretion phase and post-prandial glucose excursion in type 2 diabetics.[3,8] As monotherapy, nateglinide is more effective in treatment-naive patients compared to previously treated patients.[1] The addition of metformin to nateglinide improves glycemic control compared to monotherapy in treatment-naive patients and is more effective than metformin alone in patients previously treated with glyburide.[1,9,10] Glycosylated hemoglobin reductions compared to placebo of up to 2 percentage points have been reported with the combination.[1,8]

Clinical Implication

Nateglinide offers an alternative to repaglinide as a rapid short-acting insulin secretagogue. Its lower potency may limit its use to treatment-naive mild diabetics or in combination with other drugs with a different mechanism of action such as metformin. Its primary advantage is a low incidence of hypoglycemia. The wholesale cost for nateglinide is about $2.50 per day (120 mg 3 times a day) and is more expensive than repaglinide, about $2 (1 mg 3 times a day). ■

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Postmenopausal Hormone Therapy and Prevention of Cardiovascular Disease

Source: *Grodstein F, et al. Ann Intern Med 2000;133:933-941.*

The 20-year follow-up from the nurses' health study reports a reduced risk of coronary heart disease in current users of postmenopausal hormone therapy, but a slight increase in the risk for nonfatal stroke.

Grodstein and colleagues from the Nurses' Health Study report the effect of postmenopausal hormone therapy on cardiovascular disease, based upon follow-up from 70,533 postmenopausal women. This prospective, cohort study recorded 953 myocardial infarctions, 305 coronary deaths, and 767 strokes from 1976-1996. The major observations are presented in the following tables:

These numbers indicate that current users of post-

Table 1
Coronary Heart Disease

	Cases	Adjusted RR (Confidence Interval)
Current users	259	0.61 (0.52-0.71)
0.3 mg	19	0.58 (0.37-0.92)
0.625 mg	9	0.54 (0.44-0.67)
1.25 mg	41	0.70 (0.51-0.97)
Estrogen alone	?	0.55 (0.45-0.68)
E + P*	?	0.64 (0.49-0.85)

Table 2
Stroke

	Cases	Adjusted RR (Confidence Interval)
Current users	238	1.13 (0.94-1.35)
0.3 mg	9	0.54 (0.28-1.06)
0.625 mg	124	1.35 (1.08-1.68)
1.25 mg	46	1.63 (1.18-2.26)
Estrogen alone	?	1.18 (0.95-1.46)
E + P*	?	1.45 (1.10-1.92)

* Estrogen and Progestin together

Table 3
Fatal Stroke

	Adjusted RR (Confidence Interval)
0.625 mg	1.01 (0.59-1.71)
1.25 mg	1.25 (0.57-2.77)
Estrogen alone	0.81 (0.49-1.34)
E + P	1.22 (0.65-2.28)

menopausal hormone therapy have a significant reduction in the risk of coronary heart disease with estrogen alone or with a combination of estrogen and progestin (although not reported, this is most likely nearly all sequential regimens). The results were adjusted for body mass index, diabetes, hypertension, elevated cholesterol, smoking, and age of menopause. Further analysis of diet, physical activity, and use of aspirin and vitamin supplements did not significantly change the results. Overall, there was no significant effect of hormone therapy on the risk of nonfatal and fatal stroke. However, there was a suggestion that higher doses of estrogen and estrogen combined with progestin modestly increased the risk of nonfatal stroke (a statistically significant effect was present only with ischemic stroke, not with hemorrhagic stroke), but no significant increase in the risk of fatal stroke.

Comment By Leon Speroff, MD

This latest update from the Nurses' Health Study on the effect of postmenopausal hormone therapy on the primary prevention of cardiovascular disease provides no major changes from the 16-year report, about a 40% reduced risk for coronary heart disease, but it allows a better assessment of the effect of dose and duration of use.[1] Overall, this report from the Nurses' Health Study provides support for the belief that post-menopausal hormone therapy provides primary prevention against coronary heart disease, and that the doses of 0.3 mg and 0.625 mg of conjugated estrogens produce comparable effects.

Unfortunately, the report does not provide the case num-

bers for the relative risks associated with estrogen alone compared with a combination of estrogen and progestin, and for the analysis of fatal stroke. The tight confidence intervals suggest that the estimates of risk are precise, usually a result of adequate case numbers. However, notice that the stroke risk associated with 0.3 mg conjugated estrogens is based on only nine cases. Thus, one appropriate concern is whether the conclusions regarding combined estrogen and progestin are limited by small case numbers. It would also be of great interest to know whether the stroke results in the Nurses' Health Study are influenced by the ages of the women. An obvious concern is whether the dose of estrogen should be decreased with increasing age.

In contrast to the uniform results from observational studies of the association between postmenopausal hormone therapy and coronary heart disease, epidemiologic data over the last 20 years regarding estrogen use and stroke have not been consistent. Many studies have indicated either no effect of postmenopausal hormone therapy on the risk of stroke or a reduction in risk associ-ated with estrogen or estrogen-progestin use.[1-12]

In a large Danish case-control study, no affect could be detected of either estrogen or combined estrogen and progestin on the risk of nonfatal stroke, both thromboembolic and hemorrhagic.[11] A case-control study from Seattle found about a 50% reduced risk of subarachnoid hemorrhage with the use of postmenopausal hormone therapy, and the effect was even greater among smokers.[10] In the prospective study of the Leisure World cohort, estrogen therapy was associated with a 46% overall reduction in the risk of death from stroke, with a 79% reduction in recent users.[5] The population-based cohort study in Uppsala, Sweden, documented a 30% reduced incidence of stroke in postmenopausal users of estrogen, and, importantly, women prescribed an estrogen-progestin combination, containing a significant dose of the potent androgenic agent levonorgestrel, also experienced a reduced incidence of stroke.[9] A reduced risk for mortality from stroke in this Swedish study was confined to intracerebral hemorrhage.[13]

Within this confusing mixture of results, there has been one consistent observation. The cohort studies (with a sufficient number of cases) that have assessed the effect of hormone use on the risk of death from stroke have all indicated a beneficial effect (except for the Nurses' Health Study). For example, the National Health and Nutrition Examination Survey (NHANES) recruited a large cohort of women from 1971-1975 for epidemiologic analysis. The follow-up longitudinal study of this cohort yielded a U.S. national sample of 1910 white, postmenopausal women. Postmenopausal hormone use in this cohort provided a 31% reduction in stroke incidence and a strongly significant 63% reduction in stroke mortality.[8]

One emphasis in the discussion in the current report from the Nurses' Health Study was especially disturbing to me. Grodstein et al twice refer to their examination of women with previous coronary disease in the Nurses' Health Study, concluding that short-term hormone use increased the rate of recurrent cardiac events, supporting the HERS Trial. Grodstein et al conveniently do not provide their numbers, but they have been presented in abstract form[14] (*See Table 4*).

Table 4

	Cases	Risk of Recurrent Cardiac Event
Current Use	?	0.65 (0.45-0.95)
< 1 year	6	2.1 (0.88-4.97)
1-1.9 yrs	3	1.01 (0.31-3.27)
2+ yrs	33	0.56 (0.37-0.85)

These numbers do not indicate a statistically significant increase with less than two years of hormone use in women with coronary heart disease, and citing the results with short-term use, based on only six cases, is yet another example of selective reporting by the Nurses' Health Study authors. Indeed, where there is some strength of numbers, these data support the idea that with increasing duration of exposure there is secondary prevention of recurrent events (as also noted in the HERS Trial)!

The editorial accompanying the report from the Nurses' Health Study concludes that the disappointing results from the HERS Trial, the ERA Trial, and the recent report from the Women's Health Initiative (WHI) indicate that clinicians should not use hormone therapy for the prevention of coronary disease until we have final data from randomized trials.[15] I disagree with this conclusion. This latest report from the Nurses' Health Study continues to provide support for the belief that postmenopausal hormone therapy provides protection against coronary heart disease in current users. It also suggests that we should begin to consider the use of lower doses of estrogen in older women (after age 65). The HERS Trial and the WHI report indicated a growing benefit with increasing duration of use, not a totally null or adverse effect. Randomized trial data will not emerge until 2006-2008. Until then, the current state of knowledge is sufficient, in my view, to support hor- mone therapy for primary prevention of coronary heart disease. ■

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Dramamine Superior to Lorazepam for Treatment of Acute Vertigo

Source: *Marill KA, et al. Ann Emerg Med. 2000;36:310-319.*

Vertigo is one of the most commonly encountered and difficult to treat complaints in neurologic as well as general practice. A multitude of treatment options may be used, but none are clearly preferred as the agent with an ideal ratio of benefits to side effects. Anticholinergics, benzodiazepines, antihistamines, neuroleptics, and other agents have been used with variable success.

Marill and associates performed a study of 74 patients presenting to the emergency room (ER) with acute vertigo. Patients were prospectively randomized in a double-blind fashion to either intravenous lorazepam (2 mg) or dimenhydrinate (50 mg). The latter agent is available in oral form under the brand name Dramamine. It is a salt of the antihistamine diphenhydramine and 8-chlorotheophylline.

Vertigo was assessed by a 10-point patient rating scale. In a pilot study, vertigo during ambulation was found to be more sensitive than vertigo while lying in bed, sitting, or with head turn. This was, therefore, the primary outcome variable. The severity of vertigo during ambulation was also of practical significance as patients must be able to walk to be discharged from the ER. Secondary end points included symptoms such as nausea, treatment-related sedation, and overall "readiness to go home."

The mean magnitude of vertigo decreased from 6.4 to 2.6 (decrease = 3.8) in the dimenhydrinate group compared with 7.4 to 4.8 (decrease = 2.6) in the lorazepam group—a statistically significant difference. As Marill et al note, patients in the lorazepam group had higher pretreatment vertigo severity. In the overall cohort, however, patients with more severe vertigo benefited more from treatment. This would have biased in favor of lorazepam rather than against it.

Patients treated with lorazepam experienced significantly more sedation. Nausea decreased similarly in both treatment groups. Overall, 32 (86%) patients in the dimenhydrinate groups were "ready to go home" two hours after treatment compared with 25 (69%) in the lorazepam group. This assessment was made variably by the treating physician or the patients, with comparable results by either method.

Comment by Alan Z. Segal, MD

As assessed by ER physicians, the discharge diagnosis assigned to the majority of patients was "acute vertigo," presumably of peripheral origin, rather than a more specific neurological disorder. It is not completely clear how many of the patients had true vertigo as opposed to more nonspecific dizziness. Patients were evaluated for nystagmus (present in > 60%) but not for other neurological signs. As Marill et al acknowledge, central vertigo (e.g., related to brainstem or cerebellar ischemia) probably comprised a negligible fraction of this population of patients (mean age = 45). Indeed, among the minority of patients in whom neuro-imaging was performed (n = 12, primarily CT), only one was positive (a cerebellar infarct). It is possible that patients with central-type vertigo were considered "too sick" for study enrollment or were considered ineligible due to concerns of stroke or TIA. Marill et al do not have specific data regarding these possible exclusions.

Despite these diagnostic considerations and the lack of any placebo-control group (considered unethical by Marill et al), this study is useful and important. An informal poll of neurologists in Marill et al's practice showed that most did not consider Dramamine to be efficacious in their patients with vertigo. Rather, they commonly prescribe benzodiazepines for this purpose. The data from Marill et al suggest that Dramamine, an easily obtained

over-the-counter preparation, may be equally or more effective than lorazepam, a schedule II drug that is restricted and has significant abuse potential. ■

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Therapeutics and Drug Brief

Moxifloxacin and Azithromycin in Chronic Bronchitis Treatment

Source: *Kreis SR, et al. Journal of Clinical Outcomes Management. 2000;7(12):33-37.*

Optimum treatment for acute exacerbations of chronic bronchitis (AECB) remains a matter of heated debate. Because AECB are common and a substantial minority of such cases result in hospitalization, refining treatment choices may help clinicians improve outcomes.

The trial enrolled 401 patients with AECB, defined as increased sputum purulence plus increased sputum volume, cough, or dyspnea. Patients were randomized to receive a five-day course of moxifloxacin (n = 203) 400 mg qd, or azithromycin (n = 198) 500 mg day 1, then 250 mg qd × 4. At the test of cure visit, patient outcomes were examined including the number of days until symptom relief, days until resuming normal activity, and hours of work missed.

Both regimens were highly effective for clinical resolution. Patients in the moxifloxacin group had a slightly more rapid recovery (symptomatic relief by day 3: moxifloxacin = 40%, azithro-mycin = 27%). Kreis and associates conclude that moxifloxacin is as effective for AECB resolution and may offer more rapid return to normal activities for some individuals. ■

The Therapeutics & Drug Brief was written by Louis Kuritzky, MD, Clinical Professor, University of Florida, Gainesville, Fla.

Readers are Invited. . .

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CME questions

Testing form inserted in the July 2001 issue

4. The following statements are true regarding postmenopausal hormone therapy and the prevention of cardiovascular disease *except*:

a. Case-control and cohort studies uniformly indicate that postmenopausal hormone therapy reduces the risk of coronary heart disease by about 40-50%.

b. Case-control and cohort studies uniformly indicate that unopposed estrogen and combined estrogen-progestin treatment have similar cardiovascular benefits.

c. Case-control and cohort studies uniformly indicate that postmenopausal hormone therapy reduces the risk of stroke.

d. Case-control and cohort studies are not uniformly accepted by clinicians and epidemiologists.

5. In treatment of acute vertigo, all of the following are true *except*:

a. Dramamine reduces symptoms more than does lorazepam.

b. Lorazepam results in a greater degree of sedation than does Dramamine.

c. Dramamine is superior to lorazepam for vertigo associated with a brainstem or cerebellar insult.

d. No single agent is universally accepted as ideal treatment.

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