Intermittent Steroid Prevents Atopic Dermatitis Relapse

Clinical question: Can the intermittent use of a potent topical steroid prevent relapse in patients with atopic dermatitis?

Setting: Outpatient (specialty)

Study design: Randomized controlled trial (double-blinded)

Synopsis: Two approaches are used after controlling atopic dermatitis symptoms with a potent topical steroid: (1) continue steroid treatment on a regular basis using a lower potency steroid, or (2) switch to a steroid-free emollient. The investigators of this project identified 376 adults with moderate to severe atopic dermatitis who were experiencing a flare-up. All the patients received acute treatment with fluticasone propionate cream or ointment, a potent topical steroid, once or twice daily for 4 weeks. Patients whose dermatitis was brought under control (n=295) were continued on emollient treatment twice daily. Half the patients received a placebo, and the other half were continued on the fluticasone treatment for another 4 weeks. After 16 weeks, relapse had occurred in 29% of patients using the steroid versus 40% of placebo-treated patients (P=.002). There was a difference between cream and ointment preparations of fluticasone, with relapses occurring twice as often in the patients treated with ointment (19% versus 40%, P=.002).

Bottom line: After controlling symptoms of atopic dermatitis with regular use of a topical steroid, applying the same steroid twice a week to the usually affected areas, along with emollient treatment, decreases relapse. The cream formulation worked better than the ointment.


Colchicine Effective for Idiopathic Chronic Constipation

Clinical question: Is colchicine an effective treatment for chronic constipation?

Setting: Outpatient (specialty)

Study design: Cross-over trial (randomized)

Synopsis: Chronic constipation is a frustrating condition to treat, and a cause is often not found. Colchicine has a good safety record in the treatment of gout and other diseases, but diarrhea is a prominent side effect. Hoping to turn lemons into lemon-ade, these gastroenterologists decided to test colchicine as a treatment for idiopathic chronic constipation on a group of 16 patients. All had suffered from constipation for at least 10 years; had not responded to fiber, bisacodyl, or anthraquinone drugs; and had no identified cause for their symptoms. Colchicine: randomized, double-blind, placebo-controlled crossover trial. BMJ 2003;326:1367-70.

Bottom line: Colchicine is an effective treatment for idiopathic chronic constipation in women. It causes a small increase in abdominal pain while taking colchicine, from 2 to 2.5 on a 5-point symptom scale (borderline clinical significance), which decreased by the 4th week of active treatment.


Mark Ebell, MD, MS, Michigan State University, Editor

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More physicians are buying and using handheld computing devices than ever before. The number and type of handheld computers (personal digital assistants [PDAs]) continue to proliferate. PDAs now occupy pockets opposite the stethoscope in the white coats of preceptors, students, and residents. Some medical schools require that students own and use a PDA. Other medical schools and residencies actually give their learners PDAs with appropriate medical software.

In many cases, the students are ahead of their preceptors in the use of PDAs to practice medicine. As a preceptor, it is time to buy a PDA if you don’t have one. If you have an old one, read on to find out what benefits are available in the new PDAs on the market. Whatever your level of expertise is with these new peripheral brains, all of us can benefit from finding ways to extend our knowledge base and improve the quality of medicine we teach and practice.

### Which Operating System Is for You—Pocket PC or Palm OS?

While there are other operating systems for handheld devices, Palm OS and Pocket PC account for the vast majority of the PDA market. Devices using the Palm OS are the most popular in the medical field. As the Pocket PC devices have become more affordable, their use has risen. However, the majority of medical software is written for the Palm OS, with no Pocket PC versions available. This is especially true for the free programs available. Many medical professionals have produced their own applications and offer them free to others to be downloaded over the Internet. One explanation for this is that it is easier to write programs for Palm OS than for Pocket PC. Most of the large commercially available medical programs are now available in both formats.

One of the most popular drug database programs, ePocrates, was only available for the Palm and was free. Now, ePocrates has a more comprehensive program called ePocrates Rx Pro that is no longer free. This program can be purchased for the Pocket PC as well as the Palm, but the free version works on Palm OS only.

Programs for Palm OS devices generally require less memory per application than the same application written for Pocket PC. Palm OS devices also have the advantage of having a longer battery life. One has to regularly charge both types of devices, because it is possible to lose all your files and information if the battery runs out completely.

For a long time, the Pocket PC devices were much more powerful than the Palm OS devices in their processor speed and their internal memory capability. This is changing with the new Palm Tungsten devices. The new Palm Tungsten C has 64 MB of RAM (internal memory) and a processor speed of 400 mHz. This is an exact match with regards to processor speed and internal memory with the HP iPAQ h2215. Some programs, such as the evidence-based medicine InfoRetriever program, run faster on the Tungsten C than on equivalent Pocket PC devices.

The standard lower-cost Palm OS devices have only 16 MB of internal memory and slower processor speeds. However, for the majority of Palm OS programs, this is sufficient. Also, these devices now come with slots to add memory. Memory cards come in a number of forms now, but they all work in a similar fashion to allow more data and program storage on your PDA.

The built-in digital cameras on the Palm Zire-71 and the Sony NX80V CLIE are a fun addition to the new PDAs. You can use these cameras to document medical findings in your EMR or print the photo out for your paper charts. If you are looking to combine your PDA with a phone, look at the Treo by Handspring. If you are feeling the effects of aging eyes, you will probably want a color backlit screen regardless of the operating system.

When choosing the exact product to buy, there are great Web sites that will help you review the prices and features. We suggest looking at the Palm, Sony, and Handera sites for Palm OS devices. Hewlett-Packard, Toshiba, and Dell make excellent Pocket PC devices. Some great Web sites to use to gather information for your purchase include:

- **Palm OS**:
  - www.palm.com/home.html
  - www.sonystyle.com
  - www.handspring.com

- **Pocket PC**:
  - www.dell.com
  - www.csd.toshiba.com

**Comparisons of Hardware:**

- www.pdmd.com/vertical/tutorials/buyersguide.xml
- www.pdmd.com/vertical/tutorials/buyersguide.xml

**Comparisons of Software:**

- www.med.fsu.edu/aafp/pda_software.htm

Virtually all PDAs have infrared transmission. That is what people are using when they are beaming each other. If you have not been beamed yet, you have something to look forward to. It is great to get someone’s address and phone number without having to write or type. In the next edition, we will cover how to go wireless with your PDA. We will help you make sense of Bluetooth and Wi-Fi. Both formats will help you communicate with other devices using radio waves.

Richard Usatine, MD, University of Texas Health Science Center at San Antonio, Editor
Clinical Guidelines That Can Improve Your Care
No Excuses—Lowering (Really Lowering) Blood Pressure on Our Patients With Diabetes

By Caryl Heaton, DO; UMDNJ-Robert Wood Johnson Medical School

By some estimates, there are about 16 million Americans with type 2 diabetes, and 11 million of them have hypertension. As of the publication of JNC-VII (Joint National Committee), we can add another large group of patients who have suddenly gained a diagnosis of “prehypertension.”

In busy practices, we see patients with diabetes and hypertension throughout the day, and we know how hard it is to reach even the basic goals of blood pressure (BP) and glycosylated hemoglobin. We may have wondered if the difficulty in achieving “ultra-low” blood pressure was worth the extra effort. The American Diabetes Association (ADA) has recommended this ultra-low BP since early 2002 but without a clear systematic review to back it up. We have one now, and we have no excuse for not pushing the blood pressure down—way down.

The American College of Physicians has presented a guideline1 that has critically reviewed the best literature that we have.

Recommendation 1: Blood pressure control must be a priority in the management of persons with hypertension and type 2 diabetes. Hypertension is a significant risk factor for macrovascular disease (coronary artery disease, cerebrovascular disease, and peripheral vascular disease). “The clinical trials of blood pressure control in diabetes have shown a consistent and dramatic effect in preventing clinical outcomes.” In both the Diabetes Control and Complications Trial (DCCT) and the United Kingdom Prospective Diabetes Study (UKPDS), tight control was shown to decrease microvascular outcomes but not macrovascular disease.

Recommendation 2: Clinicians should aim for a target BP of no more than 135/80 for their patients with diabetes. In the HOT (Hypertension Optimal Treatment) Study2 a four-point difference in diastolic BP produced a 50% decrease in risk for cardiovascular endpoints. The basis for the recommendation for systolic pressure is less clear, primarily because that was not specifically looked at, as it was in the HOT study. However, the UKPDS showed a “substantial” decrease in mortality and endpoints if the systolic BP was lowered. Therefore, the target was put at 135 (the ADA guideline is 130, but the evidence here is softer).

Recommendation 3: Thiazide diuretics or ACE inhibitors can be used as first-line agents for blood pressure control in most patients with diabetes. Although the language of this recommendation sounds weak, the supporting documentation is somewhat stronger. Diuretics and ACE inhibitors more effectively decrease the rate of cardiovascular events (including mortality in some studies) even though the BP levels were the same or better in groups treated with calcium channel blockers or beta blockers. There is something intrinsically protective in these medications in addition to their ability to lower the blood pressure. “Taken as a whole, the evidence presented here is most convincing for the use of diuretics, ACE inhibitors, and possibly angiotensin-receptor blockers, while the relative efficacy difference between ACE inhibitors and B-blockers and calcium-channel blockers are unclear.” The authors of this guideline also emphasize evidence that diuretics were more beneficial in self-reported black patients for reducing cardiovascular endpoints and stroke and that diabetic patients with nephropathy have benefited more from ACEs or ARBs. Calcium channel blockers are “best reserved as second- or third-line agents in patients with diabetes.” Finally, the authors admonish that these large trials repeatedly showed that many, if not most, patients with diabetes will require two or more medications to attain the blood pressure target.

Recommendation 4: Further studies are warranted on the relative contributions of glucose control and blood pressure control to clinical outcomes such as microvascular and macrovascular complications. Clearly the challenge for physicians is to aggressively lower both the blood sugar and the BP. This guideline gives us a reason to make the extra effort for our patients. We have no excuse not to.

REFERENCES

Caryl Heaton, DO, UMDNJ-Robert Wood Johnson Medical School, Editor
Teaching Points—A 2-minute Mini-lecture
Tired

By Carolyn Thiedke, MD, Medical University of South Carolina

Editor’s Note: The process of the 2-minute Mini-lecture is to get a commitment, probe for supporting evidence, reinforce what was right, correct any mistakes, and teach general rules. In this scenario, Dr Carolyn Thiedke (Dr T) works with a third-year student (MS3) who has seen a patient who is tired.

MS3: Ms Gilliard is a 35-year-old woman who is here because she is feeling tired for the past couple of months. Her mood is not really depressed; it’s more just tired and irritable. She still enjoys her work and family. And her appetite is OK. She has trouble falling asleep, and she wants a sleeping pill. She feels that if she can just get a good night’s sleep she will be back to normal. She’s tried some over-the-counter remedies, including melatonin, but they don’t really help much. Her partner hasn’t noticed any trouble with her sleep.

Dr T: Boy, feeling tired is one of those presenting concerns that has a vast differential! Let’s run through the differential. It sounds like you were thinking of depression as a cause. You mentioned what? Poor mood, anhedonia . . .

MS3: Yes, and appetite, sleep . . .

Dr T: That’s good. There’s also concentration, guilt, helplessness/hopelessness, psychomotor retardation, and suicidal ideation.

MS3: OK. No, I didn’t ask directly about some of those.

Dr T: I think that’s OK, in terms of diagnosis of at least major depressive disorder. There are two criteria in that list, and you mentioned them both. To have full-blown depression, you have to have at least one of those two.

MS3: Poor mood and suicide?

Dr T: Poor mood, right! And the second one is anhedonia. OK, so you considered depression. What other causes of feeling tired did you think of? You mentioned trouble with sleep? What categories of trouble with sleep are there?

MS3: There’s sleep apnea?

Dr T: And the evidence for that would be?

MS3: Someone hears her snore heavily and then not breathe briefly. But I would also expect her to be obese, and she’s not.

Dr T: OK. Good point about obesity. And you found out about snoring and apnea? Outstanding job! Ever hear of restless legs syndrome?

MS3: Not really.

Dr T: OK, look that one up and any similar conditions, and we can talk about that tomorrow. You can bring me up to date on those. You said that her partner didn’t notice any snoring or apnea during her sleep. Let’s assume that the partner didn’t notice any jerky movements of the patient as she is falling asleep, and the patient didn’t feel a need to move or any crawling sensation in her legs. When we go back in, I’ll ask a couple of questions to verify that. So, we don’t think it’s depression or a sleep disorder. Have you got a way to remember categories for a differential diagnosis?

MS3: DENTITIOM? D is dysgenerative or degenerative—I can’t think of anything there. Emotion equals . . . you mentioned depression. Neoplasm?

MS3: Could be, but I can’t think of where. Pancreatic cancer can make you feel depressed.

Dr T: Right! But no jaundice, no abdominal pain-nothing to suggest pancreatic cancer or biliary obstruction resulting from the cancer. No other clues to cancer. I suppose she could have a leukemia or lymphoma.

MS3: We could check a CBC.

Dr T: Great idea. Trauma? But no history of trauma. Infection? Toxin? This category includes different things.

MS3: Caffeine? I asked about that. She drinks three or four cups of coffee in the morning but no soda, tea, or coffee later in the day. She doesn’t take any over-the-counter medications, like Sudafed.

Dr T: Good. You mentioned melatonin, so you found out about herbs, home remedies—things that could cause fatigue or that she might have tried to help get some sleep. What’s another big one that disrupts sleep and that people often try to help fall asleep?

MS3: Umm . . .

Dr T: Sorry, it’s hard to answer a “Guess what I’m thinking of” type of question. I was thinking of alcohol.

MS3: Oh, of course. Right.

Dr T: OK, keep going with the differential diagnosis acronym.

MS3: OK, toxin. Then there’s the other I, immune-mediated. She’s too young for polymyalgia rheumatica. I think of that diagnosis in someone over the age of 50 or so.

Dr T: Right, me too.

Dr T: One of the problems with using categories to generate a differential diagnosis is that some conditions don’t fit neatly into a category, because we don’t understand the underlying mechanism. Ever hear of chronic fatigue?

MS3: I had it when I did Surgery.

Dr T: Ha!

MS3: Fibromyalgia, too. Some doctors I’ve worked with believe it exists, and some don’t. But I don’t think she has it, because she doesn’t have pain.

Dr T: I think fibromyalgia and chronic fatigue syndrome can be hard to diagnose, partly because I can’t cure them. Some patients find it very helpful, though, to have a clear diagnosis, whether or not the treatment is 100% effective.

MS3: Occlusive, like with ischemia . . . that category. The only thing I can think of might be angina equivalent, but she is kind of young for heart disease. And it’s not worse with exercise.

Dr T: It may not be occlusive, but CHF is always a thought. What could cause that?

MS3: Oh, I suppose she could have had a preceding virus infection, followed by a myocarditis?

Dr T: Absolutely! And the last category?

MS3: Metabolic/nutritional. Oh! Diabetes. She had considered that herself. But she has no increased thirst, hunger. And not urinating more frequently. We could check a blood sugar.

Dr T: Good. Other endocrine conditions?

MS3: Low thyroid function!

Dr T: Right! OK, so I’m sure we could come up with more, if we kept on with it, but I’m glad we spent some time going through an organized differential diagnosis on at least one patient today. This was a good example of how an organized system for creating a differential can help bring in diagnoses that might otherwise slip your memory, without having to turn to a textbook. And, like all system and memory schemes, there are always diagnoses that don’t fit into neat categories. Great job—you already found out answers to almost all of these diagnostic hypotheses. Let’s go back in and see her together, and I’m going to repeat some of the highlights around the differential and fill in the one or two blanks left. Excellent job.

Alec Chessman, MD, Medical University of South Carolina, Editor
Providing effective feedback to learners is an important aspect of clinical teaching. In the office setting, giving feedback to learners is challenging because the time devoted to the learner often occurs in brief encounters outside the exam room. Preceptors typically spend most of this time imparting clinical facts and pearls and devote less time to understanding the clinical thinking patterns and learning styles of the student. Providing feedback allows the teacher to praise the learner for items well done, point out areas of weakness, and give direction on how the learner can improve. A commonly used strategy is the “sandwich” technique, where positive feedback is given at the beginning and again at the end, and negative feedback is given in the middle. Other aspects of effective feedback include using descriptive language, making sure that the learner understands the feedback, and focusing on specific behaviors that can be changed.

Problem learners are learners who perform significantly below their potential due to specific difficulties. (We agree with Vaughn et al that the term problem learner has a negative connotation, but we use this term to be consistent with other discussion in the literature.) It is especially difficult for clinical teachers to give feedback and direction to these learners. The S-T-P model (Children’s Hospital Medical Center, Cincinnati, Ohio, 1998) categorizes problem learners as having affective, cognitive, structural and/or interpersonal difficulties. Learners with affective disorders have trouble handling important events, such as new phases of their education, illness or deaths in the family, and difficulties in their marriage or other relationships. This difficulty in adjusting may lead to affective reactions that ultimately manifest as difficulties with memory or motivation.

Learners with cognitive disorders usually have difficulty in written or oral communication, spatial-perception ability, or integration of material. They may fall behind in workload, demonstrate a poor fund of knowledge, or perform poorly in discussions or on examinations. Learners with continued cognitive difficulties may have an underlying learning disability.

Learners with structural disorders have difficulty structuring their experiences in the clinical environment. They may demonstrate poor time management and disorganization by arriving late at the clinic and/or spending prolonged amounts of time conducting patient visits.

Learners with interpersonal disorders do not interact well with other people, including patients, staff, or faculty. They may have either a mild disorder characterized by shyness or poor social skills or a more severe disorder in which they are manipulative or confrontational.

The S-T-P model is an excellent approach to identifying and categorizing problem learners and also provides some suggestions on how to help them. We adapted this model to include more information about feedback and strategies for follow-up by the clinical preceptor who deals with the problem learner. This approach uses the mnemonic TIPS (Table 1).

The first step in dealing with a learner in difficulty is to “type and specify the ineffective behaviors” and redirect these behaviors. The lack of specificity in commonly used feedback, such as “You need to read more” or “Your interactions with patients need work,” leaves the learner feeling insecure and unsure about what he/she needs to do to improve. By providing a more detailed description about ineffective behaviors, the teacher gives the learner a chance to respond and a sense of how to improve. An example of specifying and redirecting an ineffective behavior is: “Rebuking the patient about his substance abuse made me feel that you do not understand how difficult it is to overcome substance abuse problems. What other ways are there to discuss a patient’s substance abuse problem and assist him in overcoming it?”

The next step is “identify the category of difficulty experienced by the learner.” Using descriptions of the different types of problem learners in the S-T-P model, the preceptor can identify the category of difficulty that the learner is having. This step is important since planning a strategy to help the learner depends on an accurate assessment of the learner’s difficulty.

Once the preceptor has properly categorized the learner’s problem, feedback is best provided using the concept of “perception versus reality.” In this concept, the preceptor describes the perception that he/she has of the learner’s behavior but acknowledges that the learner may have a different view about his/her actions. For example, if the preceptor observes the learner rebuking the patient about a substance abuse problem, the preceptor points out the inappropriateness of the learner’s comments to the patient but also allows the learner to state his/her reasons for the comments. In encouraging the learner to express his/her perspective on the situation, the preceptor may be viewed as an ally, making the learner less likely to be defensive and more likely to incorporate the feedback. However, it is important that the learner also understands the need to change his/her behavior and demonstrate positive attitudes and actions in future encounters. The use of humor or sharing personal stories of learning challenges serves to open communication between preceptor and learner, allowing a sense of trust that is necessary to expose the nuances of many of these problems.

Once feedback has been provided, there must be a “strategy for treatment/follow-up.” Preceptors encountering problem learners should discuss their concerns about the learner’s difficulties with the clerkship or residency program director. With the preceptor’s input, the clerkship or residency program director should develop a strategy to help the problem learner deal with the difficulty in the current rotation as well as future ones. For medical students, an appropriate school official such as the dean...
of students should also contribute to the development of the plan. For learners with severe difficulties, it may be necessary to consult experts to formulate specific parts of the plan. When appropriate, the learner may also participate in the planning process. The plan should also include a description of consequences if the learner does not follow the recommended steps for improvement.

Learners with affective disorders usually require psychological assessment and may benefit from counseling and medication. To obtain an objective assessment, referral to an appropriate specialist should be made rather than the preceptor trying to treat the learner him/herself. Learners with cognitive disorders should undergo evaluation for a learning disability. They often benefit from test-taking and reading-skill improvement courses. Learners with structural disorders may benefit from organizational and time management training or mentoring. Learners with interpersonal disorders are often the most difficult to deal with since many cases may involve psychiatric illnesses such as personality disorders. As indicated, psychiatric referral should be made, and other issues such as substance abuse may need to be considered.

Unfortunately, helping problem learners overcome their difficulties often is a gradual process lasting more than one rotation, so close follow-up is needed. The medical school official or residency program director should maintain contact with the learner, monitor the learner’s progress throughout different clinical rotations, determine how the learner is coping, and modify the plan as needed.

Dealing with a problem learner can be a daunting experience, and it is often challenging to give effective feedback and assistance to these learners. Yet, helping a learner in difficulty with early and caring intervention is one of the most rewarding aspects of clinical teaching. By using TIPS, a preceptor can mirror the diagnostic approach that he/she uses every day in the clinical setting: assess symptoms, make diagnoses, give feedback, and develop a treatment plan to help the patient. The basic skill set for using this strategy is present in all clinicians. The TIPS mnemonic just reminds us of this.

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