



## BRINGING CLINICIANS TOGETHER TO DISCUSS CURRENT DRUG THERAPY

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Based on

The following succinct analysis appeared in *Pharmacist's Letter*.

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### CORTICOSTEROIDS

New concerns will raise questions about when it's appropriate to use SHORT courses of oral corticosteroids in adults.

We know long-term steroid use can lead to adverse effects, such as osteoporosis and weight gain. And using a steroid for just a few days can cause hyperglycemia, insomnia, etc.

Now evidence links steroid use for just one week to a slightly higher 3-month risk of fractures, venous thromboembolism, and sepsis.

But these findings may be due to other factors, such as the patient's underlying condition.

Use this as an opportunity to re-evaluate short-term oral steroids.

For example, discourage using short-course steroids for acute sinusitis, bronchitis, or sore throat. In most cases, steroids reduce symptoms by one day at most...and potential risks may outweigh benefits.

But recommend 5 days of a steroid for an asthma or COPD exacerbation...or for an acute gout flare as an alternative to NSAIDs.

Prescribers often reach for a methylprednisolone dose pack (*Medrol*, etc) if a short-course steroid is needed. But point out that once-daily prednisone works just as well...is simpler...and costs less.

Explain tapering usually isn't needed for short-course steroids.

Listen to *PL Voices* to hear our experts discuss the risks and benefits of short courses of steroids. And use our *Risks With Short-Course Steroids* commentary for appropriate indications and regimens.

(For more on this topic, see Clinical Resource #330706 at [PharmacistsLetter.com](http://PharmacistsLetter.com).)

Primary Reference – Waljee AK, Rogers MA, Lin P, et al. Short term use of oral corticosteroids and related harms among adults in the United States: population based cohort study. *BMJ* 2017;357:j1415.

See LEADER NOTES for answers to discussion questions

Discussion Questions

**Overview of current therapy**

1. **What is known about the risks of systemic corticosteroid use? What is the evidence to support the efficacy of short courses of corticosteroids for common uses?**

**Analysis of new study**

2. **What type of study was this? How were the patients selected for inclusion?**
3. **How were the patient groups and outcomes defined?**
4. **What were the results of the study?**
5. **What were the strengths and weaknesses of this study?**

**6. Were the results expressed in terms we care about and can use?**

**How should the new findings change current therapy?**

**7. Do the results change your practice? How?**

**Apply the new findings to the following case**

J.W. is a 67-year-old male with a past medical history significant for COPD (he is a former smoker) and low back pain due to lumbar degenerative disc disease. His home medications include tiotropium 18mcg 2 puffs inhaled daily, albuterol inhaled every 6 hours as needed, and acetaminophen OTC as needed for back pain.

He's coming in today for an urgent care appointment, complaining of a sore throat and runny nose for the past 3 days after watching his 4-year-old granddaughter who was diagnosed with RSV last week and unable to attend daycare. J.W. denies any shortness of breath or wheezing currently, but feels tired and achy with a slight dry cough. He's been compliant with his medications, although the inhalers are very expensive and hard for him to afford. So far, he hasn't required additional albuterol treatments while he's been sick. On exam he is afebrile, with a BP of 123/82 and heart rate of 82. His oxygen saturation is 94% and respiratory rate is 18. His oropharynx is mildly erythematous and he has swollen nasal turbinates. Otherwise his exam is normal, including his lungs being clear with no wheezing or rales.

**8. What should you suggest to manage J.W.'s symptoms?**

You educate J.W. on viral illnesses and recommend he try acetaminophen for myalgias and sore throat. You encourage him to stay well hydrated and to try an OTC decongestant plus a first-generation antihistamine for cough if he feels he needs it.

J.W. reports getting prednisone last year when this happened, and he wants to know whether this might help him again.

See LEADER NOTES for answers to discussion questions

**9. What can you discuss with J.W. about the benefits and risks of a short corticosteroid course?**

J.W. appreciates your explanation and agrees to try conservative therapy. Based on his history of COPD, you ask him to follow up in a week to see how he's doing.

On his return visit, he reports his throat is no longer sore but that he is unable to sleep at night because of coughing with green sputum production. He is also using his albuterol inhaler 3-4 times every day and feels short of breath with minimal activities at home. His exam is significant for oxygen saturation of 92% with diffuse wheezing in all lung fields. No rales are appreciated. He is coughing throughout your visit.

**10. What are options for managing J.W.'s COPD exacerbation?**

You start J.W. on prednisone 40 mg daily and doxycycline 100 mg BID for the next 5 days. Two days later you call and find out he's feeling somewhat better and has only used his albuterol inhaler 2 times since starting his medication. He thanks you and asks if there is anything he can do to prevent this in the future.

**11. What measures should you consider to lower J.W.'s risk of a future COPD exacerbation?**

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**Additional Pharmacist's Letter Resources** available at [PharmacistsLetter.com](http://PharmacistsLetter.com)

- PL Voices*, Pros and Cons of Short Courses of Oral Corticosteroids. *Pharmacist's Letter/Prescriber's Letter*. July 2017.
- Chart, Treatment of Acute Low Back Pain. *Pharmacist's Letter/Prescriber's Letter*. April 2017.
- Chart, Treatment of Chronic Low Back Pain. *Pharmacist's Letter/Prescriber's Letter*. April 2017.
- Toolbox, Improving Asthma Care. *Pharmacist's Letter/Prescriber's Letter*. February 2017.
- Toolbox, Improving COPD Care. *Pharmacist's Letter/Prescriber's Letter*. January 2017.
- Chart, Calcium in Adults: FAQs. *Pharmacist's Letter/Prescriber's Letter*. December 2016.
- Chart, Comparison of Gout Therapies. *Pharmacist's Letter/Prescriber's Letter*. September 2016.
- Chart, Vitamin D in Adults: FAQs. *Pharmacist's Letter/Prescriber's Letter*. February 2016.
- Chart, Treatment of Cough in Adults. *Pharmacist's Letter/Prescriber's Letter*. January 2015.
- Commentary, Psychiatric Adverse Effects of Corticosteroids. *Pharmacist's Letter/Prescriber's Letter*. December 2014.
- Toolbox, Using Oral Corticosteroids: a Toolbox. *Pharmacist's Letter/Prescriber's Letter*. July 2013.
- Chart, Comparison of Topical Corticosteroids. *Pharmacist's Letter/Prescriber's Letter*. August 2012.

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PL Journal Club gives you insights and guides you to the discoveries that *Pharmacist's Letter* researchers and editors uncover. Each month we analyze many new studies and help you discover the answers to the hard questions. "What are the real advantages and disadvantages of new therapies?" "How do they compare with other options?" "What do pharmacists and prescribers need to know?" We look beyond the headlines and promotional materials to interpret the clinical studies and data. Sometimes the marketing spin doesn't stand up to scrutiny. Sometimes studies do not really prove what they are reported to prove. PL Journal Club helps guide you to the truth and how to apply new findings to patient care.

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