What is the Best Treatment for an Adult Whose Asthma Exacerbation Has Not Completely Responded to 5 Days of Oral Corticosteroids?

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What is the best treatment for an adult whose asthma exacerbation has not completely responded to 5 days of oral corticosteroids?

Evidence-Based Answer
Current guidelines recommend that patients with acute asthma exacerbations be treated with systemic corticosteroids for 5 to 10 days, so continued steroid therapy is an option. However, limited evidence suggests that a 2-week course of oral steroids may be no more effective than a 1-week course (SOR C, based on a single small randomized controlled trial with a trend favoring prolonged therapy).

A small (n=20) prospective trial enrolled adult patients (aged 44–58 years) being discharged from the hospital after 3 days of intravenous methyl prednisolone for an acute asthma exacerbation. Patients were randomized to either 1 or 2 weeks of oral prednisolone (0.5 mg/kg). The average discharge peak expiratory flow (PEF) was 51% of best for those randomized to 1 week of therapy, and 58% of best for those randomized to 2 weeks.

At the end of the first week, both groups improved to 68% of best PEF. After 2 weeks, the 1-week group improved to 71% of best and the 2-week group improved to 73% of best (P=.08). The authors concluded that more than 10 days (3 days IV + 7 days oral) of systemic steroids does not offer additional benefit.1

The National Asthma Education and Prevention Program Expert Panel guidelines were composed after a structured literature review and standardized assessment of the quality of the evidence. The guidelines were then developed by panel members, outside experts, and the public through the National Heart, Lung, and Blood Institute Web site. They recommend that adults who have undergone a mild, moderate, or severe asthma exacerbation should be started on oral systemic steroids, and should be treated until the patient’s PEF is 70% of predicted or personal best. They also recommend that the outpatient treatment last for 5 to 10 days, with a dose of 40 to 60 mg prednisolone per day. For children, the recommendation is 3 to 10 days, at a dose of 1 to 2 mg/kg (maximum 60 mg daily) until the patient reaches a PEF of 70% of predicted or personal best. Patients do not require a taper after 10 days, especially if the patient is taking concurrent inhaled steroids.2

Earlier recommendations from the Canadian Medical Association state that a 14-day course of oral corticosteroids may be required for patients with a history of multiple or recent exacerbations.3 Experts state that patients should not be considered steroid resistant until they have failed 3 weeks of oral steroid treatment.4

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What is the best management for percutaneous occupational exposure to HIV?

Evidence-Based Answer
Immediate therapy with antiretroviral medication reduces the risk of developing HIV after percutaneous occupational exposure. (SOR B, based on a case-control study.) Current guidelines recommend that 4 weeks of double- or triple-drug antiretroviral therapy be initiated as soon as possible after occupational exposure and that expert consultation be obtained. (SOR C, based on disease-oriented evidence and expert opinion.)

In a retrospective study of 33 healthcare workers who had percutaneous exposure to HIV and seroconverted and 679 healthcare workers who were similarly exposed to HIV and did not seroconvert,5