Clinical shorts

Amoxicillin for acute rhinosinusitis: A 10-day course of amoxicillin offers little clinical benefit for most patients with clinically diagnosed uncomplicated acute rhinosinusitis. This is the conclusion of a trial that included 166 adults with moderate to very severe symptoms from uncomplicated, acute rhinosinutisis, who were randomized to receive a 10-day course of amoxicillin (1500 mg/d) or placebo administered in three doses per day. All received a supply of symptomatic treatments, including decongestants and saline spray. Disease-specific quality of life, using a validated score, was not significantly different between the two groups on day 3 (mean difference between amoxicillin and control groups 0.03, 95% confidence interval [CI] –0.12 to 0.19) and on day 10 (mean difference between groups 0.01, 95% CI –0.13 to 0.15). At day 7, however, those in the treatment group reported slightly improved quality of life. Reported symptom improvement was not significantly different at day 3 and day 10, but similar to the quality-of-life findings, more participants treated with amoxicillin reported symptom improvement on day 7 (74% v. 56%, $p = 0.02$). See *JAMA* 2012;307:685-92.

Exercise for subacromial impingement syndrome: A specific exercise strategy that focuses on strengthening the rotator cuff and scapula stabilizers is effective in reducing pain and improving function in patients in whom conservative therapy for subacromial impingement syndrome has failed. In a randomized, blinded (participant and assessor) controlled trial, 102 adults with over six months of symptoms were randomized to receive either a specific exercise strategy or a program of unspecified movement exercises of the neck and shoulder. Both groups received five to six individual guided treatment sessions over 12 weeks, in addition to home exercises. All received a subacromial corticosteroid injection. At 12 weeks, there was significantly greater improvement in a validated score that assessed shoulder function and pain in the specific strategy group than in the control group (mean difference 15 points, 95% confidence interval [CI] 8.5 to 20.6). More patients in the treatment group reported a successful outcome (odds ratio 7.6, 95% CI 3.1 to 18.9). A significantly lower proportion of those receiving specific exercises subsequently chose surgery (20% v. 63%, $p < 0.001$). See *BMJ* 2012;344: e787 doi: 10.1136/bmj.e787.

Prehospital treatment for status epilepticus: Intramuscular (IM) midazolam is at least as safe and effective as intravenous (IV) lorazepam for stopping prehospital seizures in patients experiencing status epilepticus. A double-blind, randomized noninferiority trial compared the two treatments in children and adults ($n = 893$) who were treated for status epilepticus by paramedics. At arrival at hospital, 73.4% of the IM midazolam group (329/448) and 63.4 % of the IV lorazepam group (282/445) had stopped having seizures without use of rescue therapy (absolute difference 10 percentage points, 95% confidence interval [CI] 4.0 to 16.1). Median time to active treatment was faster in the IM midazolam group than in the IV lorazepam group (1.2 min v. 4.8 min), but the onset of action was slower (median time from treatment to cessation of seizures 3.3 min v. 1.6 min), resulting in a similar overall interval to termination of seizures. Rates of endotracheal intubation and adverse events were similar in both groups. See *N Engl J Med* 2012;366: 591-600.

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Difference in blood pressure between arms: A difference of systolic blood pressure of 10 to 15 mm Hg or more between arms may help to identify patients who need further vascular assessment, and a difference of more than 15 mm Hg may be a useful indicator of increased risk of vascular disease and death. Twenty-eight trials were identified for a systematic review, 20 of which were included in a meta-analysis that looked at differences in systolic blood pressure between arms and the presence of central or peripheral vascular disease and mortality. A difference of 10 mm Hg or more was associated with subclavian stenosis (risk ratio [RR] 8.8, 95% confidence interval [CI] 3.6 to 21.2) in invasive studies using angiography, while noninvasive studies showed that a difference of 10 mm Hg or more (RR 2.4, 95% CI 1.5 to 3.9) or 15 mm Hg or more (RR 2.5, 95% CI 1.6 to 3.8) was associated with peripheral vascular disease. A difference of 15 mm Hg or more was also associated with pre-existing cerebrovascular disease, increased cardiovascular mortality and overall mortality. See *Lancet* 2012; DOI:10.1016/S0140-6736(11)61710-8.

Diane Kelsall MD MEd
Deputy Editor, Clinical Practice
CMAJ

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