ABSTRACTS IN URGENT CARE

On Antibiotics in UTI, Outcomes in Syncope, Low Back Pain Guidelines, and TIA and Minor Stroke

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Each month, Dr. Nahum Kovalski reviews a handful of abstracts from, or relevant to, urgent care practices and practitioners. For the full reports, go to the source cited under each title.

Modes of Administration of Antibiotics for Symptomatic Severe Urinary Tract Infections

Key point: There is no evidence suggesting that oral antibiotic therapy is less effective for treatment of severe UTI than parenteral or initial parenteral therapy.

Citation: Pohl A. Modes of administration of antibiotics for symptomatic severe urinary tract infections. *Cochrane Database of Systematic Reviews*. 2007, Issue 4.

Urinary tract infection, worldwide, is a major source of disease in children and adults. Although standard management of severe UTI usually means intravenous therapy, at least initially, there are studies showing that oral therapy may also be effective.

The Cochrane Renal Group's specialized register, the Cochrane Central Register of Controlled Trials (CENTRAL, in The Cochrane Library), MEDLINE, and EMBASE were searched. All randomized controlled trials comparing different modes of antibiotic application for patients with severe UTI (children and adults) were considered.

Fifteen RCTs (1,743 patients) were included. Studies compared oral vs. parenteral treatment, oral vs. switch treatment (initial intravenous or intramuscular therapy followed by oral therapy), switch vs. parenteral treatment, and single-dose parenteral followed by oral therapy vs. oral or switch therapy.

There was a variety of short-term and long-term outcomes, but no pooled outcomes showed significant differences.

The authors concluded that there is no evidence suggesting that oral antibiotic therapy is less effective for treatment of severe UTI than parenteral or initial parenteral therapy. ■

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Predicting Adverse Outcomes in Syncope

Key point: The clinical decision rule had a sensitivity of 97% for patients at risk from syncope.

Presented at the Society for Academic Emergency Medicine National Meeting, New York, NY, May 2005, and at the Society for Academic Emergency Medicine New England Regional Meeting

Syncope is a common presentation to the emergency department; however, appropriate management and indications for hospitalization remain an ongoing challenge.

The objective of this study was to determine if a predefined decision rule could accurately identify patients with syncope likely to have an adverse outcome or critical intervention.

A prospective, observational, cohort study was conducted of consecutive ED patients aged 18 years or older who presented with syncope. A clinical decision rule was developed a priori to identify patients at risk if they met any of the following criteria: signs and symptoms of acute coronary syndrome; signs of conduction disease; worrisome cardiac history; valvular heart disease by history or physical examination; family history of sudden death; persistent abnormal vital signs in the ED; volume depletion; or primary central nervous system event.

Among 362 patients enrolled with syncope, 293 (81%) patients completed 30-day follow-up. Of these, 201 (69%) were admitted. There were 68 patients (23%) who had either a critical intervention or adverse outcome.

The rule identified 66 out of 68 patients who met the outcome, for a sensitivity of 97% and specificity of 62% (56% to 69%).

This pathway may be useful in identifying patients with syncope who are likely to have adverse outcomes or critical interventions. ■

Diagnosis and Treatment of Low Back Pain: A Joint Clinical Practice Guideline from the American College of Physicians and the American Pain Society

Key point: This is an updated practice guideline for the management of low back pain in primary care.

Citation: Chou R, Qaseem A, Snow V, et al for the Clinical Efficacy Assessment Subcommittee of the American College of Physicians and the American College of Physicians/American Pain Society Low Back Pain Guidelines Panel. *Ann Int Med*. 2007;147(7):478-491.

Recommendation 1: Clinicians should conduct a focused history and physical examination to help place patients with low back pain into one of three broad categories: nonspecific low back pain; back pain potentially associated with radiculopathy or spinal stenosis; or back pain potentially associated with another specific spinal cause.

The history should include assessment of psychosocial risk factors, which predict risk for chronic disabling back pain.

Recommendation 2: Clinicians should not routinely obtain imaging or other diagnostic tests in patients with nonspecific low back pain.

Recommendation 3: Clinicians should perform diagnostic imaging and testing for patients with low back pain when severe or progressive neurologic deficits are present or when serious underlying conditions are suspected on the basis of history and physical examination.

Recommendation 4: Clinicians should evaluate patients with persistent low back pain and signs or symptoms of radiculopathy or spinal stenosis with magnetic resonance imaging (preferred) or computed tomography only if they are potential candidates for surgery or epidural steroid injection (for suspected radiculopathy).

Recommendation 5: Clinicians should provide patients with evidence-based information on low back pain with regard to their expected course, advise patients to remain active, and provide information about effective self-care options.

Recommendation 6: For patients with low back pain, clinicians should consider the use of medications with proven benefits in conjunction with back care information and self-care. Clinicians should assess severity of baseline pain and functional deficits, potential benefits, risks, and relative lack of long-term efficacy and safety data before initiating therapy.

For most patients, first-line medication options are acetaminophen or nonsteroidal anti-inflammatory drugs.

Recommendation 7: For patients who do not improve with self-care options, clinicians should consider the addition of nonpharmacologic therapy with proven benefits—for acute low back pain, spinal manipulation; for chronic or subacute low back pain, intensive interdisciplinary rehabilitation, exercise therapy, acupuncture, massage therapy, spinal manipulation, yoga, cognitive-behavioral therapy, or progressive relaxation. ■

Effect of Urgent Treatment of Transient Ischaemic Attack and Minor Stroke on Early Recurrent Stroke (EXPRESS Study): A Prospective Population-Based Sequential Comparison

Key point: Early initiation of existing treatments after TIA yielded an 80% reduction in the risk of early recurrent stroke.

Citation: Rothwell PM, Giles MF, Chandratheva A, et al. *The Lancet*. 2007;370:1398-1400.

The risk of recurrent stroke is up to 10% in the week after a transient ischemic attack (TIA) or minor stroke. Modeling studies suggest that urgent use of existing preventive treatments could reduce the risk by 80% to 90%, but in the absence of evidence many healthcare systems make little provision.

The authors did a two-phase prospective before vs. after study of the effect on process-of-care and outcome of more urgent assessment and immediate treatment in clinic, rather than subsequent initiation in primary care, in all patients with TIA or minor stroke not admitted direct to hospital.

The study was nested within a rigorous population-based incidence study of all TIA and stroke (Oxford Vascular Study [OXVASC]), to assure that case ascertainment, investigation, and follow-up were complete and identical in both periods. The primary outcome was the risk of stroke within 90 days of first seeking medical attention, with independent blinded (to study period) audit of all events.

Baseline characteristics and delays in seeking medical attention were similar in both periods, but median delay to assessment in the study clinic fell from three days in phase 1 to less than one day in phase 2 ($p<0{\cdot}0001$), and median delay to first prescription of treatment fell from 20 days to one day ($p<0{\cdot}0001$).

The 90-day risk of recurrent stroke in the patients referred to the study clinic was 10.3% in phase 1 and 2.1% in phase 2 (adjusted hazard ratio 0.20, 95%, CI 0.08–0.49; $p=0{\cdot}0001$); there was no significant change in risk in patients treated elsewhere. The reduction in risk was independent of age and sex, and early treatment did not increase the risk of intracerebral hemorrhage or other bleeding.

Early initiation of existing treatments after TIA or minor stroke was associated with an 80% reduction in the risk of early recurrent stroke.

Further follow-up is required to determine long-term outcome, but these results have immediate implications for service provision and public education about TIA and minor stroke. ■