

tral venous pressure of >15 mm Hg, stroke volume index of <30 mL/min/m², requirement for inotropes, arterial bicarbonate of <20 mmol/L, plasma glucose of >300 mg/dL after surgery, and anemia beyond the second postoperative day. During the study period, the study cohort used 6,859 (21.5%) ICU patient-days out of a total 31,867 ICU patient-days. Nonsurvivors used 2,023 (30%) ICU patient-days, and patients with morbidity used 5,903 (86%) ICU patient-days.

The authors concluded that severe underlying cardiac disease (including shock, requirement for mechanical circulatory support, hypoalbuminemia, and hepatic dysfunction), intraoperative blood loss, surgical reexploration, long ischemic times, immediate postoperative cardiovascular dysfunction, global ischemia and metabolic dysfunction, and anemia beyond the second postoperative day predicted poor outcome in the elderly after cardiac surgery. Postoperative morbidity and mortality disproportionately increased the utilization of intensive care resources in elderly patients. Future efforts should focus on preoperative selection criteria, improvement in surgical techniques, perioperative therapy to ameliorate splanchnic and global ischemia, and avoidance of anemia to improve the outcome in the elderly after cardiac surgery.

FROM: Rady MY, Ryan T, Starr NJ. Perioperative determinants of morbidity and mortality in elderly patients undergoing cardiac surgery. *Crit Care Med* 2001;29(suppl 9):S163-S172.

Clinical Diagnosis of Influenza

Successful treatment of influenza depends on an accurate diagnosis of the illness and prompt intervention. Unfortunately, there is a lack of data comparing clinical diagnosis versus laboratory diagnostic techniques.

Zambon and colleagues from the Central Public Health Laboratory in London conducted a study to compare the clinical diagnosis of community cases of influenza with various laboratory diagnostic techniques, including multiplex, reverse transcription polymerase chain reaction. Clinical diagnosis, viral isolation, hemagglutinin inhibition serology, and multiplex reverse transcription polymerase chain reaction were used to diagnose influenza in patients enrolled in international phase 3 studies designed to investigate the efficacy and safety of an anti-influenza drug (inhaled zanamivir). Patients clinically diagnosed with influenza were enrolled at centers across North America and Europe.

A total of 791 (77%) of 1,033 patients with laboratory results from all three methods were confirmed positive for influenza by one or more test results. For 692 patients (67%), the results of all three tests agreed. Total symptom scores at baseline showed a significant association toward greater severity of symptoms with an increasing number of positive test results ($P<.001$). An increasing number of positive test results also showed a significant correlation with a longer time to alleviation of symptoms of influenza in the placebo group ($P=.001$).

The authors conclude that, during a time when influenza was known to be circulating and clinical diagnostic criteria were applied, diagnosis of influenza in these trials was accurate in approximately 77% of adults on clinical grounds alone. This highlights the need for primary-care physicians to be alerted to circulating influenza and to be aware cough and fever are the most predictive symptoms.

FROM: Zambon M, Hays J, Webster A, Newman R, Keene O. Diagnosis of influenza in the community: relationship of clinical diagnosis to confirmed virological, serologic, or molecular detection of influenza. *Arch Intern Med* 2001;161:2116-2122.