Serum Albumin Levels Predict Pneumonia Severity

By Labmedica International staff writers

Posted on 30 Jan 2013

The prognostic value of serum albumin levels in hospitalized adults with community-acquired pneumonia has been evaluated.

When serum albumin levels are measured within 24 hours of admission to the hospital, they can be correlated with the outcome of patients with community-acquired pneumonia (CAP).

Scientists at the University Hospital of Bellvitge (Barcelona, Spain) carried out a prospective cohort of adults with CAP requiring hospitalization from 1995 through 2011. Serum albumin results were obtained from the central laboratory database and were determined by a molecular absorption spectrometry utilizing bromocresol green. Pathogens in blood, normally sterile fluids, sputum, and other samples were investigated using standard microbiological procedures. Serum albumin levels were measured within 24 hours of admission. The primary end point was 30-day mortality.

During the study period, 3,463 patients with CAP required hospitalization. The median value of albumin was 31 g/L. As levels of serum albumin decrease, the risk of complications significantly increased. Decreased albumin levels were also significantly associated with prolonged time to reach clinical stability, prolonged hospital stay, intensive care unit (ICU) admission, the need for mechanical ventilation, and 30-day mortality. Hypoalbuminemia was documented in 1,307 (37.7%) patients, whose serum albumin was less than 30 g/L.

The authors concluded that hypoalbuminemia is frequent among hospitalized patients with CAP. Low serum albumin levels within 24 hours of hospital admission are significantly associated with increased risk of complications and poor outcome from CAP. Serum albumin is an objective and good prognostic marker in hospitalized adults with CAP. The study was published on December 31, 2012, in the Journal of Infection.

Related Links:
University Hospital of Bellvitge

Print version