Attending Summary of Journal Club- Kate D. Zimmerman, DO
August 15, 2012

This journal club was chosen to discuss the treatment decision tools that we use to determine which patients with community-acquired pneumonia [CAP] can safely be discharged home versus meriting admission. We reviewed the CURB, CURB-65 and PSI (Pneumonia Severity Index) scores and studies that pertained to their clinical utility.

It is important to be familiar with the patient populations that were included/excluded in these studies—as one should be prior to using any clinical-decision rule:

**Inclusion criteria:** > 18 yo and have new clinical diagnosis of PNA and new radiographic evidence of infiltrate on CXR.
**Exclusion criteria:** Hospital acquired PNA, immunosuppressed, comorbidities that distinguished them diagnostically from pneumonia, pregnancy.

The studies found that the **PSI** is a good tool to identify low risk patients with a low chance of 30 day mortality (it was not designed to identify high risk patients). It was found to be equal to the **CURB** or **CURB-65** at identifying individuals who were high risk. The PSI requires a significant number of data points, including cumbersome lab studies whereas the CURB/CURB-65 only use BUN as a lab marker – making the CURB/CURB-65 more applicable to our practice setting. **The CURB/CURB-65 scoring systems has yet to be validated in the emergency department setting.**

When the **PSI** was compared to the clinical judgment of the treating clinician re: the disposition of a low-risk patient, we found 48% of the patients with a low-risk PSI score were admitted rather than discharged. One cannot practice without taking into account other factors in the safe disposition of their patient – even if found to be low-risk by a validated clinical decision-making tool. One has to consider psycho-social factors such as: inability to afford/tolerate oral medications, substance abuse, homelessness, lack of PCP follow-up, psychiatric disorders and other barriers to a successful outpatient course. Comorbidities of underlying lung disease or neurologic disease need to be taken into consideration as well. When reviewed, it was found that hypoxia was the most common reason in the decision to admit low-risk patients. **You can still score as low-risk via the PSI despite being hypoxic** and the CURB/CURB-65 scores do not account for hypoxia.

There is no one true test to tell us when and when not to admit a patient. Rather the data from the clinical decision-making rules we use serve as only one part of the formula. The PSI may be more of a useful tool for talking to admitting consultants (as it is a language they speak) and for documenting that you sent a low-risk patient home while taking into consideration their PSI/CURB/CURB-65 scores. The PSI/CURB/CURB-65 rules may be helpful for your initial screening of a patient. Otherwise, **one ought to use clinical judgment to make the decision about whether to admit or discharge a patient with CAP.**