Leapfrog Standard: ICU Physician Staffing (IPS)

NQF#: Not NQF Endorsed

Developer: The Leapfrog Group

Data Source: Leapfrog Hospital Survey

Secondary Data Source: AHA Annual Survey

Description: Hospitals fulfilling the IPS Standard will operate adult or pediatric general medical and/or surgical ICUs and neuro ICUs that are managed or co-managed by intensivists who:

- Are present during daytime hours and provide clinical care exclusively in the ICU and,
- When not present on site or via telemedicine, returns pages at least 95% of the time, (i) within five minutes and (ii) arranges for a physician, physician assistance, nurse practitioner, or a FCCS-certified nurse to reach ICU patients within five minutes.

Rationale: More than two million patients are admitted to urban intensive care units (ICUs) each year in the U.S. Mortality rates in patients admitted to the ICU average 10-20% in most hospitals. Overall, approximately 200,000 patients die in U.S. ICUs each year. Given the high stakes involved, quality of care in ICUs is particularly important. Unfortunately, evidence suggests that quality varies widely across hospitals. A growing body of evidence suggests that quality of care in hospital ICUs is strongly influenced by (i) whether "intensivists" are providing care and (ii) the staff organization in the ICU. Intensivists are familiar with the complications that can occur in the ICU and, thus are better equipped to minimize errors. Mortality rates are significantly lower in hospitals with closed ICUs managed exclusively by board certified intensivists. A systematic review of the existing literature regarding ICU physician staffing and quality found that high intensity staffing is associated with a 30% reduction in hospital mortality and a 40% reduction in ICU mortality. This data suggests that over 54,855 deaths that occur in the ICU could be avoided if this IPS Safety Standard were implemented in all urban hospitals with ICUs across the U.S.

Evidence for Rationale:

- Knaus WA, Wagner DP, Zimmerman JE, Draper EA. Variations in mortality and length of stay in intensive care units. Ann Int Med. 1993;118:753-61.
- Lwin AK, Shepard DS. Estimating lives and dollars saved from universal adoption of the Leapfrog Safety and Quality Standards: 2008 update. The Leapfrog Group. Washington, DC: 2008.
- Pronovost PJ, Angus DC, Dorman T, Robinson KA, Dremsizov TT, Young TL. Physician staffing patterns and clinical outcomes in critically ill patients: A systematic review. JAMA. 2002;288:2151-62.
- Zimmerman JE, Wagner DP, Draper EA, Wright L, Alzola C, Knaus WA. Evaluation of acute physiology and chronic health evaluation III predictions of hospital mortality in an independent database. Crit Care Med. 1998;26:1317-26.

Impact:

- Affects large numbers of patients
- More than 2 million patients are admitted to urban ICUs each year.
- Mortality rates in patients admitted to the ICU average 10-20% in most hospitals.
- Overall, approximately 200,000 patients die in U.S. ICUs each year.
- Data suggests that over 54,855 deaths that occur in the ICU could be avoided if the Leapfrog Group IPS Safety Standard were implemented in all urban hospitals with ICUs across the U.S.

Evidence of High Impact:

- Lwin AK, Shepard DS. Estimating lives and dollars saved from universal adoption of the Leapfrog Safety and Quality Standards: 2008 update. The Leapfrog Group. Washington, DC: 2008.
- Pronovost PJ, Angus DC, Dorman T, Robinson KA, Dremsizov TT, Young TL. Physician staffing patterns and clinical outcomes in critically ill patients: A systematic review. JAMA. 2002;288:2151-62.
- Zimmerman JE, Wagner DP, Draper EA, Wright L, Alzola C, Knaus WA. Evaluation of acute physiology and chronic health evaluation III predictions of hospital mortality in an independent database. Crit Care Med. 1998;26:1317-26.

Opportunity:

- The 2010 Leapfrog survey reflects that only 34.5% of responding hospitals fully meet Leapfrog's IPS Standard.
- Opportunity for improvement exists, as demonstrated by the coefficient of variation for the measure.

Citations for Opportunity:

- The Leapfrog Group. Factsheet: ICU Physician Staffing (IPS). Washington (DC): The Leapfrog Group; 2011.

Evidence:

- Evidence ratings vary from level III to IV.

Citations for Evidence:

- Divatia JV, Baronia AK, Bhagwati A, et al. Critical care delivery in intensive care units in India: Defining the functions, roles and responsibilities of a consultant intensivist. Ind J of Crit Care Med. 2006;10(1):53-63.

http://www.leapfroggroup.org/media/file/FactSheet_IPS.pdf