Problem: Failure to rapidly recognize clinical indicators of deteriorating patient stability.

Evidence: Evidence clearly indicates that patient decline is frequently noted for as much as 6 hours prior to a cardiopulmonary arrest. The earlier staff can intervene the better the potential patient outcome. Rapid response teams (RRT) are a paramount part of the IHI 5 Million Lives Saved campaign.

Strategy: The electronic medical record (EMR) can be a powerful tool to improve patient outcomes. It can be used to rapidly alert nursing staff of abnormal patient vital signs so early intervention measures can be implemented.

Practice Change: An establishment of a rapid response team and integration of an EMR alert system in a Northwest Arkansas regional hospital.

Evaluation: The out of critical care cardiopulmonary arrest rate is monitored. In addition to utilizing concurrent chart review all out of critical care cardiopulmonary arrests are assessed. These arrests are evaluated based on established criteria for failure to rescue and/or failure to recognize.

Results: Pre rapid response team out of critical care cardiopulmonary arrest rate was 4.2 per month. First year post implementation the rate was 1.92 with continued improvement to 1.0 per month for 2009. The overall decrease of out of critical care cardiopulmonary arrest rates for the last three and a half years has been 76.2%. The rate of failure to recognize was 8% and the rate of failure to rescue was 17% for 2009.

Recommendations: Development of pediatric alert thresholds and integration into the EMR is the next step to improve patient outcomes in our pediatric patient population.

Lessons Learned: The electronic medical record can be a powerful tool to improve patient outcomes when used to its fullest extent. Development of additional rules and alerts will assist the medical and nursing staff provide safer care to hospitalized patients.

Bibliography