

Using PeraTrend at UHS

Rapid response teams (RRTs) are frequently employed to respond to deteriorating inpatients. Unfortunately, subtle signs and symptoms of clinical deterioration often go unnoticed, resulting in a failure or delay in calling for help, administering acute therapies, or transferring to a higher level of care. The RRT at University Hospital in San Antonio dedicates a single critical care nurse (CCN) daily to respond to the RRT calls and proactively round on non-ICU patients using PeraTrend. The RRT can be activated by a nurse concerned about their patient's condition. The objective is to recognize early signs of patient deterioration in order to prevent the incidence of code events.



Very High Risk – Red = 0 to 40
Medium Risk – Yellow = 41 to 64
Low Risk – Blue = 65 to 100

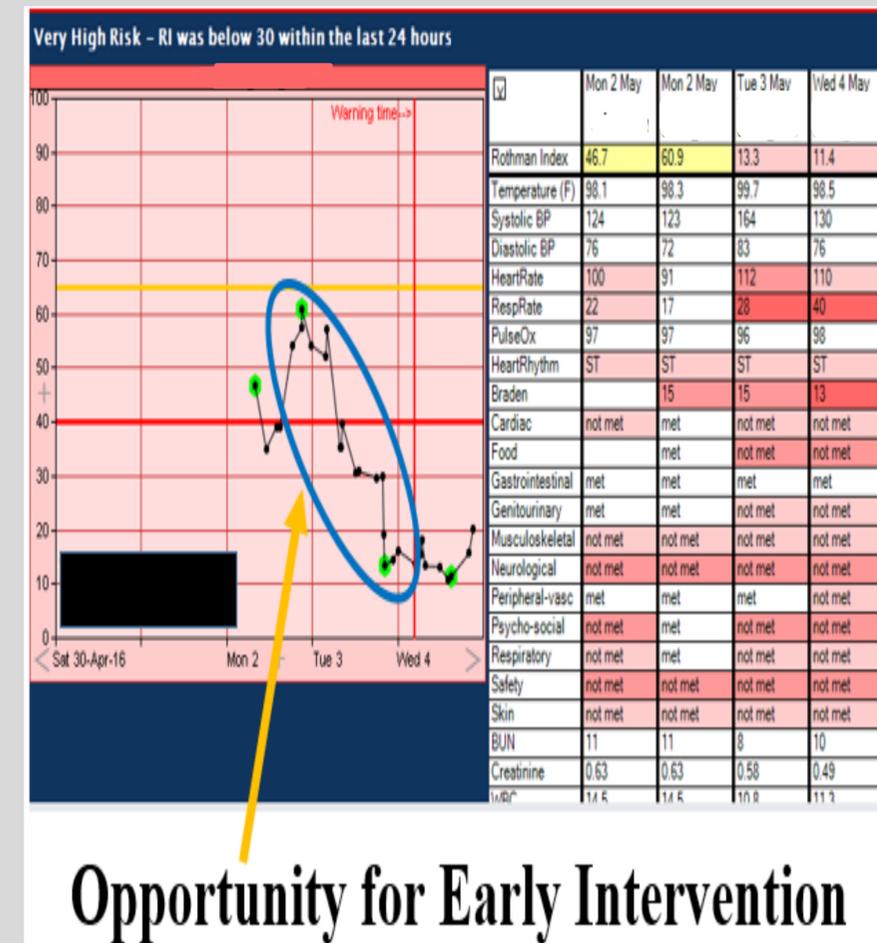
Description

The RRT Registered Nurse (RN) is an independent role at our institution. This CCN identifies the patients at risk for decompensating based on the Rothman Index (RI). PeraTrend is a tool using the RI, which is a calculated based on physiological measurements, and nursing clinical assessments, and lab values all gathered from the patient's electronic medical record (EMR). The scale is set from 1 to 100, reflecting real time scores. The patients that fall below 40 or show a down trend are evaluated for possible intervention or increased monitoring. Once determined, the RRT RN will travel to the patient's bedside to assess, then coordinates with the primary nurse, charge nurse, primary physician team, and respiratory therapist to evaluate the condition and triggers for low or declining RI. Involving all members of the team highlights different perspectives on the health and safety of that individual patient. If interventions are necessary, the RRT RN will perform or assist the primary nurse and or transfer the patient to a higher level of care. A summary of events is recorded in the EMR under a note specifically created for RRT. All concerns, issues and needs are communicated to the current physician as well as the accepting physician if transfer is imperative.

Outcomes

The role of RRT has decreased codes blues by 30 percent. Proactive rounding allows for early intervention and ensures that patients are receiving the appropriate level of care for their condition. Utilizing PeraTrend is allowing the RRT RN and all who use this tool to foresee and accommodate our patient's evolving needs. To date, the average RI of the RRT interventions or transfers to a higher level of care have been around 40 or below. More research is needed to track the usage of PeraTrend and its benefits to the declining patient population.

Proactive Rounding



Opportunity for Early Intervention

References

- Rothman, M., Rothman, S., & Beals, J. (2013). Development and Validation of a Continuous Measure of Patient Condition Using the Electronic Medical Record. *J Biomed Inform*, 46(5), 837-848.
- Rothman, S., Rothman, M. & , A. (2012). Placing Clinical Variable on a Common Linear Scale of Empirically Based Risk as a Step Towards Construction of a General Patient Acuity Score from the Electronic Health Record: A Modeling Study. *BMJ Open*.
- Yale-New Haven Hospital. Rothman Index Powerful Tool for Early Detection of Subtle Changes. (2013). *The Bulletin*, 26(7), 1-2.