

Applying predictive analytics to reduce hospital mortality and improve nurse-provider communication

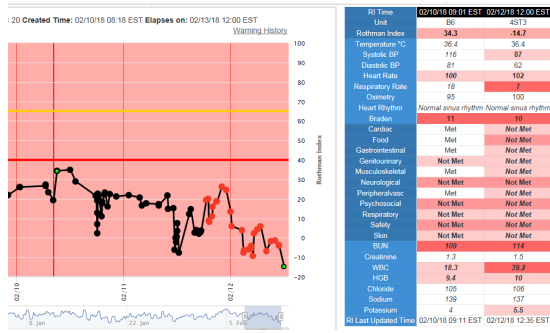
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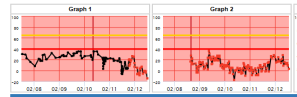
Sinai Hospital of Baltimore

- Organization recognized an opportunity to leverage nursing documentation through the Rothman Index to synthesize patient data to improve organizational outcomes
- Stated project goals:
 - Reduce sepsis mortality
 - Facilitate appropriate assignment of resources
 - Reduce Code Blue outside of Critical Care units
 - Increase in Rapid Response calls
- What is the Rothman Index?
 - Predictive warning system that alerts clinicians to subtle patient deterioration that may lead to life-threatening conditions
 - Use of the Universal Patient Score
 - Summarizes patient condition in 1 number
 - Functions across all patient populations and disease categories
 - Based on 26 variables including VS, labs, and nursing assessments
- Implementation strategies
 - Critical Care Units as Pilot Units
 - 1:1 support by project team, super users, and vendor representatives
 - Daily rounding
 - Acute Care Go Live scheduled 2 months later
- Preliminary Outcomes
 - 50% increase in RRTs from Pilot Unit
- Implications for practice:
 - Improved collaboration

○ Improved communication



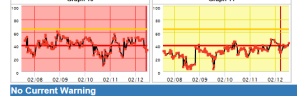
Very High Warning Adult - Score < 20



High Warning Adult - Score fell > 50% in 12 hours



Medium Warning Adult - Score fell > 40% in 24 hours



No Current Warning

