SCCM Choosing Wisely KEG meeting September 16, 2020

Value Improvement Initiatives to Reduce Low-Value Testing

Open / announcements:
Remember to follow #choosingwiselyICU on Twitter.
The session proposal submitted by Dr Reddy, "Choosing Wisely in Critical Care - How to succeed in Implementing Less is More" was chosen for the 2021 virtual Critical Care Congress.

Speaker:
Mike Tchou, MD, MSc
Children's Hospital Colorado
@TchouMD

Slides are available on SCCM Connect - Choosing Wisely KEG website

- Dr Tchou opened by discussing value and introduced the Value Improvement Project
- Several resources on High-value Testing are available:
    - HVPAA – Value Improvement Blueprints
        - https://hvpaa.org/blueprints
    - Choosing Wisely
        - https://www.choosingwisely.org
    - Link to value resources
        - https://docs.google.com/document/d/1wQxrn8viaPR_OBEIwz4IykglUVQgeHTJW36M1j7OZVM/edit?usp=sharing
        - This is an ongoing list of value resources maintained by Dr Tchou. Reach out via Twitter if you come across a valuable resource to add to the list
- A process map showing what leads to overuse of routine tests was presented. Main reasons unnecessary testing may be ordered include:
    - High frequency → multiple chances to order inappropriately
    - Perceived as low-cost → not high on our "value radar"
    - Easy to order repeatedly → daily testing puts onus on us to cancel
    - Often in panels → easy to order more than what you need

Reducing Point-of-care Blood Gas Testing in the Intensive Care Unit through Diagnostic Stewardship: A value Improvement Project

- Focus on overuse of POC testing in situations where central laboratory testing would be equivalent. Target: reduce number of PICU POC blood gas tests by 20% in 6 months
- Key Drivers included: provider awareness of cost differential, POC vs In-lab, staff confidence of Send-down test TAT, standardized process for determining POC vs Send-down
- Interventions included: Faculty/resident/fellow/nursing education; measurement of TAT for Send-down blood gas testing
- Overall outcome measure: started at approx. 1 lab POC test per day; saw an overall reduction of 50% by study end
- Secondary outcome: also saw reduction in blood gas utilization overall. Questions if POC testing easier, therefore ordered in situations where it wasn't high value. Consider change in practice to Send-down possibly resulted in more judicious utilization

Reducing Electrolyte Testing in Hospitalized Children by Using Quality Improvement Methods

- Focus on overuse of repeated electrolyte testing in low-risk situations and overuse of panels when single electrolyte tests may be equivalent quality. Non-ICU population
- Goal to reduce electrolyte lab draws by 25%
- Key drivers included: knowledge of cost of testing, discussion of test value / necessity of testing, awareness of laboratory testing plan, EMR design for test orders, staff buy-in
- Interventions included: education on test value, feedback on lab ordering/overall project measure, cost/charge reference cards, lab plan clearly documented in notes, change orientation materials to clearly focus on highest charge panel.
- Resulted in 29% reduction in charge leading to estimated $292,000 charge savings over 9 months
- Highest charge panel went from 70% to 20%

Closing / Discussion:

- Both projects were successful with very minimal changes to EMR; however, EMR adaptations may be helpful in sustaining change
- EMR change proposals that may be helpful include alerts to notify provider when lab tests are ordered multiple days in a row. Most examples tend to occur on the front-end by limiting what you can do when ordering lab tests
- Maya highlighted another key component of the POC project – resulted in RT being able to change the way they staff. Enabling this group to use their time better was key in the success of the project
- Brian discussed how getting the patient charges to the ordering provider was helpful to give perspective on the magnitude of difference in lab panels
- Question for Dr Tchou as to if they were able to measure effect of abnormal labs and downstream effect of these. This was considered but not performed
- Question for Dr Tchou as to whether there was resistance to these changes? These initiatives were at a time where there was a lot of emphasis on increasing value across the organization. These projects did not meet high level resistance