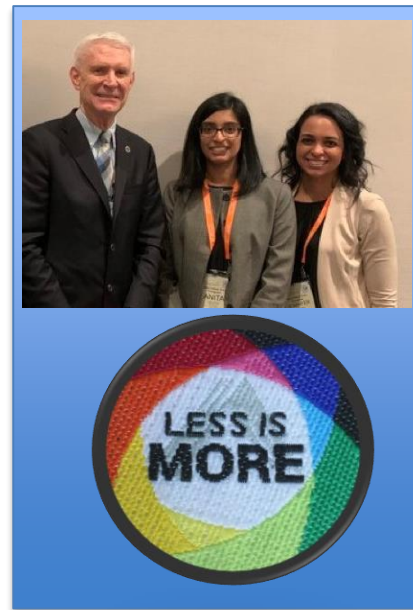




SCCM Choosing Wisely KEG Annual Meeting

January 20, 2020



#CCC50

Society of
Critical Care Medicine
The Innovative Care Professionals

 **Critical Care Congress**

Agenda

- KEG Goals
- Steering Committee
- Prior Meeting Topics and Social Media Posts
- Future directions
- Announcements
 - Choosing Wisely Next 5
 - Choosing Wisely session at 2021 Congress
- Discussion: “Inflammatory Markers in COVID-19: Enough is Enough?”



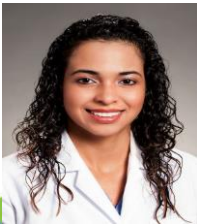
CW KEG Goals

- A forum to improve awareness of the Choosing Wisely campaign, exchange ideas regarding stewardship efforts, discuss implementation methods and successful methods to overcome barriers and challenges to implementation.
- The vision is to promote patient-centered care and to reduce or eliminate unnecessary interventions that can cause patient discomfort, increased length of stay, morbidity and inefficiency in resource utilization.



CW KEG Steering Committee

- Co-Chairs: Anita Reddy, MD, and Jennifer Cortes, PharmD
- Secretary: Jessica Mercer, PharmD
- Communications Chair: Maya Dewan, MD
- Laboratory Sub-committee Chair: Allyson Hynes, MD
- Medication Sub-committee Chair: Anne Rain Brown, PharmD
- Radiology Sub-committee Chair: Matthew Tyler, MD
- Advisor: Jerry Zimmerman, MD, PhD



CW KEG Past Meeting Topic Discussions

- Oct 2019: Starting Choosing Wisely and Less is More initiatives locally – A conversation with Jerry Zimmerman, MD, PhD
- Nov 2019: Strategies and Tactics in Laboratory Stewardship; Gary Procop, MD
- Jan 2020: Choosing Wisely with ICU Imaging; Jeffrey Kanne, MD
- Feb 2020 (Congress): Medication Stewardship; Mitch Buckley, PharmD
- Mar 2020: Group COVID-19 discussion
- May 2020: COVID-19 Serology Testing; Kam Kadkhoda, PhD
- Sept 2020: Value Improvement Initiatives to Reduce Low-Value Routine Testing; Mike Tchou, MD
- Oct 2020: Lab Stewardship in a Surgical/Trauma ICU; Brad Domonoske, PharmD
- Nov 2020: Zen and the Art of the Intensivist; Matt Siuba, DO
- Jan 2021 (Congress): Inflammatory markers in COVID-19: Enough is Enough? Open group discussion



Social Media Posts

- #ChoosingWiselyICU
- Transfusions in critically ill patients:
 - <https://twitter.com/PICUQI/status/1288092353962618885?s=20>
- US for CVC placement verification
 - <https://twitter.com/mdmdtyler/status/1311858628421472258>
- COVID tip: Use math, ETCO2, and ultrasound to confirm ETT placement, avoid that CXR, save \$\$, radiation, staff exposure
 - <https://twitter.com/mdmdtyler/status/1335323037026185218>

COVID-19 TIP: Utilization of Ultrasound to Evaluate CVC Position and Post-Procedural Pneumothorax

WHY? Limits COVID Exposure
Cost Savings

HOW?

1 AP4 ECHO View	2 Inject 10 cc Agitated Saline	3 Bubbles in RV < 2 seconds = correct (98.9-100% specificity)	4 Thoracic US to Eval for Pneumothorax
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Boi Chelhi, R. Kibele, S. El Khuri, C. El Haj, N. Bachi, R. Anon, R. and Abou Dagher, G. (2017). Use of Contrast-Enhanced Ultrasound for Confirmation of Central Venous Catheter Placement: Systematic Review and Meta-analysis. J Ultrasound Med. 36: 2503-2510. doi:10.1002/jum.14296
Sirek, M., Haktanir, R., Baran, M., Poljak, M., Van de Ven, P.M., Tuzman, P.R. Bubble-ultrasound to detect central venous catheter misplacement and associated iatrogenic complications: a systematic review and meta-analysis. Crit Care. 2018;22(1):65. Published 2018 Mar 15.

Transfusion Thresholds in the ICU

Critically Ill Adults Patients without Bleeding
Adhere to a restrictive transfusion threshold of <7 g/dL
Consider transfusion of a single unit at a time

Critically Ill Pediatric Patients without Bleeding

Overall Transfusion threshold of <5 g/dL	Brain Injury or Oncology Patients Transfuse <7-8 g/dL	Cardiac Disease Transfuse <7-9 g/dL
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Cheng, M.A., Winkler, M., Cheng, G., Weller, J. Blood Transfusion: Targeted Transfusion Orders to Reduce Costs. Hospital & Health Administration. 2018; 93(4): 50-55. doi:10.1177/0017813118788888.
Hoffman, P.C., Winkler, M., Winkler, M., et al. A systematic review of the literature on the use of blood transfusion in critically ill patients. Transfusion. 2018; 58(1): 1-10. doi:10.1111/tra.15111.
Hoffman, P.C., Winkler, M., Winkler, M., et al. A systematic review of the literature on the use of blood transfusion in critically ill patients. Transfusion. 2018; 58(1): 1-10. doi:10.1111/tra.15111.

COVID-19 TIP

DO: Calculate endotracheal tube depth BEFORE intubation and utilize end-tidal CO₂ and ultrasound to confirm placement

DON'T: Obtain chest x-ray

Save: \$\$, rads, staff COVID exposure

Step 1
Calculate Depth¹
Depth from teeth = 0.1 x (height in cm) + 4

Step 2
CO₂ Capnography²
100% specificity

Step 3
Thoracic ultrasound – bilateral lung sliding³
88.7% accuracy

#ChoosingWiselyICU

1. Technetium A, Fernandez C, Fernandez C. Estimation of the proper length of endotracheal intubation by Chebyshev's. JOURNAL AMERICAN ASSOCIATION OF ITALIANS. 2002 Dec; 18(1):188.
2. Gao, S. Comparison of three different methods to confirm tracheal tube placement in emergency intubation: invasive case-control. 2002 Jun; 15(6):704.
3. Sirek, M., Haktanir, R., Baran, M., Poljak, M., Van de Ven, P.M., Tuzman, P.R. Bubble-ultrasound to detect central venous catheter misplacement and associated iatrogenic complications: a systematic review and meta-analysis. Crit Care. 2018;22(1):65. Published 2018 Mar 15.

Choosing Wisely Future Directions

- Assist Quality and Safety Committee with communicating/advertising/studying Choosing Wisely Next Five
- Education about Choosing Wisely
- Sharing ideas on implementation of Choosing Wisely Initiatives



Choosing Wisely Next Five

- “Choosing Wisely For Critical Care: The Next Five” will be released in CCM on-line on Jan 29, 2021
- Any help this KEG can offer to communicate these and help reinforce would be appreciated



50th Critical Care Congress

- Prerecorded session (can listen anytime)
- *Choosing Wisely in Critical Care: How to Succeed in Implementing Less Is More*
 - **Topics:**
 - Choosing Wisely: The Next Five Recommendations**
Pamela L. Smithburger
 - What You Can Do Tomorrow to Reduce Imaging in the ICU**
Jeffrey Kanne
 - What You Can Do Tomorrow to Reduce Medication Use in the ICU**
Mitchell S. Buckley
 - What You Can Do Tomorrow to Reduce Laboratory Testing in the ICU**
Anita Reddy
 - What You Can Do Tomorrow to Improve Mobility in the ICU**
Sapna R. Kudchadkar
 - What You Can Do Tomorrow to Improve Patient Experience in the ICU**
Julie Rogan



COVID-19 Inflammatory Markers: Useful or Wasteful?

- Initial studies suggest following certain laboratory markers may guide prognostication of COVID-19 patients
- Institutions have used laboratory cut-offs to determine if a patient is a candidate for certain therapies
- Ferritin, CRP, LDH, D-dimer, CPK, Procalcitonin



COVID-19 Order Set

- Q48 hour CPK, troponin, ferritin, LDH, CRP, d-dimer
- Procalcitonin on admission and then prn
- Hepatitis panel
- Quantiferon TB plus, Interleukin 6



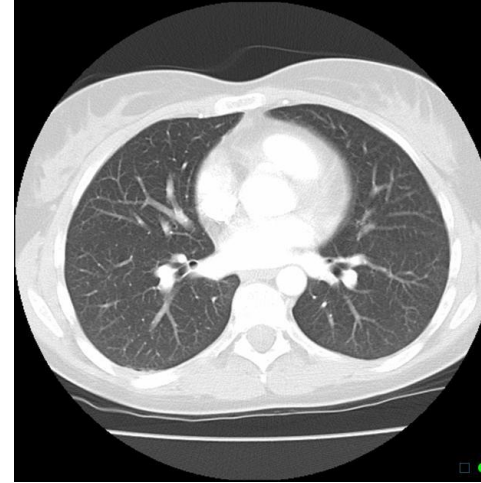
Additional Tests



COST:
\$457



COST:
\$266



COST: \$1200

\$948
\$457
\$266
\$1,200
\$2,871



COVID Medications

- Remdesivir: \$3,120 per treatment course
- Baricitinib: \$2,378.40 per treatment course
- Tocilizumab: \$2,455 per dose
- Bamlanivimab: \$1,250 per dose
- Dexamethasone: <\$1.00 per dose



Discussion

