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2023

#### **UR-INE Good Hands in the Neuroscience Intensive Care Unit**

Molly Lehatto VCU Health, molly.jones@vcuhealth.org

**Courtney Hastings** VCU Health, courtney.hastings@vcuhealth.org

Monika Mehlbrech VCU Health, monika.mehlbrech@vcuhealth.org

Christina Szabo VCU Health, chris.szabo@vcuhealth.org

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## **URINE Good Hands in the Neuroscience Intensive Care Unit**

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#### Act

- Stake holder engagement and team member education should be repeated regularly via annual education and just-intime reminders
- Culture change is reinforced by organizational acknowledgement and unit celebrations of milestones

### Plan

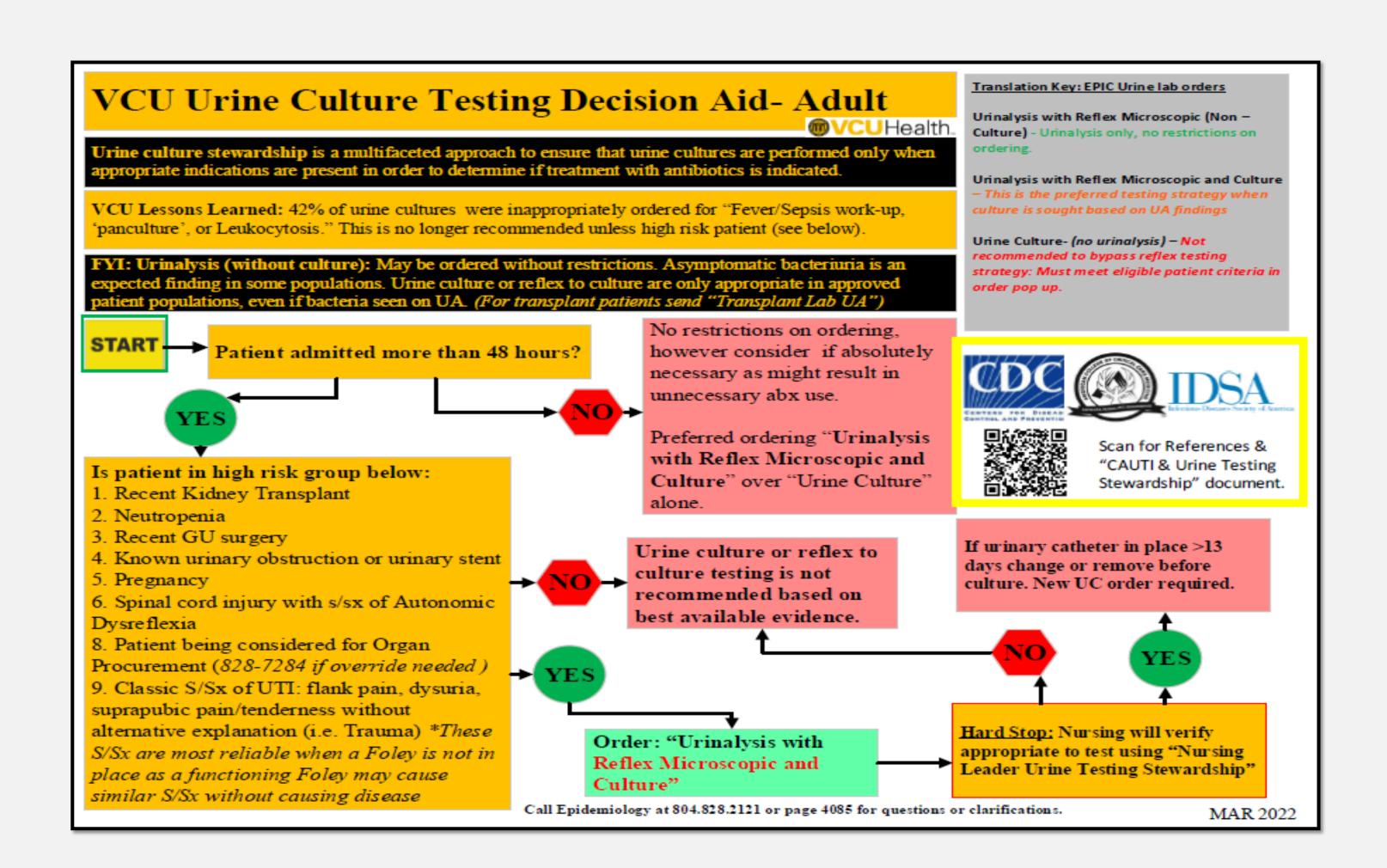
• Aim to decrease catheter associated urinary tract (CAUTI) infections by implementing organization's program of urine testing stewardship (UTS).

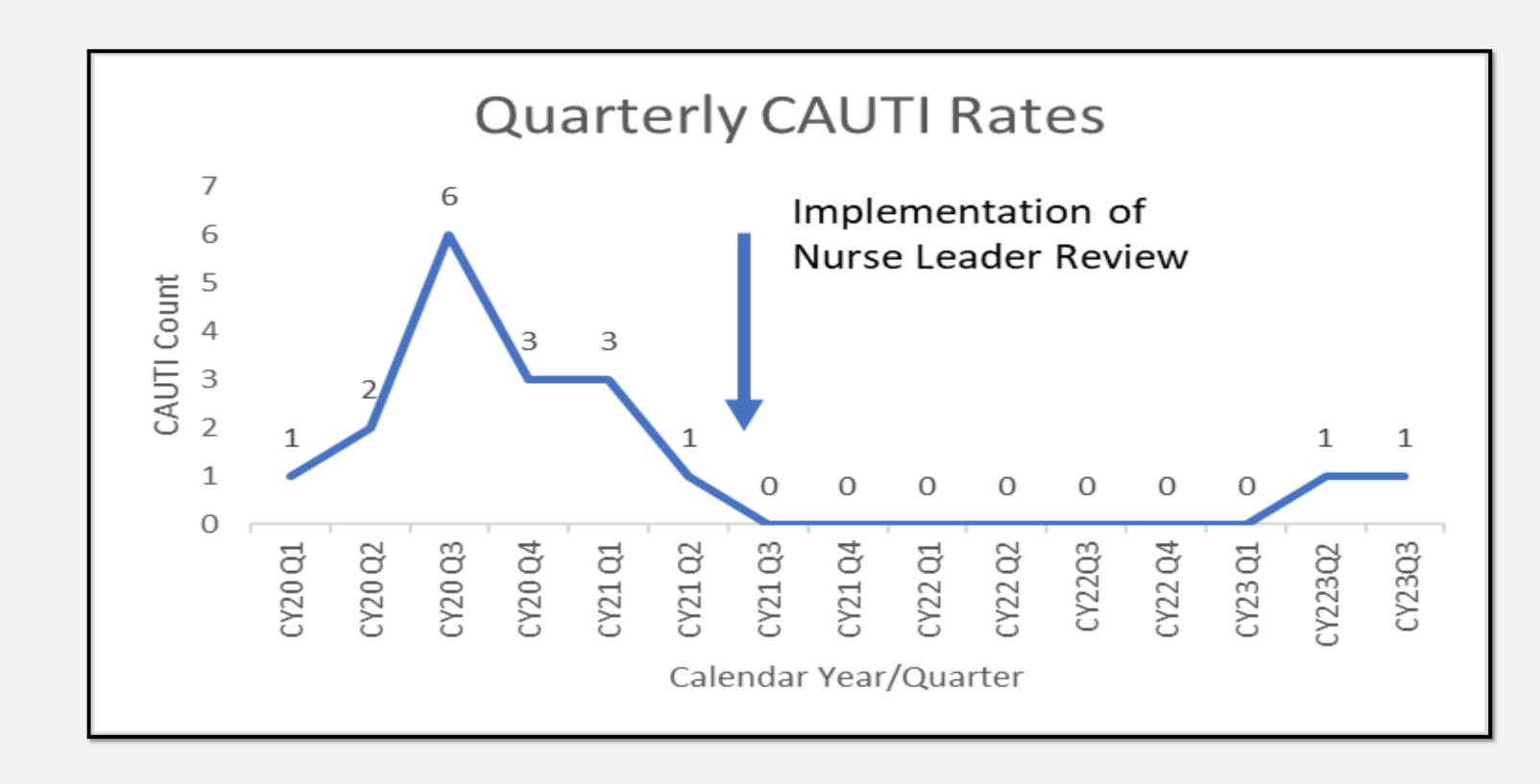
# Study

- CAUTI Standard Infection Ratio (SIR) decreased from 5.12 in 2020 to 0.0 in 2023
- Required change in unit culture through education, involvement of key stakeholders and evidence of improved patient outcomes

## Do

- Educate providers and nurses at monthly staff meetings, practice council and during daily safety huddles
- Nursing leadership to review and approve all urine tests to ensure compliance with UTS guidelines.





## Lessons Learned

- Combined with evidence-based strategies (male and female alternative devices, daily review for necessity, chlorhexidine (CHG) bath treatment, and utilization of the organizational nurse-led bladder management algorithm for urinary catheter removal), we successfully implemented urine testing stewardship.
- We eliminated the unnecessary use of antimicrobials and providers have become more likely to approve catheter removal earlier in the course of hospitalization.
- This initiative was successful as evidenced by the reduction in CAUTI rates and the change in culture on the unit.
- Implementation of UTS in particular requires collaboration among all team members and support from providers, team members, and organizational leaders.



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JUN 2021

#### VCU Urine Culture Testing Decision Aid VCUHealth. Translation Key: Common Cerner Orders Urinalysis (UA)-Use this order now UA stat w mic on pos •UA w mic on pos Urine culture stewardship is a multifaceted approach to ensure that urine cultures are performed only when Urinalysis w microscopic on pos appropriate indications are present in order to determine if treatment with antibiotics is indicated. Urinalysis w microscopic on pos Urinalysis with Reflex -Use this order now •UA Stat w mic on Pos reflex Ur Culture VCU Lessons Learned: 42% of urine cultures were inappropriately ordered for "Fever/Sepsis work-up, •UA with mic on Pos w reflex Ur Culture 'panculture', or Leukocytosis." This is no longer recommended unless high risk patient (see below). •UA with Reflex Culture Urinalysis Stat with reflex Culture FYI: UA (without culture): May be ordered without restrictions. Asymptomatic bacteriuria is an expected Urinalysis with Reflex Culture-Use this order now • Urine Culture finding in some populations. Urine culture or reflex to culture are only appropriate in approved patient Urine Culture populations, even if bacteria seen on UA. (For transplant patients send "Transplant Lab UA") Transplant Lab UA-Use this order now Urinalysis Tr Lab No restrictions on ordering, Patient admitted more than 48 hours? however consider if absolutely necessary as might result in unnecessary abx use. **YES** Scan for References & Preferred ordering "Urinalysis "CAUTI & Urine Testing with Reflex Culture" over Is patient in high risk group below: Stewardship" document. "Urine Culture" alone. 1. Recent Kidney Transplant 2. Neutropenia 3. Recent GU surgery If urinary catheter in place >13 Urine culture or reflex to 4. Known urinary obstruction or urinary stent → NO → culture testing is not days change or remove before 5. Pregnancy culture. New UC order required. recommended based on 6. Spinal cord injury with s/sx of Autonomic best available evidence. Dysreflexia 8. Patient being considered for Organ **YES** Procurement (828-7284 if override needed) **YES** 9. Classic S/Sx of UTI: flank pain, dysuria, suprapubic pain/tenderness without alternative explanation (i.e. Trauma) \*These **Hard Stop:** Nursing will verify Order: "Urinalysis appropriate to test using "Nursing S/Sx are most reliable when a Foley is not in with Reflex Culture" Leader Urine Testing Stewardship" place as a functioning Foley may cause similar S/Sx without causing disease

Call Epidemiology at 804.828.2121 or page 4085 for questions or clarifications.