1442. Effect of Reflex Urine Culturing on Rates of Cultures and Infections in an Acute Care Hospital, Emergency Department, and Two Long Term Care Facilities

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Background. Urine cultures are often positive in the absence of urinary tract infection (UTI) leading to unnecessary antibiotics. Reflex culturing decreases unnecessary urine culturing in acute care settings but the benefit in other settings is unknown.

Methods. This was a quasi-experimental study performed at a health system consisting of an acute care hospital, an emergency department (ED), and two long term care (LT) facilities. Reflex urine culture was an analysis with > 10 white blood cells/high-power field. Urine cultures performed per 100 bed days of care (BDOC) were compared pre- (August 2016 to July 2017) vs. post-intervention (August 2017 to August 2018) using interrupted time series regression. Catheter-associated UTI (CAUTI) rates were reviewed to determine potential CAUTIs that would have been prevented.

Results. In acute care, pre-intervention, 894 cultures were performed (3.6 cultures/100 BDOC). Post-intervention, 965 urine cultures were ordered and 507 cultures were performed (1.8 cultures/100 BDOC). Reflex culturing resulted in an immediate 49% decrease in cultures performed (P < 0.001). The CAUTI rate 2 years pre-intervention was 1.8/1000 catheter days and 1.6/1000 catheter days post-intervention. Reflex culturing would have prevented 44/144 CAUTIs. In ED, pre-intervention, 1393 cultures were performed (5.4 cultures/100 visits). Post-intervention, 1959 urine cultures were ordered and 917 were performed (3.3 cultures/100 visits). Reflex culturing resulted in an immediate 47% decrease in cultures performed (P = 0.0051). In LTC, pre-intervention, 257 cultures were ordered (0.4 cultures/100 BDOC). Post-intervention, 432 urine cultures were ordered and 354 were performed (0.5 cultures/100 BDOC). Reflex culturing resulted in an immediate 75% increase in cultures performed (P < 0.001). The CAUTI rate 2 years pre-intervention was 1.0/1000 catheter days vs. 1.6/1000 catheter days post-intervention. Reflex culturing would have prevented 1/13 CAUTIs.

Conclusion. Reflex culturing canceled 16%-51% of cultures ordered with greatest impact in acute care and the ED and a small absolute increase in LTC. CAUTI rates did not change although reflex culturing would have prevented 29% of CAUTIs in acute care and 8% in LTC.

Disclosures. All authors: No reported disclosures.

1443. N-Acetyl Cysteine Coadministration in Prevention of Amphotericin–Induced Electrolyte Imbalances in Children

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Background. Amphotericin B (AmB) can cause electrolyte abnormalities, including hypokalemia, hypomagnesemia, hypernatremia, and metabolic acidosis; and most important, acute renal failure.

Methods. We conducted a randomized prospective cohort study from March 2012 to February 2018 at Hacettepe University İhsan Doğramacı Children Hospital to children receiving AmB.

Results. A total of 87 patients including 37 patients with NAC and 50 patients without NAC received liposomal amphotericin B during the study period. Serum creatinine, blood urea nitrogen, phosphorus were not different statistically in both groups during the study period. Serum sodium, potassium, calcium, phosphorus, magnesium values taken on third day of AmB treatment were not statistically different in both groups. Mean serum magnesium value was higher in NAC received group on