NORTHERN HEALTH RESEARCH CONFERENCE

October 2, 2020

Diagnosis and management of urinary tract infections in infants and young children at Thunder Bay Regional Health Sciences Centre between 2015-2018: a retrospective chart review

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ABSTRACT:

While urinary tract infections (UTI) are common in children under three, they are challenging to diagnose due to non-specific presentations. In 2014, the Canadian Paediatric Society (CPS) published a position statement that guides UTI management in this age group. Deviation from this standard of care can lead to unnecessary treatment of UTI and may lead to over-investigation of renal abnormalities. We aimed to determine whether those diagnosed with UTI at Thunder Bay Regional Health Sciences Centre (TBRHSC) between January 1, 2015 to December 31, 2018 were diagnosed and treated in accordance with CPS recommendations.

Through a retrospective chart review, we reviewed secondary data from 50 randomly selected charts of 2 - 36 month old children diagnosed with UTI at TBRHSC following the position statement publication. Patients with prior diagnosis of congenital anomaly of the kidneys and urinary tract, genitourinary tract surgery, immunocompromise, UTI within the past 30 days, Grade III to V vesicoureteral reflux or antibiotic prophylaxis were excluded, as UTI management varies widely in these groups.

Based on clinical experience, we hypothesized that standard of care for diagnosis and treatment of UTIs at TBRHSC was not followed, predominantly due to reliance on bag urine samples. We assessed the proportion of those diagnosed as per standard of care and those who received antibiotics prior to specimen collection. Of those properly investigated, we assessed the proportion of those treated with appropriate narrow spectrum antibiotics and those prescribed 7-10 days of antibiotics. These variables were stratified by specialty (emergency and family physicians versus paediatricians) to assess for practice variation.

At the time of this abstract, our preliminary data demonstrates that young children treated for UTI received diagnoses based on inadequate urine samples as per standard of care. These findings will allow for targeted practice improvements in management of paediatric UTIs at TBRHSC.