

EVALUATING THE SUCCESS OF A MANAGEMENT PATHWAY FOR NEONATAL REFERRALS WITH BILIOUS VOMITING

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Aim: 20-50% of term neonates with bile stained vomiting have a surgical diagnosis. 14% have a time critical diagnosis necessitating prompt transfer and treatment. Delays in management can have catastrophic consequences. This study reviewed the effectiveness of a new pathway for these infants at our institution.

Methods: With audit approval, all neonatal admissions referred with bilious vomiting over a 20 month period (February 2015–September 2016) on a newmanagement pathway, were retrospectively reviewed. Data were collected from ICU admission logs and electronic records. Time from referral to admission, from admission to contrast and to theatre was collated, as well as transport demographics. Diagnosis and resulting management was reviewed.

Results: 93 neonates were identified. The time from referral could be determined in 88. 73 (88%) were admitted within 4 hours of referral. Times ranged from 46-460 minutes (median 163 minutes). Retrieval time was similar across the specialist transfer services with shorter times for local transfer teams. 14 patients had alternative diagnoses on admission and left the pathway. Of the remaining 79 patients (58%) underwent upper GI contrast study within 2 hours of admission. N=12 (15.2%) were diagnosed with malrotation +/-volvulus. Time to theatre was 48-397 minutes (median 153 minutes). There were no deaths and only one patient required resection and developed short gut. This patient had less than 6 hours from referral to theatre.

Conclusion: Neonates with bilious vomiting should be considered a surgical emergency as 30% require surgical intervention and half that number have time critical diagnosis as in our series. The implementation of a specific pathway has resulted in impressive referral to treatment times with excellent outcomes and bowel salvaged in 92% of our patients with malrotation +/- volvulus. Interestingly local team transfers times appear the fastest and this requires further exploration.