

Improving Turnaround Time of First Dose IV Antibiotic in Pediatric Inpatient Units (2N1, 2N3) in HGH

PROBLEM: An audit in April-May 2013 revealed that the average turnaround time of first dose IV Antibiotic (from prescription to actual patient delivery) in 2N1 and 2N3 was 3 hours 30 min. None of these doses were administered to the patient within one hour of prescription.

AIM: To improve the turnaround time of first dose IV antibiotic to one hour(or less) in 30% of the cases by January 31st 2014 in two pediatric inpatient units (2N1, 2N3) in HGH.

INTERVENTIONS: (started June 2012)

- Physicians to write all first dose IV antibiotic as "STAT" & to handover prescription directly to the nurse
- Prescribing physician to ensure (or arrange) for suitable IV access during prescribing
- Education of nurses: to fax first dose IV antibiotic prescriptions to the pharmacy ASAP
- Maintenance of a log book in each unit to document all first dose antibiotic prescriptions including patient details, time of prescription, time of administration and contributing reasons incase of any delay
- First Dose Antibiotic Delivery in 1 hour was made a Quality and Patient Safety (QPS) indicator

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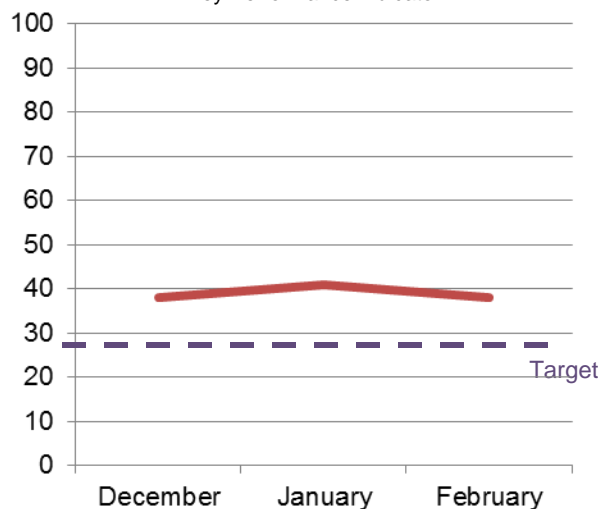
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Special Thanks to the Nursing staff in 2N1 & 2N3 and Inpatient Pharmacy Staff at HGH

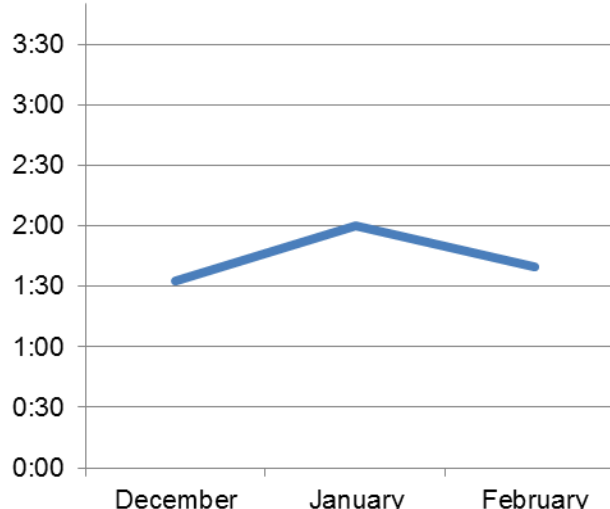
RESULTS:

% of First Dose Antibiotics Delivered within 1 hr

Key Performance Indicator



Average Turnaround Time in Hours



CONCLUSIONS:

- The interventions were started in June 2012 and education was reinforced over the coming months with spot checks
- Data of patients who received their first dose antibiotic in 2N1 and 2N3 was recorded on a daily basis from Dec 2012 onwards
- The percentage of cases receiving first dose antibiotic within one hour improved from 0% to 39% and the average turnaround time for all first dose IV antibiotics reduced from 3 hours 30 min to 1 hours 44 min.

NEXT STEPS:

- To achieve 100% compliance in administering first dose antibiotic within one hour by end of 2014
- Knowledge transfer to other pediatric units