

Urine Dipsticks: Performance and Interpretation (2nd Cycle)

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Background

The first cycle showed only 40% of patients in the two acute medical units had urine dipsticks on admission and **as many as 50% of patients on antibiotics may not have been on the appropriate treatment**. Changes such as raising awareness and introducing urine dipstick labels to AMU-A as well as AMU-B were made since the first round.

Aim

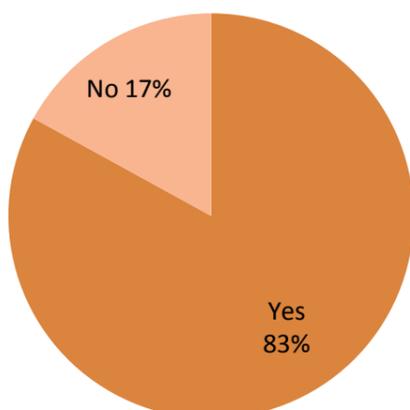
1. To investigate whether urine dipstick performance improved and if this impacted clinical decision making.
2. To investigate whether there is a difference between the medical and surgical admission units.

Methods

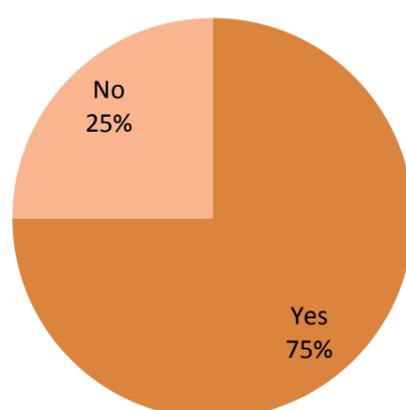
Notes were analysed prospectively from the two acute medical units and from the surgical triage unit to see if there has been an improvement in March 2017 compared to November 2016.

Measurement

Medical patients on antibiotics with a positive urine dipstick



Surgical patients on antibiotics with a positive urine dipstick



Results

- **53% of 144 medical patients** compared to 40% of 136 **had urine dipsticks** within 2 days of admission.
- **56% of AMU-A patients and 49% of AMU-B** patients had urine dipsticks, compared to only 24% of AMU-A patients previously.
- Similar findings were made in the surgical triage unit with **49% of patients** having urine dipsticks.
- Of those patients treated for urinary tract infections **83% medical patients and 75% surgical patients had positive urine dipsticks**.

Conclusion

- **Nitrites, leukocytes and blood** together more accurately predict infection.
- The changes seem to have improved rates of performance and appropriate diagnosis. This could lead to a **reduced usage of broad spectrum antibiotics and reduced incidence of drug resistance** in the long term.
- A further cycle will address **documentation on the medical and surgical units** and whether **urine cultures** are sent in cases where urine dipsticks alone are not enough.
- This work could also be extended to A&E and wards.

