

# UTI treatment of elderly patients at Kettering General Hospital

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## Background

Hospital admissions for UTI's have recently been on the rise within the UK<sup>(1)</sup> and antibiotic resistance has also risen.<sup>(2)</sup> UTI's are becoming a much greater concern in the elderly as resistance in UTIs is increasing disproportionately in the elderly. At Kettering General Hospital over a five-year period (2012-17) we have seen increases in resistance in *E.coli*, the most common causative organism of UTI.

## Method

A pilot audit was carried out over a one-month period on two care of the elderly wards, to look at prescribing habits of antibiotics in the treatment of UTI's. In particular: indications, prescribed antibiotic, adherence to guidelines/microbiology advice, whether a urine dipstick/MSU+C was taken.

## Results

A total of 14 patients were diagnosed with a UTI, with 3 coming under the classification of urosepsis. 11 were treated in accordance with guidelines; with pivmecillinam being the most common antibiotic choice. Fosfomycin was the commonest drug prescribed with no rationale (2/14), meropenem was prescribed in 2 cases, not in accordance to guidelines. 6/14 patients had a urine dipstick taken as part of their investigations.

## Aims and Objectives

The audit aimed to determine the extent to which guidelines were being adhered to, over a one month period.

1. Analysis of correct documentation on drug chart or within the patient notes
2. Analysis of correct antibiotic use for indication
3. Analysis of correct procedural approach to diagnosing UTI

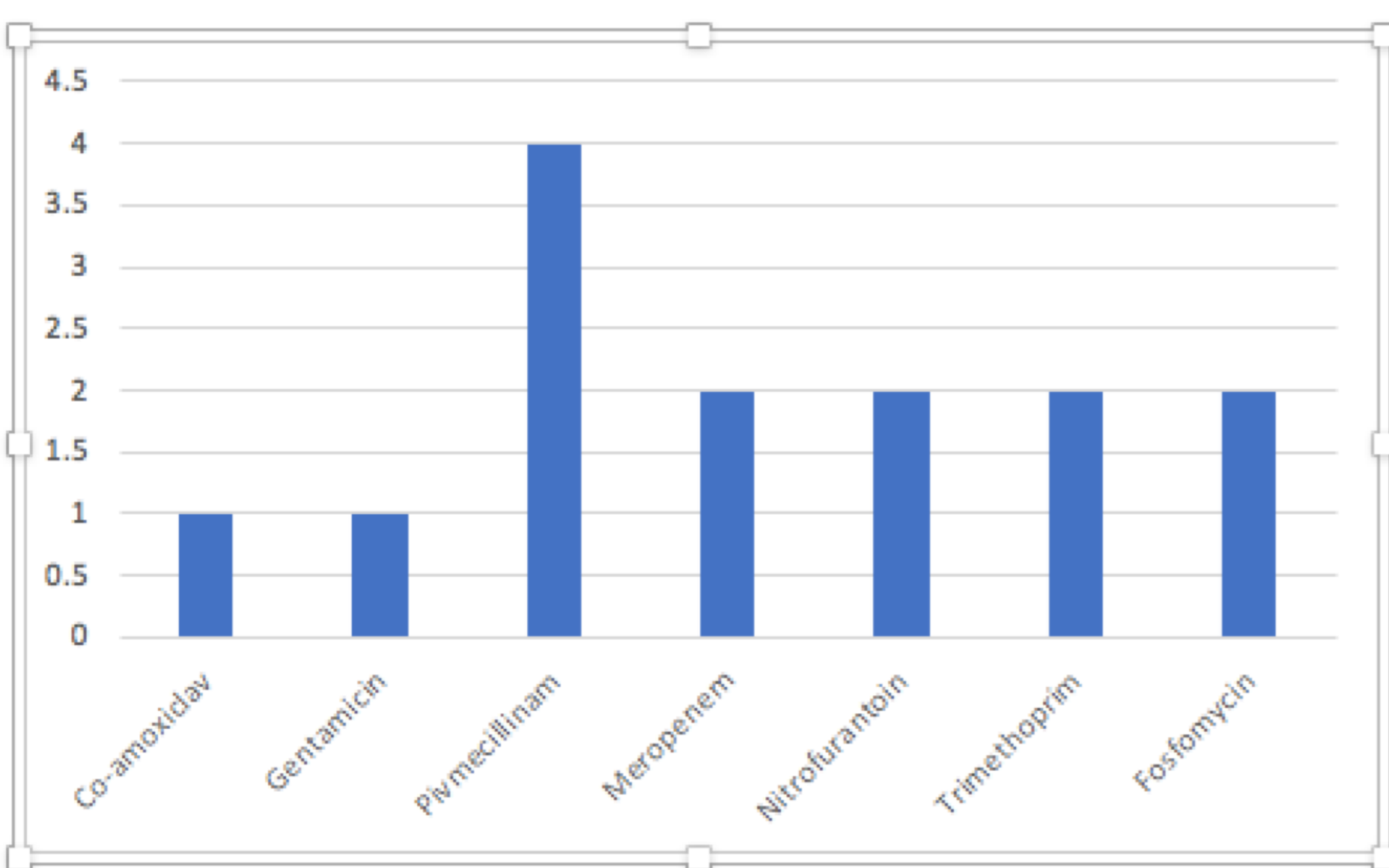


Figure 1.1: Antibiotics used during the audit

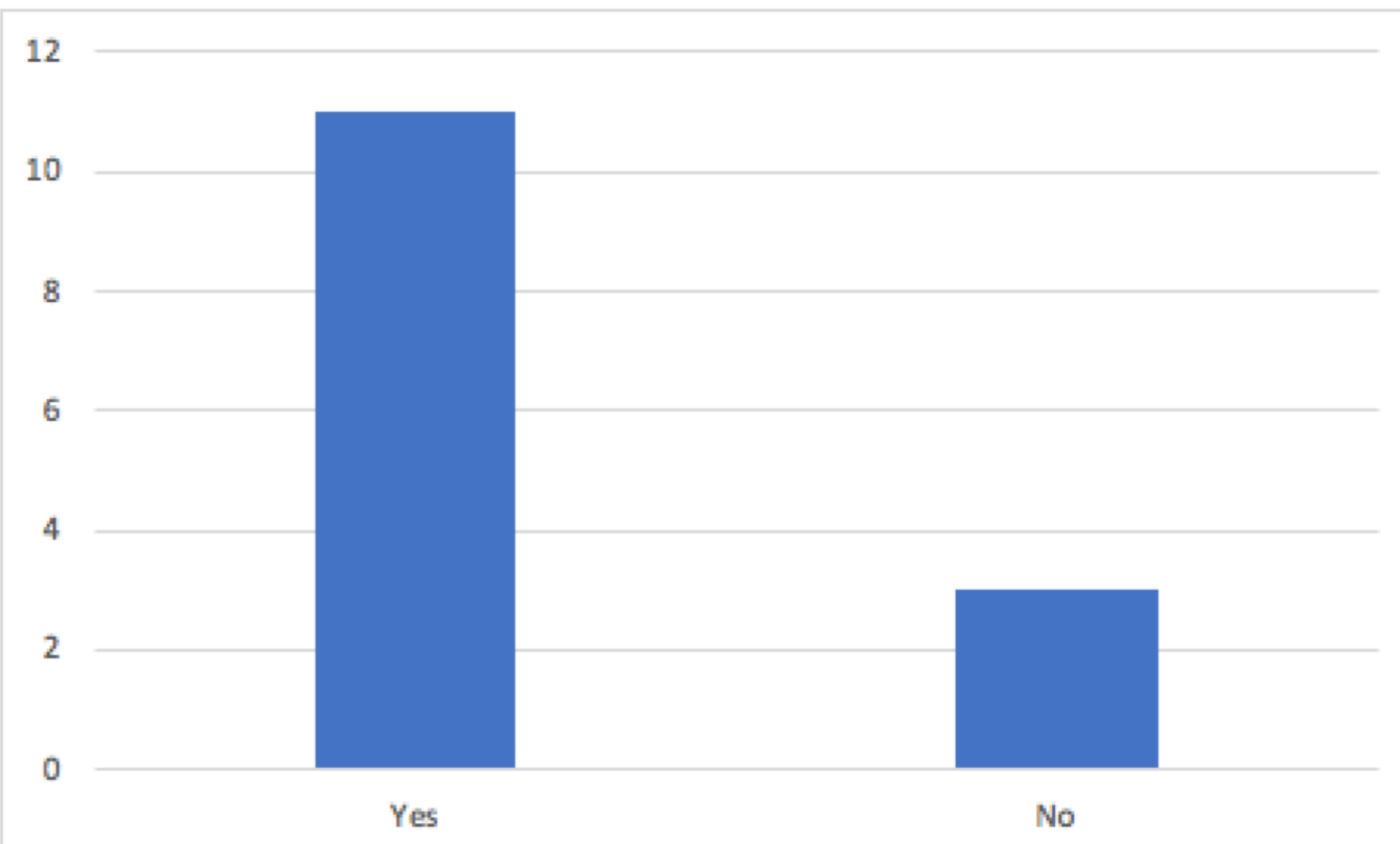


Figure 1.2: Adherence to guidelines

## Discussion

Documented diagnosis appears to be a fault within the trust as UTI's were treated with meropenem in two cases, which is reserved for sepsis. Improved documentation of diagnosis may improve this parameter. The choice of Fosfomycin, shows poor compliance with first line recommendations and the need to push for greater adherence. In line with SIGN 88,<sup>(3)</sup> a urine dipstick shouldn't be taken in the elderly and treatment should be commenced without this investigation, 6 patients had a dipstick taken unnecessarily against guidelines.

## Conclusion

In general, there is good adherence to trust UTI treatment guidelines, but this is not the case with appropriate investigations. Clear documentation will help to resolve issues in discrepancies between diagnosis and antibiotic use, documentation of correct diagnosis was highlighted in recent trust newsletter. Future plans are to re-audit across the hospital to determine if trust policy and guidelines based on NICE<sup>(3)</sup> and SIGN<sup>(4)</sup> are being adhered to.

### References:

1. Bardsley M, Blunt I, Davies S, Dixon J. Is secondary preventive care improving? Observational study of 10-year trends in emergency admissions for conditions amenable to ambulatory care. *BMJ open* 2013;3(1):e002007.
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