

Identifying antibiotic stewardship interventions to meet the NHS England CQUIN.

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Introduction and objective :

Spivak *et al.*¹ developed evidence based audit tools enabling hospitals to identify potential improvements in antibiotic prescribing. We set out to identify potential improvements necessary to meet the NHS England antimicrobial stewardship CQUIN targets² in a 650 bed teaching hospital, already in the lowest 25% centile for antibiotic consumption in England.³

Method :

The Electronic Prescribing and Medicines Administration system enabled identification 964 patients discharged in February 2017 prescribed >24 hours antibiotics. Every tenth patient and all prescriptions for community acquired pneumonia (CAP) or urinary tract infection (UTI) were included; identifying 96 and 43 cases respectively. The antibiotic management was reviewed against the audit tools.¹

Results :

CAP Ten severe CAP patients were identified⁴ with a mean course length of 9.2 days (Trust recommended 7-10 days). The infecting organism was identified in the blood cultures of three (30%) patients; none switched to narrower spectrum agents.

Twenty two of twenty three identified non-severe CAP (96%) were initiated on intravenous antibiotics; seven (32%) switched to oral antibiotics within 72 hours, two patients (13%) met intravenous (IV) to oral switch criteria but not switched. The mean antibiotic course length was 10.5 days (Trust recommended 5-7 days).

UTI Of the twenty two patients treated for UTI, all over 65 and without an indwelling urinary catheter, six (27%) patients had at least two signs or symptoms of UTI; five upper UTI and one patient lower UTI.⁵ Of the seven patients with a urinary catheter, five (71%) had at least one sign or symptom consistent with a catheter-associated urinary tract infection.⁵

Other infections Seventy three patients were treated for one of 27 different sites of infection. IV antibiotics were initiated in 56/71 (79%) patients. Of the 30/56 (54%) patients not switched to oral by 72 hours, five (17%) patients met the IV to oral switch criteria. Two hundred and twenty seven days of antibiotic therapy were prescribed across all 27 infections for 73 patients against an expected 190 days (19% longer course length).

Conclusions : Four Key areas for improvement

- Adopt SIGN 88 UTI management guidelines.⁵ Only 38% of patients treated for urinary tract infections meet the UTI definition.
- Ensure antibiotic course lengths are in line with local guidelines. Antibiotics are continued for 20% longer than recommended in local guidelines.
- Eight percent of patients initiated on IV antibiotics were eligible for oral switch by 72 hours and not switched.
- Switch antibiotics to narrowest spectrum agent once sensitivities reported.

References:

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