

# Antibiotics, Antimicrobials and Resistance

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## Tackling antibiotic resistance: Assessing prescription of trimethoprim in a GP setting-a retrospective audit

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**Background:** Antibiotic resistance is a global concern, threatening the medical field and proving to be a challenge to overcome. The World Health Organisation has identified *E. coli* as one of the most deadly bacteria with as many as half of the patients around the world not being able to receive treatment due to antibiotic resistance.

**Aim:** The aim was identify how frontline staff can best tackle antibiotic resistance through looking at prescriptions.

**Method:** NICE guidelines have stated that nitrofurantoin is first line for urinary tract infections, while previously it was trimethoprim. Therefore, we looked at a general practice (GP), where patients first encounter antibiotics to see whether they received the correct antibiotics. In a three month period, we identified patients who were prescribed trimethoprim and analyzed the results using the following format: correct dose; correct duration; indication documented; why was nitrofurantoin not used: (1. intolerance, 2. allergy, 3. eGFR<30, 4. drug interaction, 5. C&S, 6. other) and; MSU sent appropriately?

**Results:** 154 patients were identified as having trimethoprim prescribed. 124 patients did not have a reason documented as to why trimethoprim was used over nitrofurantoin. 10 patients did

not have the correct duration of antibiotics. 75 MSU's were sent, of which only 53 were inappropriate.

**Conclusion:** 124 (80%) of the patients in a three month period potentially did not receive the correct antibiotic. This leaves scope for antibiotic resistance. We realised that the change in the guidance was not communicated through to many of the prescribing staff who are not GP's themselves and are therefore not in a routine of updating themselves on current guidelines. The WHO organization is striving for changes to tackle the issue of antimicrobial resistance. If these issues are not communicated to front line staff it will be very difficult for to overcome this challenge. The current GP practise has emailed all staff of the change and a second audit is being undertaken.

### Biography

Lakhbir Kaur—MBBS, PGCert (Medical Leadership), AFHEA (Associate fellow of Higher Education Academy)—obtained her Medical Degree at Queen Mary University of London. She then went on to complete her foundation training at Blackpool Teaching Hospitals and is currently working as a Medical Demonstrator at the University of Central Lancashire. She is undertaking a MRES looking at the use of probiotics in ulcerative colitis.

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