Antimicrobial Stewardship recommendations are **more likely to be accepted** when **directly communicated verbally** with the treating team.

The Truth is Out There…:Implementing Antimicrobial Stewardship Ward Rounds in a Tertiary Hospital

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Introduction

Antimicrobial Stewardship (AMS) programs are compulsory for Australia hospital accreditation and reduce antimicrobial resistance rates over time[1]. Despite national recommendations[2], daily AMS ward rounds are still not commonplace[3]. Inclusion of a pharmacist in AMS ward rounds decreases antimicrobial consumption and expenditure[4]. Implementation of AMS ward rounds in a tertiary referral hospital was executed by the AMS pharmacist, in collaboration with AMS consultants.

Aim

To describe the impact of pharmacist-led AMS ward rounds from October 2017 - June 2019.

Method

- An AMS pharmacist, microbiology registrar and AMS consultant performed daily antimicrobial chart reviews with intervention on patients selected by the AMS pharmacist
- Interventions were classified into 8 categories, encompassing antibiotic duration, spectrum, dose and route optimisation, and further investigations
- If more than one recommendation was made, the most clinically relevant intervention was recorded
- Interventions were considered accepted if advice was followed within 24 hours
- All interventions were documented in the patient progress notes, and attempts to contact the team directly were made

Results

- 927 antibiotic courses were reviewed. 74.4% (690) of recommendations were accepted by teams within 24 hours
- If the team was contacted directly, intervention acceptance was significantly increased (617/786 [78.5%] interventions accepted for verbal contact vs 73/141 [51.8%] for written communication alone, $p < 0.01$)
- There were no adverse clinical outcomes from interventions reported

Discussion

- Despite high antimicrobial usage, units such as Lung Transplant and ICU required minimal intervention. This is likely due to department-specific AMS meetings/rounds reviewing antibiotics pre-emptively
- AMS team physical presence on the ward was well received by teams
- Verbal conversation regarding antibiotic prescriptions often raised complexities that were not apparent on chart review
- Face-to-face discussions with prescribers provided an important opportunity for AMS education and advocacy

Conclusion

Multidisciplinary AMS ward rounds are an effective strategy to engage prescribers and optimise antibiotic prescribing. Verbal communication with prescribers improved acceptance of AMS recommendations. Pharmacist leadership and initiative was pivotal to successful implementation.

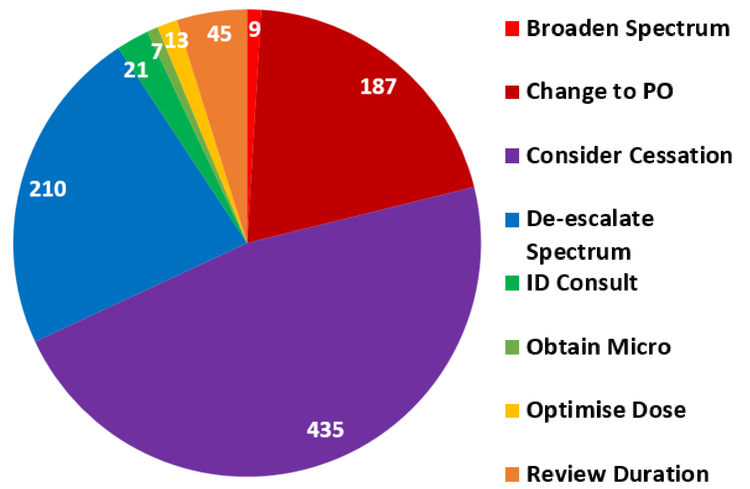

Figure 1. Summary of interventions

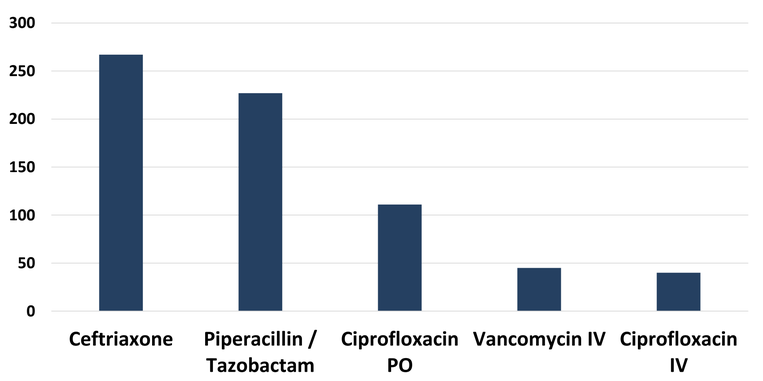

Figure 2. Top 5 Antimicrobials requiring intervention

Table 1. Interventions by team

Team	Number of Interventions
General Surgery	164
Respiratory	103
Heart Transplant	96
Geriatrics	90
Gastroenterology	58
Vascular and Endocrine	58
Haematology	47
Cardiothoracics	47
Ear, Nose and Throat	47
Cardiology	33
Plastics	28
Urology	25
Oncology	21
Neurosurgery	19
Lung Transplant	17
Neurology	17
Orthopaedics	13
Rehabilitation	16
Nephrology	9
Drug and Alchohol	9
Immunology and Rheumatology	9
Gynaecology	1

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References:

1. Beryl P *et al*. Clinical effectiveness of antimicrobial stewardship in reducing antibiotic resistance rate: a meta-analysis. ECCMID 2016
2. ACSQHC. Antimicrobial Stewardship in Australian Health Care 2018
3. Bryant P *et al*. A Whole of Country Analysis of Antimicrobial Stewardship Resources, Activities, and Barriers for Children in Hospitals in Australia. Open Forum Inf Dis 2018
4. Yu K *et al*. Evaluation of dedicated infectious diseases pharmacists on antimicrobial stewardship teams. Am J Health Syst Pharm 2014