

Developing a Ward Team Approach to Antimicrobial Stewardship: Raising The Profile of Oral Antibiotic Review

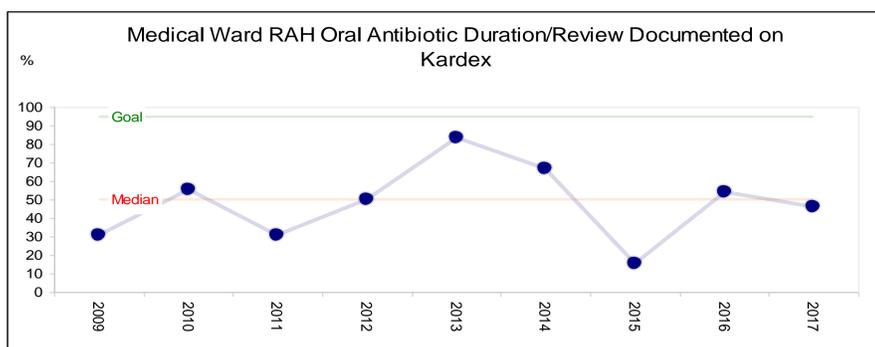
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Prudent antimicrobial prescribing is critical to help minimise the emergence and spread of antibiotic resistance. Antimicrobial Stewardship aims to ensure patients receive the right antibiotic, at the right dose, route and time for the right duration.¹ Greater Glasgow and Clyde (GG&C) Infection Management Guidelines give recommended course lengths for the most commonly encountered infections. Documenting the course duration or stop date of an oral antibiotic on the medicine chart can help ensure the correct course length of antibiotic is given to the patient. This can reduce patient harm, reduce cost and improve discharge efficiency. Annual GG&C point prevalence audits have shown oral antibiotic course length is often documented in only 50% or less of treatment courses. Previous interventions to improve oral antibiotic duration recording relied on person dependent approaches often undertaken by temporary junior medical staff that was not sustained in a busy ward environment. This project set out to test if a ward based team approach system redesign, to raise the profile of oral antibiotic review, involving permanent senior medical and nursing staff could improve the documentation of oral antibiotic duration and lead to sustainable quality improvement.

Aim: 95% of all oral antibiotics prescribed in the targeted medical ward, Royal Alexandra Hospital (RAH), will have a STOP DATE or course length duration/review documented on the inpatient kardex.

Method: Previous data (Fig 1) from antibiotic point prevalence audits was fed back to the ward consultant and ward charge nurse.

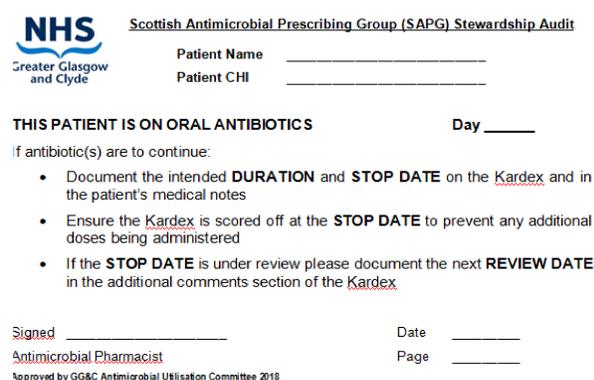
Fig. 1



Current ward systems were considered and proposed changes to bring about improvement were discussed and agreed.

- Consultant and charge nurse agreed to raise the profile of oral antibiotic review to a daily ward round issue within their team.
- Introduction of a ward system redesign was agreed. Nurses to use current ward round reporting system to flag up at consultant ward round any oral antibiotics prescribed that do not have a duration/review recorded on the kardex.
- Antimicrobial pharmacist to undertake weekly audit to measure percentage of oral antibiotic duration/review recording. Results were displayed on a run chart displayed on the ward.
- Sticker prompt (Fig. 2) added to medical notes during weekly audit when antibiotic STOP DATE or duration/review not documented and non-compliance fed back to junior medical staff and ward consultant.
- An eye catching poster (Fig. 3) with **specific instructions** on how to prescribe oral antibiotics was attached to ward trolleys and displayed in the ward doctors' room.

Fig. 2



NHS Scottish Antimicrobial Prescribing Group (SAPG) Stewardship Audit
Greater Glasgow and Clyde

Patient Name _____
Patient CHI _____

THIS PATIENT IS ON ORAL ANTIBIOTICS Day _____

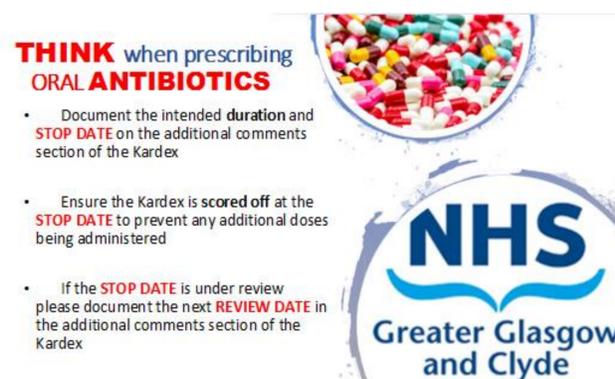
If antibiotic(s) are to continue:

- Document the intended **DURATION** and **STOP DATE** on the **Kardex** and in the patient's medical notes
- Ensure the **Kardex** is scored off at the **STOP DATE** to prevent any additional doses being administered
- If the **STOP DATE** is under review please document the next **REVIEW DATE** in the additional comments section of the **Kardex**.

Signed _____ Date _____
Antimicrobial Pharmacist Page _____
Approved by GG&C Antimicrobial Utilisation Committee 2018

Outcome Measures: Weekly audit to measure percentage of oral antibiotics with STOP DATE or duration/review recorded

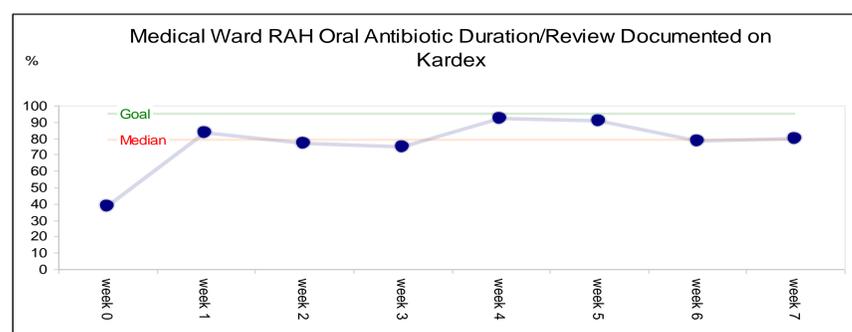
Fig. 3



Results: The agreed changes resulted in an improvement in the recording of oral antibiotic STOP DATE or duration/review on the kardex (Fig. 4). The 95% target was not achieved with the highest percentage 92% achieved in week 4 of the project. The median was increased from 50% to 79.3% by week 7 of the project.

Non-compliance often resulted when treating more complex infections when oral antibiotics with good bioavailability were prescribed in combination with IV antibiotics or when awaiting specialist advice such as microbiology input. Upon discussion with the ward consultant it was agreed that when possible an antibiotic review date should be agreed and documented on the medicine chart in such patients.

Fig. 4



Conclusion: Introducing agreed changes to promote a ward team approach to raising the profile of oral antibiotic review, involving pharmacy and permanent senior medical and nursing staff, can in the short term, improve recording of oral antibiotic STOP DATES or course length/review on the medicine chart.

Identifying where these changes fail can help direct further change to drive improvement.

Whether this approach can produce sustainable change remains to be seen.

Next Steps

1. To introduce this approach to the medical receiving unit in RAH.
2. To continue to audit Ward 10 RAH on a monthly basis to observe if a sustained improvement is achieved.

Acknowledgements: Thank you to all Ward 10 RAH staff and RAH Quality Improvement Den for support in carrying out this project.

Reference 1. <http://antibiotic-action.com/resources/using-antibiotics-responsibly/> - right-drug-right-time-right-dose-right-duration