Can a GP self-directed review of antimicrobial prescribing be used as a tool to inform primary care prescribing of antimicrobials?

EF-07
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Background
High prescribing rates of antimicrobials have been identified as a potential driving force for antimicrobial resistance. Each Health Board is required to address and improve prescribing volume of antimicrobials.

The National Therapeutics Indicators Baseline Report for 2015-16 demonstrated that NHS Ayrshire & Arran was the second highest prescriber of antimicrobials in primary care within NHS Scotland.

Aim
The aim of the project was to improve awareness of antimicrobial stewardship and prescribing of antimicrobials in primary care.

Objectives
• To improve local formulary and guideline adherence
• To try to reduce antimicrobial prescribing volume
• To try to ensure appropriate length of treatment course
• To ensure clinician engagement and awareness
• To utilise the results to investigate areas of good and bad prescribing to help improve antimicrobial prescribing.

Methodology
• GP practices were selected on the basis of their antimicrobial prescribing data and invited to participate
• Within each Health and Social Care partnership at least one exemplar practice was selected as well as practices with poorer antimicrobial prescribing
• An educational event was held involving the primary care medical director, a local GP with special interest in antimicrobial prescribing, the Pharmacy - Medicines Utilisation Unit and a national specialist speaker
• Following the educational event, the GPs who attended were asked to carry out a review within their practices as follows:
  • Review 10 patients per month prospectively Oct – Dec 2016
  • Focus on respiratory tract and urinary tract infections
  • Assess whether patient needed an antimicrobial
  • Decide if a delayed prescription or monitoring the patient without prescription would have been more appropriate
  • Undertake a peer review for each case with another clinical member of the practice
  • Discuss with peer colleague to assess whether the patient needed an antimicrobial, and if so was this in line with local guidance
  • Hold a practice meeting at the end of the review to discuss results and learning points
• The results were analysed by the pharmacists and analysts within the Pharmacy - Medicines Utilisation Unit
• Qualitative analysis was undertaken using a thematic framework approach
• Quantitative analysis involved reviewing the specific prescribing data including volume of prescribing using PRISMS data and the National Therapeutic Indicators

Results
The main antimicrobials prescribed were:
Amoxicillin, Co-amoxiclav, Doxycycline, Erythromycin, Nitrofurantoin, Penicillin V, Trimethoprim

The thematic framework analysis indicated the following:
• Excellent clinical engagement with the process including peer discussion
• There was variation in the management of the prescribing of antimicrobials across the range of practices
• Patient expectations had a high influence on prescribing
• There appears to be a lack of consistent management of diagnosis and treatment of UTI
• Detailed quantitative prescribing data analysis is ongoing

Conclusion
• Choice of antimicrobial was overall compliant with the local primary care guidelines
• Duration of course was not always in line with local guidance which will potentially affect the prescribing volume
• The recently updated antimicrobial guideline gives clear guidance on the choice, dose and duration for different indications – there is a need to promote the guidance to primary care prescribers utilising the primary care prescribing team and digital tools
• Management of UTI will be an area for improvement work:-
  • Utilise resources such as ScRAP2
  • Develop tool/checklist for UTI diagnosis and management
  • Develop patient information leaflet
  • Review diagnosis and management of UTI within care homes
  • Develop an implementation support pack for new UTI prophylaxis guidance
• Patient education and awareness requires to addressed as part of the wider NHS Ayrshire & Arran patient medicines communication strategy

Summary
There was wide variation in practice prescribing processes including some practices with excellent processes and peer reviews of prescribing with further recommendations for improvement. The best ideas will be used to inform prescribers through cluster and practice meetings by the local prescribing support team.

The findings from this project will be used along with the NTIs to improve and monitor antimicrobial prescribing.

NTI data shows higher prescribing in the South Ayrshire locality as below. Initial efforts from this peer review will be focussed on the participating south practices’ data to help inform improvement work.

References
Key
LRTI - Lower respiratory tract infection
URTI - Upper respiratory infection
UTI - Urinary tract infection
ScRAP2 – Scottish Reduction in Antimicrobial Prescribing (Version 2)
NTI – National Therapeutic Indicator
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