

Medicines Optimisation Update

Prescribing Broad Spectrum Antibiotics

What this includes:

Co-Amoxiclav, Cephalosporins and Quinolones % Items: The percentage of all antibiotics prescribed that are Co-amoxiclav, a Cephalosporin or a Quinolone.

Identifying the problem:

- A care bundle to support this update is available on the NECS medicines optimisation website: <http://medicines.necsu.nhs.uk/guidelines/cumbria-guidelines/>
- RCGP Target audit toolkit – <http://www.rcgp.org.uk/clinical-and-research/toolkits/~link.aspx?id=4725FOAA89A349E991425E510F7D6371&z=z>

Suggested actions:

1. **In order to reduce risk of *Clostridium difficile* infection (CDI), methicillin-resistant *Staphylococcus aureus* (MRSA) and resistant urinary tract infections (UTIs), use national and local guidelines to ensure the antibiotic chosen is appropriate to the patient's condition.** There are few indications for broad-spectrum antibiotics in primary care: avoid broad spectrum antibiotics where a narrow spectrum agent will be effective.
2. **Reserve broad-spectrum antibiotics for the treatment of serious infections when the pathogen is not known:**
 - Do you need to check for sensitivity?
 - Be aware that laboratory reports are in alphabetical order, NOT in order of preference: check antibiotic guidelines for first and second choice drugs.
3. **Antibiotic exposure is associated with a significantly higher risk of CDI than no antibiotic. Other risk factors include:**

High Risk patient	High Risk environment	High risk antibiotics
Age >65yrs	Contact with CDI patients	Clindamycin
Long term conditions requiring long term antibiotics	Recent hospital admission	Ciprofloxacin and other quinolones
		Cephalosporins
Recent antibiotic exposure within previous 2 months	Institutionalised	Co-amoxiclav

Risk of CDI infection is greatest with:



1. Clindamycin
2. Quinolones
3. Cephalosporins
4. Penicillins
5. Macrolides
6. Sulphonamides or trimethoprim



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Suggested actions:

4. **When using broad spectrum antibiotics, counsel patients, especially older people, to be alert for signs of CDI and to seek medical help if diarrhoea develops.**
5. **Ensure all cases of CDI are read coded as a major medical problem** to inform future patient management.
6. **Proton Pump inhibitor (PPI) use is associated with nearly doubling the likelihood of CDI**, even for short term use. Review the need for a PPI especially when patients are taking an antibiotic or have CDI and consider stepping down and stopping treatment whenever possible.
7. **Document clinical diagnosis, duration, dose and route in patient records.** If you have prescribed broad spectrum antibiotics outside of the guidelines based on the patient's clinical presentation, this should be added to the notes.
8. **It is advised to start reducing prescribing by focusing on the main antibiotic(s) that are being overused.**
9. **Do a 'snap shot' broad spectrum antibiotic audit** to find out which prescribers are using these and the main reasons for their use.
10. **Review regularly the need for and effectiveness of long term courses of antibiotics** for example prophylaxis of UTIs, cellulitis or COPD exacerbations.
11. **Please also refer to the section "As a practice"** of the Antibiotic Prescribing Medicines Optimisation Update for further guidance.

Resources :

- North East & Cumbria antimicrobial prescribing guideline for primary care
<http://medicines.necsu.nhs.uk/download/north-east-cumbria-antimicrobial-prescribing-guideline-for-primary-care/>
- Quick reference guide to common infections in primary care
<http://medicines.necsu.nhs.uk/download/quick-reference-guide-to-common-infections-in-primary-care/>
- Antibiotic Management of Recurrent Urinary Tract Infections in Adults
<http://medicines.necsu.nhs.uk/download/quick-reference-guide-to-common-infections-in-primary-care/>

References:

- National Institute for Health and Care Excellence (NICE). Clinical Guidelines:
- Respiratory tract infections (self-limiting): prescribing antibiotics NICE guidelines [CG69] Published: July 2008
<https://www.nice.org.uk/Guidance/cg69>
 - Antibiotic prescribing – especially broad spectrum antibiotics Published: 15 January 2015
<https://www.nice.org.uk/guidance/ktt9>
 - Antimicrobial stewardship: systems and Processes for effective antimicrobial medicine use
<https://www.nice.org.uk/guidance/ng15>
 - Drug allergy: diagnosis and management
<https://www.nice.org.uk/guidance/cg183>

NECS medicines optimisation website. Available at <http://medicines.necsu.nhs.uk/guidelines/cumbria-guidelines/>

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