



**ROBERT GORDON
UNIVERSITY ABERDEEN**

Case studies in antibiotic prescribing: How can hospital pharmacists ensure rational antibiotic therapy in practice?

EAHP Academy
Saturday 30th September

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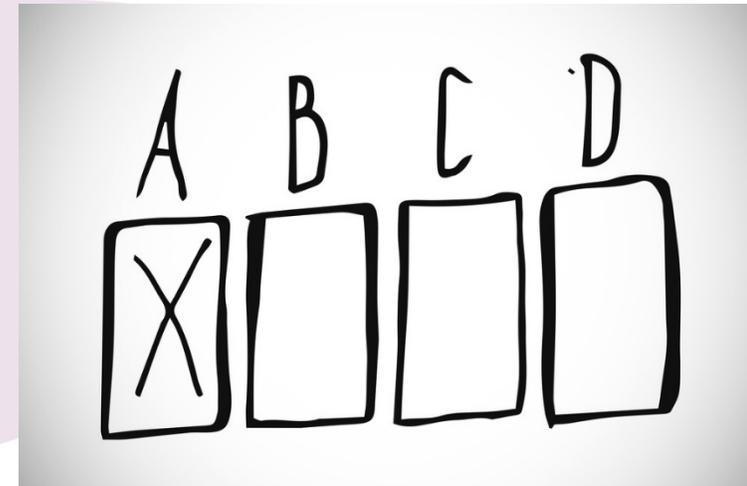
Disclosure of Relevant Financial Relationships

- Nothing to declare



Workshop design and outline

- **14:00 – 14:15** Introduction – think about workshop 1
- **14:15 – 15:00** Team based learning – interactive MCQs
- **15:00 – 15:30** Coffee break + ??? cake
- **15:30 – 16:45** Application to cases
- **16:45 – 17:00** Feedback and conclusion



1. When referring to intravenous (IV) antimicrobial therapy:
 - A. The duration of therapy is always at least 7 days
 - B. It is appropriate to keep a patient on IV therapy if absorption is compromised
 - C. It is indicated in all patients who are on enteral feeding
 - D. It is the only route available to administer broad-spectrum antimicrobials

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2. Timely IV-to-oral switch:

- A. Reduces the risk of phlebitis and health-care associated infection
- B. Can only be considered by a pharmacist
- C. Is safe if a patient has severe diarrhoea
- D. Is indicated if a patient has a heart rate of >90 beats/min

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3. When choosing an empiric antimicrobial for surgical prophylaxis:
- A. All surgery, irrespective of the type of procedure, carry the same risk of infection
 - B. Multiple doses of an antibiotic are always recommended
 - C. Guidelines for surgical prophylaxis are the same worldwide
 - D. None of the above

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4. With respect to surgical prophylaxis:

- A. This is used to treat rather than to prevent infection
- B. Is not recommended in patients who are penicillin allergic
- C. Is indicated to prevent surgical site infection
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5. When ensuring appropriate pharmaceutical care in patients on antimicrobial treatment:

- A. It is important to consider the patient's clinical state rather than only the lab investigations
- B. It is important to consider the potential effect of the antimicrobial on other organs
- C. It is important to monitor both the efficacy and toxicity of the antimicrobial
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6. When ensuring that the appropriate empirical antimicrobial has been selected for an individual patient:

- A. All of the below
- B. All the patient's co-morbidities need to be taken into account
- C. A patient's empiric medication is not based on a culture and sensitivity report
- D. Patient's individual characteristics may determine the choice of antimicrobials

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D. Patient's individual characteristics may determine the choice of antimicrobials

7. With respect to patient education prior to discharge on antimicrobials:

- A. Since antimicrobials are only for short-term use, it is not necessary to counsel a patient on appropriate use prior to discharge
- B. Patients should be advised to stop antimicrobials when they are feeling better
- C. All antimicrobials need to be taken with or after food
- D. Patients should be advised to finish their prescribed course of antimicrobials

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What should we advise patients?

The “complete the course” message has persisted despite not being supported by evidence and previous arguments that it should be replaced.^{18 38} One reason it may be so resilient is that it is simple and unambiguous, and the behaviour it advocates is clearly defined and easy to carry out. Nevertheless, there is evidence that, in many situations, stopping antibiotics sooner is a safe and effective way to reduce antibiotic overuse.

The antibiotic course has had its day

With little evidence that failing to complete a prescribed antibiotic course contributes to antibiotic resistance, it's time for policy makers, educators, and doctors to drop this message, argue **Martin Llewelyn and colleagues**

Debate...lots of it!

I find it extremely troubling to see a headline like this published on your website that is so utterly misleading from what the actual article asserts and also very dangerous. I would not want to be a GP having to potentially face patients who claim they read they no longer need to take their full antibiotic course prescribed to them by their qualified physician. In no way does the actual article suggest to abandon antibiotic courses, but to conduct research into shortening courses for antibiotics for which no evidence of effectiveness of shorter courses exists yet. That is all the article suggests to say.

We welcome the healthy debate sparked by Llewelyn et al's opinion piece [1], and strongly support the principle of safely reducing antibiotic course lengths. However, the British Society for Antimicrobial Chemotherapy (BSAC) is unable to currently support a call to drop the 'complete the course of antibiotics' recommendation. This is because the evidence in support of this call remains sparse and such advice is potentially confusing for patients.

Unfortunately the BMJ article has presented this already well known truth as an out of the box revolutionary idea. It is so unfortunate but not at all unexpected that journalists from around the world, in a short span of one week since publication of the article, have written highly misleading articles conveying the dangerous idea that patients "can stop their antibiotics when they feel better".

8. With respect to a patient's history:

- A. Any patient who is allergic to penicillin is always allergic to cephalosporins
- B. It is safe to administer any dose of gentamicin to patients who have severe renal impairment
- C. Rifampicin is an enzyme inducer and will interact with many other medicines that the patient may be taking
- D. Candidiasis is not a common side effect of a broad spectrum antimicrobial

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9. In terms of outpatient options for antibiotic therapy:

- A. Intravenous administration is never an option
- B. OPAT may be a suitable option in some selected patients***
- C. Patients always need to attend a hospital or clinic for intravenous antibiotic therapy
- D. Confused patients and patients who are known IV drug abusers are suitable candidates for OPAT therapy



10. What does this cartoon really signify:

- A. All of the below
- B. Signifies what patients may be thinking when they are experiencing adverse effects of antibiotics
- C. Signifies what doctors may be thinking after a very long stressful shift
- D. It is time for coffee and you may fancy a beer instead