

Training on use of antimicrobials in clinical practice



Introduction

Development of the training pack

This comprehensive training pack on use of antimicrobials is linked to educational requirements within key national documents including the NHS Quality Improvement Scotland Healthcare Associated Infection Standards and the Scottish Management of Antimicrobial Resistance Action Plan. In addition local delivery of the training will allow Antimicrobial Management Teams (AMT) to meet the educational requirements for antimicrobial prescribing mandated by the Healthcare Environment Inspectorate.

This resource is designed for local trainers to support practitioners who are involved in the prescribing, monitoring and administration of antibiotics in their early stages of clinical practice. It will also be of value to those returning to practice or those wishing to refresh their knowledge of contemporary approaches to antimicrobial therapy in Scotland. From a practitioner's perspective the knowledge gained and documentation of related evidence will contribute to personal development objectives and will link with the Knowledge and Skills Framework (KSF).

The resource includes:

1. A schedule of learning outcomes to be considered during the course of the practitioner's clinical placement.
2. A PowerPoint presentation designed to focus on key issues in antimicrobial prescribing to be delivered as a taught session within a wider induction programme.
3. A CPD record of evidence of learning to be retained by the practitioner.

Delivery of the training

Postgraduate medical tutors, antimicrobial pharmacists and practice development teachers will have access to this resource via the NES HAI portal and SAPG website.

The training pack can be used by trainers for two purposes; firstly for early induction training of Foundation Year doctors to provide essential information required before starting to prescribe antibiotics in the ward setting. Local trainers should select up to 10 slides from the presentation materials for this purpose. Secondly, the pack can be used for more detailed training on all aspects of antimicrobial use.

The course has been split into short sections suitable for one-to-one teaching or small group sessions. The first 3 sections contain core material suitable for all practitioners. Section 4 relates to hospital practice and section 5 to primary care practice. Each section can be delivered individually or can be combined into a longer teaching session. Each slide is accompanied by trainers' notes to facilitate delivery of the material and suggest points for discussion.

Suggested delivery arrangements are:

Foundation Year doctors – initial induction session (10 minutes) and a follow-up session covering sections 1-4 during their initial hospital placement (45-60 minutes), both delivered by the AMT.

Hospital pharmacists – peer review session(s) for junior pharmacists delivered by antimicrobial pharmacist or other specialist pharmacist.

Nursing and midwifery staff – learning session(s) delivered by practice development teachers.

Primary care staff – session covering sections 1-3 and 5 delivered by prescribing advisers or primary care pharmacists during GP practice visits or at Protected Learning Time sessions.

Continuing Professional Development (CPD) Record

The training pack includes a CPD record of evidence which can be used by practitioners to document both the training they have received and evidence of experience gained during clinical practice in prescribing, administering or monitoring antimicrobials. This evidence can be linked to specific learning objectives within the KSF.

Learning outcomes

To be addressed by the end of initial practice placement or as part of personal development for KSF objectives.

Section One – Policy context: National and local strategic approaches

The practitioner will be able to:

- source current national strategic aims and guidance on antimicrobial prescribing
- describe the key priority areas of national strategic planning
- identify how national antimicrobial prescribing strategy is translated into local policy
- use national and local guidance/directives to influence personal prescribing practice.

Section Two – Diagnosis of infection and clinical decision making

The practitioner will be able to:

- outline the criteria for establishing that a patient has an infection
- relate patients' history, signs and symptoms to decisions made to prescribe (or not to prescribe) antibiotics
- discuss the purpose and importance of microbiology samples in clinical decisions made to prescribe antibiotics.

Section Three – Prudent antimicrobial prescribing

The practitioner will be able to:

- discuss the scale of antibiotic use within hospitals and the community in the UK
- outline the problems which may result from inappropriate use of antimicrobials
- list the essential information required to correctly prescribe an antibiotic
- describe how a specific antibiotic is chosen for treatment of an infection
- explain the importance of the identification and recording of an appropriate indication and duration of antibiotic treatment
- identify commonly occurring errors made when prescribing antibiotics
- discuss the importance of patient concordance with antibiotic treatment.

Section Four – Antimicrobial use in hospital

The practitioner will be able to:

- provide a description of an IVOST policy (IV to oral switch therapy)
- describe the criteria for use of the intravenous route for administration of antibiotics
- outline when and how gentamicin should be used to including details of dosage, monitoring and potential toxicities
- outline when and how vancomycin should be used to including details of dosage, monitoring and potential toxicities
- discuss the rationale and specific guidance for the use of antibiotics as prophylaxis in certain surgical procedures
- outline when and how antibiotics should be used in MRSA infection
- describe how the use of antibiotics may put patients at risk of *Clostridium difficile*
- identify the local availability of specialist advice on the use of antibiotics.

Section Five – Antimicrobial use in primary care

The practitioner will be able to:

- explain the use of antibiotics in self-limiting conditions
- describe the value of patient information leaflets and delayed prescribing
- outline how primary care use of antibiotics may influence healthcare associated infection
- identify local antibiotic choices for common infections
- explain the national prescribing indicators for antimicrobials and how these can be used to evaluate local practice
- identify the local availability of specialist advice on the use of antibiotics.