

Antimicrobial stewardship overview

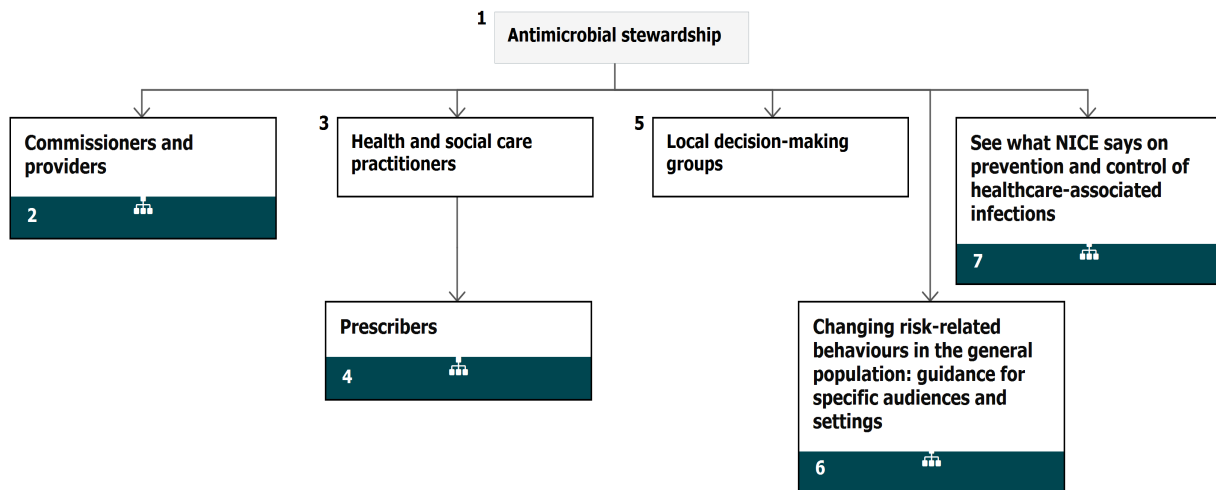
NICE Pathways bring together everything NICE says on a topic in an interactive flowchart. NICE Pathways are interactive and designed to be used online.

They are updated regularly as new NICE guidance is published. To view the latest version of this NICE Pathway see:

<http://pathways.nice.org.uk/pathways/antimicrobial-stewardship>

NICE Pathway last updated: 02 August 2018

This document contains a single flowchart and uses numbering to link the boxes to the associated recommendations.



1 Antimicrobial stewardship

No additional information

2 Commissioners and providers

[See Antimicrobial stewardship / Commissioners and providers: antimicrobial stewardship](#)

3 Health and social care practitioners

Health and social care practitioners should support the implementation of local antimicrobial guidelines and recognise their importance for antimicrobial stewardship.

4 Prescribers

[See Antimicrobial stewardship / Prescribers: antimicrobial stewardship](#)

5 Local decision-making groups

Consider co-opting members with appropriate expertise in antimicrobial stewardship when considering whether to approve the introduction of a new antimicrobial locally; this may include those involved in the antimicrobial stewardship team (see also [new antimicrobials](#) and [antimicrobial stewardship teams](#)).

Ensure that local formularies, prescribing guidelines and care pathways are updated when new antimicrobials are approved for use.

When evaluating a new antimicrobial for local use and for inclusion in the local formulary (see what NICE says on [local formulary development](#)), take into account:

- the need for the new antimicrobial
- its clinical effectiveness
- the population in which it will be used
- the specific organisms or conditions for which it will be used
- dose, dose frequency, formulation and route of administration

- likely tolerability and adherence
- any drug interactions, contraindications or cautions
- local rates and trends of resistance
- whether use should be restricted and, if so, how use will be monitored
- any additional monitoring needed
- any urgent clinical need for the new antimicrobial
- any plans for introducing the new antimicrobial.

Local decision-making groups should assess the benefits and risks of restricting access to a new antimicrobial.

If access to a new antimicrobial is restricted:

- document the rationale for and the nature of the restriction, and ensure that this information is publicly available
- review the restriction regularly to determine that it is still appropriate.

Ensure that there is a plan for the timely introduction, adoption and diffusion of a new antimicrobial when this has been recommended for use.

Discuss with commissioners early in the approval process if funding concerns for a new antimicrobial are likely to cause delay in its introduction, adoption and diffusion.

Indicate where prescribers can find accurate, evidence-based and up-to-date information about the new antimicrobial such as the:

- [British National Formulary \(BNF\)](#)
- [British National Formulary for Children \(BNFC\)](#)
- [electronic medicines compendium \(eMC\)](#)
- [European Medicines Agency \(EMA\)](#)
- [Medicines and Healthcare products Regulatory Agency \(MHRA\)](#).

Evidence summaries

NICE has published evidence summaries on:

- [complicated intra-abdominal infections: ceftolozane/tazobactam](#)
- [complicated urinary tract infections: ceftolozane/tazobactam](#)
- [multidrug resistant urinary tract infections: fosfomycin trometamol](#).

6 Changing risk-related behaviours in the general population: guidance for specific audiences and settings

See Antimicrobial stewardship / Changing risk-related behaviours in the general population: antimicrobial stewardship

7 See what NICE says on prevention and control of healthcare-associated infections

See Prevention and control of healthcare-associated infections

Glossary

antimicrobial resistance

(loss of effectiveness of any anti-infective medicine, including antiviral, antifungal, antibacterial and antiparasitic medicines)

antimicrobial stewardship

(an organisational or healthcare-system-wide approach to promoting and monitoring judicious use of antimicrobials to preserve their future effectiveness)

antimicrobial

(any anti-infective therapy (antiviral, antifungal, antibacterial and antiparasitic medicines) and any formulation (oral, parenteral and topical agents))

antimicrobials

(all anti-infective therapies (antiviral, antifungal, antibacterial and antiparasitic medicines) and all formulations (oral, parenteral and topical agents))

handrub

(a preparation applied to the hands to reduce the number of viable microorganisms. This guidance refers to handrubs compliant with British standards (BS EN1500; standard for efficacy of hygienic handrubs using a reference of 60% isopropyl alcohol))

handrubs

(preparations applied to the hands to reduce the number of viable microorganisms. This guidance refers to handrubs compliant with British standards (BS EN1500; standard for efficacy of hygienic handrubs using a reference of 60% isopropyl alcohol))

health and social care practitioners

(the wider care team, including but not limited to, case managers, care coordinators, GPs, hospital doctors, microbiologists, pharmacists, nurses and social workers)

inappropriate antimicrobial demand and use

'inappropriate antimicrobial demand' refers to people asking for antimicrobials for conditions against which they are ineffective (for example antibiotics to treat a viral infection such as a cold) or for self-limiting infections that will resolve on their own, with no long-term harm to the person's health. 'Inappropriate antimicrobial use' refers to the way in which people may misuse antimicrobials that they have been prescribed or supplied with, and which may result in the antimicrobials becoming ineffective in treating infections. This is because the bacteria, virus, fungus or parasite they are designed to treat may become resistant to the antimicrobial. Examples of inappropriate use include not taking or using the antimicrobials as prescribed and sharing them with others

local decision-making group

(for example, a drug and therapeutics committee, area prescribing committee or local formulary decision-making group)

local triaging arrangements

(services that can advise people whether they have a self-limiting infection that they can safely manage themselves or whether their infection needs medical attention; examples include community pharmacies, practice nurses, 111, other locally developed advice and helplines, and emergency and out-of-hours primary care services)

organisations

(includes all commissioners (clinical commissioning groups and local authorities) and providers (hospitals, GPs, out-of-hours services, dentists and social enterprises) of health or social care services, unless specified otherwise; occasionally, in order to make a recommendation more specific to the intended care setting, the setting is specified, for example the recommendation will state 'hospital')

resources

(evidence-based materials that have been developed through a research-based approach with the target audience, wherever possible; they may be in a variety of formats, including posters, leaflets, digital and online resources)

safety-netting

(advising people what to do if their condition deteriorates or does not improve within a certain time, or if they develop adverse effects as a result of the treatment)

self-care

(approaches a person can use to look after themselves in a healthy way; for example, drinking plenty of fluids and getting sufficient rest when you have a cold)

self-limiting infection

(an infection that resolves on its own and has no long-term harmful effect on a person's health (assuming that they are not immunosuppressed); examples include colds, flu, oral thrush, winter vomiting bug)

self-limiting infections

(infections that resolve on their own and have no long-term harmful effect on a person's health (assuming that they are not immunosuppressed); examples include colds, flu, oral thrush, winter vomiting bug)

Sources

[Antimicrobial stewardship: systems and processes for effective antimicrobial medicine use](#)
(2015) NICE guideline NG15

Your responsibility**Guidelines**

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals and practitioners are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or the people using their service. It is not mandatory to apply the recommendations, and the guideline does not override the responsibility

to make decisions appropriate to the circumstances of the individual, in consultation with them and their families and carers or guardian.

Local commissioners and providers of healthcare have a responsibility to enable the guideline to be applied when individual professionals and people using services wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with complying with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

Technology appraisals

The recommendations in this interactive flowchart represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, health professionals are expected to take these recommendations fully into account, alongside the individual needs, preferences and values of their patients. The application of the recommendations in this interactive flowchart is at the discretion of health professionals and their individual patients and do not override the responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or their carer or guardian.

Commissioners and/or providers have a responsibility to provide the funding required to enable the recommendations to be applied when individual health professionals and their patients wish to use it, in accordance with the NHS Constitution. They should do so in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

Medical technologies guidance, diagnostics guidance and interventional procedures

guidance

The recommendations in this interactive flowchart represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, healthcare professionals are expected to take these recommendations fully into account. However, the interactive flowchart does not override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

Commissioners and/or providers have a responsibility to implement the recommendations, in their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity, and foster good relations. Nothing in this interactive flowchart should be interpreted in a way that would be inconsistent with compliance with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.