



## A national approach to improving antimicrobial stewardship: Evaluating the implementation of national antimicrobial stewardship guidance in primary and secondary care in England

Diane Ashiru-Oredope<sup>1</sup>, Emma Budd<sup>1</sup>, Alex Bhattacharya<sup>1</sup>, Clodna McNulty<sup>2</sup>, Elizabeth Beech<sup>3</sup>, Christianne Micallef<sup>4</sup>, David Ladenheim<sup>5</sup>, Mark Reacher<sup>4</sup>, Susan Hopkins<sup>1</sup> on behalf of the PHE English Surveillance programme for antimicrobial utilisation and resistance.

1: Public Health England, London, United Kingdom. 2: Public Health England, Gloucester, United Kingdom. 3: NHS Bath and North East Somerset CCG, Bath, United Kingdom. 4: Public Health England, Cambridge, United Kingdom. 5: East & North Herts NHS Trust, Hertfordshire, United Kingdom.

### Introduction

Antimicrobial stewardship (AMS) programmes improve antimicrobial prescribing and control antimicrobial resistance.

England has national AMS toolkits to improve the use of antimicrobials. These are TARGET (Treat Antibiotics Responsibly, Guidance, Education, Tools) for primary care and Start Smart then Focus (SSTF) for secondary care.

TARGET provides guidance to help general practice decide when and what antibiotics to prescribe and tools such as patient leaflets to share during consultations (figure 2).

SSTF recommends prompt antibiotic treatment for hospital patients with severe sepsis, documentation of route, indication, dose, duration (RIDD) and post-prescription review at 48-72 hours (figure 1).

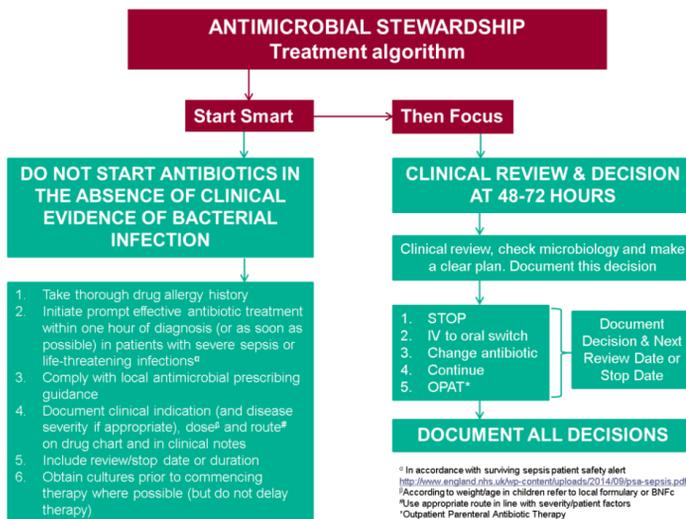


Figure 1: SSTF treatment algorithm

### Aim

To assess the implementation of national AMS guidance (TARGET and SSTF) in primary and secondary care settings in England.

### Methods

In 2014 two web-based surveys to assess AMS activities recommended by the SSTF and TARGET guidance were distributed to:

- 146 acute hospitals, following pilot of 18 hospitals in a single region (secondary care)
- 211 clinical commissioning groups (CCGs), following pilot in 10 CCGs (primary care)

Responses were analysed using STATA (version 13) and Microsoft Excel. This was a voluntary audit completed by healthcare professionals; ethics approval was not required

### Secondary Care

Ninety-nine hospitals completed the survey (response rate of 68%).

Of the responding hospitals:

- 94% had a dedicated AMS committee,
- 85% had the recommended governance structure recommended for AMS.
- 48% had implemented an action plan to embed the guidance within their organisation

The secondary care survey revealed that the role of specialist antimicrobial pharmacists continues to remain embedded within Acute NHS Trusts; 90% of responding Trusts had a specialist antimicrobial pharmacist at band 8a and above in post.

### Primary Care

A total of 89 CCGs completed the survey (41% of all CCGs).

Of the responding CCGs:

- 99% had guidelines and/or a policy for antibiotic prescribing in the community,
- 19% had an AMS Committee (a group dedicated to reviewing antimicrobial use)
- 15% implemented an action plan to embed AMS guidance within their antimicrobial policy

Prescribing advisors/medicine management pharmacists lead the AMS and prescribing strategy in 66% of responding CCGs.

Your infection	Usually lasts	How to treat yourself better for these infections, now and next time
<input type="checkbox"/> Middle-ear infection	4 days	<ul style="list-style-type: none"> <li>• Have plenty of rest.</li> <li>• Drink enough fluids to avoid feeling thirsty.</li> <li>• Ask your local pharmacist to recommend medicines to help your symptoms or pain (or both).</li> <li>• Fever is a sign the body is fighting the infection and usually gets better by itself in most cases. You can use paracetamol (or ibuprofen) if you or your child are uncomfortable as a result of a fever.</li> <li>• Other things you can do suggested by GP or nurse:</li> </ul>
<input type="checkbox"/> Sore throat	7 days	
<input type="checkbox"/> Common cold	10 days	
<input type="checkbox"/> Sinusitis	18 days	
<input type="checkbox"/> Cough or bronchitis	21 days	
<input type="checkbox"/> Other infection:		

Figure 2: TARGET patient information leaflet

### Conclusion

Survey results demonstrated that national AMS guidance in England has focused attention on certain initiatives to improve AMS activity within primary and secondary care. However further work is required to promote the development of AMS action plans and written antimicrobial education and training strategies within both sectors.

Current national AMS guidance is designed for use within different health care organisational systems and action is required to develop a whole healthcare approach to AMS including both provider and commissioning organisations.

