



Public Health
England

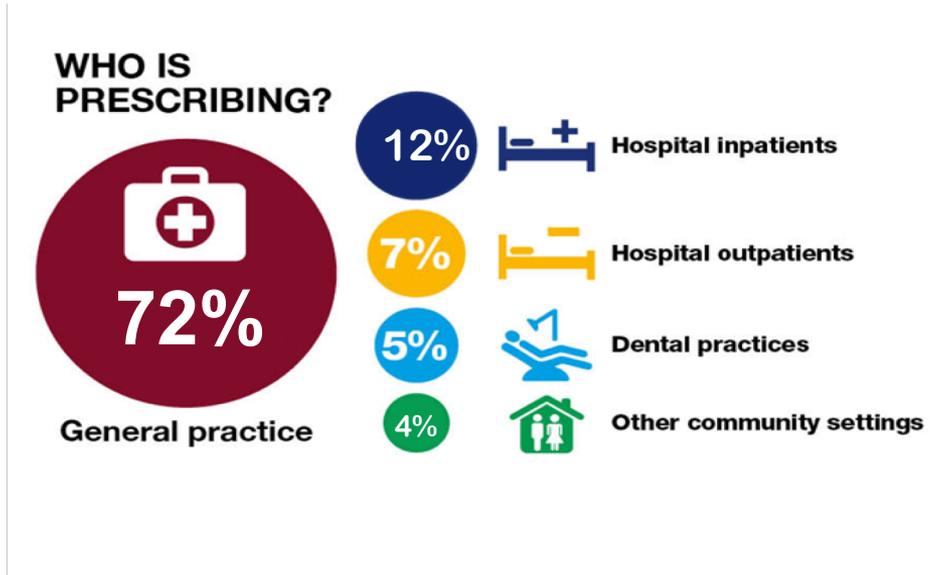
Protecting and improving the nation's health

Managing self-limiting infections in community pharmacies: a cluster randomised controlled trial

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Prescribing settings

Antibiotic prescribing predominantly occurs in community settings.



Total Antibiotic consumption, England

Antibiotic use declined by 6% from 2014 to 2017.

This is excellent progress, in the 4 years from 2010 to 2013, antibiotic use increased by 6%.

There was a 17% increase in prescribing from 2002 to 2012.



Amount of Antibiotics consumed in England (Defined Daily Doses per 1000 inhabitants per day)

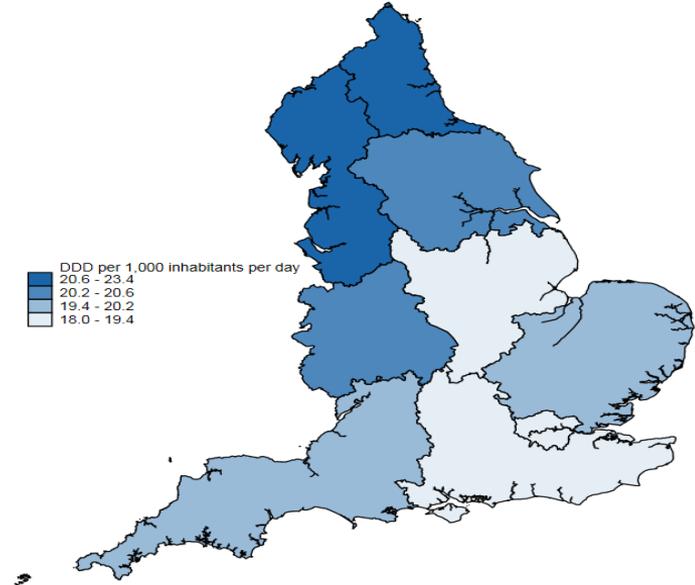
Regional Variation in Antibiotic Use

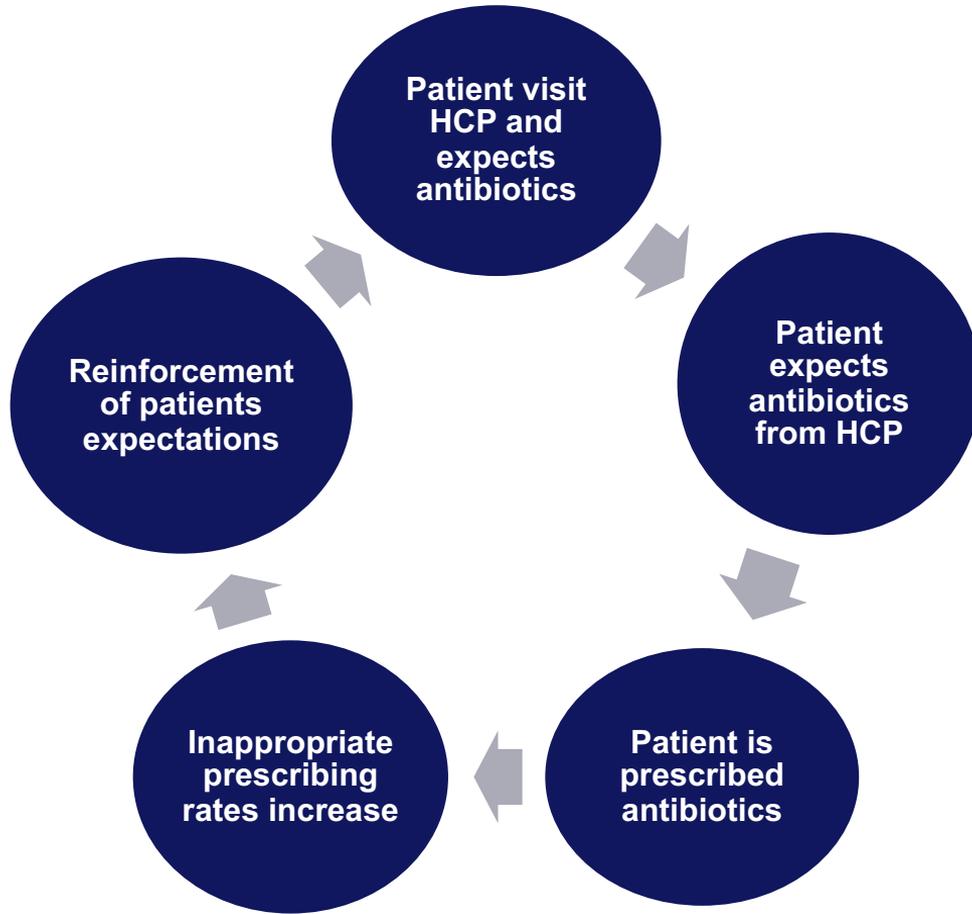
Substantial regional variation in antibiotic use occurs.

This can be viewed at CCG, GP and Trust, Trust type, NHS England region level at PHE Fingertips AMR local indicators

<https://fingertips.phe.org.uk/profile/amr-local-indicators>

Total Prescribing in England, 2017





38% of people expected an antibiotic from a doctor's surgery, NHS walk-in centre or 'GP out of hours' service when they visited with a cough, flu or a throat, ear, sinus or chest infection in 2017*

Source: from Capibus on behalf of Public Health England. Attitudes towards antibiotics. 2017

Reducing inappropriate prescribing is key

20% of antibiotics are prescribed inappropriately

- **Acute cough:**
41% prescribed vs ideal of 10%
- **Bronchitis:**
82% prescribed vs ideal of 13%
- **Rhinosinusitis:**
88% prescribed vs ideal of 11%
- **Sore throat:**
59% prescribed vs ideal of 13%

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Potential for reducing inappropriate antibiotic prescribing in English primary care

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Implementation of TARGET community pharmacy leaflet: randomised control trial in SW community pharmacies

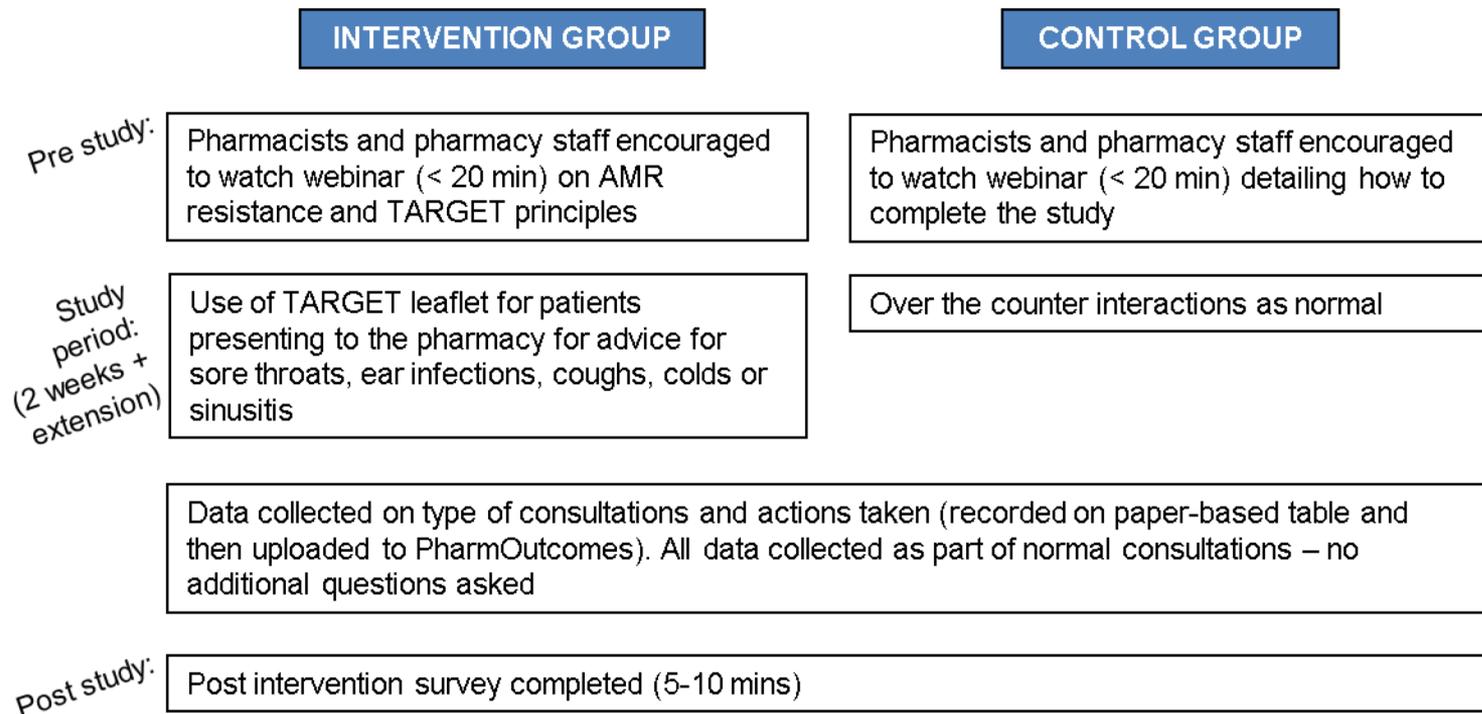
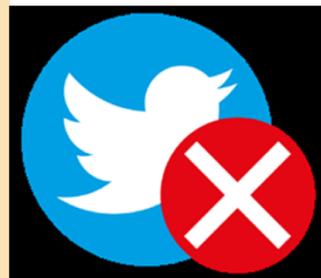


Table 1. Summary of patient demographics & pharmacy characteristics between study arms

	Intervention	Control		Intervention	Control
	n (% of 1726)	n (% of 1923)		n (% of 1726)	n (% of 1923)
Total no. pharmacies:	92	90			
Independent	17 (18.5%)	18 (20.0%)	Gender:		
Multiple	75 (81.5%)	72 (80.0%)	Female	963 (55.8%)	1008 (52.4%)
Total no. patient consultations:	1726	1923	Male	749 (43.4%)	898 (46.7%)
			Unknown	14 (0.81%)	17 (0.88%)
			RTI type:		
Age:			Common cold	575 (33.3%)	683 (35.5%)
Child	191 (11.1%)	234 (12.2%)	Cough	767 (44.4%)	857 (44.6%)
Teenager	80 (4.6%)	104 (5.4%)	Middle ear infection	95 (5.5%)	108 (5.6%)
Adult	1014 (58.8%)	1167 (60.7%)	Sinusitis	188 (10.9%)	239 (12.4%)
Elderly	441 (25.6%)	418 (21.7%)	Sore throat	430 (24.9%)	522 (27.2%)

Table 2. Adjusted odds ratios (OR) for effect of intervention on GP referral outcomes for certain RTI types

RTI type:	Adjusted OR (95% CI)	p value
Sore throat	1.07 (0.4-2.9)	0.89
Common cold	0.72 (0.27-1.89)	0.50
Sinusitis	0.20 (0.07-0.56)	0.00
Cough	0.54 (0.25-1.19)	0.13
Middle ear infection	0.18 (0.06-0.49)	0.00



Cross sectional COM-B survey

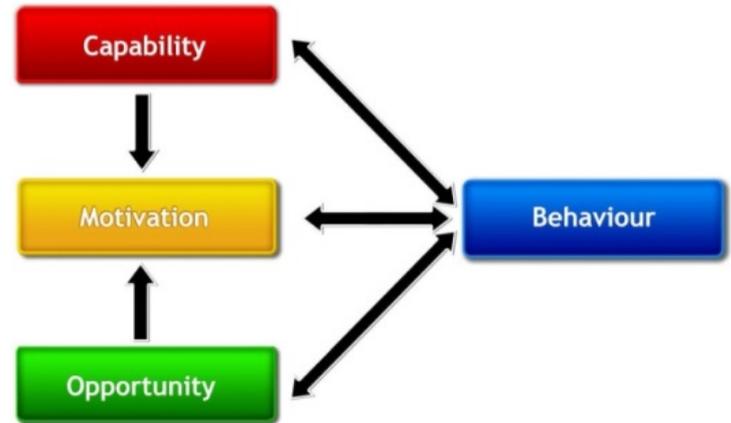
Capability:

95.65% agreed or strongly agreed that they knew what self-care advice to give.

24.64% agreed or strongly agreed that they found it difficult to explain to customers that they should not have antibiotics for common infections.

Opportunity:

Only 25% felt they had enough time to give advice considering other pressures



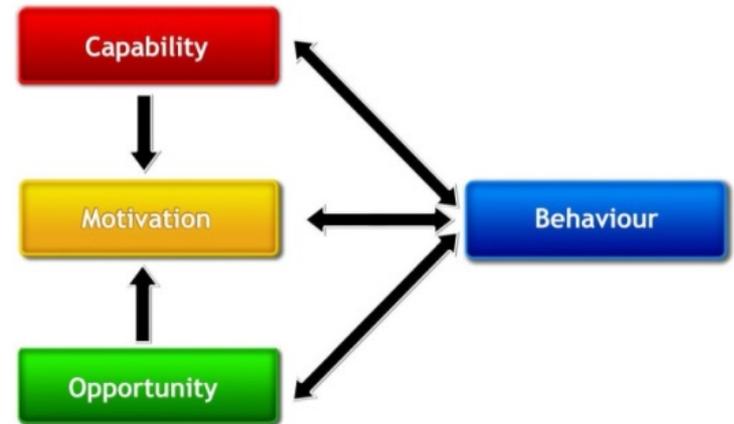
Cross sectional COM-B survey

Motivation:

The majority of respondents agreed or strongly agreed that they played a key role in helping to control antibiotic use (75%) and that it was important for them to give self-care advice for common infections (97%).

Behaviour:

40.6% reported that they were sometimes unable to give advice/resources, with a further 23.2% reporting that this happened often very often.



TARGET LEAFLET IMPLEMENTED NATIONALLY:

Study proposed that the **TARGET** Community Pharmacy Leaflet will overcome the barriers to self-care advice **by increasing**:

- **Capability:** the **TARGET** leaflet can empower pharmacy staff to have infection-related self-care conversations with patients
- **Opportunity:** the **TARGET** leaflet will be a cue to have conversations; it facilitates a short consultation, so can be used when time is short.

TARGET Leaflet delivered to all pharmacies in October 2018



TREATING YOUR INFECTION - RESPIRATORY TRACT INFECTION (RTI)



Patient name

Self-care advice provided

Product(s) suggested / supplied

Patient advised to contact GP

Your infection	Without antibiotics most are better by	How to look after yourself and your family	When to get help
Middle-ear infection	8 days	<ul style="list-style-type: none"> • Have plenty of rest. • Drink enough fluids to avoid feeling thirsty. • Ask your local pharmacist to recommend medicines to help your symptoms or pain (or both). • Fever is a sign the body is fighting the infection and usually gets better by itself in most cases. You can use paracetamol if you or your child are uncomfortable as a result of a fever. 	<p>The following are possible signs of serious illness and should be assessed urgently:</p> <ol style="list-style-type: none"> 1. If your skin is very cold or has a strange colour, or you develop an unusual rash. 2. If you feel confused or have slurred speech or are very drowsy. 3. If you have difficulty breathing. Signs that suggest breathing problems can include: <ul style="list-style-type: none"> • breathing quickly • turning blue around the lips and the skin below the mouth • skin between or above the ribs getting sucked or pulled in with every breath. 4. If you develop a severe headache and are sick. 5. If you develop chest pain. 6. If you have difficulty swallowing or are drooling. 7. If you cough up blood. 8. If you are feeling a lot worse. <p>If you or your child has any of these symptoms, are getting worse or are sicker than you would expect (even if your/their temperature falls), trust your instincts and seek medical advice urgently from NHS 111 or your GP. If a child under the age of 5 has any of symptoms 1-3 go to A&E immediately or call 999.</p> <p>Less serious signs that can usually wait until the next available appointment:</p> <ol style="list-style-type: none"> 9. If you are not starting to improve a little by the time given in the 'Most are better by' column. 10. In children with middle-ear infection: if fluid is coming out of their ears or if they have new deafness. 11. Mild side effects such as diarrhoea, however seek medical attention if you're concerned. 12. Other
Sore throat	7-8 days	<ul style="list-style-type: none"> • Use a tissue and wash your hands well to help prevent spread of your infection to your family, friends and others you meet. • Other things you can do suggested by your pharmacy team: 	
Sinusitis	14-21 days		
Common cold	14 days		
Cough or bronchitis	21 days		
Other infection: days		

• Colds, most coughs, sinusitis, ear infections, sore throats, and other infections often get better without antibiotics, as your body can usually fight these infections on its own.
 • Taking antibiotics encourages bacteria that live inside you to become resistant. That means that antibiotics may not work when you really need them.
 • Antibiotics can cause side effects such as rashes, thrush, stomach pains, diarrhoea, reactions to sunlight, other symptoms, or being sick if you drink alcohol with metronidazole.
 • Find out more about how you can make better use of antibiotics and help keep this vital treatment effective by visiting www.nhs.uk/keepantibioticsworking



Never share antibiotics and always return any unused antibiotics to a pharmacy for safe disposal.

All sections can be personalised and added to by the Pharmacy Prof

“Without antibiotics, most are better by” section educates patients about when to consult

Self-care advice

Safety netting

Information about antibiotics & resistance

Conclusion: AMS initiatives in Community Practice

- Everyone has a role in tackling AMR
- Whilst focus of antimicrobial stewardship activities has been on secondary and primary care, AMS initiatives within community practice are increasing
- There is a need for a cross-sector approach to the delivery of AMS.

TREATING YOUR INFECTION - RESPIRATORY TRACT INFECTION (RTI) NHS

Patient name: Self-care advice provided:

Pharmacy requested / supplied: Patient advised to contact GP:

How long you are on	Without antibiotics you will see better by	How to look after yourself and your family	When to get help
Mild sore throat	5 days	<ul style="list-style-type: none"> • Many jobs of rest. • Drink enough fluids to avoid feeling thirsty. • Ask your local pharmacist to recommend medicines to help you experience no pain or better. • Gargle with salt in the bath or fizzy drink in the bath or use paracetamol if you are in pain or if you are over 16 years old as a result of a fever. • Use a tissue and wash your hands well to help prevent spread of your infection to your family, the baby and other people near. • Other things you can do suggested by your pharmacy team. 	<p>The following are possible signs of serious illness and should be assessed urgently:</p> <ol style="list-style-type: none"> 1. If you are very cold or hot or have a severe cough or you develop an unusual rash. 2. If you have difficulty breathing. Signs that suggest breathing problems can include: <ul style="list-style-type: none"> • breathing noisily • turning blue around the lips or the skin below the mouth • ribs heaving or above the ribs getting in and out with every breath 3. If you develop a severe headache and are sick. 4. If you develop a stiff neck. 5. If you have difficulty swallowing or are drooling. 6. If you are coughing up blood. 7. If you are feeling dizzy or faint. 8. If you or your child has any of these symptoms, are getting worse or are older than you would expect once it goes like a long-term flu, treat your infection and seek medical advice urgently from NHS 111 or your GP. If a child under the age of 4 has any of symptoms 1-8 go to A&E immediately or call 999. <p>Less serious signs that you usually wait until the next available appointment:</p> <ol style="list-style-type: none"> 9. If you are not starting to improve after 5 days the first time you see the doctor by return. 10. If children will not eat or drink. If you are taking oral iron use it if you have an iron deficiency. 11. If you are taking such as diazepam, have a rash or feel that you are becoming ill. 12. Other
Sore throat	7-10 days		
Whooping cough	14-21 days		
Common cold	14 days		
Cough or bronchitis	21 days		
Other infectionsdays		

HELP US HELP YOU nhs.uk/this-website

Please share this advice and if always return any unused antibiotics to a pharmacy for safe disposal. Leaflet developed in collaboration with professional medical bodies. See www.nhs.uk/this-website



Acknowledgement: AMSAP Study collaborators

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