Antimicrobial stewardship in community pharmacy – what do commissioners need to know?

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## **Themes**

- Flu vaccination at community pharmacy
- Minor ailment schemes
- Patient education on AMR



# FLU VACCINATION AT COMMUNITY PHARMACIES



#### What is the problem?

- 'Flu vaccination can prevent death and ill-health from 'flu and reduce hospital admissions.
- Primary care is not achieving high enough vaccination rates for clinical at-risk groups.
- During the 2013/14 'flu vaccination campaign in England only around 52% of at risk patients were vaccinated¹.
- Currently 50.3% to end Jan-15 and only 44.1% of pregnant females

1 Influenza Vaccine Uptake amongst GP Patient Groups in England. Winter Season 2013/14 (Public Health England)

#### Public Health England Why vaccinate these risk groups?

Influenza-related population mortality rates and relative risk of death among those aged six months to under 65 years by clinical risk group in England, September 2010 – May 2011

	Number of fatal flu cases (%)	Mortality rate per 100,000 population	Age-adjusted relative risk
In a risk group	213 (59.8)	4.0	11.3 (9.1-14.0)
Not in any risk group	143 (40.2)	0.4	Baseline
Chronic renal disease	19 (5.3)	4.8	18.5
Chronic heart disease	32 (9.0)	3.7	10.7 (7.3-15.7)
Chronic respiratory disease	59 (16.6)	2.4	7.4 (5.5-10.0)
Chronic liver disease	32 (9.0)	15.8	48.2 (32.8-70.6)
Diabetes	26 (7.3)	2.2	5.8 (3.8-8.9)
Immunosuppression	71 (19.9)	20.0	47.3 (35.5-63.1)
Chronic neurological disease (excluding stroke/transient ischaemic attack)	42 (11.8)	14.7	40.4 (28.7-56.8)
Total	378	0.8	



#### How can community pharmacy help?

- Providing vaccination through additional providers increases the overall vaccination rates especially in harder to reach groups<sup>2</sup>.
- Providing vaccinations in community pharmacies increases vaccination rates in the following groups<sup>3</sup>
- a) first-time vaccinations where they had been eligible previously;
- b) over 65 years of age;
- c) under 65 years of age and at-risk;
- d) carers and frontline healthcare workers.

<sup>2.</sup> Centres for Disease Control and Prevention. Adult immunization programs in non-traditional settings: quality standards and guidance for program evaluation

<sup>3.</sup> Warner GJ. Portlock J. Smith J. Rutter P. (2013) Increasing seasonal influenza vaccination uptake using community pharmacies. International Journal of Pharmacy Practice. 2013;21(6):362-7



#### How can community pharmacy help?

- The typical prescribing cycle for medicines to treat long term conditions means that patients in the at-risk group will <u>attend a</u> <u>pharmacy up to five times within the 'flu season</u> for a prescription presenting opportunities for vaccination.
- Over a quarter of a million private 'flu vaccinations have been successfully provided by community pharmacies in England and Wales in one scheme alone<sup>4</sup>.
- In Tower Hamlets CCG they exceeded the national target for 2013/14 in the over 65 years old by achieving 76% vaccination. 11% of all vaccinations in this age group were undertaken by community pharmacies in a Pan London scheme<sup>5</sup>.
- PharmOutcomes® data for one PCT indicated that over 13% of their at-risk cohort vaccinated by pharmacies were pregnant women<sup>6</sup>.

6. PharmOutcomes data – available on request (info@phpartnership.com) www.england.nhs.uk

<sup>4.</sup> In-Pharmacy Flu Vaccination Programme 2011/12 Patient Feedback Questionnaires - Summary Report: Novartis Vaccines and Diagnostics Limited ("Novartis Vaccines") 27th July, 2012 (Data on file: I-PFI Statistics for 2012) 5. Impact of Influenza Vaccination upon uptake as a Pan London service from community pharmacy (Internal report: NHS England London June 2014)



#### What do patients think?

- Evaluation of existing 'flu vaccination services provided by community pharmacists shows that patients strongly welcome the additional choice available to them<sup>7,8,9</sup>
- In a study of almost 3,500 patients, 99% of patients rated the service as above average or excellent. 20% said they wouldn't otherwise have been vaccinated and all respondents who expressed a view said they would use the service again<sup>10</sup>.
- The literature shows factors that encouraged the use of pharmacies included accessibility and convenient times that avoided the need to take <u>time off work</u>.

<sup>7.</sup> Ward L, Draper J. A review of the factors involved in older people's decision making with regard to influenza vaccination: a literature review. J Clin Nurs 2008; 17: 5-16

<sup>8.</sup> Hind C et al. Successful provision of influenza vaccine from a community pharmacy in Aberdeen. Pharm J 2004; 273:194-6 9. Centers for Disease Control and Prevention. Adult immunization programs in non-traditional settings: quality standards and guidance for program evaluation www.cdc.gov/mmwr/PDF/rr/rr4901.pdf

<sup>10.</sup> Seasonal Influenza Vaccination 2011/12 Isle of Wight Community Pharmacy Report: Pinnacle Health Partnership



#### What are the financial implications?

- 'Flu vaccination is essentially a contained market because:
  - clearly defined groups that qualify for free 'flu vaccination
  - patients will only be vaccinated once in a season
  - same cost to NHS regardless of provider.
- NHS England and PSNC agree that community pharmacies should receive the <u>same vaccination fee</u> as GP practices for administration to at risk groups with reimbursement of vaccine costs + VAT.
- Additional costs limited to AT set-up and management of the service. Kept to a minimum by using existing systems for local enhanced services and by using the Area Teams and Local Pharmaceutical Committee's communications networks.



#### How can this be done?

- To increase the number of patients vaccinated next winter a 'flu vaccination service can be commissioned from community pharmacies as a pharmaceutical enhanced service.
- A vaccination service can be commissioned using an NHS England approved Patient Group Direction (PGD) and associated paperwork.
- The patient's GP practice would be informed within 48 hours of a patient being vaccinated.



## How can we record data and pay contractors?

- OPTION 1: Use a web-based system e.g.
   PharmOutcomes®, Webstar, North 51, Sonar. This may involve a cost to the area team. Many area teams already use web-based systems.
- Web-based systems generally include an NHS 'flu vaccination service module which allows a data capture and invoicing system to be set up quickly. The commissioner controls which pharmacies are given access to the service module.
- These systems will create invoices/service claims for each provider and will support notification of GP practices of vaccinations undertaken.



## How can we record data and pay contractors?

- OPTION 2. A paper based solution can be used the resources for managing a paper-based service will vary and depend upon the capacity of the area team to send, receive and process engagement documents, assurance documents and payment claims. Data on service delivery would be available retrospectively, aligned to the claim cycle, most likely monthly.
- Consider whether pharmacist advises GP who updates Immform® or pharmacists directly update Immform®, also consider recording on Immform® for unregistered patients and those at risk patients opting to be vaccinated through pharmacy privately.



## Who is already commissioning this service?

Many area teams have commissioned community pharmacies to provide a 'flu vaccination service. For the 2014/15 season only four Area Teams didn't commission a service from community pharmacy.

Group	England (mean & range)	Α	В	С	D
Over 65y	72.8% (69.2% to 76.5%)	73.7%	70.6%	70.9%	72.9%
At risk <65	50.3% (46.8% to 54.6%)	48.3%	46.8%	48.2%	49.3%

All four ATs who didn't commission FVS had a lower under 65 years at-risk vaccination uptake



#### How can I implement this quickly?

- For commissioners who wish to commission 'flu vaccination from community pharmacy for 'at risk' groups, a toolkit containing an implementation plan, sample service specifications and standard proformas can be found at <a href="http://psnc.org.uk/services-winter/">http://psnc.org.uk/services-winter/</a>
- The implementation plan outlines steps to follow once a decision to commission a 'flu vaccination service from community pharmacies is made.
- Area teams are advised to plan the implementation of the service with the Local Pharmaceutical Committee (LPC) so that LPC resources can be used to support the rapid implementation of the service by pharmacy contractors.



#### Feedback from LPCs

- 54% to 59% signed up to provide the service
- 84% of those are active vaccinators

How to get better sign up by community pharmacy

- Earlier planning
- Agreement of local GPs

PSNC Briefing 007/15: Analysis of Seasonal Influenza Vaccination Services 2014/15 in England (February 2015)



#### Which patient groups are included?

Group	Number		
	of services		
Patients aged 18-64 years in a clinical risk group (including pregnancy)			
Pregnant women	15		
Carers	12		
Patients aged 65 years and over			
People in long-stay residential or homes			
Healthcare workers with direct patient contact			
Household contacts of immunocompromised individuals			
Patients aged 18-64 years in a clinical risk group (not including pregnancy)			
Patients aged 2-64 years in a clinical risk group (including pregnancy)			
Patients aged 12-64 years in a clinical risk group (including pregnancy)			
NHS England staff (with NHS England voucher) - as flu champions & clinical leadership			
Public Health England Staff (with NHS England voucher) - as flu champions & clinical leadership			
Prison staff (with NHS England voucher)			
Specials school staff (with NHS England voucher)			

PSNC Briefing 007/15: Analysis of Seasonal Influenza Vaccination Services 2014/15 in England (February 2015)



#### **Supporting information**

The following supporting information can be found at <a href="http://psnc.org.uk/services-commissioning/locally-commissioned-services/winter/">http://psnc.org.uk/services-commissioning/locally-commissioned-services/winter/</a>

- An implementation checklist
- A template service agreement and service specification
- A pharmacy contractor sign up and assurance sheet
- A 'flu vaccination record and consent form
- A GP practice notification form
- A template patient leaflet
- An example Patient Group Direction (PGD)



## What other support tools are available?

Immunisation against infectious disease: the **Green Book** (Public Health England)

 https://www.gov.uk/government/collections/immunisati on-against-infectious-disease-the-green-book

The flu vaccination for the winter of 2014/15 - Who should have it, and why (patient leaflet)

https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/337266/PHE\_8879\_Flu\_2014\_A5\_General\_leaflet\_07\_.pdf



# A NHS COMMUNITY PHARMACY SERVICE TO SUPPORT LOW INCOME FAMILIES OR PATIENTS IN AREAS OF SOCIAL DEPRIVATION TO SELF CARE



#### What is the problem?

- Too many people with common ailments are visiting urgent and emergency care services, Out of Hours services, walk-in centres or their GPs, taking up appointments which are needed for patients with more serious illness.
- Patients unable to afford OTC medicines may seek a "free" prescription from their GP or out of hours provider, or via a walk-in centre or emergency department.
- Self-care advice and appropriate OTC treatments at NHS expense by community pharmacies in order to avoid use of other healthcare services.

#### How can community pharmacy help?



- Community pharmacists and their teams already respond to the symptoms of minor illnesses presented by patients as part of the NHS community pharmacy contractual framework's Support for Self-Care service.
- Minor ailments are 'common or self-limiting or uncomplicated conditions which can be diagnosed and managed without medical intervention<sup>17</sup>; many of these ailments, such as coughs, colds, sore throats and earache frequently occur during the winter months.
- Pharmacy based services to treat minor ailments, were introduced locally across the UK > 10 years ago to reduce the burden of minor ailments on higher cost settings such as general practice and the A&E departments of hospitals<sup>18</sup>.

<sup>17.</sup> Self care: an ethical imperative. 2013 <a href="https://www.selfcareforum.org/resources/mandate/">www.selfcareforum.org/resources/mandate/</a>

<sup>18.</sup> Pharmacy in the future: implementing the NHS Plan. Department of Health, 2000

#### How can community pharmacy help?



- If no pharmacy MAS not in place: 58% in North of England would have made an appointment with their GP<sup>19</sup>, ~80% in Cheshire<sup>20</sup> and 94% in Bradford <sup>21</sup>
- Consultations for MAS are less expensive when provided through community pharmacy. Evidence suggests that it is a suitable alternative to GP consultations<sup>22</sup>.
- MINA study found 31 evaluations of pharmacy minor ailment services, it was found that the proportion of patients reporting resolution of minor ailments following their pharmacy consultation ranged between 68% and 94.4% and that re-consultation rates with GPs were low<sup>23</sup>.

http://www.pharmacyresearchuk.org/waterway/wp-content/uploads/2014/01/MINA-Study-Final-Report.pdf

<sup>19.</sup> Baqir W et al. Cost analysis of a community pharmacy minor ailment scheme across three primary care trusts in the North East of England. J Public Health 2011; 33(4), 551-5

<sup>20.</sup> Davidson M et al. An early evaluation of the use made by patients in Cheshire of the pharmacy minor ailments scheme and its costs and impact on patient care. JPP 2009; 17 (S2): B59-60

<sup>21.</sup> Community Pharmacy West Yorkshire 3 month Evaluation of Bradford City Pharmacy First Scheme, September 2014

<sup>22.</sup> Community Pharmacy management of minor illnesses, Pharmacy Research UK, January 2014,

<sup>23.</sup> Paudyal V, et al. Are pharmacy based minor ailment schemes a substitute for other service providers? Br J Gen Pract 2013; 63 (612), July 2013: 472-481

#### What do patients think?



Many patient surveys have been undertaken as part of evaluation of minor ailment services and these show that such schemes are well received by patients. Some comments from NHS Mid-Essex patients are shown below.

- "Very satisfied"
- "I think this is brilliant and will hopefully put less pressure on doctors."
- "Should make more people aware of this NHS service."
- "Service made a positive impact."
- "This is a fantastic service."
- "A great service, I hope it continues."



## Who is already commissioning this service?

- The benefits of a minor ailments services commissioned through community pharmacy are well established and have resulted in the national commissioning of the service in Scotland and Wales.
- A significant number of Primary Care Trusts (PCTs)
   previously commissioned the service and some of these
   services have continued to be commissioned by Area
   Teams or Clinical Commissioning Groups.
- MAS are being run across 42% of CCGs (89/211)
  - 52 by CCGs, 15 by AT, and 31 CCGs covered in the Area Team schemes



#### Who can deliver the service?

- 31 of the services require the pharmacist to offer the service
  - 15 services have PGDs associated with the service.
  - 16 services require pharmacists to sell OTC/P meds through the service.
- 25 of the services require that either the pharmacist or an appropriately trained member of staff can offer the service
- 3 services (mixed) allow the pharmacist or an appropriately trained member of staff or pharmacists to offer level 1 of the service (GSL and P meds) but a pharmacist must offer level 2 of the service (PGDs)
- 8 unknown (waiting for confirmation from LPCs)

#### Number of indications (avg 20)



Indication	No	Indication	No	Indication	No	Indication	No	Indication (1)
Vaginal		Insect						
thrush	44	bite/sting	32	Oral thrush	21	Acne	5	Crab lice
								Cracked sore
Diarrhoea	43	Mouth ulcers	31	Allergic rhinitis	20	Chickenpox	5	nipples
Hay fever	43	Headache	30	Cold/flu	20	Dry skin	5	Gout
		Dermatitis						
Constipation	41	/eczema	29	Ear wax	14	Ringworm	4	Migraine
Sore throat	41	Heartburn	28	Scabies	14	Vomiting	4	Minor injuries
		Nasal		Sprain, strain &		Burns, scalds		
Conjunctivitis	39	congestion	28	muscle pain	14	or cuts	3	Scalp disorders
Threadworms	39	Warts/verrucae	28	Colic	10	Dandruff	3	Thrush in BF
						Fever after		
Head lice	37	Teething	26	UTI	10	immunisation	3	Travel sickness
Indigestion	37	Cystitis	25	Impetigo	9	Pruritis	3	Wind
Fever/temp	37	Ear ache	25	Dry eyes	6	Sunburn	3	
Athlete's foot	35	Cough	23	Fungal infection	6	URTIviral	3	
Cold sores	33	Pain	23	Period pain	6	Mouth care	2	
						Soft tissue		
Nappy rash	33	Haemorrhoids	22	Toothache	6	injury	2	

PSNC Briefing 006/15: Analysis of Minor Ailments Services in England



#### Range of medicines on PGD

Medicine	PGDs	Medicine	PGDs
Trimethoprim 200mg tablets	12	Canesten HC cream	1
Chloramphenicol 0.5% eye drops	8	Clarithromycin 125mg/5ml	1
Fusidic acid 2% cream	6	Clarithromycin 250mg tab	1
Fusidic acid 1% eye drops	5	Colchicine 500mcg tablets	1
Nystatin 100,000u oral susp	5	Lansoprazole 15mg caps	1
Beclometasone 50mcg nasal spr	4	Lansoprazole 30mg caps	1
Timodine cream	4	Miconazole 2% cream	1
Chloramphenicol 1% eye oint	3	Nitrofurantoin 50mg	1
Flucloxacillin 250mg capsules	2	Naproxen 250mg tablets	1
Flucloxacillin 125mg/5ml	2	Omeprazole 10mg cap	1
Flucloxacillin 250mg/5ml	2	Omeprazole 20mg caps	1
Fusidic acid 2% ointment	2	Retapamulin 1% ointment	1
Adapalene acne 0.1% cream	1	Sod cromoglicate 2% eye	1
Adapalene acne 0.1% gel	1	Sumatriptan 50mg tablets	1
Adapalene 0.1% benzoyl peroxide 2.5% gel	1	Flucloxacillin 500mg caps	1
Azelaic acid 20% cream	1	Fusidic acid 1% MR eye	1
Azelaic acid 15% gel	1	PSNC Briefing No 6 - 2015	

#### What are the financial implications?



- NHS England and PSNC have agreed that a fee of £4.00 + VAT to cover the administration of the service plus reimbursement of the cost of the medicine + VAT is a reasonable fee.
- Monitor in their publication 'Closing the NHS funding gap: how to get best value health care for patients'<sup>24</sup> conservatively estimate nationwide productivity gains from rolling out minor ailments services through community pharmacy as £64 million.

#### What are the financial implications?



- Research from the Royal Pharmaceutical Society found that the cost of treating common ailments:
  - community pharmacies was £29.30 per patient.
  - Emergency Departments (ED) was £147.09 per patient (nearly five times higher)
  - GP practices at £82.34 per patient (nearly three times higher)
- Overall, the study estimates that 3% of all ED consultations and 5.5% of GP consultations for common ailments could be managed in community pharmacies.
- Equates to over 650,000 visits to ED and over 18 million GP consultations every year that could be diverted with a total annual cost saving of over £1billion<sup>25</sup>.



#### NHS England

#### How can this be done?

- Community pharmacy common/minor ailments services can be commissioned flexibly depending on local need to provide advice and supply over the counter medicines at NHS expense (where appropriate) to a defined group of patients.
- Groups of patients eligible to receive medicines to treat common/minor ailments at NHS expense can be varied according to local needs.
- It is recommended that this service is targeted at deprived and low income populations.



#### What else can be done?

- As well as providing a common/minor ailments service, community pharmacies can help by:
  - promoting self-care through the pharmacy, including provision of advice and where appropriate medicines without the need to visit the GP practice.
  - operating as a first point of referral for NHS 111 and other healthcare services for patients with common ailments.
- Area Team and CCG communications specialists could support this approach by supporting the Feeling Under the Weather campaign<sup>26</sup> Treat Yourself Better campaign<sup>27</sup> and publicising the patient fact sheets produced by the Self Care Forum<sup>28</sup>.
- 26. www.nhs.uk/asap
- 27. www.treatyourselfbetter.co.uk
- 28. <a href="http://www.selfcareforum.org/fact-sheets/">http://www.selfcareforum.org/fact-sheets/</a>



## How can we record data and pay contractors?

- Same as flu vaccinator approach
- OPTION 1 By using a web-based system such as PharmOutcomes®, Webstar, North 51 Sonar. Web-based systems may include a ready-made MAS module.
- OPTION 2 By using a paper based solution the resources for managing a paper-based service will vary and depend upon the capacity of the Area Team to send, receive and process engagement documents, assurance documents and payment claims. Data on service delivery would be available retrospectively, aligned to the claim cycle, most likely monthly.



#### How can I implement this quickly?

- For commissioners who wish to commission an NHS community pharmacy common ailments service, an implementation toolkit containing an implementation plan, sample service specifications and standard proformas can be found at <a href="http://psnc.org.uk/services-commissioning/locally-commissioned-services/winter/">http://psnc.org.uk/services-commissioning/locally-commissioned-services/winter/</a>
- The implementation plan outlines steps to follow once a decision to commission a service from community pharmacy to support deprived populations to self-care is made.
- Area teams are advised to plan the implementation of the service with the Local Pharmaceutical Committee (LPC) so that LPC resources can be used to support the rapid implementation of the service by pharmacy contractors.



#### **Supporting information**

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- An implementation checklist
- A template service agreement and service specification
- A pharmacy contractor sign up and assurance sheet
- A service record form



## What other support tools are available

 Implementing a community pharmacy minor ailment scheme. A practical toolkit<sup>29</sup> for primary care organisations and health professionals (National Pharmacy Association)

29. <a href="http://www.npa.co.uk/Documents/Docstore/PCO\_LPCs/implementing\_a\_community\_pharmacy\_minor\_ailment\_scheme.pdf">http://www.npa.co.uk/Documents/Docstore/PCO\_LPCs/implementing\_a\_community\_pharmacy\_minor\_ailment\_scheme.pdf</a>



#### **Educating the public on AMR**



- AB not effective vs coughs & colds
- 2. I should contact my GP for coughs & colds
- 3. Taking AB "just in case" can ↑AMR
- 4. GP has given me too short a course (options)
- 5. AMR is serious because
- 46% of patients scored 3 or less out of 5
- EAAD quiz demonstrated educational opportunity whilst patients wait for a prescription
- Pharmacy teams made the most antibiotic guardian pledges

#### **EAAD & AG TOOLKIT: Leaflets, quizzes,** crosswords, video & more

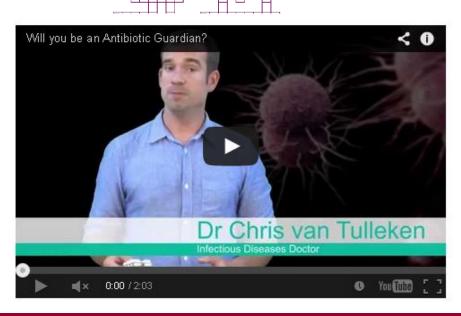














#### **ANTIBIOTICS & INFECTION PREVENTION**

HOW MUCH DO YOU KNOW? TRY OUR QUIZ FOR PHARMACY AND LAB STAFF Are the following statements True or False?

- IV Flucioxacillin plus IV vancomycin is a useful combination to treat a patient with MRSA bacteraemia On a microbiology lab report, if bacteria are isolated and identified, but susceptibilities NOT given, then you should treat the patient based on the <u>usual</u> susceptibilities for that
- If a Pseudomonas infection is resistant to ciprofloxacin, parenteral treatment with an alternative drug is the only



#### **ANTIBIOTICS**

HOW MUCH DO YOU KNOW? TRY OUR QUIZ FOR PRESCRIBERS

Are the following statements True or False?

- Do not start antibiotics without clinical evidence of bacterial
- Broad spectrum antibiotic use promotes C. difficile
- Unnecessary or inappropriate antibiotic prescribing increases the emergence and spread of resistant bacteria True / False
- 4 Take appropriate cultures before starting antibiotics



True / False

True / False

http://bit.lv/EAAD2014

#### The Antibiotic Guardian Quiz

www.antibioticguardian.com

- 1. Antibiotics are not effective against colds and flu. This is... A. correct: colds and flu are mostly caused by viruses, which antibiotics do not work
  - partly correct: antibiotics sometimes work against viruses
  - wrong: antibiotics work against everything
- 2. When I have a cough, cold or sore throat, I should contact to my GP for an appointment.
  - A. correct: I should book an appointment with my GP for all mild symptoms or illness
  - partly correct: If I have difficulty breathing I should seek immediate medical attention, but if it's mild I should first check with a pharmacist first about how to treat my symptoms
  - C. wrong: I should first check with my pharmacist about how to treat my symptoms



## Make the community pharmacy public health campaign AMR!

- There are six public health campaigns each year
- The campaign that covers November needs to focus on Antimicrobial Resistance
- Use the Antibiotic Guardian campaign for this

Development of a self-assessment tool for pharmacy to assess it's activity on AMR/AMS

Adapt the PHE / RCGP TARGET patient information leaflet on infections for community pharmacy



#### 5 nd

#### Self-care guide to help you treat your infection

Patient/Customer Name							
Self-care advice provided		duct(s) suggested/ oplied	Customer/Patient advised to contact GP				
Your infection	Usually lasts	How to treat yourself better for these infections, now and next time	When should you get help: Contact your GP practice or contact NHS 111 (England), NHS 24 (Scotland dial 111), or NHS Direct (Wales dial 0845 4647)				
Middle-ear infection	4 days	Have plenty of rest.	to 8. are possible signs of serious illness and should be assessed urgently.  Phone for advice if you are not sure how urgent the symptoms are.				
Sore throat	7 days	Drink enough fluids to avoid feeling thirsty.     Ask your local pharmacist to recommend	If you develop a severe headache and are sick.     If your skin is very cold or has a strange colour, or you develop an unusual rash.				
Common cold	10 days	medicines to help your symptoms or pain (or both).  • Fever is a sign the body is fighting the	If you feel confused or have slurred speech or are very drowsy.     If you have difficulty breathing. Signs can include:				
Sinusitis	18 days	infection and usually gets better by itself in most cases. You can use paracetamol	breathing quickly     turning blue around the lips and the skin below the mouth				
Cough or bronchitis	21 days	(or ibuprofen) if you or your child are uncomfortable as a result of a fever.	skin between or above the ribs getting sucked or pulled in with every breath.     If you develop chest pain.     If you have difficulty swallowing or are drooling.				
Other infection:	days	Other things you can do suggested by GP or nurse:	7. If you cough up blood. 8. If you are feeling a lot worse. Less serious signs that can usually wait until the next available GP appointment: 9. If you are not improving by the time given in the 'Usually lasts' column. 10. In children with middle-ear infection: if fluid is coming out of their ears or if they have new deafness.  11. Other				

- Colds, most coughs, sinusitis, ear infections, sore throats, and other infections often get better without antibiotics, as your body can usually fight these infections own.
- The more we use antibiotics, the greater the chance that bacteria will become resistant to them so that they no longer work on our infections.
- 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 and pledging at www.antibioticguardian.com

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



















## Antimicrobial stewardship in community pharmacy – what do commissioners need to know?

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