

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

Philip Howard

Consultant Antimicrobial
Pharmacist

HCAI and AMR Project Lead
NHS England

philip.howard2@nhs.net

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)



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 groups².
- Providing vaccinations in community pharmacies **increases vaccination rates** in the following groups³
 - 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.

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

3. 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 attend a pharmacy up to five times within the 'flu season' 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 alone⁴.
- 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 scheme⁵.
- PharmOutcomes® data for one PCT indicated that **over 13%** of their at-risk cohort vaccinated by pharmacies were **pregnant women**⁶.

4. 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)

6. PharmOutcomes data – available on request (info@phpartnership.com)

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^{7,8,9}
- 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 again¹⁰.
- The literature shows factors that encouraged the use of pharmacies included **accessibility** and **convenient times** that **avoided** the need to take **time off work**.

7. 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

8. 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

10. 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 **same vaccination fee** 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)	A	B	C	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 <http://psnc.org.uk/services-commissioning/locally-commissioned-services/winter/>
- 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

Which patient groups are included?

Group	Number of services
Patients aged 18-64 years in a clinical risk group (including pregnancy)	17
Pregnant women	15
Carers	12
Patients aged 65 years and over	10
People in long-stay residential or homes	4
Healthcare workers with direct patient contact	2
Household contacts of immunocompromised individuals	2
Patients aged 18-64 years in a clinical risk group (not including pregnancy)	2
Patients aged 2-64 years in a clinical risk group (including pregnancy)	1
Patients aged 12-64 years in a clinical risk group (including pregnancy)	1
NHS England staff (with NHS England voucher) - as flu champions & clinical leadership	1
Public Health England Staff (with NHS England voucher) - as flu champions & clinical leadership	1
Prison staff (with NHS England voucher)	1
Specials school staff (with NHS England voucher)	1

Supporting information

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

- 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/immunisation-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**¹⁷; 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 hospitals¹⁸.

17. Self care: an ethical imperative. 2013 www.selfcareforum.org/resources/mandate/

18. 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 GP¹⁹, **~80%** in Cheshire²⁰ and **94%** in Bradford ²¹
- Consultations for MAS are **less expensive** when provided through community pharmacy. Evidence suggests that it is a suitable alternative to GP consultations²².
- **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**²³.

19. 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

20. 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

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

22. Community Pharmacy management of minor illnesses, Pharmacy Research UK, January 2014, <http://www.pharmacyresearchuk.org/waterway/wp-content/uploads/2014/01/MINA-Study-Final-Report.pdf>

23. 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 thrush	44	Insect bite/sting	32	Oral thrush	21	Acne	5	Crab lice
Diarrhoea	43	Mouth ulcers	31	Allergic rhinitis	20	Chickenpox	5	Cracked sore nipples
Hay fever	43	Headache	30	Cold/flu	20	Dry skin	5	Gout
Constipation	41	Dermatitis /eczema	29	Ear wax	14	Ringworm	4	Migraine
Sore throat	41	Heartburn	28	Scabies	14	Vomiting	4	Minor injuries
Conjunctivitis	39	Nasal congestion	28	Sprain, strain & muscle pain	14	Burns, scalds or cuts	3	Scalp disorders
Threadworms	39	Warts/verrucae	28	Colic	10	Dandruff	3	Thrush in BF
Head lice	37	Teething	26	UTI	10	Fever after 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	URTI viral	3	
Cold sores	33	Pain	23	Period pain	6	Mouth care	2	
Nappy rash	33	Haemorrhoids	22	Toothache	6	Soft tissue injury	2	

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’²⁴ 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 **£1 billion**²⁵.

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** campaign²⁶ **Treat Yourself Better** campaign²⁷ and publicising the **patient fact sheets** produced by the **Self Care Forum**²⁸.

26. www.nhs.uk/asap

27. www.treatyourselfbetter.co.uk

28. <http://www.selfcareforum.org/fact-sheets/>

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?

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- 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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- 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 toolkit²⁹ for primary care organisations and health professionals (National Pharmacy Association)

29. http://www.npa.co.uk/Documents/Docstore/PCO_LPCs/implementing_a_community_pharmacy_minor_ailment_scheme.pdf

Educating the public on AMR



1. 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



Antibiotic resistance in numbers

25k The number of people who die each year across Europe from infections resistant to antibiotics

A recent study showed that the likelihood of GPs prescribing antibiotics for coughs & colds increased by 40% between 1999-2011

30 years The period of time since a new class of antibiotics was first introduced despite the fact that growing numbers of infections are resistant to antibiotics

40% Research has shown that only 10% of acute sinusitis benefit from antibiotic treatment but the prescription rates are much higher than this

10%

€1.5 billion Annual EU wide cost of healthcare expenses and lost productivity due to antibiotic resistant bacteria

Public Health England

European Antibiotic Awareness Day (EAAD) is a Europe-wide initiative that takes place annually on 18 November.

Public Health England (PHE) is leading the co-ordination of EAAD activities in England in collaboration with Department for Environment, Food and Rural Affairs (DEFRA), the Department of Health, devolved administrations, and other professional organisations.

PHE have established the Antibiotic Guardian campaign to help protect antibiotics and improve knowledge about antibiotic resistance.

You are invited to become an Antibiotic Guardian

As an Antibiotic Guardian, encourage others to join you in protecting antibiotics against the growing threat of antibiotic resistance at www.antibioticguardian.com

Resources and promotional materials for Antibiotic Guardian and EAAD are available via <http://bit.ly/EAAD2014>

Protect yourself, your family and friends against the spread of antibiotic resistance.

Become an

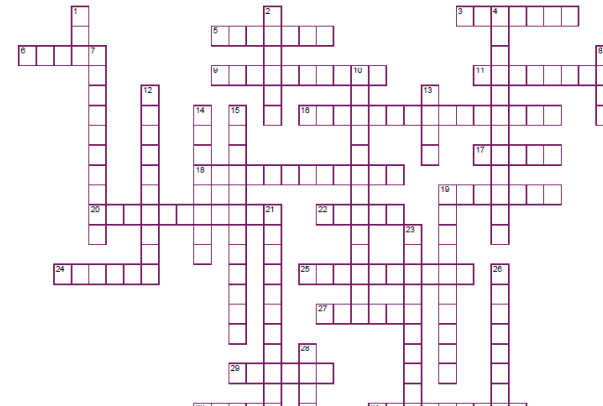


ANTIBIOTIC GUARDIAN

www.antibioticguardian.com



Antibiotic Guardian Challenge Crossword



ANTIBIOTICS & INFECTION PREVENTION

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

- Gentamicin dosing is based on actual body weight so obese patients will need a significantly higher dose than lean patients. True / False
- IV Flucloxacillin plus IV vancomycin is a useful combination to treat a patient with MRSA bacteraemia. True / False
- On a microbiology lab report, if bacteria are isolated and identified, but susceptibilities NOT given, then you should treat the patient based on the usual susceptibilities for that organism. True / False
- If a Pseudomonas infection is resistant to ciprofloxacin, parenteral treatment with an alternative drug is the only option. True / False



ANTIBIOTICS

HOW MUCH DO YOU KNOW?
TRY OUR QUIZ FOR PRESCRIBERS
Principles of antimicrobial prescribing

Are the following statements True or False?

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



The Antibiotic Guardian Quiz

Winter is coming...

- 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 against
B. partly correct: antibiotics sometimes work against viruses
C. wrong: antibiotics work against everything
- When I have a cough, cold or sore throat, I should contact to my GP for an appointment. This is...
A. correct: I should book an appointment with my GP for all mild symptoms or illness
B. 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

Will you be an Antibiotic Guardian?

Dr Chris van Tulleken
Infectious Diseases Doctor

0:00 / 2:03

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

Self-care guide to help you treat your infection



Patient/Customer Name

Self-care advice provided Product(s) suggested/supplied 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)
<input type="checkbox"/> Middle-ear infection	4 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 (or ibuprofen) if you or your child are uncomfortable as a result of a fever. Other things you can do suggested by GP or nurse: 	<p>1. 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.</p> <ol style="list-style-type: none"> 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. If you feel confused or have slurred speech or are very drowsy. If you have difficulty breathing. Signs 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. If you develop chest pain. If you have difficulty swallowing or are drooling. If you cough up blood. If you are feeling a lot worse. <p>Less serious signs that can usually wait until the next available GP appointment:</p> <ol style="list-style-type: none"> If you are not improving by the time given in the 'Usually lasts' column. In children with middle-ear infection: if fluid is coming out of their ears or if they have new deafness. Other
<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: 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.
- 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

Leaflet developed in collaboration with these professional societies.



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

Philip Howard,
Consultant Antimicrobial Pharmacist,
Leeds Teaching Hospital NHS Trust,
HCAI and AMR Project Lead, NHS England