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Antimicrobial Resistance (AMR) Toolkit for Public Engagement

A toolkit designed to support you or your organisation in engaging with members of the public on AMR

April 2017

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3. Infection prevention and control
4. Leaflets and posters
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6. e-Bug
7. Resources for animal keepers
8. Public engagement activities
9. Frequently asked questions
10. Social Media Support

Click on one of the links below to access source of information listed on each page

Key messages on AMR	Health Matters: antimicrobial resistance WHO: Antimicrobial Resistance What is antibiotic resistance, and why should we care? Antibiotic Awareness Key Messages NHS Choices- Antibiotics Health Matters: Antimicrobial Resistance World Health Organisation: Causes of Antimicrobial Resistance 10 reasons why you should care about antibiotic resistance 7 more reasons why you should care about antibiotic resistance
Resources	UK 5 Year Antimicrobial Resistance Strategy 2013-18 The Review on Antimicrobial Resistance
Infection prevention and control	Your Role in Infection Prevention Washing hands helps to fight superbugs NICE highlights how hand washing can save lives Flu Prevention 10 Winter Illnesses Diarrhoea and vomiting (gastroenteritis) Who should have the flu jab? 10 myths about flu and the flu vaccine Health matters: giving every child the best start in life Urinary tract infections in adults Dehydration prevention Breaking the Chain of Infection: Preventing Spread of Infection in Home and Everyday Life Beating E.coli- what are you doing to break the chain of infection? Antimicrobial Resistance: Resource Handbook How to prepare and cook food safely 10 ways to prevent food poisoning

Leaflets and posters	TARGET: Leaflets to Share with Patients e-Bug: Managing Your Infection Get Well Soon Without Antibiotics No Amount of Antibiotics
Antibiotic Guardian Campaign	Antibiotic Guardian Antibiotic Awareness Resources: Posters and Leaflets Healthcare Students: Antibiotic Guardian badge
e-Bug	e-Bug e-Bug lesson packs Junior and Family Antibiotic Guardian
Resources for animal keepers	Bella Moss Foundation The Bella Moss Foundation- Survey for pet owners on antibiotic use Bella Moss Foundation: Posters and Surveys for Your Practice British Veterinary Association: Antimicrobials
Public engagement activities	Healthwatch Torbay Science Café Mums tums campaign targets overuse of antibiotics Listen to Your Gut video E-Bug: Beat the Bugs Course
Frequently asked questions	http://www.who.int/features/qa/75/en/ http://www.who.int/features/qa/75/en/ http://www.who.int/mediacentre/factsheets/fs194/en/ https://www.gov.uk/government/publications/health-matters-antimicrobial-resistance/health-matters-antimicrobial-resistance http://www.who.int/features/qa/stopping-antibiotic-treatment/en/ https://www.gov.uk/government/publications/health-matters-antimicrobial-resistance/health-matters-antimicrobial-resistance

What is the purpose of this toolkit?

The aim of this toolkit: to provide Public Health England centres and voluntary organisations with a compilation of resources to improve public engagement on antimicrobial resistance (AMR).

The toolkit contains: key messages on AMR, frequently asked questions (FAQs), resources and examples of AMR related public engagement activities.

Resources include: posters, leaflets, quizzes and worksheets. Either written information or images are displayed on each of the slides, with a link to the website provided in the **"resources"** box on each of the slides. You can click on each of the links to access the resource.

How you could use sections of the resource (depending on the audience) within your organisation:

- Exhibit resources at public events
- Distribute to members of the public and organisations via e-mail, bulletins, newsletters
- Promote resources and key messages via social media i.e. on Facebook and Twitter
- Send resources to relevant groups i.e. e-Bug resources to young people's organisations and children's centres
- Distribute to GP Patient Participation Groups
- Display posters and leaflets in public libraries

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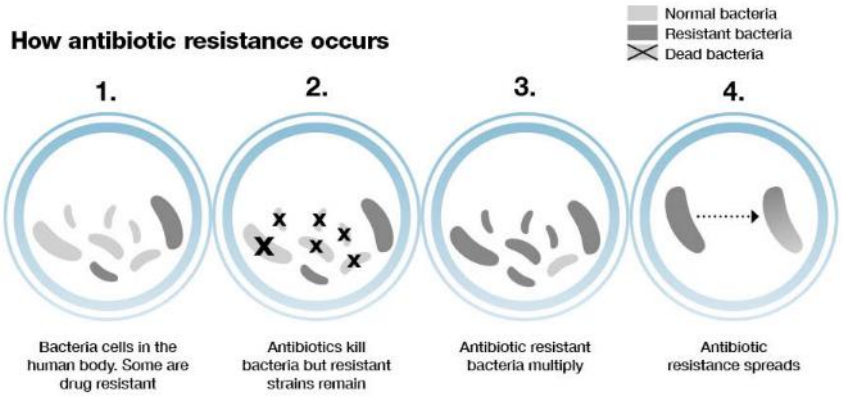
Key messages on AMR

What is antibiotic resistance?



- Antimicrobial resistance happens when microorganisms (such as bacteria, fungi, viruses, and parasites) change when they are exposed to antimicrobial drugs (such as antibiotics, antifungals, antivirals, antimalarials, and anthelmintics). Microorganisms that develop antimicrobial resistance are sometimes referred to as “superbugs”.
- Antibiotic resistance refers specifically to the resistance to antibiotics that occurs in common bacteria that cause infections

Resource: click below to access the resource

Health Matters: antimicrobial resistance

WHO: Antimicrobial Resistance

What is antibiotic resistance, and why should we care?

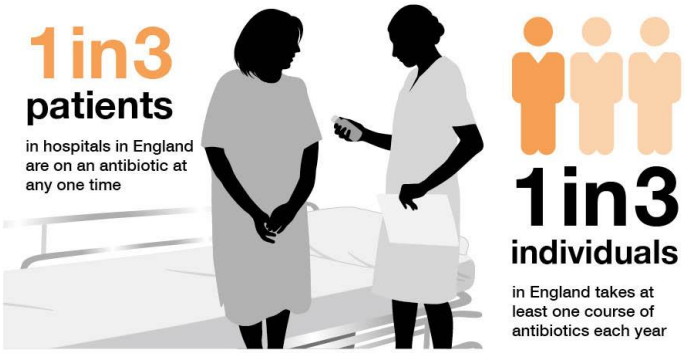
What do we need to know?

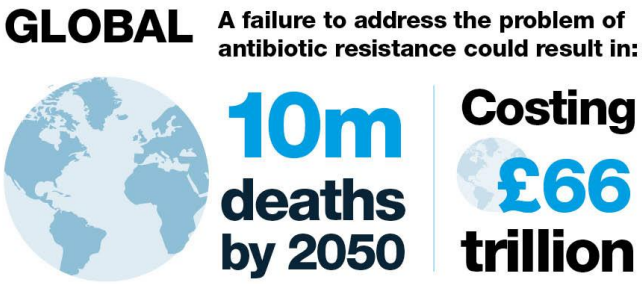
- **Antibiotics are essential medicines for treating bacterial infections in both humans and animals.**
- **Antibiotics are losing their effectiveness at an increasing rate.**
- **Bacteria can adapt and find ways to survive the effects of an antibiotic. They become 'antibiotic resistant' so that the antibiotic no longer works. The more you use an antibiotic, the more bacteria become resistant to it.**
- **Antibiotics should be taken as prescribed, never saved for later or shared with others; it is important we use antibiotics in the right way, the right drug, at the right dose, at the right time for the right duration. Appropriate use of antibiotics will slow down the development of antibiotic resistance.**
- **There are very few new antibiotics in the development pipeline, which is why it is important we use our existing antibiotics wisely and make sure these life-saving medicines continue to stay effective for ourselves our children and grandchildren.**
- **Many antibiotics are prescribed and used for mild infections when they don't need to be. All colds and most coughs, sinusitis, otitis media (earache) and sore throats get better without antibiotics.**
- **Community pharmacists are well placed to help provide advice on over the counter medicines to treat symptoms and help with self-care.**

Resource: click below to access the resource

Antibiotic Awareness Key Messages
NHS Choices- Antibiotics

Impact of AMR nationally and locally





Resource: click below to access the resource

Health Matters: Antimicrobial Resistance

There are a number of reasons why antibiotic resistance occurs

Resource: click below to access the resource

World Health Organisation: Causes of Antimicrobial Resistance

Read the blog to find out more about why you should be worried about antibiotic resistance

GOV.UK

Blog

Public health matters

Public Health England

Organisations: Public Health England

Search blog

10 reasons YOU should be worried about antibiotic resistance

Diane Ashiru-Oredope, 18 November 2014 — Antimicrobial resistance, Health Protection, Uncategorized

Antibiotics are essential for treating many infections but they're losing their effectiveness. Bacteria are fighting back by adapting and finding ways of surviving the effects of our medicines.

Public health matters

The official blog of Public Health England, providing expert insight on the organisation's work and all aspects of public health. More about this blog.

Categories

5. Cancer chemotherapy and effective antibiotics go hand in hand

Chemotherapy is an important weapon in the fight against cancer, but did you know the procedure destroys our white blood cells, which we need to fight off infection? Without antibiotics chemotherapy will become increasingly dangerous.

9. We have to save our surgery

None of us want to think about getting ill or having a serious operation but we all understand that surgery can save lives. But complex surgery brings with it the risk of infection. Take heart bypass operations or joint replacements for instance – if we don't have antibiotics these procedures designed to help people and ease suffering could actually lead to many more deaths caused by bacterial infections.

Resource: click below to access the resource

- 10 reasons why you should care about antibiotic resistance
- 7 more reasons why you should care about antibiotic resistance

Why do we need to educate different groups on AMR?

Women 	• Women are 27% more likely than men to receive an antibiotic in their lifetime • The amount of antibiotics prescribed to women was 36% higher than prescribed for men in the 16 to 34 years ago group and 40% greater in the 35 to 54 years age group • Women consult their general practitioners more frequently than men • Urinary tract infections (UTIs) are more common in women than in men
Parents and Children 	A significant number of prescriptions for antibiotics are obtained by parents for their children In 2008, it was noted that in the UK, there are around 6 million antibiotic prescriptions for children each year
The elderly 	A higher use of antibiotics in the elderly population has been documented

Cancer patients 	• Cancer treatments increase the risk of getting an infection, so antibiotics are an essential part of treating cancer patients. • Many cancer patients need antibiotics during all stages of their treatment (surgery, radiotherapy, chemotherapy)
People with cystic fibrosis 	People with cystic fibrosis are more likely to get chest infections, which can result in complications and even death. For this reason, antibiotics are an essential part of looking after cystic fibrosis patients
People with diabetes 	Diabetes can increase the risk of infection, so antibiotics are an essential part of caring for diabetes patients
People with urinary tract infections (UTIs) 	• Urinary tract infections can cause serious problems, so antibiotics are an essential part of treatment • If left untreated, UTIs can lead to complications such as blood poisoning and kidney failure • More and more bacteria that cause UTIs are resistant to the most commonly used “first-line” antibiotics. Infection by resistant bacteria can result in serious illness, leading to longer hospital stays and more complex treatments with more harmful side-effects

Black and Minority Ethnic communities 	• History of travel (particularly to the Indian subcontinent) is correlated with a higher risk of colonisation with antibiotic-resistant bacteria • There is some evidence that ethnic variation in diet could influence the risk of developing an antimicrobial-resistant infection
Young people 	Research has shown that a significant number of 15-24yr olds take antibiotics that are obtained without prescription (given to them by other people, previously unfinished courses, purchased abroad etc.)
Pet owners 	Antibiotics are vital to treat disease in animals as well as humans. Pets can also fall victim to antibiotic-resistant superbugs like MRSA, and for the same reasons (i.e. misuse and overuse of antibiotics)

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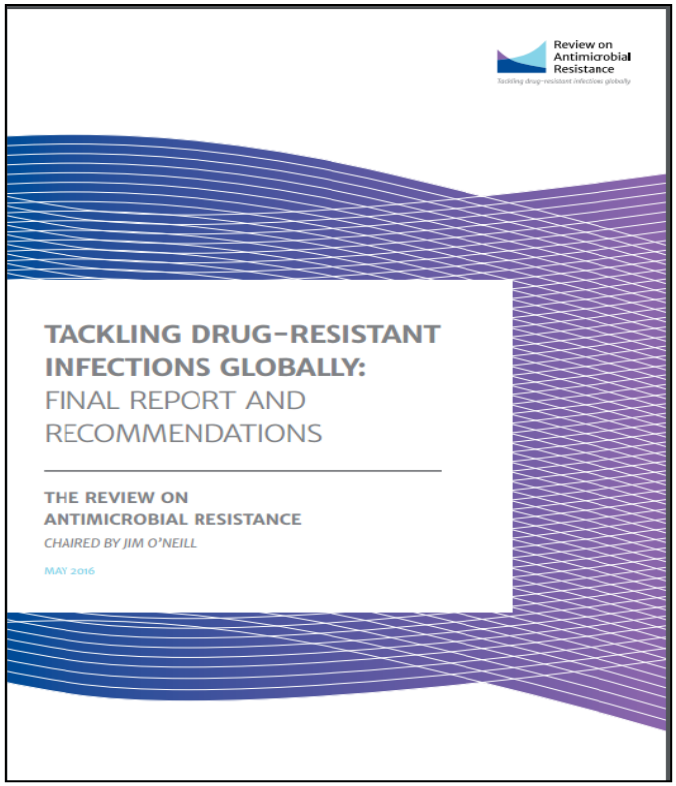
Resources

For further information on national and global efforts to tackle AMR, have a read of one of the reports below



Resource: click below to access the resource

UK 5 Year Antimicrobial Resistance Strategy 2013-18

The Review on Antimicrobial Resistance

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Infection prevention and control

Did you know that you could prevent infections by taking some very simple steps?

NHS choices Your health, your choices

Health A-Z | Live Well | Care and support

Washing hands helps to fight superbugs

Share: Save: Subscribe: Print:

Friday May 4 2012

A national hand hygiene campaign "cut superbug infections," according to BBC News. The BBC and other news outlets have reported the success of a hand-washing campaign in cutting infection rates in hospitals.

The headlines stem from a study of hand-washing practices at 187 NHS trusts in England and Wales between 2004 and 2008. The Clean Your Hands campaign was introduced in 2004 and this study looked at its effects.

Levels of MRSA and C. difficile infections in hospitals have fallen

You play an important role in preventing infections by understanding hygiene at home and in your daily life.

Every infection prevented means less antibiotics are used lowering the risk of resistance developing.

NHS choices Your health, your choices

Health A-Z | Live Well | Care and support

NICE highlights how hand washing can save lives

Share: Save: Subscribe: Print:

Thursday April 17 2014

"Doctors and nurses should do more to stop hospital patients developing infections, an NHS watchdog says," BBC News reports.

The National Institute for Health and Care Excellence (NICE) has highlighted how basic hygiene protocols, such as hand washing, may be overlooked by some health professionals, which may threaten patient safety.

Hand washing can help prevent the spread of infection

Public / Patients

Your Role in Infection Prevention

Links to Patient Groups

Your Role in Infection Prevention

Infection Prevention, Patients and Public Role

Infection prevention and control is commonly described as everyone's responsibility. IPS members work across health and social care to make sure the right practices take place at the right time to keep patients, visitors and staff safe. As a patient or member of the public it's important to make sure you're aware of information that is available to you, in for example your local hospital, on the role you can play in infection prevention and control.

This information might cover the following important topics (note this list is not exhaustive):

Hand Hygiene

Hand hygiene at the right times is essential for safety – find out more about hand hygiene and the role you can play.

Visiting Hospital

Hospitals provide advice to the public on visiting during outbreaks and/or when you yourself may be suffering from certain infections – check your local hospital advice before visiting relatives or loved ones if you are at all unsure.

Admission to Hospital

Before going into hospital you may be provided with advice and information on infection control; you can ask your local hospital.

Resource: click below to access the resource

Your Role in Infection Prevention

Washing hands helps to fight superbugs

NICE highlights how hand washing can save lives

Stay Well All Year Round

NHS choices Your health, your choices

Health A-Z | Live Well | Care and support | H

Flu - Prevention

Overview | Clinical trials

Seasonal flu | Symptoms | Treatment | Complications | Prevention

Preventing flu

There are three main ways of preventing flu: the flu vaccination, good hygiene (such as handwashing and cleaning) and antiviral medication.

The flu vaccine

The annual flu vaccine can help reduce your risk of getting flu each year, although it's not 100% effective because it doesn't work against every possible type of flu virus.

10 winter illnesses

Some health problems, such as asthma, sore throat and cold sores, are triggered or worsened by cold weather. Here's how to help your body deal with cold weather ailments.

Colds

You can help prevent colds by washing your hands regularly. This destroys bugs that you may have picked up from touching surfaces used by other people, such as light switches and door handles.

Read this guide to how to wash your hands properly.

Good hygiene

To reduce your risk of getting flu or spreading it to other people, you should always:

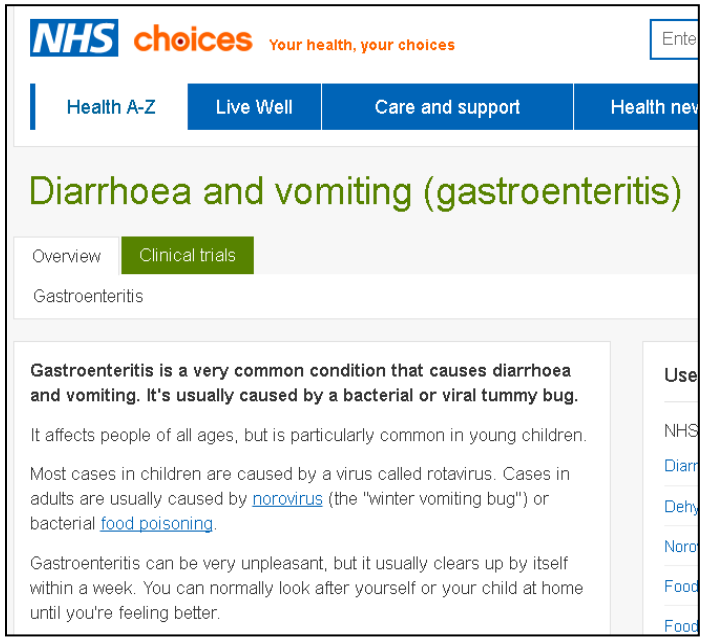
- make sure you wash your hands regularly with soap and warm water
- clean surfaces such as your keyboard, telephone and door handles regularly to get rid of germs
- use tissues to cover your mouth and nose when you cough or sneeze
- put used tissues in a bin as soon as possible

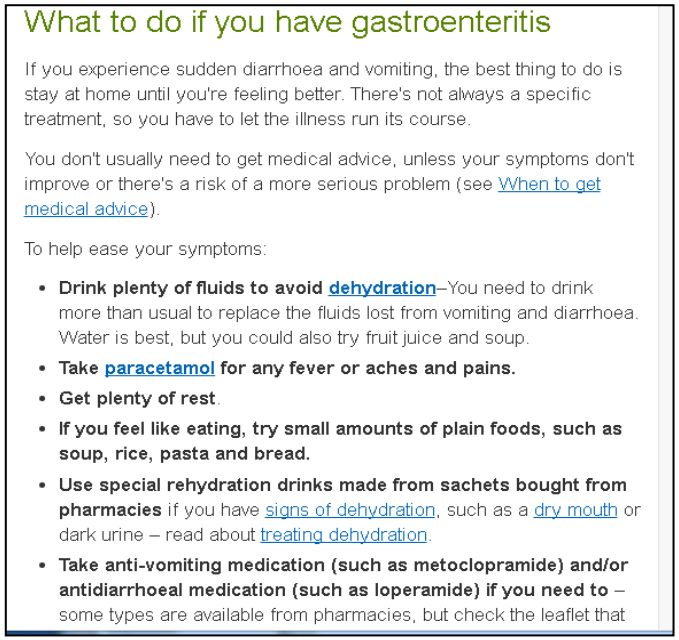
Read more about preventing the spread of germs.

Resource: click below to access the resource

Flu Prevention
10 Winter Illnesses

Learn how to protect yourself from gastroenteritis





Symptoms of gastroenteritis

The main symptoms of gastroenteritis are:

- sudden, watery diarrhoea
- feeling sick
- vomiting, which can be projectile
- a mild fever

Resource: click below to access the resource

Diarrhoea and vomiting (gastroenteritis)

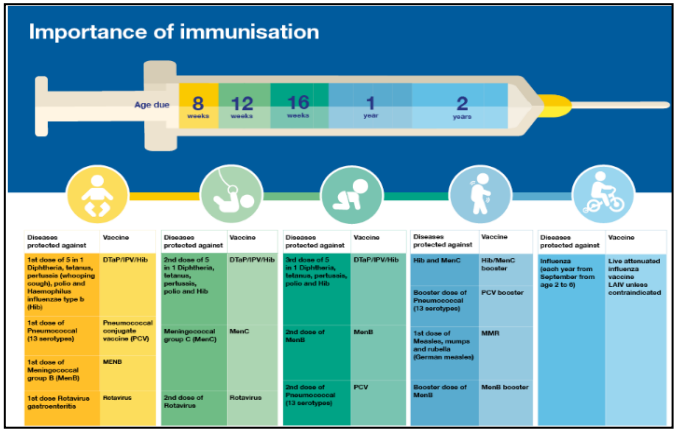
The importance of vaccinations

Who should have the flu jab?

Flu is an unpredictable virus that can cause mild or unpleasant illness in most people. It can cause severe illness and even death among vulnerable groups including older people, pregnant women and people with an underlying health condition.

Certain people are more likely to develop potentially serious complications of flu, such as bronchitis and pneumonia. These people are advised to have a flu jab each year.

For otherwise healthy people, flu can be very unpleasant. Most people will recover from flu within a week or two.



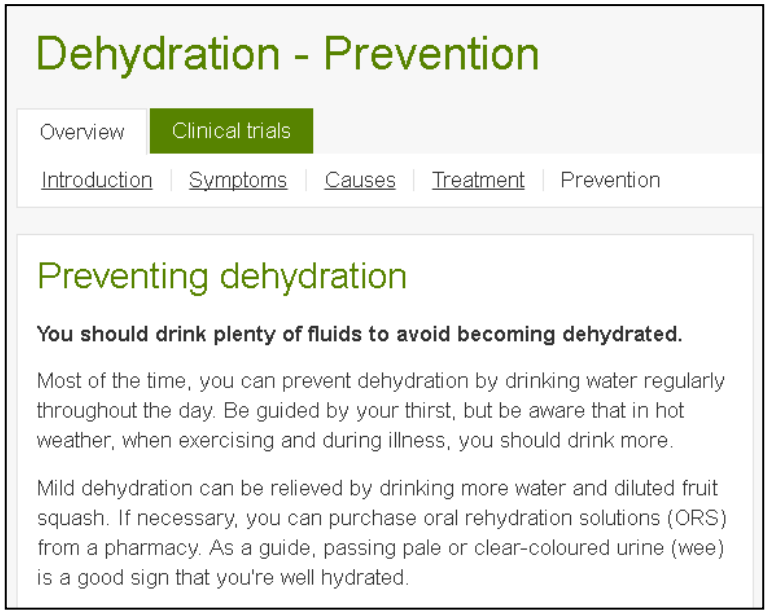
Resource: click below to access the resource

Who should have the flu jab?

10 myths about flu and the flu vaccine

Health matters: giving every child the best start in life

Find out more about how you can prevent Urinary Tract Infections (UTIs)



Dehydration - Prevention

Overview | Clinical trials

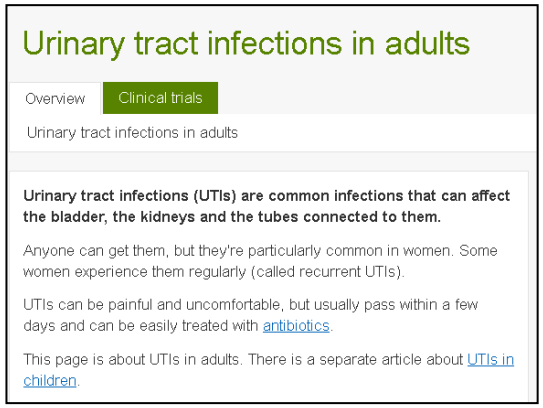
Introduction | Symptoms | Causes | Treatment | Prevention

Preventing dehydration

You should drink plenty of fluids to avoid becoming dehydrated.

Most of the time, you can prevent dehydration by drinking water regularly throughout the day. Be guided by your thirst, but be aware that in hot weather, when exercising and during illness, you should drink more.

Mild dehydration can be relieved by drinking more water and diluted fruit squash. If necessary, you can purchase oral rehydration solutions (ORS) from a pharmacy. As a guide, passing pale or clear-coloured urine (wee) is a good sign that you're well hydrated.



Urinary tract infections in adults

Overview | Clinical trials

Urinary tract infections in adults

Urinary tract infections (UTIs) are common infections that can affect the bladder, the kidneys and the tubes connected to them.

Anyone can get them, but they're particularly common in women. Some women experience them regularly (called recurrent UTIs).

UTIs can be painful and uncomfortable, but usually pass within a few days and can be easily treated with antibiotics.

This page is about UTIs in adults. There is a separate article about UTIs in children.

Preventing UTIs

If you get UTIs frequently, there are some things you can try that may stop it coming back. However, it's not clear how effective most of these measures are.

These measures include:

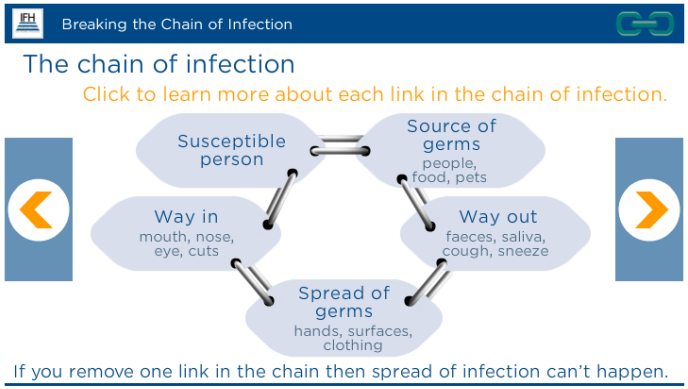
- avoiding perfumed bubble bath, soap or talcum powder around your genitals – use plain, unperfumed varieties, and have a shower rather than a bath
- going to the toilet as soon as you need to pee and always emptying your bladder fully
- staying well hydrated
- wiping your bottom from front to back when you go to the toilet
- emptying your bladder as soon as possible after having sex
- not using a contraceptive diaphragm or condoms with spermicidal lubricant on them – you may wish to use another method of contraception instead
- wearing underwear made from cotton, rather than synthetic material such as nylon, and avoiding tight jeans and trousers

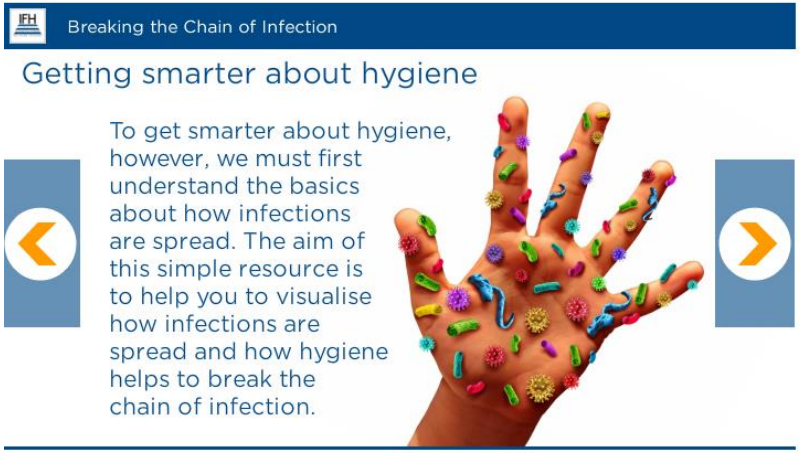
Resource: click below to access the resource

Urinary tract infections in adults

Dehydration prevention

Did you know that an infection can be prevented simply by breaking up one of the links?





Resource: click below to access the resource

Breaking the Chain of Infection: Preventing Spread of Infection in Home and Everyday Life

Beating E.coli- what are you doing to break the chain of infection?

Antimicrobial Resistance: Resource Handbook

Preventing infections with food hygiene

How to prepare and cook food safely

Studies show that the kitchen contains the most germs in the home. One study found that the kitchen sink contains 100,000 times more germs than the bathroom.

NHS choices Your health, your choices

Health A-Z | Live Well | Care and support

10 ways to prevent food poisoning

Washing hands

Our hands are one of the main ways that germs are spread, so it's important to wash them thoroughly with soap and warm water before cooking, after touching the bin, going to the toilet, and before and after touching raw food.

Resource: click below to access the resource

How to prepare and cook food safely
10 ways to prevent food poisoning

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Leaflets and posters

There are a number of leaflets available for healthcare professionals to share with patients in order to improve their confidence to self care

Home ›› Clinical ›› Toolkits ›› TARGET Antibiotics Toolkit

TARGET Antibiotics Toolkit

The table below is an excerpt of the TARGET Antibiotic Toolkit "Guide to treat your infection" and shows you how long these common illnesses normally last, what you can do to ease your symptoms and when you should go back to your GP or contact NHS Direct [3]

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. • 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 is uncomfortable as a result of a fever. • Other things you can do suggested by GP or nurse.	**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.** 1. If you develop a severe headache and are sick. 2. If your skin is very cold or has a strange colour, or you develop an unusual rash. 3. If you feel confused or have slurred speech or are very drowsy. 4. If you have difficulty breathing. Signs can include: o breathing quickly o turning blue around the lips and the skin below the mouth o skin between or above the ribs getting sucked or pulled in with every breath. 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 **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 .....
☐ Sore throat	7 days		
☐ Common cold	10 days		
☐ Sinusitis	18 days		
☐ Cough or bronchitis	21 days		
☐ Other infection:	..... days		

These could be shared to improve people's knowledge and understanding of the duration of symptoms, as well when to visit the GP

Available in:

Albanian, Arabic, Bengali, Cantonese, French, Greek, Gujarati, Hindi, Hungarian, Mandarin, Polish, Romanian, Somali, Spanish, Turkish, Urdu, Welsh

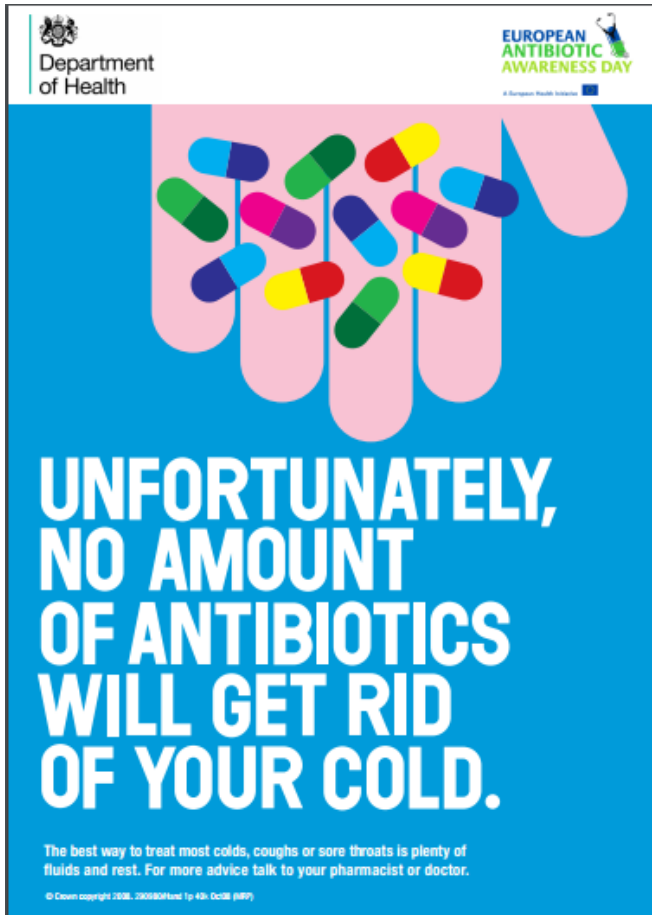
Resource: click below to access the resource

TARGET: Leaflets to Share with Patients

Resource: click below to access the resource

e-Bug: Managing Your Infection

Why not spread the word by displaying these posters and sending them to your networks?



Available in:

Arabic, Bengali, Simplified Chinese, Hindi, Polish, Portuguese, Punjabi, Slovak, Somali, Urdu

Resource: click below to access the resource

Get Well Soon Without Antibiotics

No Amount of Antibiotics

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EUROPEAN ANTIBIOTIC AWARENESS DAY

A European Health Initiative

HANDLE ANTIBIOTICS WITH CARE

ANTIBIOTIC GUARDIAN

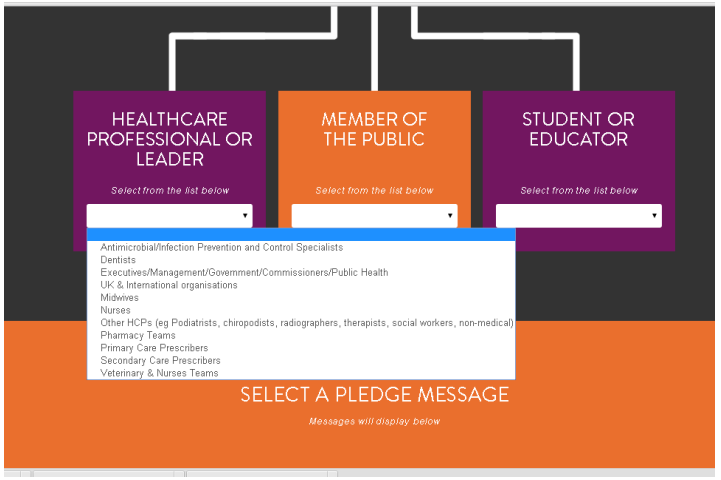
UK SUPPORT FOR EUROPEAN ANTIBIOTIC AWARENESS DAY

Antibiotic Guardian campaign

Have you signed up to become an Antibiotic Guardian?

The campaign calls on everyone in the UK to become Antibiotic Guardians by simply choosing a pledge. Evaluation of the campaign has shown that it is effective for changing behaviour and increasing knowledge (self reported)

How many people can you sign up to become an Antibiotic Guardian?



Resource: click below to access the resource

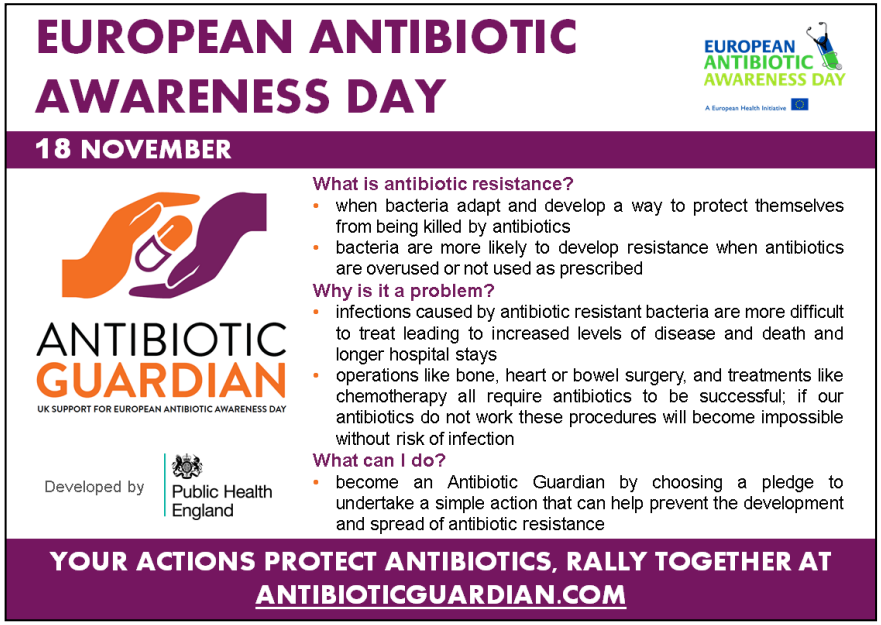
Antibiotic Guardian





Once you have printed out your Antibiotic Guardian certificate after signing up, you can print it and display it in a place of your choice

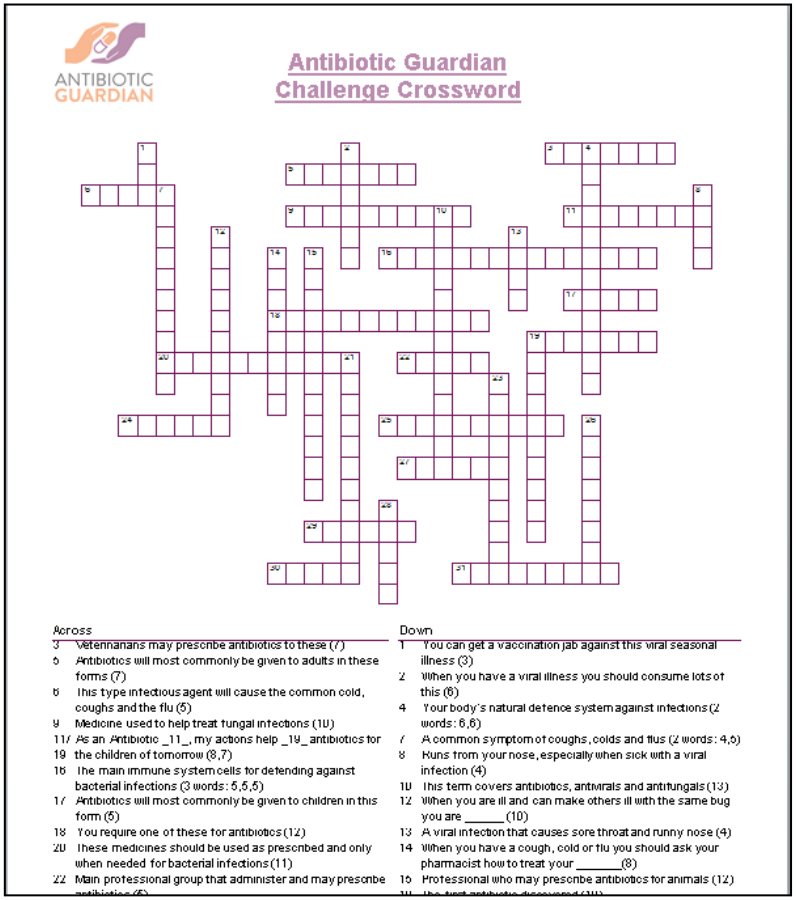
You can also display posters at your workplace or in the community to promote the campaign



Resource: click below to access the resource

Antibiotic Awareness Resources: Posters and Leaflets

You can test your antibiotics knowledge by completing a crossword or a quiz



ANTIBIOTIC GUARDIAN

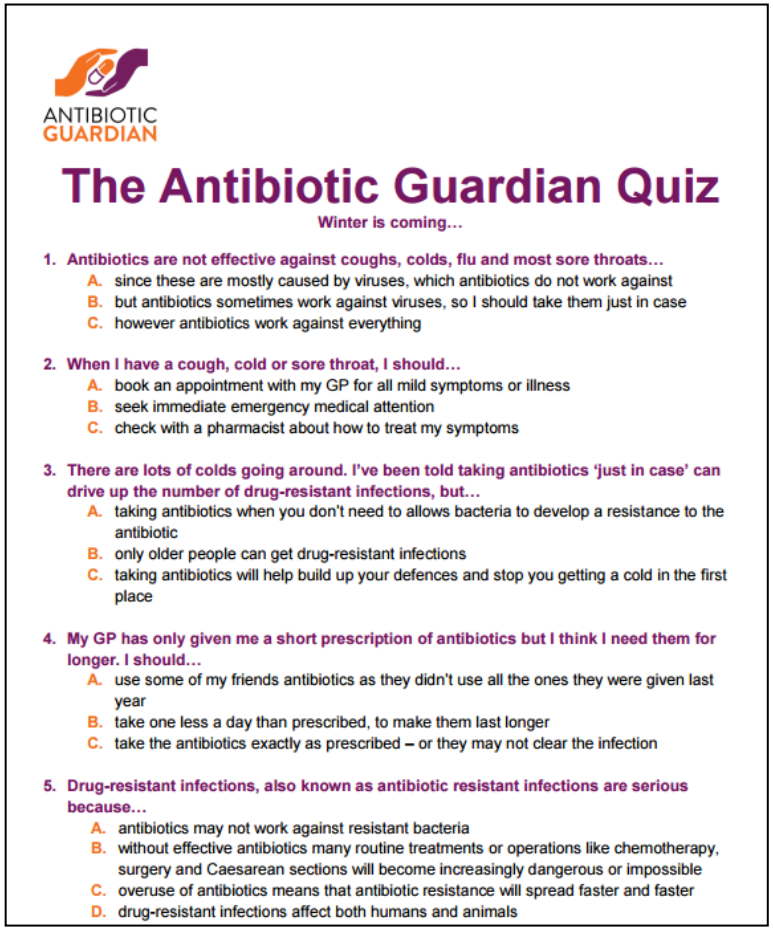
Antibiotic Guardian Challenge Crossword

Across

3 Veterinarians may prescribe antibiotics to these (7)
5 Antibiotics will most commonly be given to adults in these forms (7)
6 This type infectious agent will cause the common cold, coughs and the flu (5)
9 Medicine used to help treat fungal infections (10)
11 As an Antibiotic _11_, my actions help _19_ antibiotics for
19 the children of tomorrow (8,7)
16 The main immune system cells for defending against bacterial infections (3 words: 5,5,5)
17 Antibiotics will most commonly be given to children in this form (5)
18 You require one of these for antibiotics (12)
20 These medicines should be used as prescribed and only when needed for bacterial infections (11)
22 Main professional group that administer and may prescribe

Down

1 You can get a vaccination jab against this viral seasonal illness (3)
2 When you have a viral illness you should consume lots of this (6)
4 Your body's natural defence system against infections (2 words: 6,6)
7 A common symptom of coughs, colds and flus (2 words: 4,6)
8 Runs from your nose, especially when sick with a viral infection (4)
10 This term covers antibiotics, antivirals and antifungals (13)
12 When you are ill and can make others ill with the same bug you are _____ (10)
13 A viral infection that causes sore throat and runny nose (4)
14 When you have a cough, cold or flu you should ask your pharmacist how to treat your _____(8)
15 Professional who may prescribe antibiotics for animals (12)



ANTIBIOTIC GUARDIAN

The Antibiotic Guardian Quiz

Winter is coming…

1. **Antibiotics are not effective against coughs, colds, flu and most sore throats…**
   - A. since these are mostly caused by viruses, which antibiotics do not work against
   - B. but antibiotics sometimes work against viruses, so I should take them just in case
   - C. however antibiotics work against everything

2. **When I have a cough, cold or sore throat, I should…**
   - A. book an appointment with my GP for all mild symptoms or illness
   - B. seek immediate emergency medical attention
   - C. check with a pharmacist about how to treat my symptoms

3. **There are lots of colds going around. I've been told taking antibiotics 'just in case' can drive up the number of drug-resistant infections, but…**
   - A. taking antibiotics when you don't need to allows bacteria to develop a resistance to the antibiotic
   - B. only older people can get drug-resistant infections
   - C. taking antibiotics will help build up your defences and stop you getting a cold in the first place

4. **My GP has only given me a short prescription of antibiotics but I think I need them for longer. I should…**
   - A. use some of my friends antibiotics as they didn't use all the ones they were given last year
   - B. take one less a day than prescribed, to make them last longer
   - C. take the antibiotics exactly as prescribed – or they may not clear the infection

5. **Drug-resistant infections, also known as antibiotic resistant infections are serious because…**
   - A. antibiotics may not work against resistant bacteria
   - B. without effective antibiotics many routine treatments or operations like chemotherapy, surgery and Caesarean sections will become increasingly dangerous or impossible
   - C. overuse of antibiotics means that antibiotic resistance will spread faster and faster
   - D. drug-resistant infections affect both humans and animals

Resource: click below to access the resource

Antibiotic Awareness Resources: Quizzes and Crosswords

Resources for University Healthcare Students

Healthcare Students – Antibiotic Guardian Champion Badge

Become an Antibiotic Guardian Champion

As part of UK's activities for World Antibiotic Awareness Week (WAAW) (14 – 20 November 2016) and European Antibiotic Awareness Day (18 November) we are inviting healthcare students and pre-registration professionals to become Antibiotic Guardian Champions. Earn your badge by completing the tasks via Open Badge Academy and sharing your evidence. You can add your badge to your LinkedIn account.

We also encourage you to share actively via social media using #AntibioticGuardian

University healthcare and pre-registration students can now earn virtual badges to add to their LinkedIn accounts

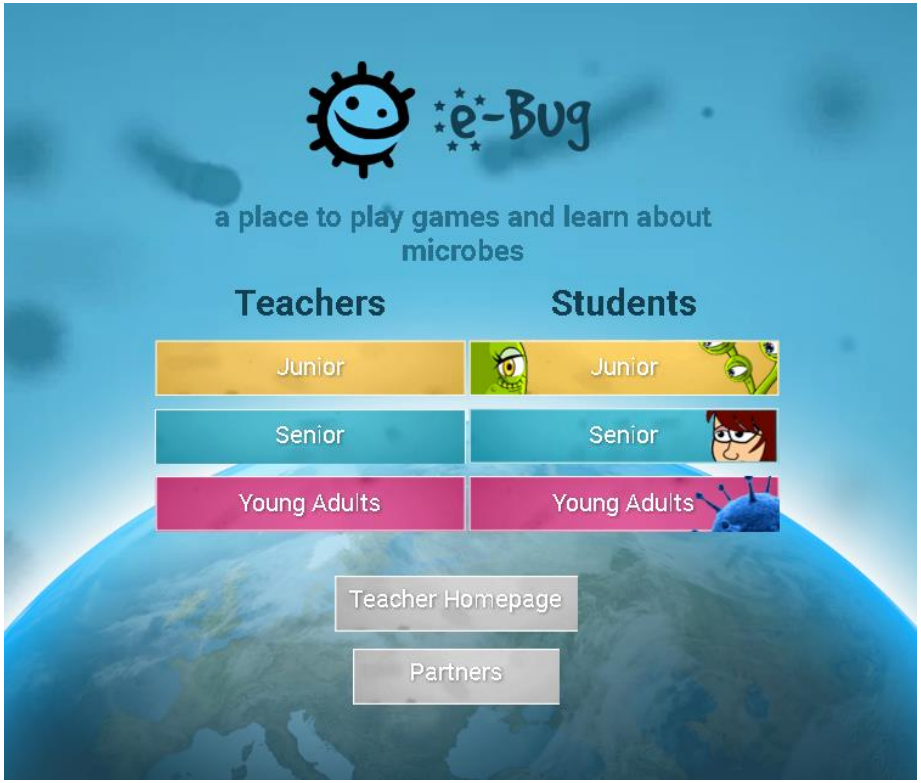
Resource: click below to access the resource

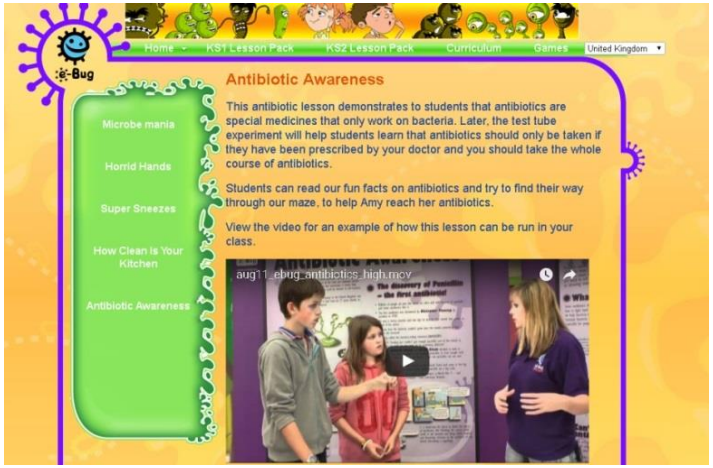
Healthcare Students: Antibiotic Guardian badge

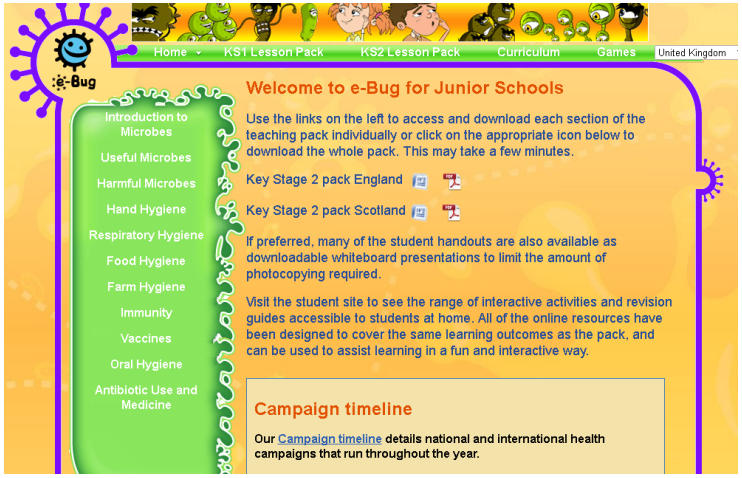
Public Health England

Protecting and improving the nation's health

e-Bug







The e-Bug website contains a number of games and activities that children can complete to improve their knowledge on antibiotics and preventing infections. e-Bug also has resources for teachers to use in classrooms

Resource: click below to access the resource

e-Bug

e-Bug lesson packs

Junior pre and post questionnaires: to give to children before and after teaching them about AMR using the lesson packs

Questionnaire 1 **Student Name:** **First name**..... **Surname**..... **Class** .....

	Tick whether you think each statement is true, false or don't know		**True**	**False**	**Don't Know**
Microbe Mania	All microbes are bad/harmful				
	Bacteria and Viruses are the same thing				
	Bread Mould is a type of microbe				
	All microbes are the same size				
	Microbes only live in dirty places				
Horrid Hands	Washing hands with soap **and** water removes more microbes than water alone				
	Washing hands can prevent the spread of disease				
	Microbes can spread onto your hand by just touching something				
	Washing your hands in cold water is just as good as washing in warm water				
Super Sneezes	All sneezes contain microbes				
	Microbes in a sneeze can travel the length of a bus				
	Catching a sneeze with a tissue will stop the spread of microbes				
	There is no need to wash your hands after sneezing into them because microbes don't live very long outside of the body				
Kitchen Mayhem	There can be harmful microbes on raw food				
	Meat is the only raw food to carry harmful microbes				
	Cooking food quickly is the best way to destroy harmful microbes				
	You only need to clean kitchen surfaces when they look dirty				
	Meat and vegetables should be cut on different chopping boards				
Antibiotics	Antibiotics:	kill bacteria			
		kill viruses			
	The flu is caused by bacteria				
	Most coughs and colds get better without antibiotics				
	Bacteria are becoming resistant to antibiotics				
	You should keep any leftover antibiotics to treat infections in the future				
	Antibiotics also kill our good bacteria				

School.....

Senior pre and post questionnaires: to give to older children before and after teaching them about AMR using the lesson packs

e-Bug
Operated by Public Health England

Forest of Dean District Council

Questionnaire 1

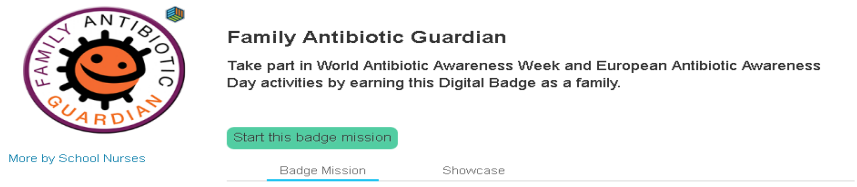
Student name: First name..... Surname.....

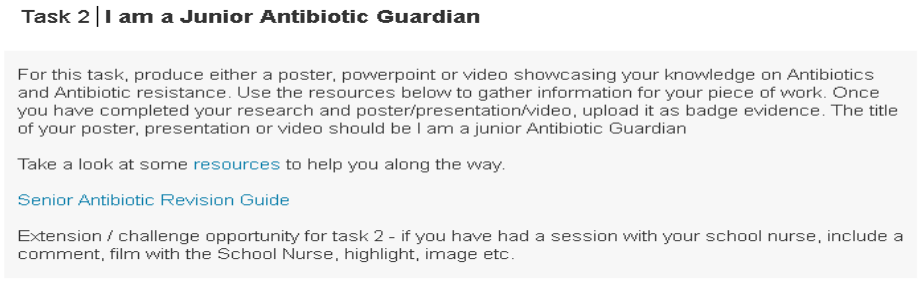
Class.....

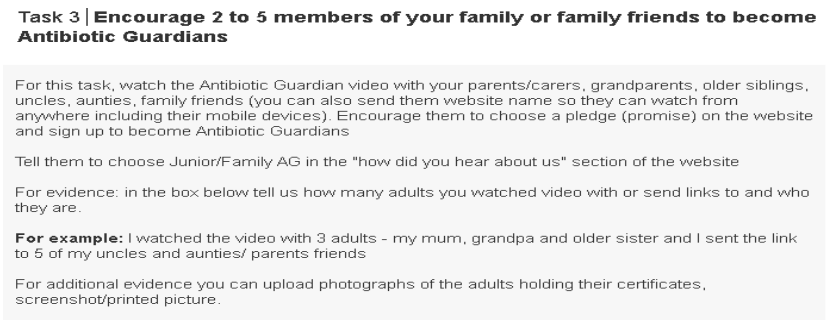
Please tick ONE answer for each question

Microbe Mania	**The smallest microbe is a:**		**Most microbes can be seen:**	
	Bacteria		Only with a microscope	
	Virus		With the naked eye	
	Fungi		With a magnifying glass	
	They are all the same size		Never, they are invisible	
	Microbes:		**Flu is caused by:**	
	Are all bad/harmful		A bacteria	
	Are all useful		A virus	
	Can be useful or harmful		A fungi	
	Have no effect on the human body		None of the above	
Horrid Hands	**The best way to remove microbes is to:**		**You need to wash your hands:**	
	Wash hands with warm water		To get rid of good microbes	
	Wash hands with warm running water		After a bath	
	Wash hands with cold water		Before asking a question in class	
	It doesn't matter which		None of the above	
	We pick up microbes on our hands from:		**Microbes are found:**	
	Objects that we touch		In the air	
	Surfaces that we touch		On our hands	
	Other people		On the floor	
	All of the above		Everywhere	
Super Sneezes	**Sneezes contain:**		**The best way to stop microbes spreading is:**	
	Snot		To use your hand to cover your sneeze	
	Harmful microbes		To use a tissue to cover your sneeze	
	Useful microbes		To take antibiotics	
	All of the above		To drink plenty of fluids	
	Sneezes can travel:		**After we sneeze into our hands, we should:**	
	Only as far as our hands		Wash our hands	
	To the person next to us		Dry our hands on our clothes	
	The length of a bus		Take antibiotics	
	The length of a football field		None of the above is necessary	
Kitchen Mayhem	**Harmful microbes can be found on:**		**Meat and vegetables should be:**	
	Raw meat		Stored on the same shelf in the fridge	
	Raw fish		Cut on different chopping boards	
	Fruit and vegetables		Cut with the same knife	
	All of the above		Stored in a warm cupboard	
	The best way to destroy harmful microbes on food is to:		**Yeast is used to make bread. Yeast is a:**	
	Cook food thoroughly		Bacteria	
	Cook food as quickly as possible		Virus	
	To make sure food is cooked on the outside		Fungi	
	To make sure food is warm before we eat it		None of the above	
Antibiotics	**Antibiotics kill:**		**Bacterial resistance is caused by:**	
	Bacteria		Hospitals	
	Viruses		The overuse of antibiotics	
	Fungi		Alternative medicines	
	All of the above		Vaccinations	
	To treat coughs and colds we should:		**When taking antibiotics you should:**	
	Rest and take fluids		Stop when you feel better	
	Take antibiotics		Save some for the next time you are ill	
	Have the flu vaccination		Take the full course	
	Go to the hospital		Share them with your friends	

Junior and Family Antibiotic Guardian







Junior and Family Antibiotic Guardian have been developed by PHE in collaboration with Makewaves, for children, young adults and their families/carers to complete tasks and earn badges.

Resource: click below to access the resource

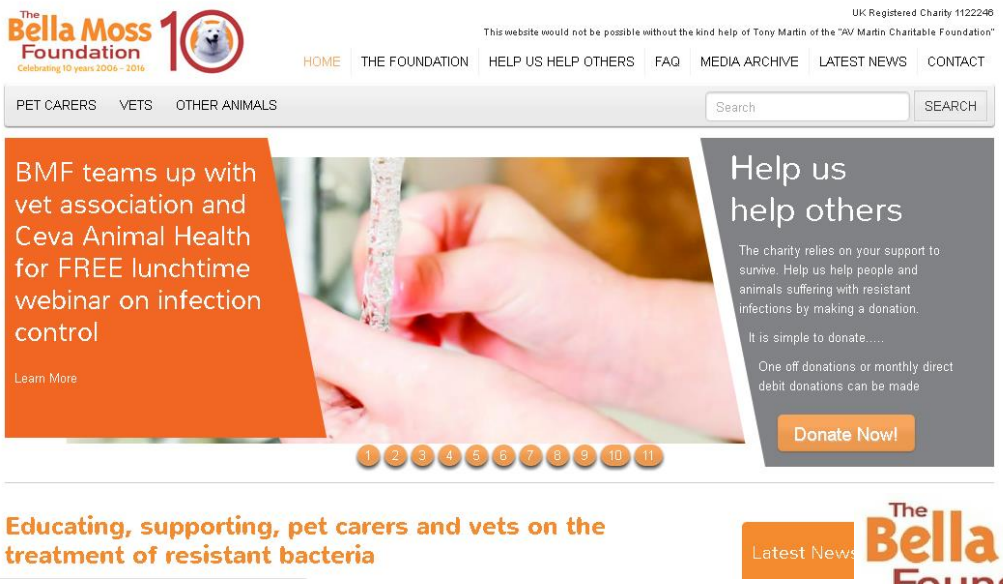
Junior and Family Antibiotic Guardian

Public Health England

Protecting and improving the nation's health

Resources for animal keepers

The Bella Moss Foundation



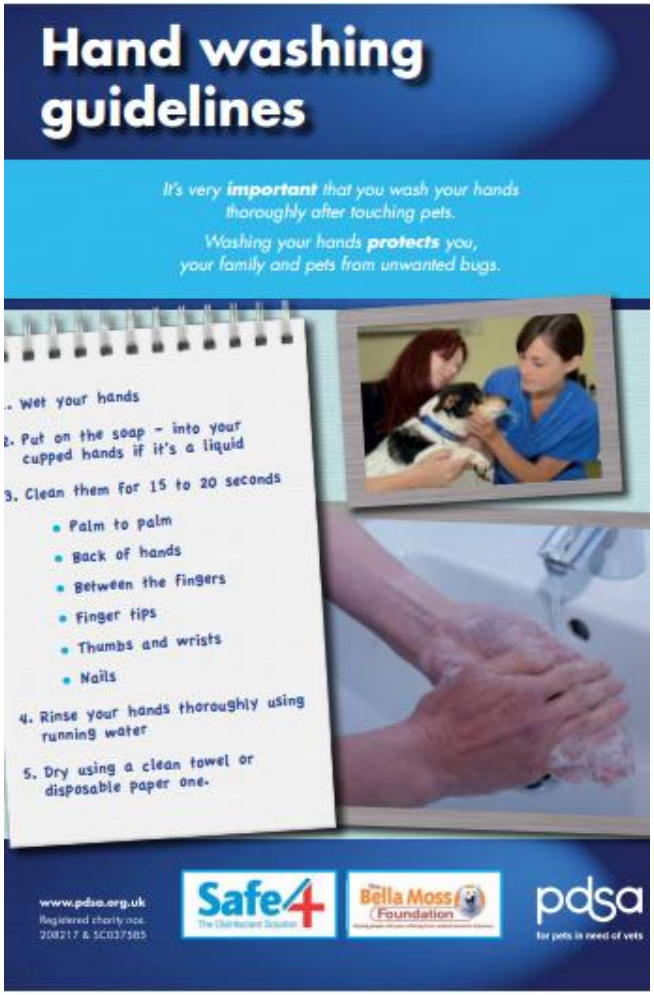
The Bella Moss Foundation provides an advice helpline for owners and clinicians, as well as educational resources for the public, including quizzes, hygiene tips and a new #BeatTheBugs video for families.

Resource: click below to access the resource

Bella Moss Foundation

The Bella Moss Foundation- Survey for pet owners on antibiotic use

Leaflets on antibiotic use in animals



Resource: click below to access the resource

Bella Moss Foundation: Posters and Surveys for Your Practice

Guidance for farmers on antibiotic use in farm animals

Resource: click below to access the resource

British Veterinary Association: Antimicrobials

BVA
British Veterinary Association

Antibiotics – your role as a farmer

BVA client leaflet Number 4 • November 2013

Antibiotics – what are they and why are they important

Antibiotics are drugs used to treat, and in some cases prevent, bacterial infections.

Antibiotics are vital to treat and prevent disease in animals and humans, but the risk that the organism causing the disease will develop resistance to them increases every time they are used.

Antibiotics always need a veterinary prescription

To make sure antibiotics stay effective now and in the future, they must be strictly controlled. Only veterinary surgeons and human doctors are legally allowed to prescribe antibiotics, following an examination and clinical diagnosis.

Wherever possible, your vet will do a sensitivity test to determine which antibiotic will be most successful in treating a particular condition.

Prevention is better than cure – your role as a farmer

As a farmer you can reduce animal disease and the need to use antibiotics to a large extent by good animal husbandry and management and by drawing up an effective health plan with your vet.

A health plan should outline how you will keep animals healthy and provide effective bio-security. Your vet should conduct frequent herd health visits to your farm.

Antibiotics should never replace good husbandry, bio-security and management practices. Prevention is essential for all animals, including companion animals and horses.

Measures taken should always be science- and risk-based

Your vet should put in measures to ensure responsible use of antibiotics are based on scientific evidence and a thorough assessment of the risks they pose. With their knowledge and experience, vets play a pivotal role in developing better solutions to manage antibiotics.

New and critically important antibiotics must be strictly controlled

Vets and farmers have to prevent development of resistance to antibiotics classed as "critically important" or to new antibiotics for as long as possible. Your vet should only prescribe these as a very last resort, following a sensitivity test, and should administer them themselves.

Key points

- Farmers and vets have a responsibility to use antibiotics responsibly – over-the-counter and illegal sales should be prohibited.
- Animal health and human health = One Health. Animal and people's health are closely intertwined and it is important that farmers and vets work together for the common good.
- Speak to your vet today about drawing up a health plan and for any questions you have about antibiotics.

About the BVA

The BVA is the national representative body for the UK veterinary profession. We support our members to fulfil their roles for the benefit of animals and the public.

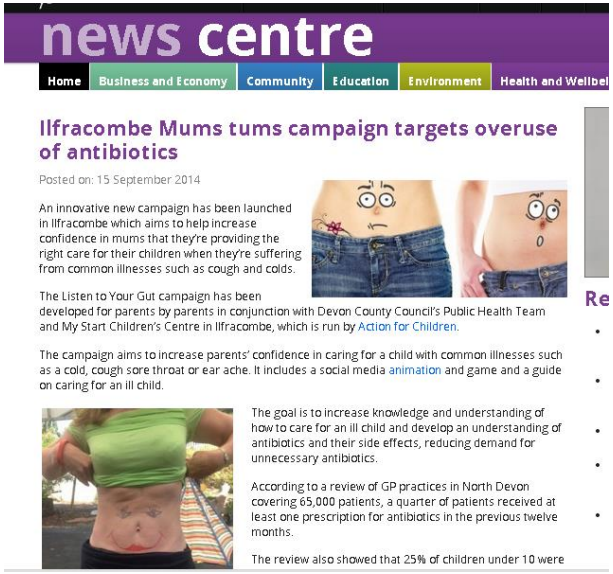
This is one of a series of leaflets for animal owners produced by the BVA, you can find more at **www.bva.co.uk/public**

Public Health England

Protecting and improving the nation's health

Public engagement activities

Examples of public engagement activities to promote AMR


news centre

Home | Business and Economy | Community | Education | Environment | Health and Wellbe

Ilfracombe Mums tums campaign targets overuse of antibiotics

Posted on: 15 September 2014

An innovative new campaign has been launched in Ilfracombe which aims to help increase confidence in mums that they're providing the right care for their children when they're suffering from common illnesses such as cough and colds.

The Listen to Your Gut campaign has been developed for parents by parents in conjunction with Devon County Council's Public Health Team and My Start Children's Centre in Ilfracombe, which is run by Action for Children.

The campaign aims to increase parents' confidence in caring for a child with common illnesses such as a cold, cough sore throat or ear ache. It includes a social media animation and game and a guide on caring for an ill child.

The goal is to increase knowledge and understanding of how to care for an ill child and develop an understanding of antibiotics and their side effects, reducing demand for unnecessary antibiotics.

According to a review of GP practices in North Devon covering 65,000 patients, a quarter of patients received at least one prescription for antibiotics in the previous twelve months.

The review also showed that 25% of children under 10 were

healthwatch Devon

Home | About Us | Be Informed | Be Involved | Speak Out | What the Health!

Healthwatch Devon report on Care.data | Health and care complaints system is 'utterly bewildering' for people

'Antibiotic resistance' – latest topic for award winning Torbay Health Science Café

On March 19, 2014 • Add Comment

Antibiotic resistance is currently one of the most significant threats to patients' safety in Europe and will be the subject of a discussion at Torbay Hospital's next Health Science Café event on Monday 24 March at 6.00pm in the Horizon Centre Café.

At this free public event, Consultant Medical Microbiologist, Dr Paul Turner, and Antimicrobial Pharmacist, Stephanie Thompson will explain their roles at Torbay Hospital, the history of antibiotics and the development of resistance.

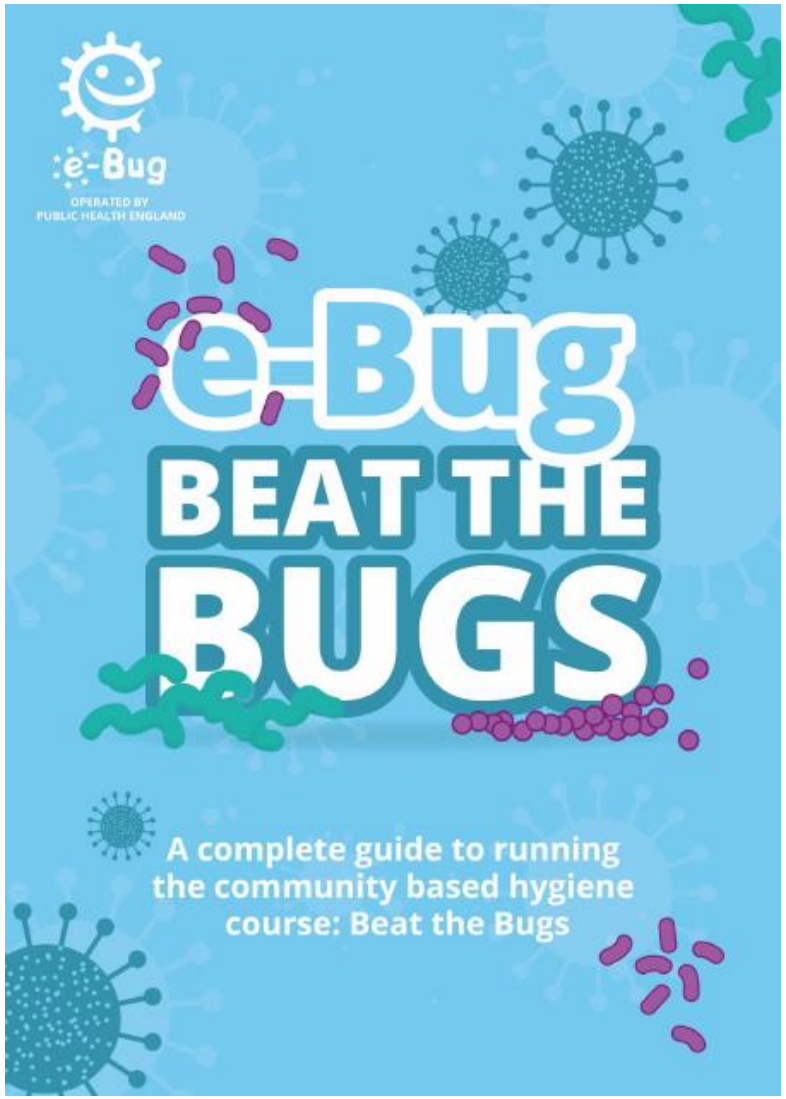
Resource: click below to access the resource

Healthwatch Torbay Science Café

Mums tums campaign targets overuse of antibiotics

Listen to Your Gut video

Beat the Bugs Course



Beat the Bugs is a six week community hygiene course aiming to increase awareness and change behaviour around antibiotic use. The course comprises of six sessions covering an Introduction to Microbes, Hand and Respiratory hygiene, Food hygiene, Oral hygiene, Antibiotics and a final session on self-care and action planning for the future.

Resource: click below to access the resource

E-Bug: Beat the Bugs Course

Public Health England

Protecting and improving the nation's health

Frequently asked questions

FAQs

Q: What is antimicrobial resistance?

Antimicrobial resistance occurs when microorganisms such as bacteria, viruses, fungi and parasites change in ways that render the medications used to cure the infections they cause ineffective. When the microorganisms become resistant to most antimicrobials they are often referred to as “superbugs”. This is a major concern because a resistant infection may kill, can spread to others, and imposes huge costs to individuals and society.

Antimicrobial resistance is the broader term for resistance in different types of microorganisms and encompasses resistance to antibacterial, antiviral, antiparasitic and antifungal drugs.

Antimicrobial resistance is facilitated by the inappropriate use of medicines, for example, when taking substandard doses or not finishing a prescribed course of treatment. Low-quality medicines, wrong prescriptions and poor infection prevention and control also encourage the development and spread of drug resistance. Lack of government commitment to address these issues, poor surveillance and a diminishing arsenal of tools to diagnose, treat and prevent also hinder the control of antimicrobial drug resistance.[1]

Q: What is the difference between antibiotic and antimicrobial resistance?

Antibiotic resistance occurs when bacteria change in response to the use of antibiotics used to treat bacterial infections (such as urinary tract infections, pneumonia, bloodstream infections) making them ineffective.

Antimicrobial resistance is a broader term, encompassing resistance to drugs that treat infections caused by other microbes as well, such as parasites (e.g. malaria or helminths), viruses (e.g. HIV) and fungi (e.g. Candida)[1].

Reference: click below to access the resource

1. http://www.who.int/features/qa/75/en/

Q: What is fuelling antibiotic resistance?

A third of the public believe that antibiotics will treat coughs and colds. 1 in 5 people expect antibiotics when they visit their doctor. GPs commonly express concerns that they feel pressurised by patients asking for antibiotics. For example, people asking on behalf of a child to treat infections that don't respond to the drugs.

Antibiotic prescribing and antibiotic resistance are inextricably linked. Areas with high levels of antibiotic prescribing also have high levels of resistance[2].

Q: Why is antimicrobial resistance a global concern?

New resistance mechanisms are emerging and spreading globally, threatening our ability to treat common infectious diseases, resulting in prolonged illness, disability, and death.

Without effective antimicrobials for prevention and treatment of infections, medical procedures such as organ transplantation, cancer chemotherapy, diabetes management and major surgery (for example, caesarean sections or hip replacements) become very high risk.

Antimicrobial resistance increases the cost of health care with lengthier stays in hospitals and more intensive care required.

Antimicrobial resistance is putting the gains of the Millennium Development Goals at risk and endangers achievement of the Sustainable Development Goals[3].

References: click below to access the resource

2. http://www.who.int/features/qa/75/en/

3. http://www.who.int/mediacentre/factsheets/fs194/en/

Q: Who is prescribing?

- 74% General practice
- 11% Hospital inpatients
- 7% Hospital outpatients
- 5% Dental practices
- 3% Other community settings[4]

Q: Does stopping a course of antibiotics early lead to antibiotic resistance?

There has been a lot of research into how long antibiotic courses should be, to determine the shortest possible length of course needed to completely kill all bacteria.

If you are being treated for an infection, the kind of antibiotics your doctor prescribes and the length of the course should be based on the best evidence.

If you stop treatment early, there is a risk the antibiotics won't have killed all the bacteria that made you sick and that it will mutate and become resistant. This will not happen to everyone – the problem is that we don't know who can safely stop treatment early.

By taking the full course prescribed by your doctor, even if you start to feel better earlier, you increase the chances of killing all of the bacteria and reduce the risk of resistance[5].

References: click below to access the resource

4. https://www.gov.uk/government/publications/health-matters-antimicrobial-resistance/health-matters-antimicrobial-resistance

5. http://www.who.int/features/qa/stopping-antibiotic-treatment/en/

Q: Why do we need to act now?

Antibiotics are a vital tool for modern medicine. Not only for the treatment of infections such as pneumonia, meningitis and tuberculosis. We also need them to avoid infections during chemotherapy, caesarean sections and other surgery.

A failure to address the problem of antibiotic resistance could result in:

- an estimated 10 million deaths every year globally by 2050
- a cost of £66 trillion in lost productivity to the global economy

Global concern about antibiotic resistance is compounded by the fact that the discovery of new classes of antibiotics is at an all-time low. It has been 30 years since a new class of antibiotics was last introduced.

Only 3 of the 41 antibiotics in development have the potential to act against the majority of the most resistant bacteria[4].

References: click below to access the resource

4. https://www.gov.uk/government/publications/health-matters-antimicrobial-resistance/health-matters-antimicrobial-resistance

Social Media Support

You may wish to use the attached key messages document to create your own social media posts, or you could simply use the messages below (preferably regularly) from now until European Antibiotic Awareness Day in November:

1. #Antibiotic resistance is one of the biggest threats facing us today. You can help by becoming an **#AntibioticGuardian** http://bit.ly/ABGuardian

2. What is #antibiotic resistance and why is it a problem? Please help us fight back **#AntibioticGuardian** http://youtu.be/7PhmyNBWGik

3. We're supporting the **#AntibioticGuardian** campaign to save some of our most precious medicines. Sign up here: http://bit.ly/ABGuardian

4. Patients, the public, health profs/leaders can all sign up to become an **#AntibioticGuardian** and save our antibiotics http://bit.ly/ABGuardian

5. Help save our #antibiotics: Watch this video http://youtu.be/7PhmyNBWGik then sign up to be an **#AntibioticGuardian** http://bit.ly/ABGuardian

6. Take a photo with your Antibiotic Guardian certificate and upload it to Facebook/Twitter/Instagram using **#AntibioticGuardian**

What else can I do?

Take photos of e-Bug activities and share on social media. Twitter: @ **eBug_UK** Facebook: **@eBugEngland**

There are a range of blog posts on Antimicrobial resistance that can be shared with others or used to develop own materials, training or blog. https://publichealthmatters.blog.gov.uk/category/priority3/antimicrobial-resistance/

This toolkit was developed by Aliya Rajah, chair of the AMR Public Involvement Forum in collaboration with:

Diane Ashiru-Oredope Karen Shaw Vicki Young	Public Health England	https://www.gov.uk/government/organisations/public-health-england
Isabel Boyer	Former ARHAI lay member	
Jane Binyon (lay member)	ARHAI lay member	
Fran Husson	ESPAUR lay member	
Samir Jeraj	Race Equality Foundation	http://www.raceequalityfoundation.org.uk/
Sally Bloomfield Lisa Ackerley	International Scientific Forum on Home Hygiene	https://www.ifh-homehygiene.org/
Elaine Pendlebury	Bella Moss Foundation	http://www.thebellamossfoundation.com/
Grace O'Gorman	National Office of Animal Health (NOAH)	http://www.noah.co.uk/
Tessa Jelen	Breathe Easy	https://www.blf.org.uk/support-for-you/breathe-easy
Bev Taylor	National Association for Voluntary and Community Action (NAVCA)	https://www.navca.org.uk/
Fay Sandler	Healthwatch Central West London	http://healthwatchcwl.co.uk/
Rodie Garland	FaithAction	http://www.faithaction.net/
Magna Aidoo	Healthwatch Bromley and Lewisham	http://www.healthwatchlewisham.co.uk/