BECOME AN ANTIBIOTIC GUARDIAN

Keep Antibiotics Working

health
Department:
Health
REPUBLIC OF SOUTH AFRICA

fidssa
federation of infectious diseases societies of southern africa

SAASP
SOUTH AFRICAN ANTIBIOTIC STEWARDSHIP PROGRAMME

hcsmSA

BECOME AN ANTIBIOTIC GUARDIAN

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

Join us at

antibioticguardian.com/south-africa

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ANTIBIOTIC GUARDIAN SOUTH AFRICA

The South African Antibiotic Stewardship Programme (SAASP) supported by the Federation of Infectious Diseases Societies of Southern Africa (FIDSSA), is coordinating Antibiotic Awareness activities in South Africa in collaboration with the National Department of Health, Department of Agriculture, Forestry and Fisheries and other professional organisations.

Antibiotic Guardian supports the South African National Department of Health's Antimicrobial Resistance Strategy (2014-2024) and World Antibiotic Awareness Week (#WAAW).

Take the pledge to protect yourself, your family, friends, colleagues, patients and your animals against the spread of antibiotic resistance on antibioticguardian.com/south-africa

#AntibioticGuardian
#ProtectAntibioticsZA

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ANTIBIOTIC RESISTANCE BY THE NUMBERS IN SOUTH AFRICA

In South African patients with bloodstream infections (septicaemia) in 2017[1] caused by:

- *Escherichia coli*
  1 in 4 were MDR (ESBL+)
- *Pseudomonas aeruginosa*
  1 in 4 were MDR (carbapenem-R)
- *Staphylococcus aureus*
  1 in 4 were MDR (MRSA+)
- *Klebsiella pneumoniae*
  1 in 12 were XDR (carbapemem-R)

MDR	Multi-drug resistant (resistant to > than 3 antibiotic classes)
XDR	Extensive-drug resistant (resistant to all antibiotic classes except 1)
ESBL	Extended-spectrum beta-lactamase
R	Resistant
MRSA	Methicillin-resistant Staphylococcus aureus

In 2017 in South African patients with[1]:

- Typhoid fever (gastroenteritis) caused by *Salmonella typhi*[1]
  1 in 7 were ciprofloxacin resistant
- Sexually transmitted infections caused by *Neisseria gonorrhoeae*
  3 out 4 were ciprofloxacin resistant

Remember! Resistance does not mean that your body is resistant to antibiotics, it means the bacteria have mutated and antibiotics are not working anymore.

10 million people could die every year, by 2050, due to drug resistant infections.

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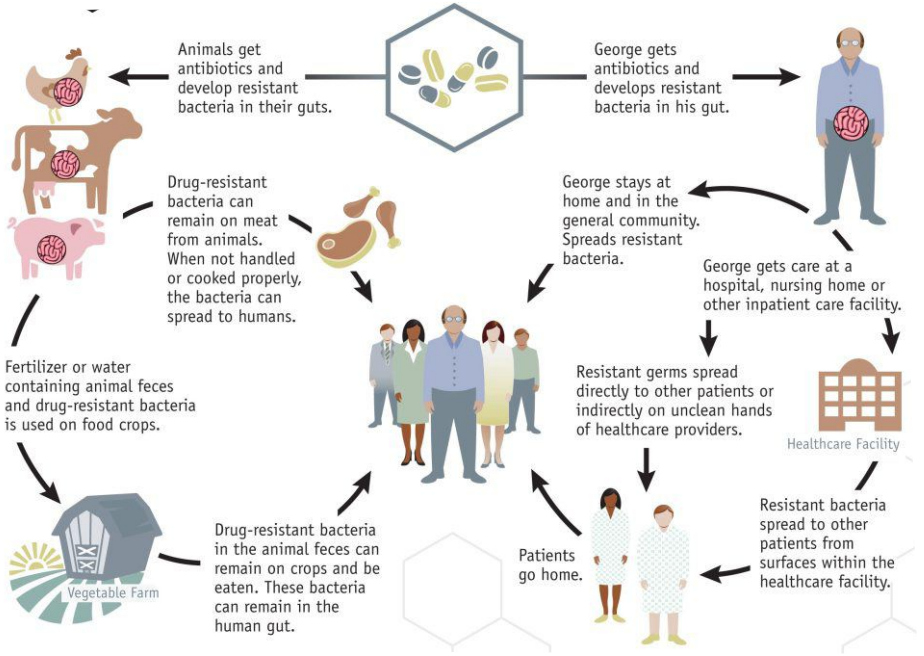
ONE HEALTH AND ANTIBIOTIC RESISTANCE IN SOUTH AFRICA

The One Health Triad illustrating the multi-sectoral determinants of Antibiotic Resistance

Examples of how Antibiotic Resistance spreads between the environment, animals and humans



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In South Africa:
Farm animals with enteritis due to Escherichia coli [2]
In calves -10% are MDR
In lambs -4% are MDR
In piglets -13% are MDR
Cattle with pneumonia due to Pasteurella multocida[3]
40% are tetracycline resistant
Horses infected with Streptococci[4]
50% are enrofloxacin resistant
Dogs with chronic otitis externa due to Pseudomonas aeruginosa[3]
95% are MDR

References:
[1]For detailed surveillance data please refer to National Institute for Communicable Diseases a division of the NHLS www.nicd.ac.za; GERMS reports 2015- 2017
[2]https://www.ruvasa.co.za/
[3]https://www.vetdiagnostix.com
[4]Chipangura et al. Preventive Veterinary Medicine 2017; 148:37–43
Image Credit: World Health Organisation

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WHAT IS **ANTIBIOTIC** RESISTANCE?

The problem

Antibiotics, antifungals, antimalarial, anti-retrovirals (collectively termed antimicrobials) treat infections by killing bacteria, fungi, parasites and viruses (respectively), but now we have an increasing number of these microbes that are able to resist the effects of these antimicrobials. This is called Antimicrobial Resistance. Infections caused by such microbes are termed drug resistant infections. Antimicrobials, especially antibiotics, are becoming less effective. This can lead to more deaths and more complications for people and animals receiving treatment. We have to tackle this problem before it gets worse.

How this happened

There are many reasons why antibiotics lose their effectiveness, but misuse is one of the key contributors, and applies to animals as well:

Misuse of antibiotics can include any of the following:

- When antibiotics are prescribed/taken unnecessarily
- When broad-spectrum antibiotics are used unnecessarily or when narrow-spectrum antibiotics are used incorrectly
- When the dose of antibiotics is lower or higher than appropriate for the specific patient
- When the duration of antibiotic treatment is too short or too long
- When antibiotic treatment is not guided by microbiological culture data results

What can we do?

Antibiotic resistance is one of the biggest threats facing us today but you can help. Please visit www.antibioticguardian.com/south-africa/ and found out about the simple steps you can take to save our antibiotics.

A WORLD WITHOUT **ANTIBIOTICS**

Pre-antibiotic age

In a world before antibiotics, which was as recently as the 1930s, people often died from infections like pneumonia or meningitis. Simple medical procedures and operations were risky due to the chance of infection. Antibiotics changed that.

Antibiotic age

Since the 1940s, our antibiotics have allowed us to fight infections and save millions of lives. However, they are becoming ineffective against many infections because we aren't using them properly.

Post-antibiotic age

If bacteria become 'resistant' to our antibiotics, many routine treatments will again become increasingly dangerous. Setting broken bones, basic operations, even chemotherapy all rely on access to antibiotics that work. The same applies to animals – both companion and farm. Antibiotic resistance is one of the biggest threats facing us today but we have a chance to fight back. Find out how at www.antibioticguardian.com/south-africa/

ANTIBIOTIC RESISTANCE WHAT CAN I DO?

Be an Antibiotic Guardian

Antibiotics are some of our most precious medicines used to treat both humans and animals. The Antibiotic Guardian campaign was launched to kick-start collective action from both health and social care professionals, students, educators in the human and animal health sector as well as members of the public and farmers to work together to slow the spread of antibiotic resistance. By pledging to become an Antibiotic Guardian, you choose to perform a simple action which protects antibiotics against the threat of antibiotic resistance.

It is important that the public and farmers are made aware that taking antibiotics when they don't need them puts them and their family or animals at risk of developing infections which cannot be easily treated with antibiotics.

Advise patients and the public to take these simple actions to keep antibiotics working:

- Ask their pharmacist to recommend medicines to help treat cold or ?u symptoms or pain
- Take antibiotics exactly as prescribed, never save them for later, never share them with others
- Make sure your and your children's vaccinations are up to date
- To spread the word, tell their friends and family about antibiotic resistance

Sign up and learn more

Join the movement at
www.antibioticguardian.com/south-africa/
and choose a pledge that feels right for you to become an Antibiotic Guardian. Remember that your actions protect antibiotics.

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Public Health England

Public Health England (PHE) established the Antibiotic Guardian campaign in 2014 to help protect antibiotics and improve knowledge about Antibiotic Resistance. Antibiotic Guardian for South Africa has been developed as a collaboration between the National Department of Health, the Ministerial Advisory Committee on Antimicrobial Resistance and PHE.

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