

Interaction of regulatory authorities (Ministries of Health) with those responsible for animal health

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OUTLINE



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2. The instruments
3. The actions

WHO'S GLOBAL ACTION PLAN ON AMR

1. Improve awareness and understanding of AMR through education and training
2. Strengthen knowledge and evidence base through surveillance and research
3. Reduce the incidence of infection through effective hygiene and IPC measures
4. Optimize the use of antimicrobial medicines in human and animal health
5. Ensure sustainable investment through research and development

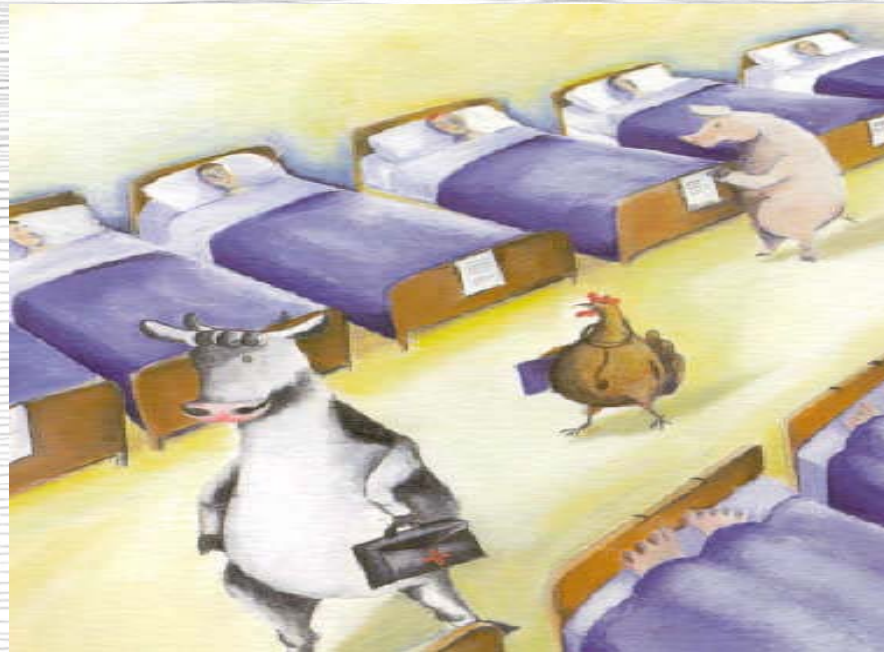


Resolution WHA 68.7 (26th May 2015) and GAP

- Recognizing that the main impact of antimicrobial resistance is on human health, but that both the contributing factors and the consequences, including economic and others, go beyond health, and that there is a need for a coherent, comprehensive and integrated approach at global, regional and national levels, in a “One Health” approach and beyond, involving different actors and sectors such as human and veterinary medicine, agriculture, finance, environment and consumers;
- Regulation of the use of antimicrobial agents is inadequate or poorly enforced in many areas, such as over-the-counter and Internet sales. Related weaknesses that contribute to development of antimicrobial resistance include poor patient and health care provider compliance, the prevalence of substandard medicines for both human and veterinary use, and inappropriate or unregulated use of antimicrobial agents in agriculture.

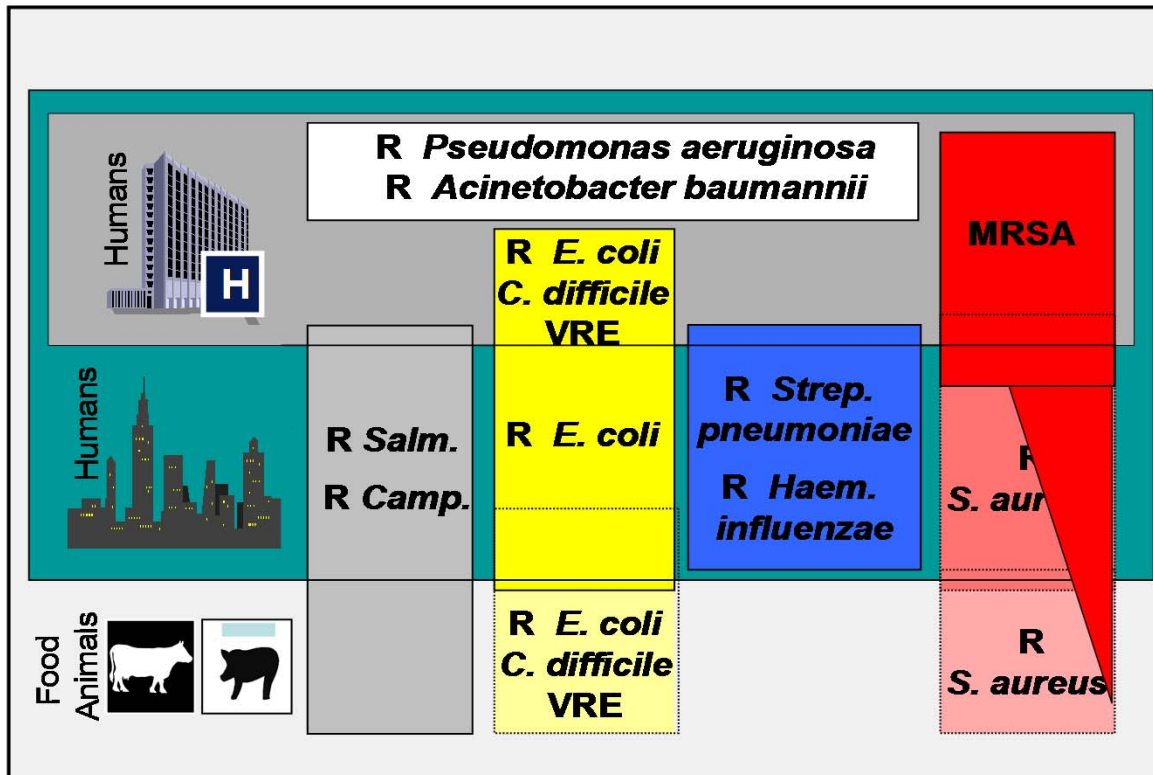
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Why the interaction is necessary ?



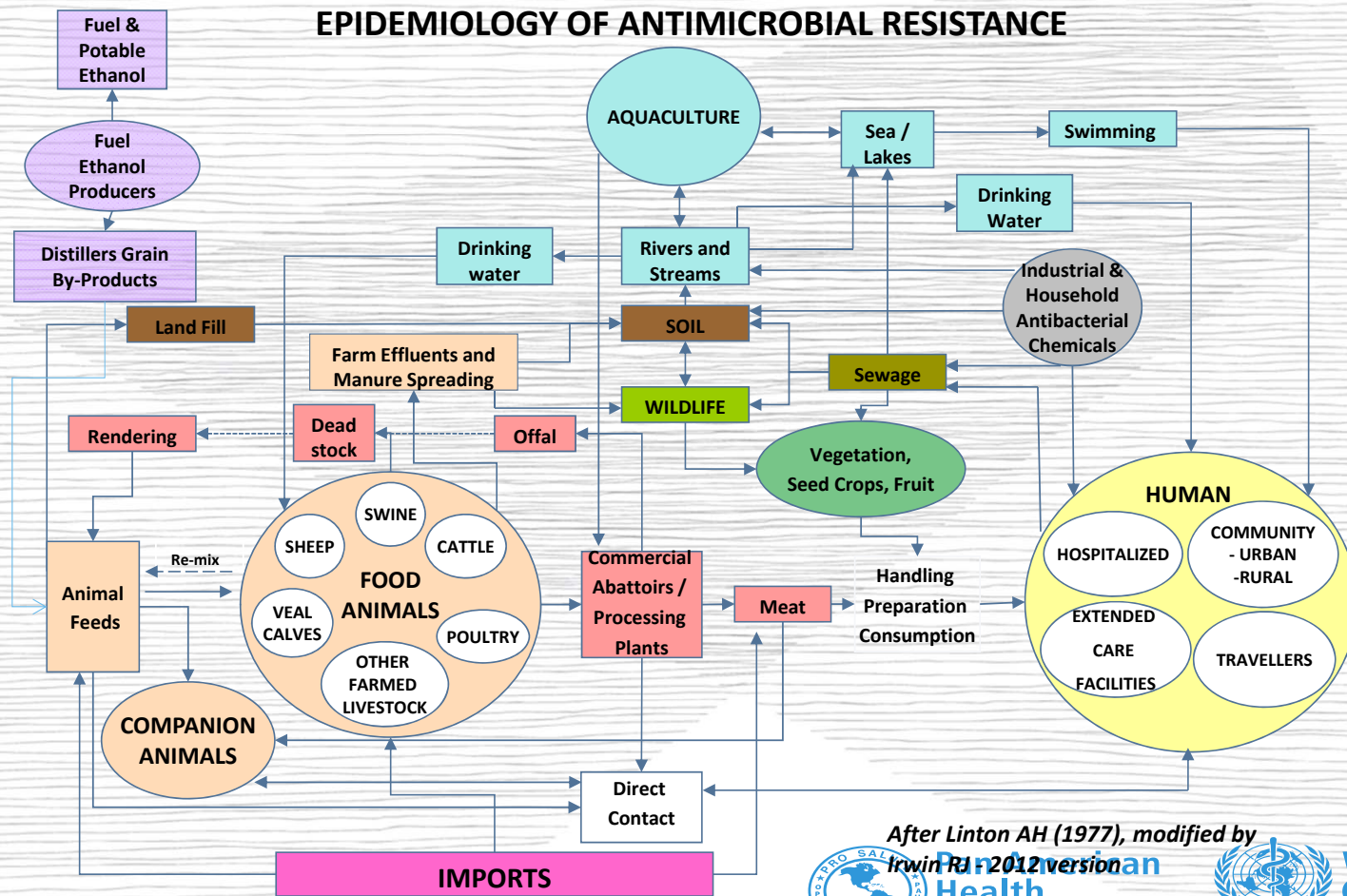
THE WORLD OF ANTIMICROBIAL RESISTANCE HABITAT

The World (of Antimicrobial Resistance) According to...
Human Bacterial Pathogens and Their Habitat

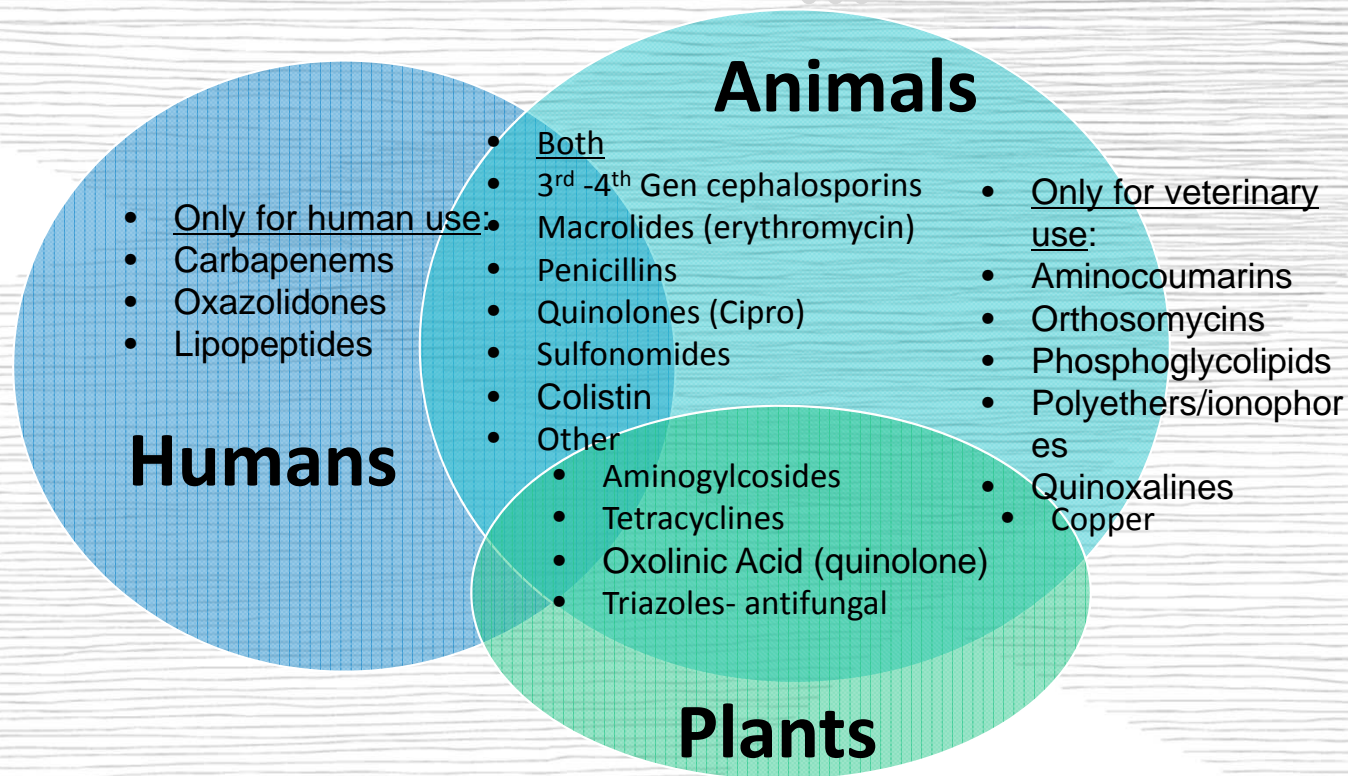


THE FLOW OF ANTIBIOTIC-RESISTANT BACTERIA

EPIDEMIOLOGY OF ANTIMICROBIAL RESISTANCE

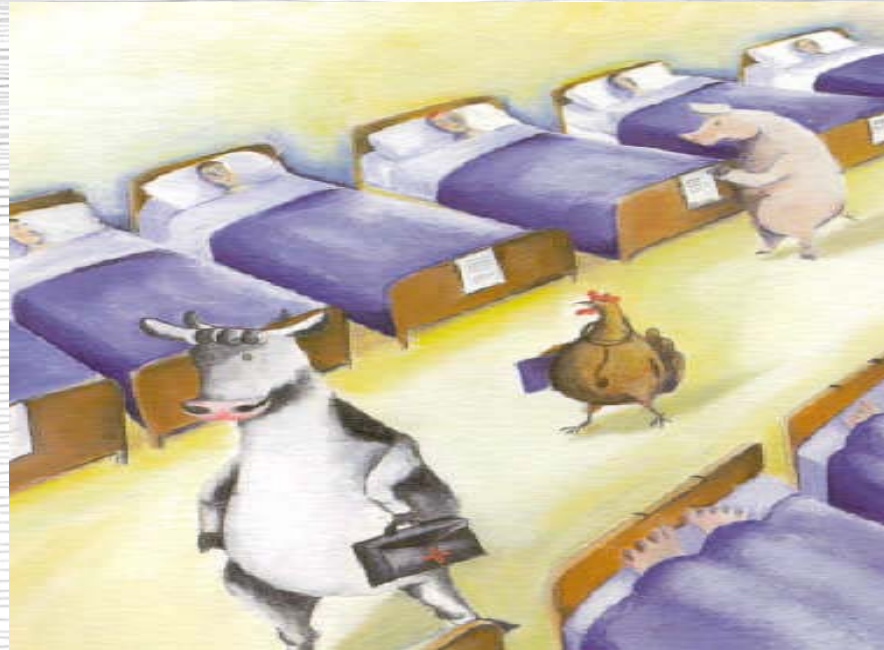


ANTIMICROBIALS USED IN HUMANS, ANIMALS AND PLANTS



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The instruments



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ADDRESSING AMR THROUGH INTEGRATED SURVEILLANCE : AGISAR

1. WHO Advisory Group on Integrated Surveillance of Antimicrobial Resistance
2. Established in December 2008
3. Provides expert advice to WHO on
 1. Containing food-related antimicrobial resistance
 2. Promoting integrated surveillance of antimicrobial resistance and antimicrobial usage



Physicians
Microbiologists
Veterinarians
Epidemiologists
Participants from all 6 WHO regions
Representatives from FAO, OIE, ECDC,
EFSA

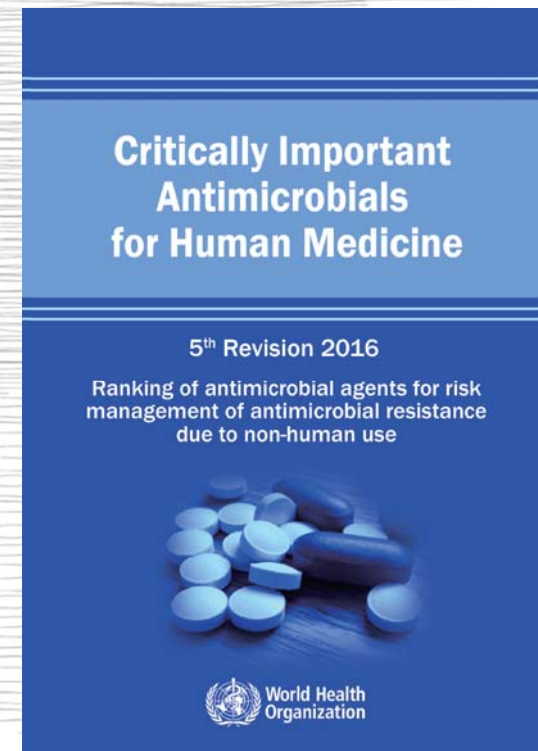
Integrated surveillance of antimicrobial resistance



- Integrated surveillance of antimicrobial resistance in foodborne bacteria is defined as the collection, validation, analyses and reporting of relevant microbiological and epidemiological data on antimicrobial resistance in foodborne bacteria from humans, animals, and food, and on relevant antimicrobial use in humans and animals.

THE WHO LIST OF CRITICALLY IMPORTANT ANTIMICROBIALS

- Ranking of antimicrobials according to their importance in human medicine
- For risk management and containment of antimicrobial resistance in the context of non-human antimicrobial use
- First developed by WHO in 2005
- Updated on regular basis (2007, 2009, 2013, and 2016)



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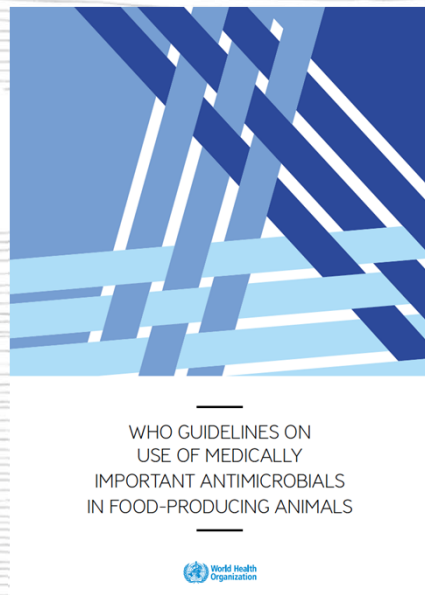
Antimicrobial class	Criterion (Yes= ✓)				
CRITICALLY IMPORTANT ANTIMICROBIALS	C1	C2	P1	P2	P3
HIGHEST PRIORITY					
Cephalosporins (3 rd , 4 th and 5 th generation)	✓	✓	✓	✓	✓
Glycopeptides	✓	✓	✓	✓	✓
Macrolides and ketolides	✓	✓	✓	✓	✓
Polymyxins	✓	✓	✓	✓	✓
Quinolones	✓	✓	✓	✓	✓
HIGH PRIORITY					
Aminoglycosides	✓	✓		✓	✓
Ansamycins	✓	✓	✓	✓	
Carbapenems and other penems	✓	✓	✓	✓	
Glycylcyclines	✓	✓	✓		
Lipopeptides	✓	✓	✓		
Monobactams	✓	✓	✓		
Oxazolidinones	✓	✓	✓		
Penicillins (natural, aminopenicillins, and antipseudomonal)	✓	✓		✓	✓
Phosphonic acid derivatives	✓	✓	✓	✓	
Drugs used solely to treat tuberculosis or other mycobacterial diseases	✓	✓	✓	✓	

Antimicrobial class	Criterion (Yes= ✓)				
HIGHLY IMPORTANT ANTIMICROBIALS	C1	C2	P1	P2	P3
Amidinopenicillins		✓			
Amphenicols		✓			
Cephalosporins (1 st and 2 nd generation) and cephamycins		✓			
Lincosamides		✓			
Penicillins (anti-staphylococcal)		✓			
Pseudomonic acids		✓			
Riminofenazines	✓				
Steroid antibacterials		✓			
Streptogramins		✓			
Sulfonamides, dihydrofolate reductase inhibitors and combinations		✓			
Sulfones	✓				
Tetracyclines	✓				
IMPORTANT ANTIMICROBIALS					
Aminocyclitols					
Cyclic polypeptides					
Nitrofurantoin					
Nitroimidazoles					

Note: Does not include non-medically important antimicrobials (e.g. ionophores, phosphoglycolipids).

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WHO GUIDELINES ON USE OF MEDICALLY IMPORTANT ANTIMICROBIALS IN FOOD-PRODUCING ANIMALS



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- Aim to preserve the effectiveness of medically important antimicrobials, particularly those critically important to human medicine
- Public health focus, but due consideration given to factors such as animal health and welfare
- Evidence-based: systematics reviews, literature reviews, GRADE approach, an independent multidisciplinary group of experts, external peer review

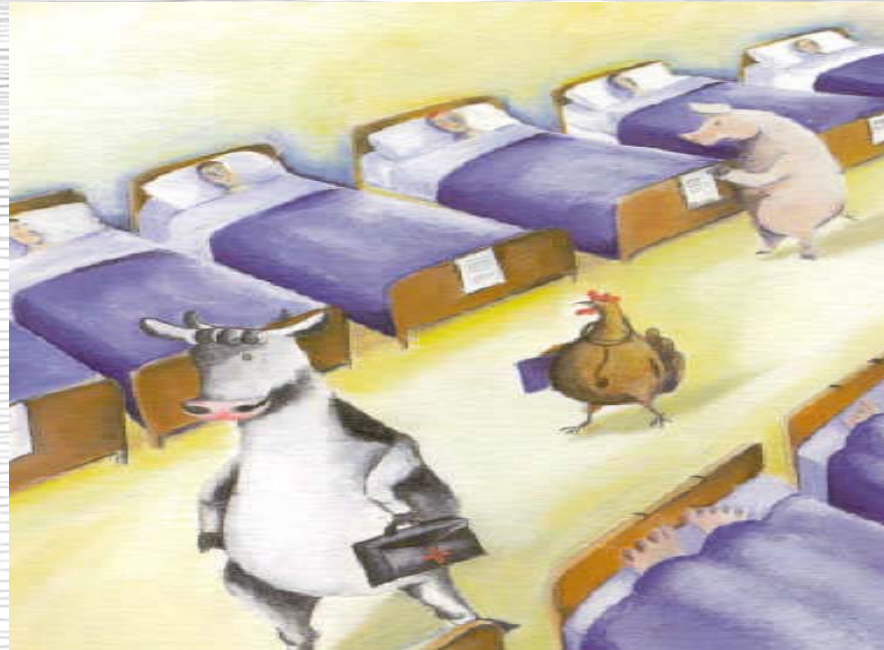
<http://apps.who.int/iris/bitstream/10665/258970/1/9789241550130-eng.pdf?ua=1>

WHO CIA LIST AND GUIDELINES RECOMMENDATIONS

		Overall use	Growth promotion	Prevention		Treatment
				a) Absence of disease (prophylaxis)	b) Presence of disease (e.g. some animals in a group are sick)	Clinical infection
Medically important antimicrobials	Critically important	We recommend an overall reduction in use of all classes of medically important antimicrobials in food-producing animals.	We recommend complete restriction of use of all classes of medically important antimicrobials in food-producing animals for growth promotion.	We recommend complete restriction of use of all classes of medically important antimicrobials in food-producing animals for prevention of infectious diseases that have not yet been clinically diagnosed.	Recom. 4a	Recom. 4b
	Highly important			Responsible and prudent use		
	Important					

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The actions



Some examples of possible actions



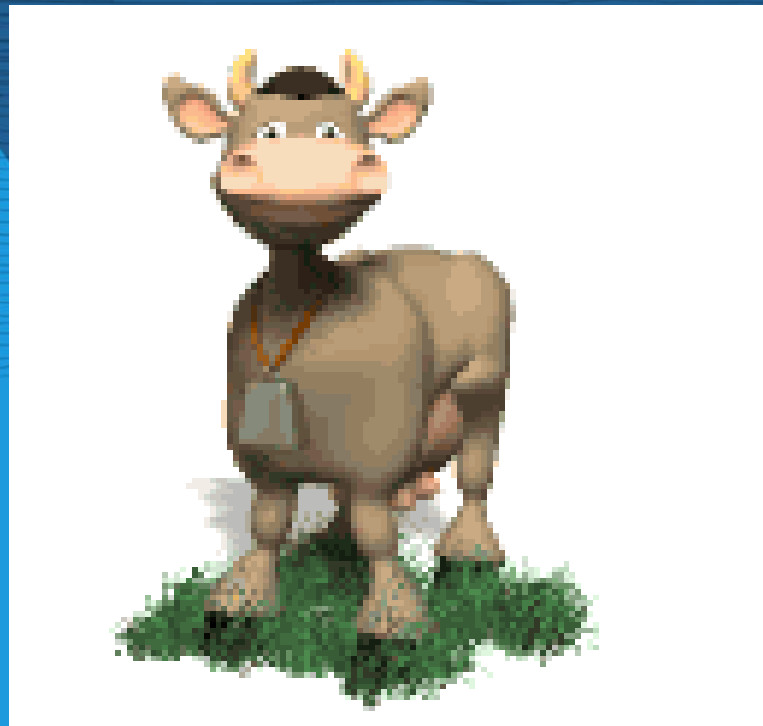
- Supporting Antimicrobial Stewardship in Veterinary Medicine
- Assessment of human food safety assessment for new antimicrobials
- Guidance on judicious use
- Guidance on phasing out production uses
- Updates to the veterinary feed directive,
- Enhanced integrated surveillance activities
- Education and outreach
- Collaboration with international partners focused on resistance.

Summary

- Integrated surveillance of antimicrobial resistance for foodborne bacteria expands on traditional public health surveillance to include multiple elements of the food chain, and to include antimicrobial use data, to better understand the sources of infection and transmission routes.
- The CIA List is an important component of WHO's Global Action Plan on Antimicrobial Resistance
 - Supports risk management and containment of antimicrobial resistance mainly due to non-human antimicrobial use
- The WHO Guideline for Use of Medically Important Antimicrobials in Food-Producing Animals
 - Provides specific evidence-based recommendations to further support the Global Action Plan by preserving the effectiveness of medically important antimicrobials

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Thank you



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