WHO list of Critically Important Antimicrobials for Human Medicine (WHO CIA list)

Since 2005, WHO has produced a regularly updated list of all antimicrobials currently used for human medicine (mostly also used in veterinary medicine), grouped into 3 categories based on their importance to human medicine. The list is intended to assist in managing antimicrobial resistance, ensuring that all antimicrobials, especially critically important antimicrobials, are used prudently both in human and veterinary medicine.

Critically Important

Highly Important

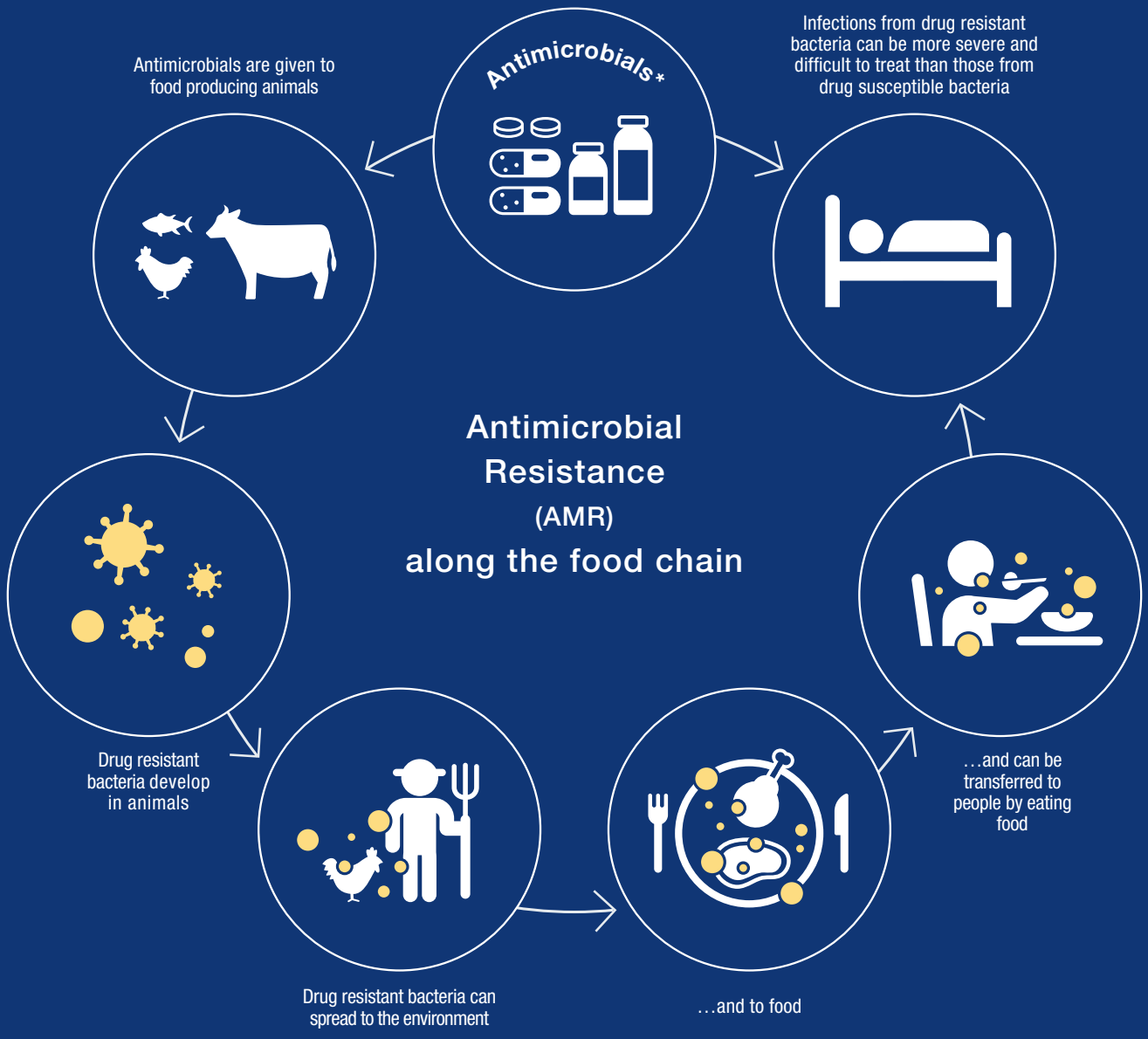
Important

Prioritize
by Prioritization Criterion 1, 2, 3

Highest Priority

High Priority

Classify
by Criterion 1, 2



WHO supports optimization of the use of antimicrobial medicines in human and animal to preserve their effectiveness by taking a One Health approach

*The scope of this list is limited to the antibacterial drugs (antibiotics).

World Health Organization

WHO Critically Important Antimicrobials for Human Medicine 5th revision

Advisory Group on Integrated Surveillance of Antimicrobial Resistance (AGISAR)

October 2016

Summary of classification and prioritization of antimicrobials categorized as Critically Important, Highly Important and Important

Medically Important Antimicrobials

	Antimicrobial class	Criterion (Yes = ●)				
	CRITICALLY IMPORTANT ANTIMICROBIALS	**C1**	**C2**	**P1**	**P2**	**P3**
Critically Important	*HIGHEST PRIORITY*					
Highest Priority	*Cephalosporins (3rd, 4th and 5th generation)*	●	●	●	●	●
Highest Priority	*Glycopeptides*	●	●	●	●	●
Highest Priority	*Macrolides and ketolides*	●	●	●	●	●
Highest Priority	*Polymyxins*	●	●	●	●	●
Highest Priority	*Quinolones*	●	●	●	●	●
Critically Important	*HIGH PRIORITY*					
Critically Important	*Aminoglycosides*	●	●		●	●
Critically Important	*Ansamycins*	●	●	●	●	
Critically Important	*Carbapenems and other penems*	●	●	●	●	
Critically Important	*Glycylcyclines*	●	●	●		
Critically Important	*Lipopeptides*	●	●	●		
Critically Important	*Monobactams*	●	●	●		
Critically Important	*Oxazolidinones*	●	●	●		
Critically Important	*Penicillins (natural, aminopenicillins, and antipseudomonal)*	●	●		●	●
Critically Important	*Phosphonic acid derivatives*	●	●	●	●	
Critically Important	*Drugs used solely to treat tuberculosis or other mycobacterial diseases*	●	●	●	●	
	HIGHLY IMPORTANT ANTIMICROBIALS	**C1**	**C2**	**P1**	**P2**	**P3**
Highly Important	*Amidinopenicillins*		●			
Highly Important	*Amphenicols*		●			
Highly Important	*Cephalosporins (1st and 2nd generation) and cephamycins*		●			
Highly Important	*Lincosamides*		●			
Highly Important	*Penicillins (anti-staphylococcal)*		●			
Highly Important	*Pseudomonic acids*		●		NA	
Highly Important	*Riminofenazines*	●				
Highly Important	*Steroid antibacterials*		●			
Highly Important	*Streptogramins*		●			
Highly Important	*Sulfonamides, dihydrofolate reductase inhibitors and combinations*		●			
Highly Important	*Sulfones*	●				
Highly Important	*Tetracyclines*	●				
	IMPORTANT ANTIMICROBIALS	**C1**	**C2**	**P1**	**P2**	**P3**
Important	*Aminocyclitols*					
Important	*Cyclic polypeptides*					
Important	*Nitrofurantoins*				NA	
Important	*Nitroimidazoles*					
Important	*Pleuromutilins*					

C1 Criterion 1

The antimicrobial class is the sole, or one of limited available therapies, to treat serious bacterial infections in people.

C2 Criterion 2

The antimicrobial class is used to treat infections in people caused by either: (1) bacteria that may be transmitted to humans from nonhuman sources, or (2) bacteria that may acquire resistance genes from nonhuman sources.

P1 Prioritization criterion 1

High absolute number of people, or high proportion of use in patients with serious infections in health care settings affected by bacterial diseases for which the antimicrobial class is the sole or one of few alternatives to treat serious infections in humans.

P2 Prioritization criterion 2

High frequency of use of the antimicrobial class for any indication in human medicine, or else high proportion of use in patients with serious infections in health care settings, since use may favour selection of resistance in both settings.

P3 Prioritization criterion 3

The antimicrobial class is used to treat infections in people for which there is evidence of transmission of resistant bacteria or resistance genes from non-human sources.

WHO CIA list 5th rev. : http://who.int/foodsafety/publications/antimicrobials-fifth/en/

AGISAR: http://who.int/foodsafety/areas_work/antimicrobial-resistance/agisar/en

WHO/NMH/FOS/FZD/17.1

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