



Australian Government

## Comparison between the Importance Ratings and Summary of Antibacterial Uses in Human and Animal Health in Australia and the World Health Organization (WHO) Critically Important Antimicrobials for Human Medicine 5th revision, 2017

The *Importance Ratings and Summary of Antibacterial Uses in Human and Animal Health in Australia* (the Australian Importance Ratings) now references and takes into account the World Health Organization's Critically Important Antimicrobials for Human Medicine, 5th revision, 2017 (WHO List).

The Australian Importance Ratings do not attempt to align antibacterials with a "High Importance" rating with those with a "Critically Important" or "Highly Important" classification in the WHO List because the criteria to determine these classifications are different.

There is a high level of correlation between the two lists in terms of the highest classification antibacterial classes, which is a consideration for Australian livestock industries.

The exceptions are the macrolides and ketolides, and penicillins, which are Critically Important under the WHO criteria, but of Low Importance under the Australian Importance Ratings (see table below).

The difference in importance rating reflects the relatively low reliance on these antibacterials in Australia because resistance is widespread in many human pathogens causing infection in Australia.

Although the rating for streptogramins has been reduced from "critically important" to "highly important" in the latest iteration of the WHO List, they remain in the highest category (high) in the Australian Importance Ratings. This is because pristinamycin is a reserve agent used for methicillin-resistant *Staphylococcus aureus* (MRSA) infection in Australia.

The WHO recognises that implementation at the national level requires that national considerations be taken into account and may vary from country to country. Specifically the WHO List notes: "The experts recognized that the implementation of the concept at national levels required that national considerations would be taken into account, and consequently lists may vary from country to country..." (Page 2 of the 5th edition, 2017).

To ensure that the Australian context is taken into account, the Australian Importance Ratings have precedence above other lists including the WHO List.

WHO Critically important antimicrobials for human medicine, 5th revision, 2017				ASTAG Antibacterial Importance Ratings, 2018
Antimicrobial class	Example drug human use	Example drug livestock	Classification	Importance Rating
aminoglycosides	gentamicin	neomycin	critically important	Mix of Low, Medium and High ratings for different drugs within this class. High for amikacin
ansamycins*	rifampicin	none	critically important	high
carbapenems	meropenem	none	critically important	high
cephalosporins <sup>#</sup> (3 <sup>rd</sup> , 4 <sup>th</sup> & 5 <sup>th</sup> generation)	ceftriaxone	ceftiofur	critically important	high
glycopeptides <sup>#</sup>	vancomycin	none	critically important	high
glycylcyclines	tigecycline	none	critically important	high
lipopeptides	daptomycin	none	critically important	high
macrolides / ketolides <sup>#</sup>	erythromycin	tylosin	critically important	low <sup>^</sup>
monobactams	aztreonam	none	critically important	high
oxazolidinones	linezolid	none	critically important	high
penicillins (natural, aminopenicillins, antipseudomonal)	ampicillin	amoxicillin	critically important	low <sup>^</sup>
phosphonates (fosfomycins)	fosfomycin	none	critically important	high
polymyxins <sup>#</sup>	colistin	polymyxin B	critically important	high
quinolones <sup>#</sup>	ciprofloxacin	none	critically important	high
mycobacterials	isoniazid	none	critically important	high
steroid antibacterials (fusidanes)	fusidic acid	none	highly important	high
streptogramins	quinupristin / dalfopristin	virginiamycin	highly important	high
nitrofurans	nitrofurantoin	none	highly important	high

\*Ansamycins are listed in the Antibacterial Importance Ratings as rifamycins, which are a sub-class of ansamycins.

<sup>#</sup>Highest priority critically important antimicrobials (WHO)

<sup>^</sup>The difference in ratings between the two lists reflects the relatively low reliance on this antibacterial agent in Australia because resistance is widespread in many pathogens causing infection in Australia. The WHO recognises that implementation at the national level requires that national considerations be taken into account and may vary from country to country.

