

WHONET

Antibiotic breakpoints



**WHO Collaborating Centre for
Surveillance of Antimicrobial Resistance**

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Part 1. Configuring your antibiotic breakpoints

The following steps are not required, but may be useful to you.

Antibiotic breakpoints: When you select antibiotic tests, WHONET automatically sets up the correct official breakpoints according to the reference body that you indicate. In most cases, there will be no need for you to change these yourself. However, if there are no official breakpoints for the antibiotic that you selected or if you disagree with the breakpoints used by WHONET, then you may wish to make some manual modifications.

Note: Accurate breakpoints are essential if you are entering quantitative test measurements into WHONET (for example, disk diffusion zone diameters or MIC/Etest values). On the other hand, if you will only be entering test interpretations (“resistant”, “intermediate”, or “susceptible”), then WHONET does not use the breakpoint values. WHONET does not require the use of test measurements, but for good quality microbiological testing and the most valuable analyses, it is strongly recommended.

In this tutorial, we will not change any of the default breakpoints, but to see the values suggested by WHONET, click on “Breakpoints”.

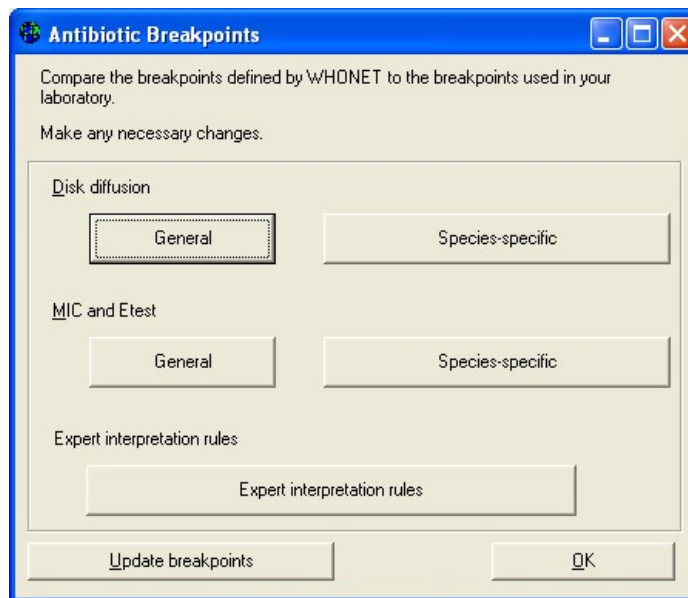


Figure 4. Antibiotic breakpoint configuration.

You can then view any of the disk diffusion or MIC/Etest breakpoints. WHONET distinguishes between “General” breakpoints used for most bacterial species and “Species-specific” breakpoints for species in which the recommended breakpoint is different. After reviewing the breakpoints, select “OK”, “OK” to return to the antibiotic configuration screen.

General Breakpoints

Compare the breakpoints defined by WHONET to the breakpoints used in your laboratory.
Make any necessary changes.

Antibiotic	R<=	I	S>=
Ampicillin_CLSI_Disk_10ug	13	14-16	17
Cefoxitin_CLSI_Disk_30ug	14	15-17	18
Ceftiazoxone_CLSI_Disk_30ug	13	14-20	21
Ciprofloxacin_CLSI_Disk_5ug	15	16-20	21
Erythromycin_CLSI_Disk_15ug	13	14-22	23
Gentamicin_CLSI_Disk_10ug	12	13-14	15
Penicillin G_CLSI_Disk_10units	28		29
Trimethoprim/Sulfamethoxazole_CLSI_Disk_1_25/23.75ug	10	11-15	16
Vancomycin_CLSI_Disk_30ug			15

OK Cancel

Species-Specific Breakpoints

Compare the breakpoints defined by WHONET to the breakpoints used in your laboratory.
Make any necessary changes.

To add additional species or antibiotics, select 'Add'.

Organism	Site of infection	Antibiotic	Test method	R<=	I	S>=
▶ Enterococcus sp.		Ampicillin_CLSI_Disk_10ug	Disk	16		17
Haemophilus sp.		Ampicillin_CLSI_Disk_10ug	Disk	18	19-21	22
Listeria monocytogenes		Ampicillin_CLSI_Disk_10ug	Disk			
Streptococcus pneumoniae		Ampicillin_CLSI_Disk_10ug	Disk			
Staphylococcus sp.		Ampicillin_CLSI_Disk_10ug	Disk	28		29
Streptococcus sp.		Ampicillin_CLSI_Disk_10ug	Disk			24
Streptococcus viridans		Ampicillin_CLSI_Disk_10ug	Disk			
Neisseria gonorrhoeae		Cefoxitin_CLSI_Disk_30ug	Disk	23	24-27	28
Haemophilus sp.		Ceftiazoxone_CLSI_Disk_30ug	Disk			26
Neisseria gonorrhoeae		Ceftiazoxone_CLSI_Disk_30ug	Disk			35
Neisseria meningitidis		Ceftiazoxone_CLSI_Disk_30ug	Disk			34
Streptococcus pneumoniae		Ceftiazoxone_CLSI_Disk_30ug	Disk			
Streptococcus sp.		Ceftiazoxone_CLSI_Disk_30ug	Disk			24
Streptococcus viridans		Ceftiazoxone_CLSI_Disk_30ug	Disk	24	25-26	27
Haemophilus sp.		Ciprofloxacin_CLSI_Disk_5ug	Disk			21
Neisseria gonorrhoeae		Ciprofloxacin_CLSI_Disk_5ug	Disk	27	28-40	41

Add Delete OK Cancel

Figure 5. General and species-specific antibiotic breakpoints