AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE

Queensland Government

AURA Antimicrobial Use and Resistance in Australia

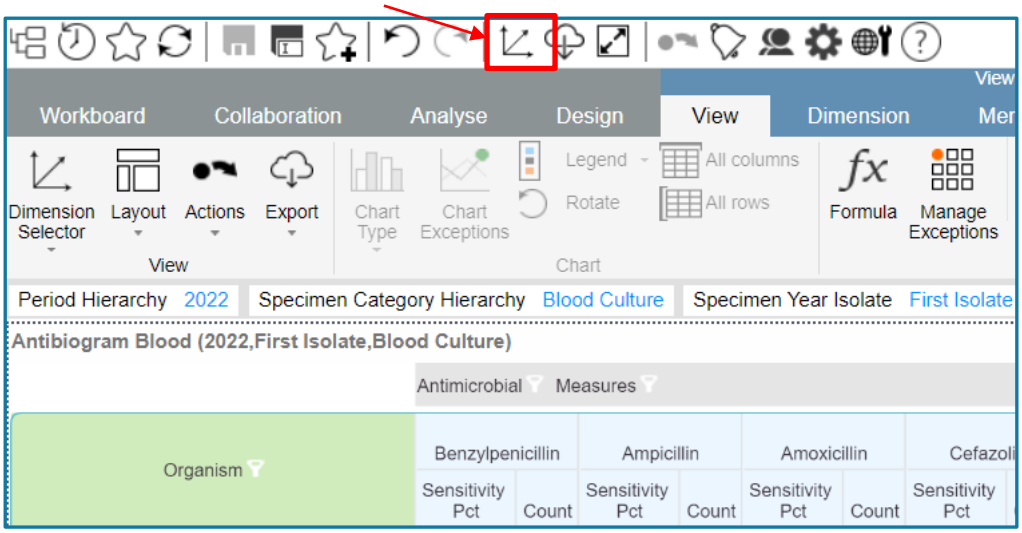
TRIM – D17-44637

OrgTRx Quick Reference Guide – Calculating group susceptibility

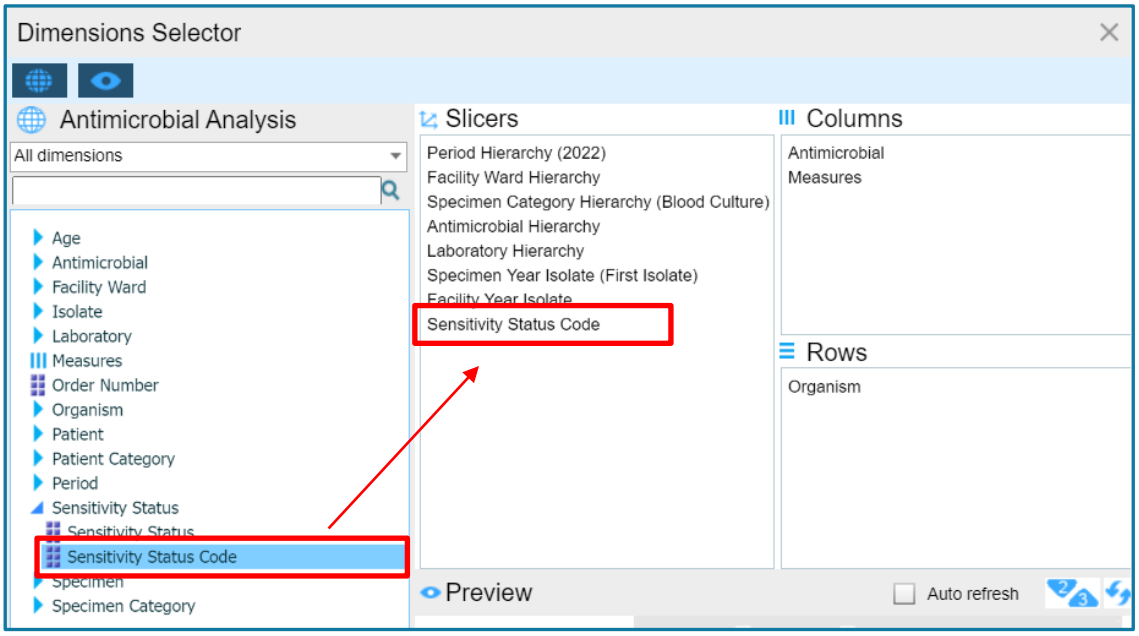
This document takes you through the steps to calculate and display the susceptibility for a group of organisms from different genera.

Open a view you want to change – the instructions below assume you are working with a view similar to, or based on ‘Antibiogram Blood’, ‘Antibiogram Urine’ or ‘Antibiogram - not Blood or Urine’.

1. Click on Dimensions Selector

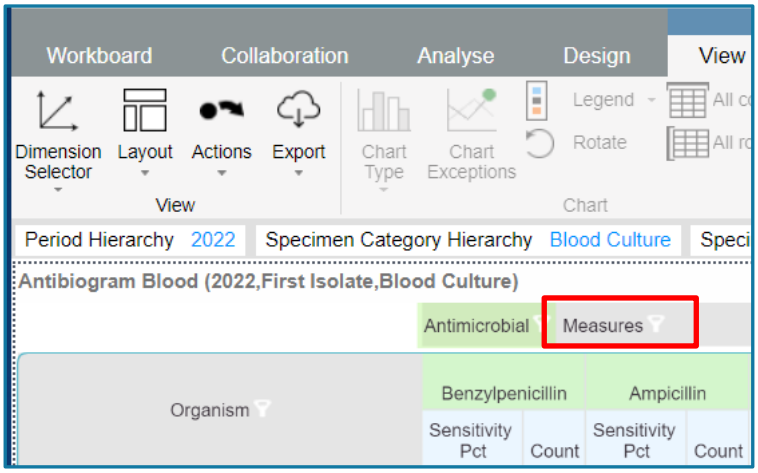


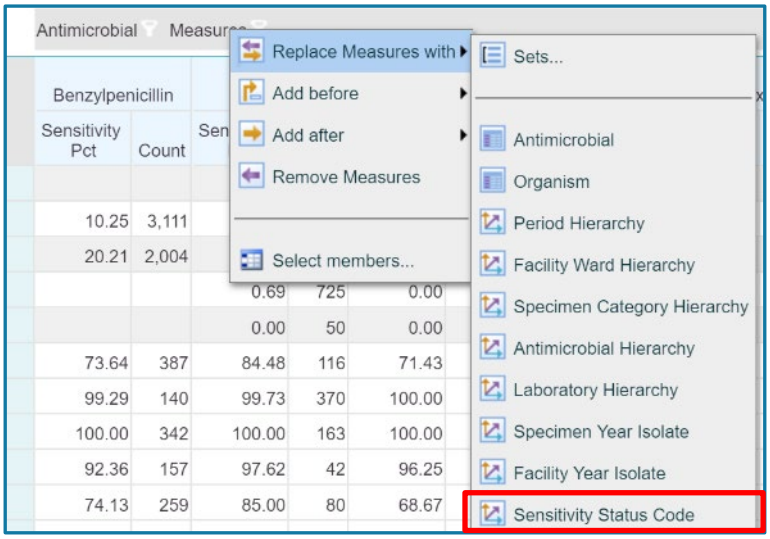
2. Select *Sensitivity status code* and move it from the dimensions section and drag into the slicer section.



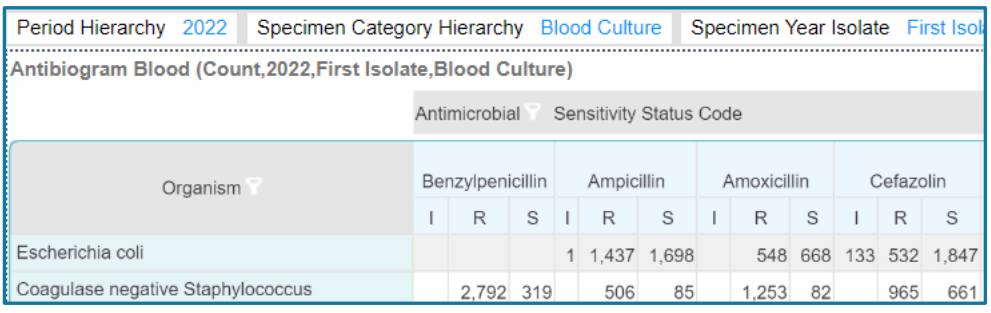
3. Select OK

4. Right click on *Measures* and select replace measures with and then select *Sensitivity Status Code*

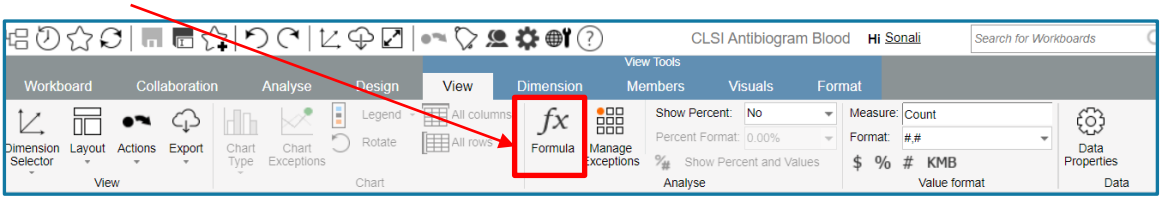




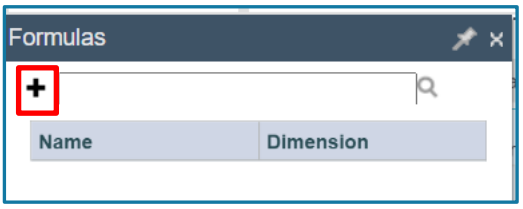
5. The display has now changed to show the sensitivity status of each organism antimicrobial combination as below:



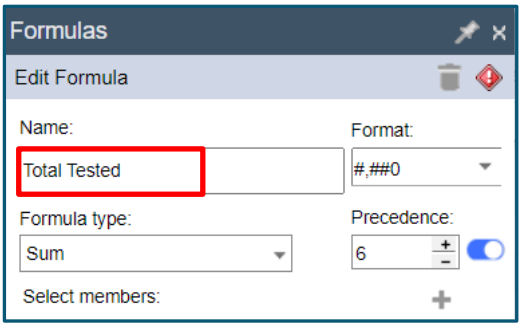
6. The next step is to create a formula to calculate a total count. Click on the *Formula* symbol



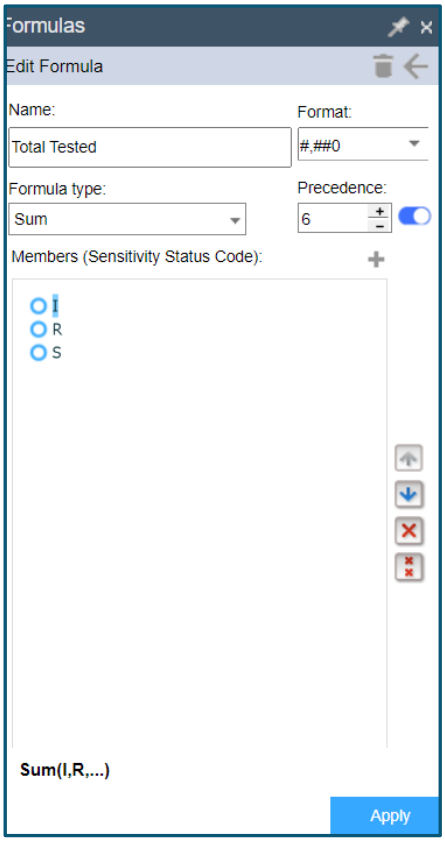
7. Click on the + sign in the Formulas box below:



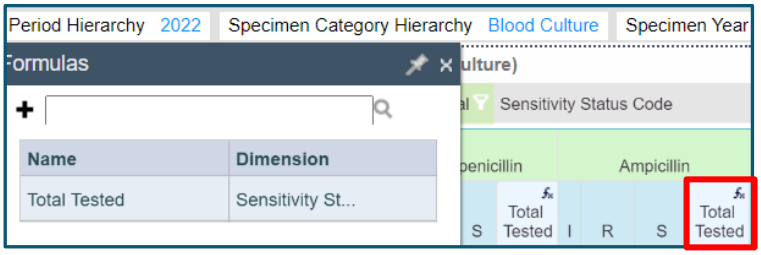
8. Next type in the name of the formula, e.g. **Total Tested**, select **Sum** from the *Formula type***,** and the *Format* as indicated below



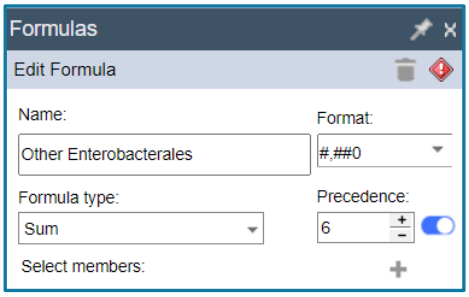
9. Highlight and drag the members from the data grid that you want to add up (**S, R & I**) into the **Items** box or use the members selection button on the RHS of the Items box to select the required members from the ***Sensitivity Status Code*** dimension. Then select Apply



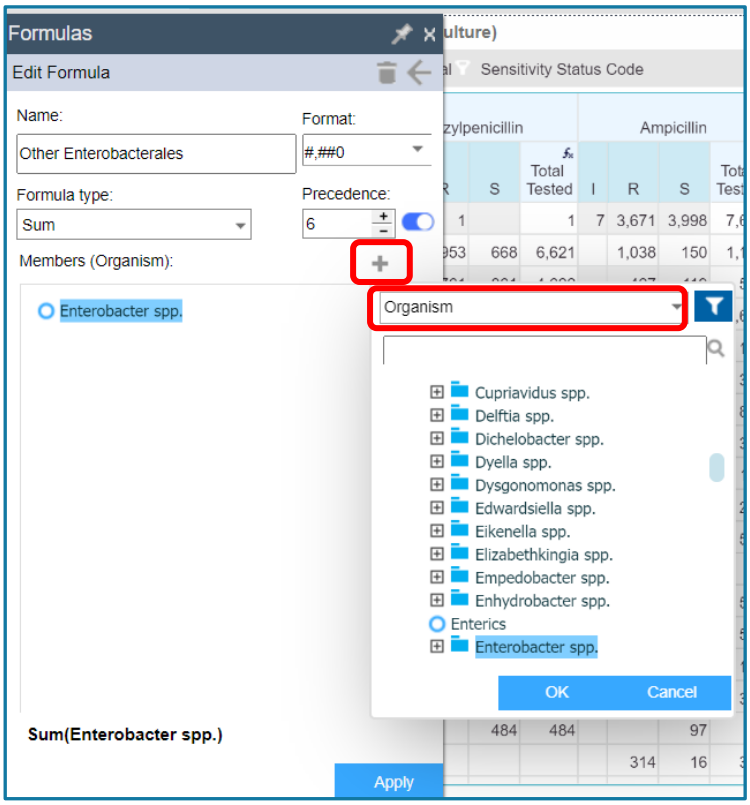
A new column will appear to the RHS of the count of the number tested with **Total Tested** displayed as a count.



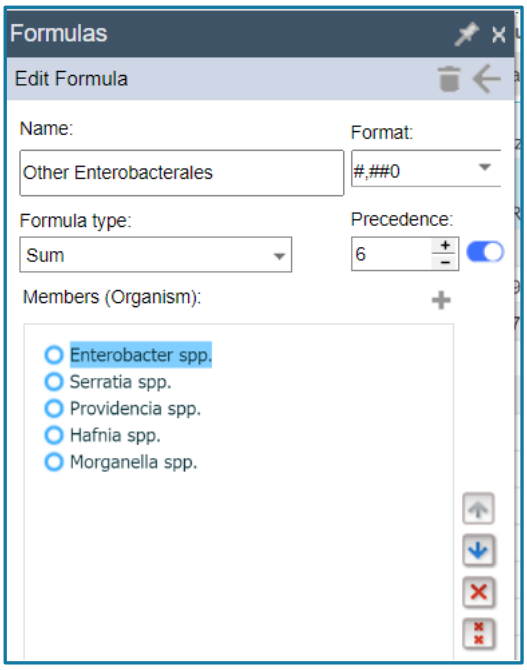
10. Click on the + sign in the box to create a new formula and Enter the formula Name, e.g. **Other Enterobactereales**



11. Click on the plus sign next to the *Members (Organisms)* and select from the drop down menu of organisms.

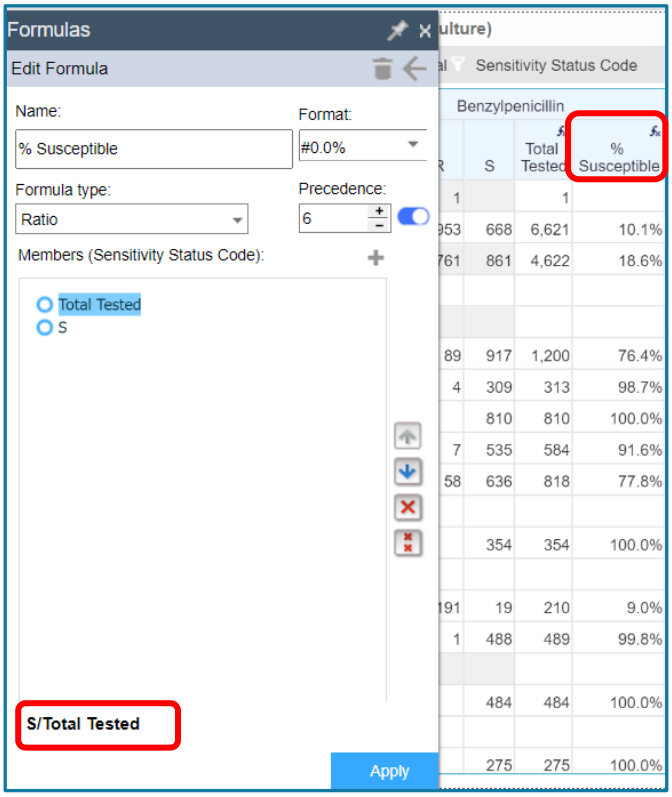


12. Press down the CTRL key and select all members for this group that you wish to include. When completed press *Apply*.

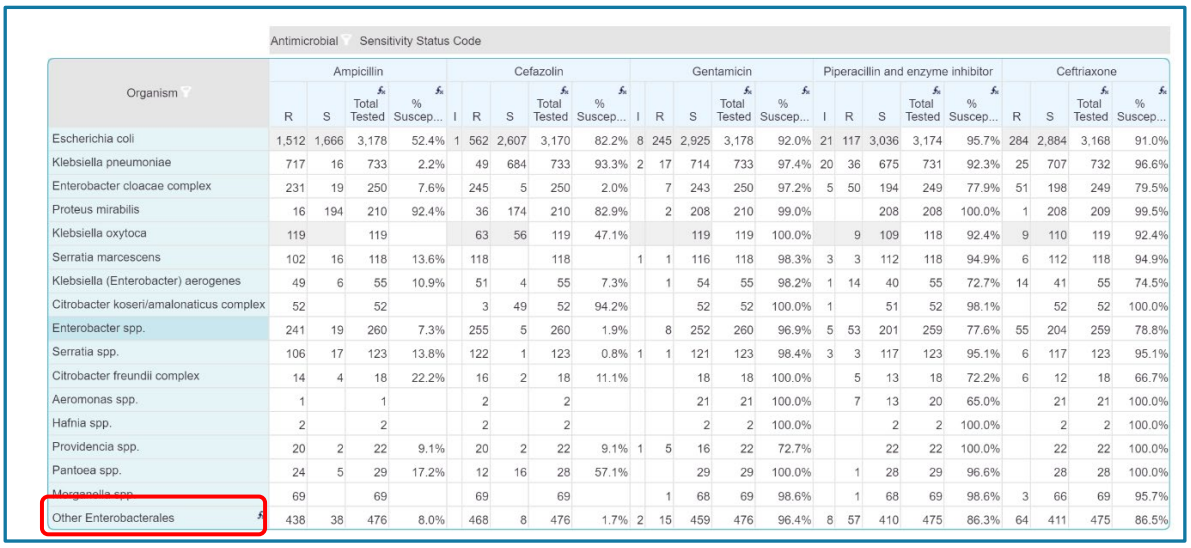


13. Once all the organisms are included in the **Other Enterobacterales** group select formulas as before.

14. Create a new formula **% Susceptible** with a *Formula Type* of **Ratio** as below; bring in *Total Tested* and *S* **in the order below** and select **Apply**



15. The new grouping **Other Enterobacterales** will appear as below at the bottom of the organism list with its own % susceptibility.

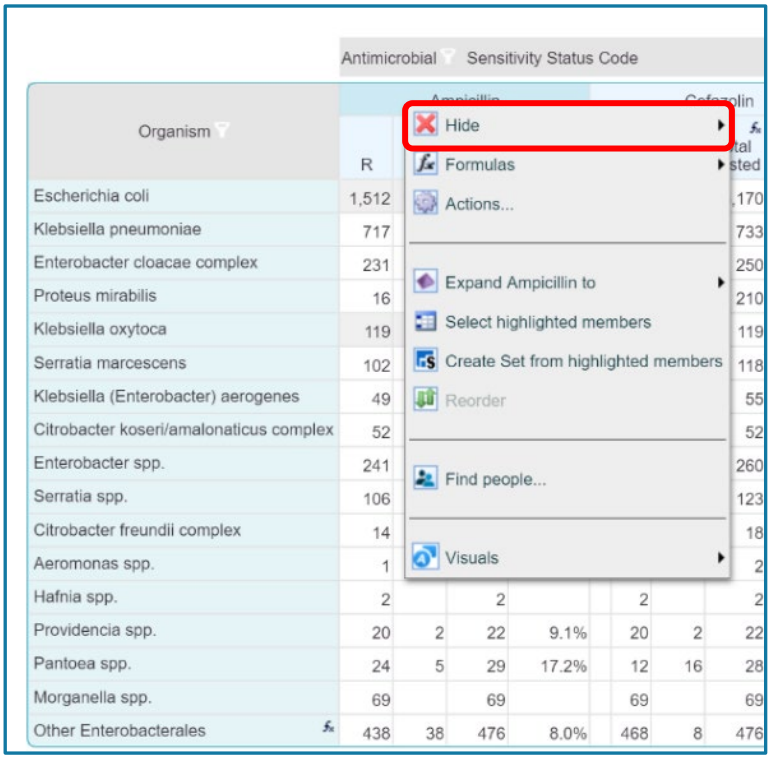


Antimicrobial | Sensitivity Status Code

Organism	Ampicillin				Cefazolin				Gentamicin				Piperacillin and enzyme inhibitor				Ceftriaxone			
	R	S	Total Tested	% Suscep...	R	S	Total Tested	% Suscep...	R	S	Total Tested	% Suscep...	R	S	Total Tested	% Suscep...	R	S	Total Tested	% Suscep...
Escherichia coli	1,512	1,666	3,178	52.4%	562	2,607	3,170	82.2%	245	2,925	3,178	92.0%	117	3,036	3,174	95.7%	284	2,884	3,168	91.0%
Klebsiella pneumoniae	717	16	733	2.2%	49	684	733	93.3%	17	714	733	97.4%	36	675	731	92.3%	25	707	732	96.6%
Enterobacter cloacae complex	231	19	250	7.6%	245	5	250	2.0%	7	243	250	97.2%	50	194	249	77.9%	51	198	249	79.5%
Proteus mirabilis	16	194	210	92.4%	36	174	210	82.9%	2	208	210	99.0%		208	208	100.0%	1	208	209	99.5%
Klebsiella oxytoca	119		119		63	56	119	47.1%		119	119	100.0%	9	109	118	92.4%	9	110	119	92.4%
Serratia marcescens	102	16	118	13.6%	118		118		1	116	118	98.3%	3	112	118	94.9%	6	112	118	94.9%
Klebsiella (Enterobacter) aerogenes	49	6	55	10.9%	51	4	55	7.3%	1	54	55	98.2%	14	40	55	72.7%	14	41	55	74.5%
Citrobacter koseri/amalonaticus complex	52		52		3	49	52	94.2%		52	52	100.0%		51	52	98.1%		52	52	100.0%
Enterobacter spp.	241	19	260	7.3%	255	5	260	1.9%	8	252	260	96.9%	53	201	259	77.6%	55	204	259	78.8%
Serratia spp.	106	17	123	13.8%	122	1	123	0.8%	1	121	123	98.4%	3	117	123	95.1%	6	117	123	95.1%
Citrobacter freundii complex	14	4	18	22.2%	16	2	18	11.1%		18	18	100.0%	5	13	18	72.2%	6	12	18	66.7%
Aeromonas spp.	1		1		2		2			21	21	100.0%	7	13	20	65.0%		21	21	100.0%
Hafnia spp.	2		2		2		2			2	2	100.0%		2	2	100.0%		2	2	100.0%
Providencia spp.	20	2	22	9.1%	20	2	22	9.1%	1	16	22	72.7%		22	22	100.0%		22	22	100.0%
Pantoea spp.	24	5	29	17.2%	12	16	28	57.1%		29	29	100.0%	1	28	29	96.6%		28	28	100.0%
Morganella spp.	69		69		69		69		1	68	69	98.6%	1	68	69	98.6%	3	66	69	95.7%
Other Enterobacterales	438	38	476	8.0%	468	8	476	1.7%	15	459	476	96.4%	57	410	475	86.3%	64	411	475	86.5%

16. You may want to hide the columns you don't want displayed in the grid. Press CTRL and select the column(s) you want to hide.

    Right click and choose *Hide* then *Hide highlighted members*



17. You may also want to review the organisms you want included in the rows of the grid (e.g. to remove the organisms included in the group you have created).

    Right click on the *Organism* dimension and choose *Select members*. Highlight the organism(s) in the *Selected* column on the right hand side that you don't want to appear in the grid and use the  arrow to remove them

18. Now you have the group that you require as below.

Organism	Antimicrobial Sensitivity Status Code									
	Ampicillin		Cefazolin		Gentamicin		Piperacillin and enzyme inhibitor		Ceftriaxone	
	Total Tested	% Suscep...	Total Tested	% Suscep...	Total Tested	% Suscep...	Total Tested	% Suscep...	Total Tested	% Suscep...
Escherichia coli	3,178	52.4%	3,170	82.2%	3,178	92.0%	3,174	95.7%	3,168	91.0%
Klebsiella pneumoniae	733	2.2%	733	93.3%	733	97.4%	731	92.3%	732	96.6%
Enterobacter cloacae complex	250	7.6%	250	2.0%	250	97.2%	249	77.9%	249	79.5%
Proteus mirabilis	210	92.4%	210	82.9%	210	99.0%	208	100.0%	209	99.5%
Klebsiella oxytoca	119		119	47.1%	119	100.0%	118	92.4%	119	92.4%
Serratia marcescens	118	13.6%	118		118	98.3%	118	94.9%	118	94.9%
Klebsiella (Enterobacter) aerogenes	55	10.9%	55	7.3%	55	98.2%	55	72.7%	55	74.5%
Citrobacter koseri/amalonaticus complex	52		52	94.2%	52	100.0%	52	98.1%	52	100.0%
Citrobacter freundii complex	18	22.2%	18	11.1%	18	100.0%	18	72.2%	18	66.7%
Aeromonas spp.	1		2		21	100.0%	20	65.0%	21	100.0%
Pantoea spp.	29	17.2%	28	57.1%	29	100.0%	29	96.6%	28	100.0%
Other Enterobacterales	476	8.0%	476	1.7%	476	96.4%	475	86.3%	475	86.5%

19. Click OK when finished. **Don’t forget to save this view**.