

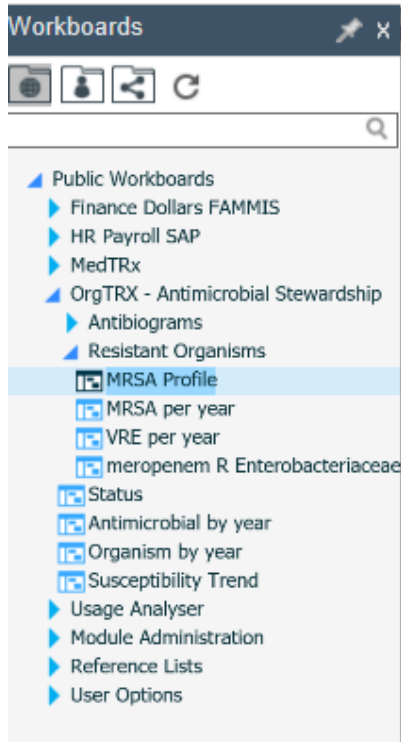


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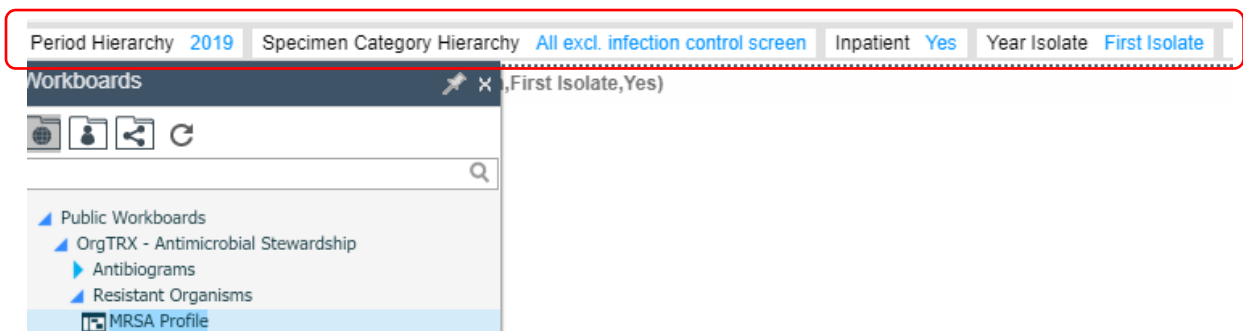
OrgTRx Quick Reference Guide – Susceptibility profile for MRSA, VRE and CRO

This document provides instructions on how to build a susceptibility profile for methicillin-resistant *Staphylococcus aureus* (MRSA), vancomycin-resistant *Enterococcus* species (VRE), and carbapenem (meropenem) resistant organisms (CRO) by downloading data from OrgTRx into Microsoft Excel.

- 1 Open the **MRSA Profile** view from the **Resistant Organisms** folder

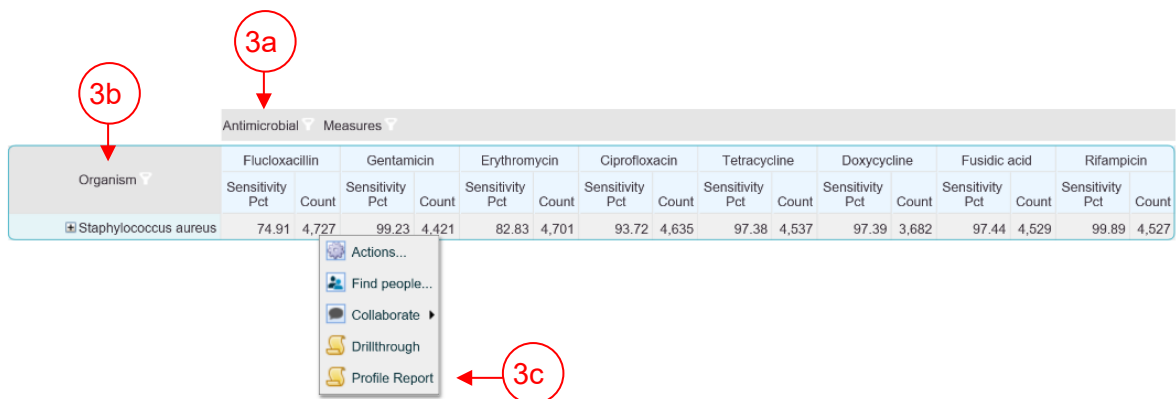


- 2 Check the filters and make selections for:
 - Year
 - Facility –ward hierarchy
 - Specimen category
 - Inpatient – [No, Yes, Other, or select All patient categories]
 - First isolate rule
 - if one specimen category was chosen above then select **first isolate per specimen** per year
 - if more than one specimen category chosen then **first isolate per year** may be more appropriate.



- 3 In the grid
 - 3a Antimicrobial – use ‘select members’ (see OrgTRx User Guide section 9.6) to add or remove antimicrobials you want included in the profile
 - 3b Organism – use ‘select members’ to choose appropriate organism – **ensure this is at the highest level of the hierarchy to capture all organisms possible**
 - o for MRSA profile – select *Staphylococcus aureus* and include flucloxacillin in the antimicrobial selection
 - o For VRE profile – select *E. faecium* or *E. faecalis* (or both) and include vancomycin in the antimicrobial selection
 - o For CRO profile – select species or organism group of interest and include meropenem in the antimicrobial selection
 - 3c Right mouse click in the row of the grid which contains the data of interest and select **Profile Report** (see OrgTRx User Guide section 9.5)

Typical grid view for a *S. aureus* profile is shown below. Note that the antimicrobials selected will vary depending on local requirements.



Organism	Flucloxacillin		Gentamicin		Erythromycin		Ciprofloxacin		Tetracycline		Doxycycline		Fusidic acid		Rifampicin	
	Sensitivity Pct	Count	Sensitivity Pct	Count	Sensitivity Pct	Count	Sensitivity Pct	Count	Sensitivity Pct	Count	Sensitivity Pct	Count	Sensitivity Pct	Count	Sensitivity Pct	Count
Staphylococcus aureus	74.91	4,727	99.23	4,421	82.83	4,701	93.72	4,635	97.38	4,537	97.39	3,682	97.44	4,529	99.89	4,527

Export the profile to Excel

Key	Flucl...	Gent...	Eryth...	Cipro...	Tetra...	Doxy...	Fusid...	Rifa...	Count
▶ SSSSS.SS	S	S	S	S	S	.	S	S	10536
▶ S.S.S.S	S	.	S	.	.	S	.	S	2977
▶ SSSSSSSS	S	S	S	S	S	S	S	S	2640
▶ RSSSS.SS	R	S	S	S	S	.	S	S	1973
▶ SSRSS.SS	S	S	R	S	S	.	S	S	1326
▶ SSSSS.RS	S	S	S	S	S	.	R	S	1049
▶ S.S.S..	S	.	S	.	.	S	.	.	965
▶ RSSSSSSS	R	S	S	S	S	S	S	S	756
▶ RSSSS.SSS	R	S	S	S	.	S	S	S	482
▶ SSSS..SS	S	S	S	S	.	.	S	S	408

4 Open the profile report in Excel.

4a. To determine the number of isolates with a **specific profile**

- Use the Σ AutoSum function in Excel to tally the number of organisms of interest (MRSA, VRE or CRO). The Σ AutoSum function will inset a Subtotal formula that will provide the numbers required to build the susceptibility profile for that resistant organism.

Formula bar: =SUBTOTAL(109,[Count])

Key	Fluclo	Gent	Eryth	Cipro	Tetra	Fusid	Rifan	Clind	Sulfa	Dapt	Linez	Vanco	Count
SSSSSSSSSSSS	S	S	S	S	S	S	S	S	S	S	S	S	812
SSRSSSSRSSSS	S	S	R	S	S	S	S	R	S	S	S	S	84
RSSSSSSSSSSS	R	S	S	S	S	S	S	S	S	S	S	S	79
SSRRRSRSSSSS	S	S	R	R	R	S	S	R	S	S	S	S	1
													1177

- Apply a filter for “R” subset (flucloxacillin or vancomycin or meropenem) and then “S” for each of the antimicrobial agents of interest

Key	Fluclo	Gent	Eryth	Cipro	Tetra	Fusid	Rifan	Clind	Sulfa	Dapt	Linez	Vanco	Count
RSSSSSSSSSSS	R	S	S	S	S	S	S	S	S	S	S	S	79
RSRSSSSRSSSS	R	S	R	S	S	S	S	R	S	S	S	S	17
RSRRSSSSRSSSS	R	S	R	R	S	S	S	R	S	S	S	S	10
RSSRRSSSSSSS	R	S	S	R	R	S	S	S	S	S	S	S	1
RSSSRSSRRSSSS	R	S	S	S	R	S	S	R	R	S	S	S	1
													145

Key	Fluclo	Gent	Eryth	Cipro	Tetra	Fusid	Rifan	Clind	Sulfa	Dapt	Linez	Vanco	Count
RSSSSSSSSSSS	R	S	S	S	S	S	S	S	S	S	S	S	79
													79

4b. To create an **antibiogram report** for the organism of interest, use formulas such as SUMIF or SUMIFS to create a grid

=SUMIFS(Table1[Count],Table1[Erythromycin],"S",Table1[Flucloxacillin],"R")

Key	Flucloxa	Gentam	Erythror	Ciproflo	Tetracyc	Fusidic	Rifampi	Clindam	Sulfame	Daptom	Linezoli	Vancom	Count
SSSSSSSSSS	S	S	S	S	S	S	S	S	S	S	S	S	812
SSRSSSRSSSS	S	S	R	S	S	S	S	R	S	S	S	S	84
RSSSSSSSSSS	R	S	S	S	S	S	S	S	S	S	S	S	79
SSSSSRSSSSSS	S	S	S	S	S	R	S	S	S	S	S	S	46
SSR.SSSS.SSS	S	S	R	.	S	S	S	S	.	S	S	S	1
SSRRSSSRSSSS	S	S	R	R	R	S	S	R	S	S	S	S	1

	Flucloxa	Gentam	Erythror	Ciproflo	Tetracyc	Fusidic	Rifampi	Clindam	Sulfame	Daptom	Linezoli	Vancom	Count
Staphylococcus aureus - MRSA													
S	0	137	"R")	115	135	140	141	107	127	140	141	144	145
I	0	0	0	0	0	0	0	0	0	0	0	0	0
R	145	6	45	28	8	3	2	36	16	1	0	0	
.	0	2	2	2	2	2	2	2	2	4	4	1	
Total	145	143	143	143	143	143	143	143	143	141	141	144	
%S	0.0	95.8	68.5	80.4	94.4	97.9	98.6	74.8	88.8	99.3	100.0	100.0	

Note:

If using EUCAST, %S should tally both "S" and "I" for reporting antibiograms

4c. Conditional formatting can be applied to create a colour scale for producing antibiograms

<i>S.aureus</i>	Flucloxa	Gentam	Erythror	Ciproflo	Tetracyc	Fusidic	Rifampi	Clindam	Sulfame	Daptom	Linezoli	Vancomycin
All	87.7	99.1	86.0	96.4	97.0	95.2	99.8	88.1	97.1	99.8	100.0	100.0
	1,177	1,165	1,164	1,163	1,165	1,163	1,162	1,164	1,164	1,158	1,148	1,164
MSSA	100.0	99.6	88.4	98.6	97.4	94.8	100.0	89.9	98.2	99.9	100.0	100.0
	1,032	1,022	1,021	1,020	1,022	1,020	1,019	1,021	1,021	1,017	1,007	1,020
MRSA	0.0	95.8	68.5	80.4	94.4	97.9	98.6	74.8	88.8	99.3	100.0	100.0
	145	143	143	143	143	143	143	143	143	141	141	144