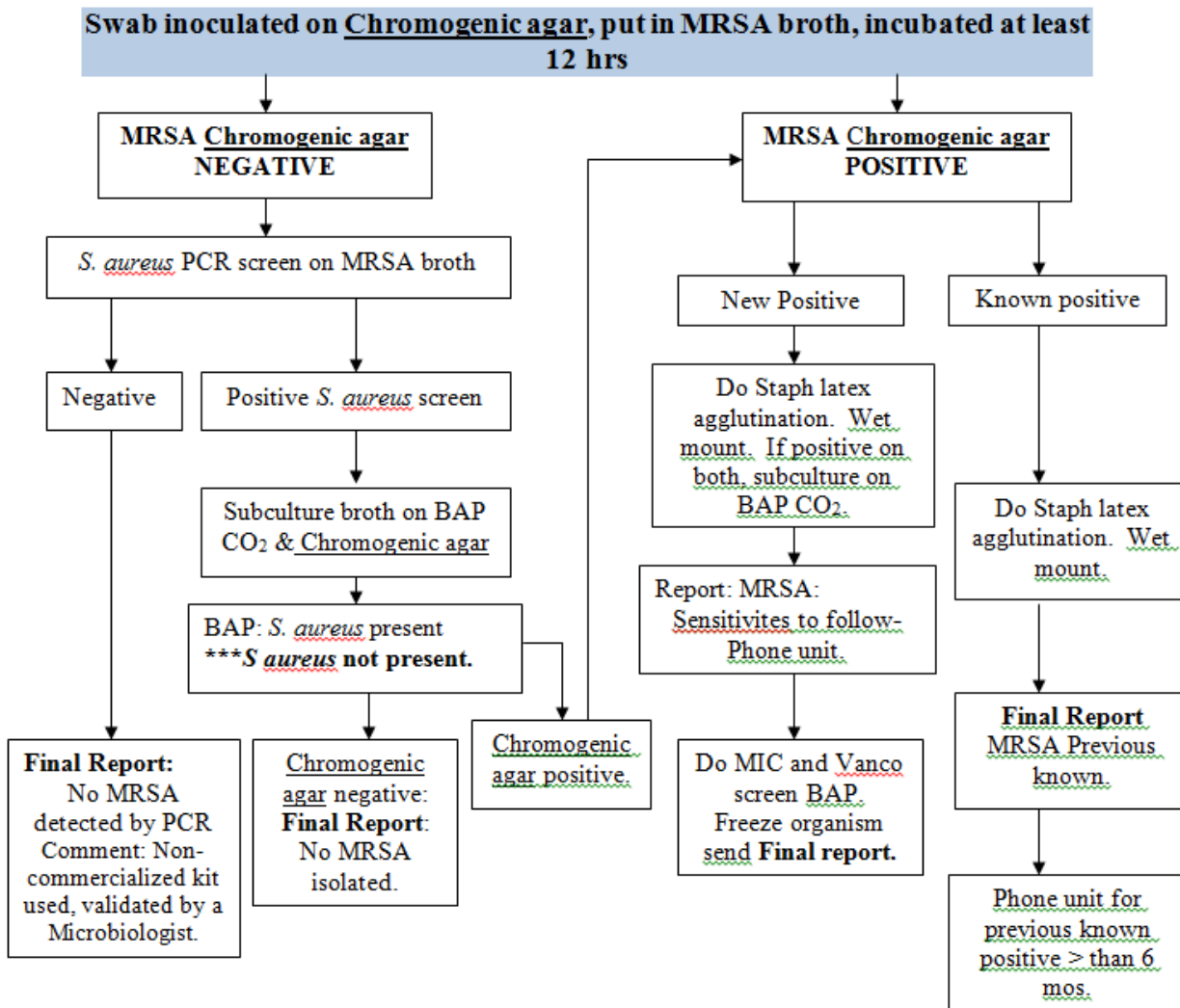


**MRSA WORKUP**



BAP: Blood Agar Plate

MIC: Minimum Inhibitory Concentration

Supplement 2:  
*PCR Primers and Probes*

Name	MW Free acid	Tm	□g/OD	Sequence (5'-3')
SA-F	7014.7	56.5	31.2	GTC GGT ACA CGA TAT TCT TCA CG
SA-RR	7279.8	59.7	32.5	CTC TCG TAT GAC CAG CTT CGG TAC
SA-HP-1	8875.9	62.7	29.7	5' TAC TGA AAT CTC ATT ACG TTG CAT CGG AA X
SCREEN SA-HP-2	8928.9	60.9	30.9	<b>5' LC Red 640</b> -ATT GTG TTC TGT ATG TAA AAG CCG TCT TG p
CONFIRMATION SA-HP-2	8928.9	60.9	30.9	<b>5' LC Red 670</b> -ATT GTG TTC TGT ATG TAA AAG CCG TCT TG p
Lambda FL	7288.9	65.1	31.6	5' GGT GCC GTT CAC TTC CCG AAT AAC X
Lambda 705	8001.3	64.9	30.3	<b>5' LC Red 670</b> CGG ATA TTT TTG ATC TGA CCG AAG CG p
MEC- HP-1	8990	62.8	28.3	5' CAG GTT ACG GAC AAG GTG AAA TAC TGA TTX
MEC-HP-2	9110.1	61.6	30.4	<b>5' LC 640</b> ACC CAG TAC AGA TCC TTT CAA TCT ATA GCG p
MEC-S	7432	53.3	28.9	CTA GGT GTT GGT GAA GAT ATA CCA
MEC-A	6476.3	56.9	29.9	TGA GGT GTG TTA ATA TTG CCA

*PCR Interpretation*

<i>S. aureus</i> Screen	SAR	Lambda	Result	Follow up
	POS	POS	SAR	Subculture broth as per MRSA workup
	POS	NEG	SAR	Subculture broth as per MRSA workup
	NEG	POS	NO SAR	Send No MRSA report, as per MRSA workup
	NEG	NEG	(Nonspecific reaction)	Subculture broth as per MRSA workup
MRSA Confirmation	SAR	MEC	Result	Follow up
	POS	POS	MRSA	Report MRSA POS, as per MRSA workup
	POS	NEG	SAR	Send No MRSA report, as per MRSA workup
	NEG	NEG	NOT MRSA	Send No MRSA report, as per MRSA workup

Supplement 3

Formulas used to draw the graphs

$$PPV = \frac{\textit{sensitivity} * \textit{prevalence}}{\textit{sensitivity} * \textit{prevalence} + (1 - \textit{specificity}) * (1 - \textit{prevalence})}$$

$$NPV = \frac{\textit{specificity} * (1 - \textit{prevalence})}{\textit{specificity} * (1 - \textit{prevalence}) + (1 - \textit{sensitivity}) * \textit{prevalence}}$$