

Simultaneous detection of **20 antibiotic resistance genes** present in Gram-positive and Gram-negative bacteria



- ✓ Blood cultures
- ✓ Rectal exudates
- ✓ Nasopharyngeal exudates/aspirates
- ✓ Bacterial colonies
- ✓ Rectal and nasal exudates as a single sample



No DNA extraction

Organism / Resistance

Staphylococcus aureus

Methicillin resistance gene *mecA*

Vancomycin resistance gene *vanA*

Vancomycin resistance gene *vanB*

Class A carbapenemase KPC

Class A carbapenemase SME

Class A carbapenemase NMC/IMI

β -lactamase SHV

Single β -lactamase SHV mutants

Resistance

Double β -lactamase SHV mutants

Extended- spectrum β - lactamase CTX-M

Class A carbapenemase GES

Class B carbapenemase VIM

Class B carbapenemase GIM

Class B carbapenemase SPM

Class B carbapenemase NDM

Resistance

Class B carbapenemase SIM

Class B carbapenemase IMP3, 15, 19_like

Class D carbapenemase OXA23_like

Class D carbapenemase OXA24_like

Class D carbapenemase OXA48_like

Class D carbapenemase OXA51_like

Class D carbapenemase OXA58_like

B			kpc	spm			vanB	blaSHV-S	B
B			sme	ndm			vanA	ges	oxa23_like
CI			nmc/imi	sim			mecA	vim	oxa24_like
BG				imp_like				gim	oxa48_like
			blaSHV	blaSHV-S				kpc	oxa51_like
	SA		blaCTX	blaSHV-SK	B			spm	oxa58_like
			ges	oxa23_like	CI			sme	ndm
			vim	oxa24_like	BG			nmc/imi	sim
		mecA	gim	oxa48_like				blaSHV-SK	imp_like
		vanA		oxa51_like		SA		blaSHV	
	B	vanB		oxa58_like				blaCTX	