MONTEFIORE EINSTEIN ANTIMICROBIAL STEWARDSHIP PROGRAM
BCID2 DETECTION-BASED TREATMENT GUIDE

Pseudomonas aeruginosa

Cefepime 2g

OR

Piperacillin-tazobactam 4.5g
OR
Meropenem 1g (critically ill)
OR
Ceftolozane-tazobactam 3g
(high MDR risk)

Acinetobacter baumannii

Sulbactam-durlobactam + Meropenem

OR

High-dose Ampicillin-sulbactam + Minocycline OR Cefiderocol

Stenotrophomonas maltophilia

Aztreonam-avibactam (critically ill)

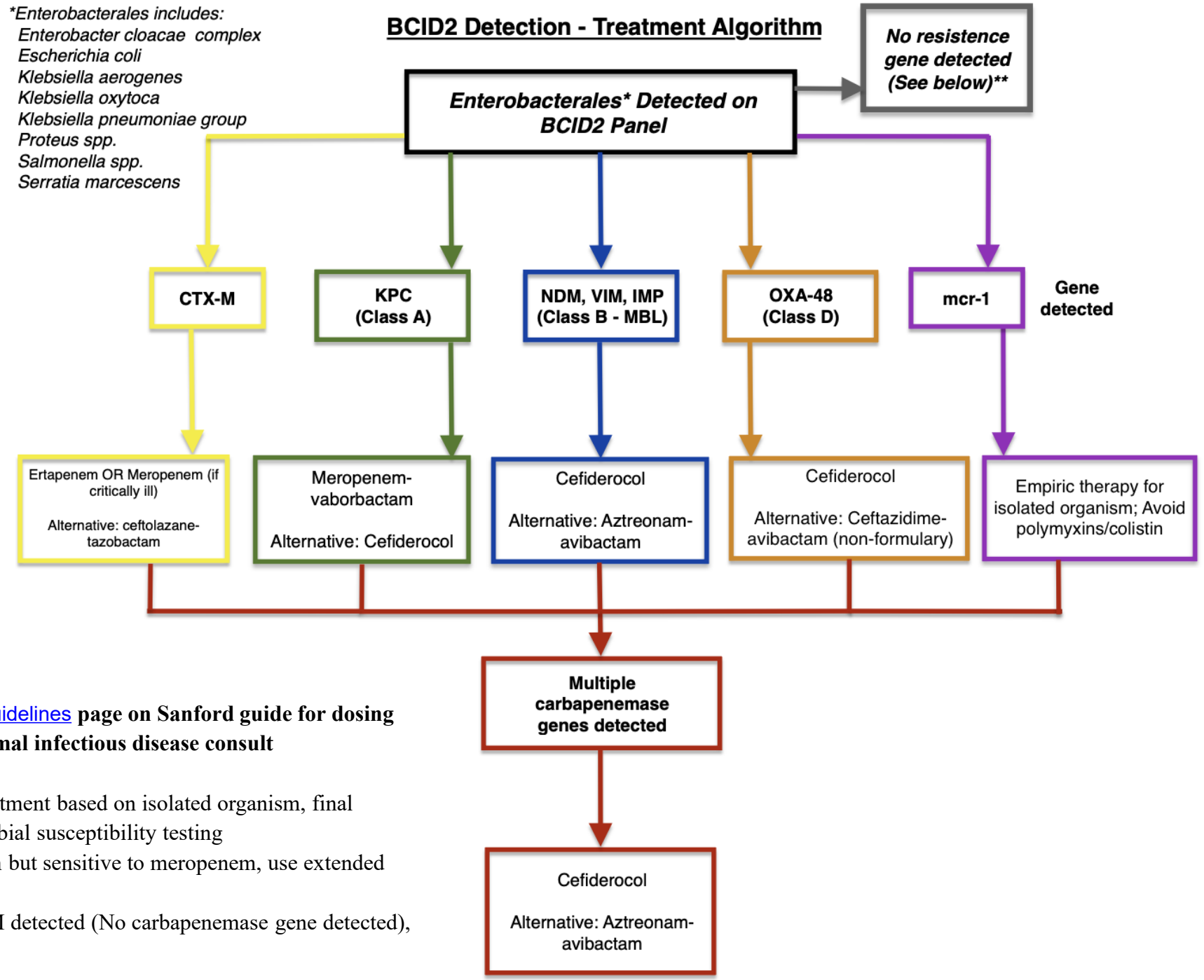
OR

Use TWO of the following: Cefiderocol, Minocycline, TMP/SMX, or Levofloxacin

Consult ID or Peds ID as soon as possible

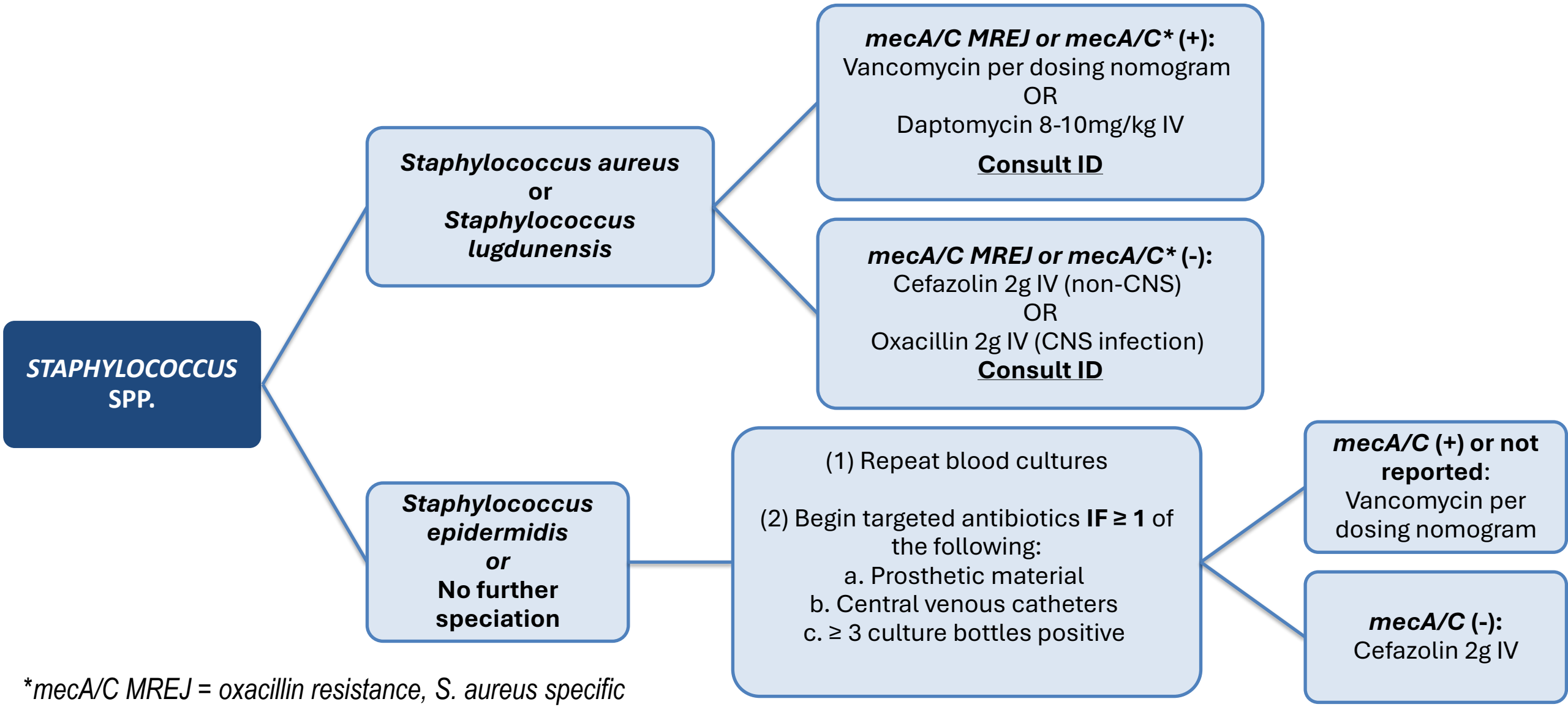
Renal Dosing Guideline

ORGANISM	PREFERRED THERAPY	ALTERNATIVE
If resistance gene is detected, follow Gram negative resistance algorithm		
***Enterobacterales* without species identified**	Cefepime 2g	Ertapenem 1g OR Meropenem 1g (critical illness)
Enterobacter cloacae* complex** OR ***Klebsiella aerogenes	Cefepime 2g	Ertapenem 1g OR Meropenem 1g (critical illness)
Escherichia coli	Ceftriaxone 2g	Cefepime 2g OR Meropenem 1g (critical illness)
Klebsiella oxytoca	Ceftriaxone 2g	Cefepime 2g OR Meropenem 1g (critical illness)
Klebsiella pneumoniae	Ceftriaxone 2g	Cefepime 2g OR Meropenem 1g (critical illness)
Proteus spp.	Ceftriaxone 2g	Cefepime 2g OR Piperacillin-tazobactam 4.5g
****Salmonella spp.***	Ceftriaxone 2g	Ampicillin-sulbactam 3g OR SMX-TMP OR meropenem 1g (critical illness)
Serratia marcescens	Ceftriaxone 2g	Cefepime 2g OR Piperacillin-tazobactam 4.5g
****Haemophilus influenzae***	Ampicillin-sulbactam 3g	Ceftriaxone 2g (if meningitis suspected)
****Neisseria meningitidis***	Ceftriaxone 2g	Severe cephalosporin allergy: ciprofloxacin 400mg (IV)
****Bacteroides fragilis***	Metronidazole 500mg (IV) + Ceftriaxone 2g	Piperacillin-tazobactam 4.5g
***Place ID consult or Peds ID consult**	**Follow up final culture identification and susceptibility**	



Refer to Renal dosing guidelines page on Sanford guide for dosing
Place a formal infectious disease consult

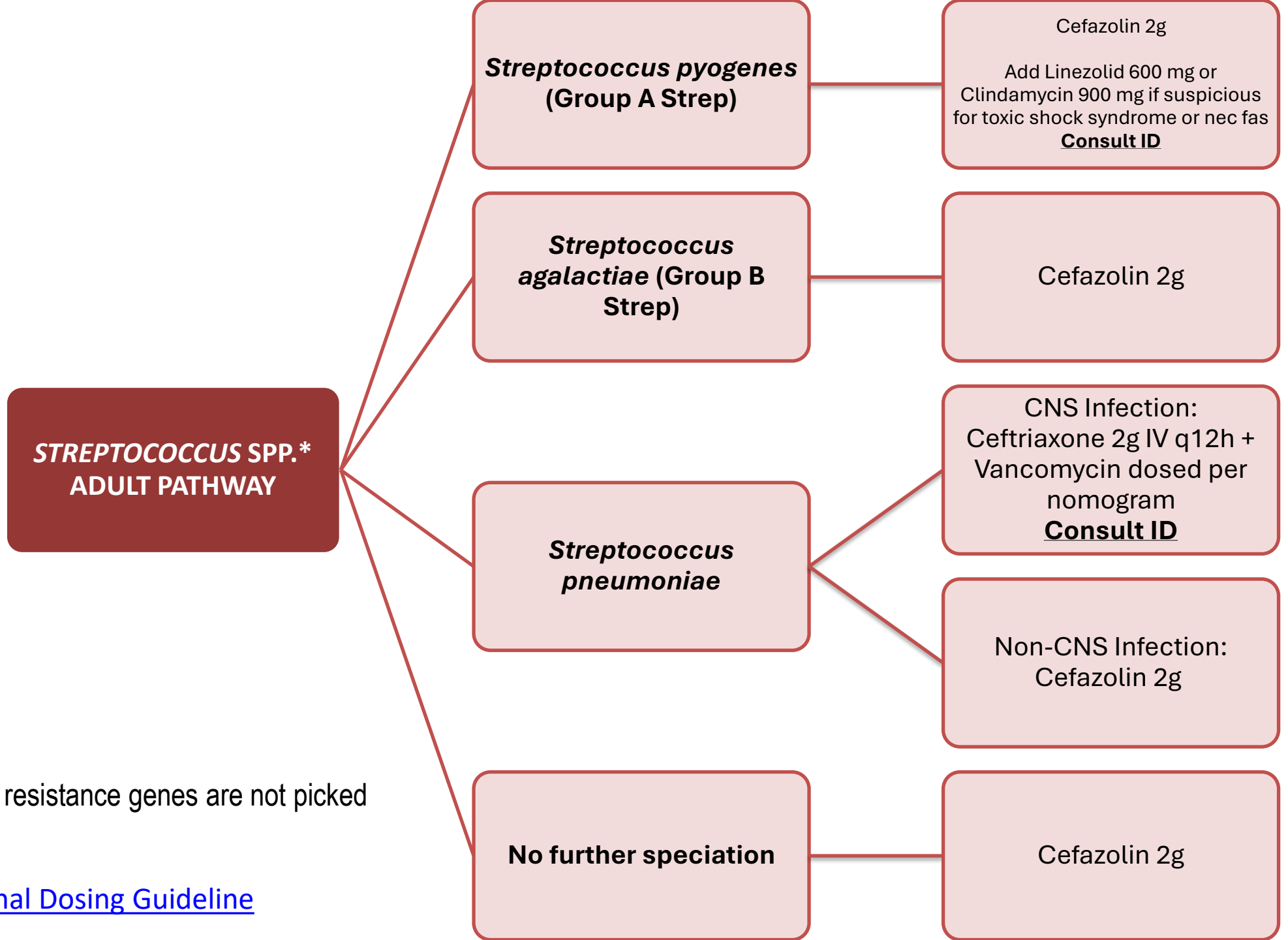
**Start standard empiric treatment based on isolated organism, final coverage based on antimicrobial susceptibility testing
(1) If resistance to ertapenem but sensitive to meropenem, use extended infusion meropenem
(2) if only mcr-1 and CTX-M detected (No carbapenemase gene detected), start ertapenem



mecA/C MREJ = oxacillin resistance, S. aureus specific

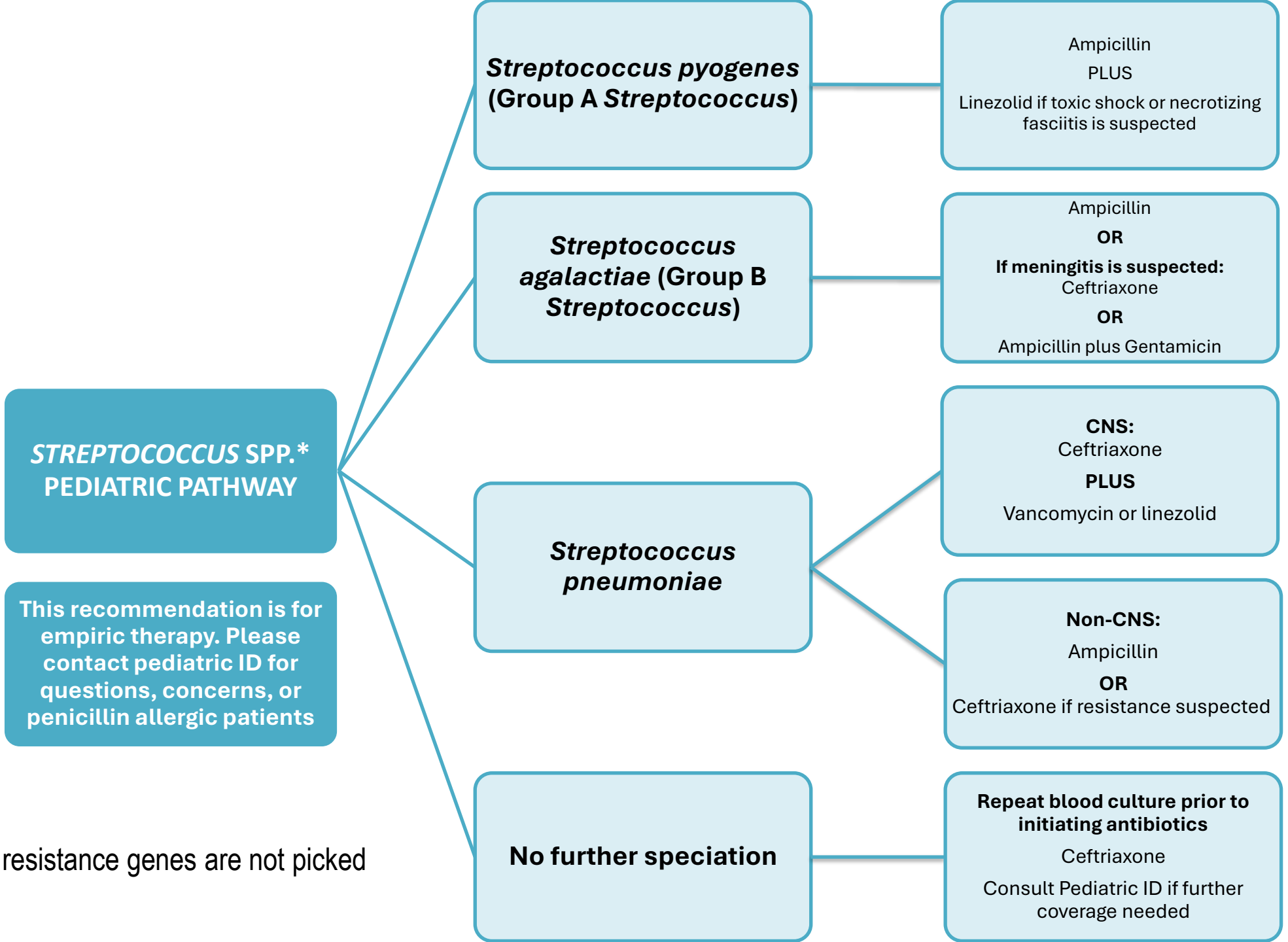
mecA/C = oxacillin resistance, coagulase-negative Staphylococcus-specific (lugdunensis, epidermidis)

Renal Dosing Guideline



*Streptococcal resistance genes are not picked up via BCID2

Renal Dosing Guideline



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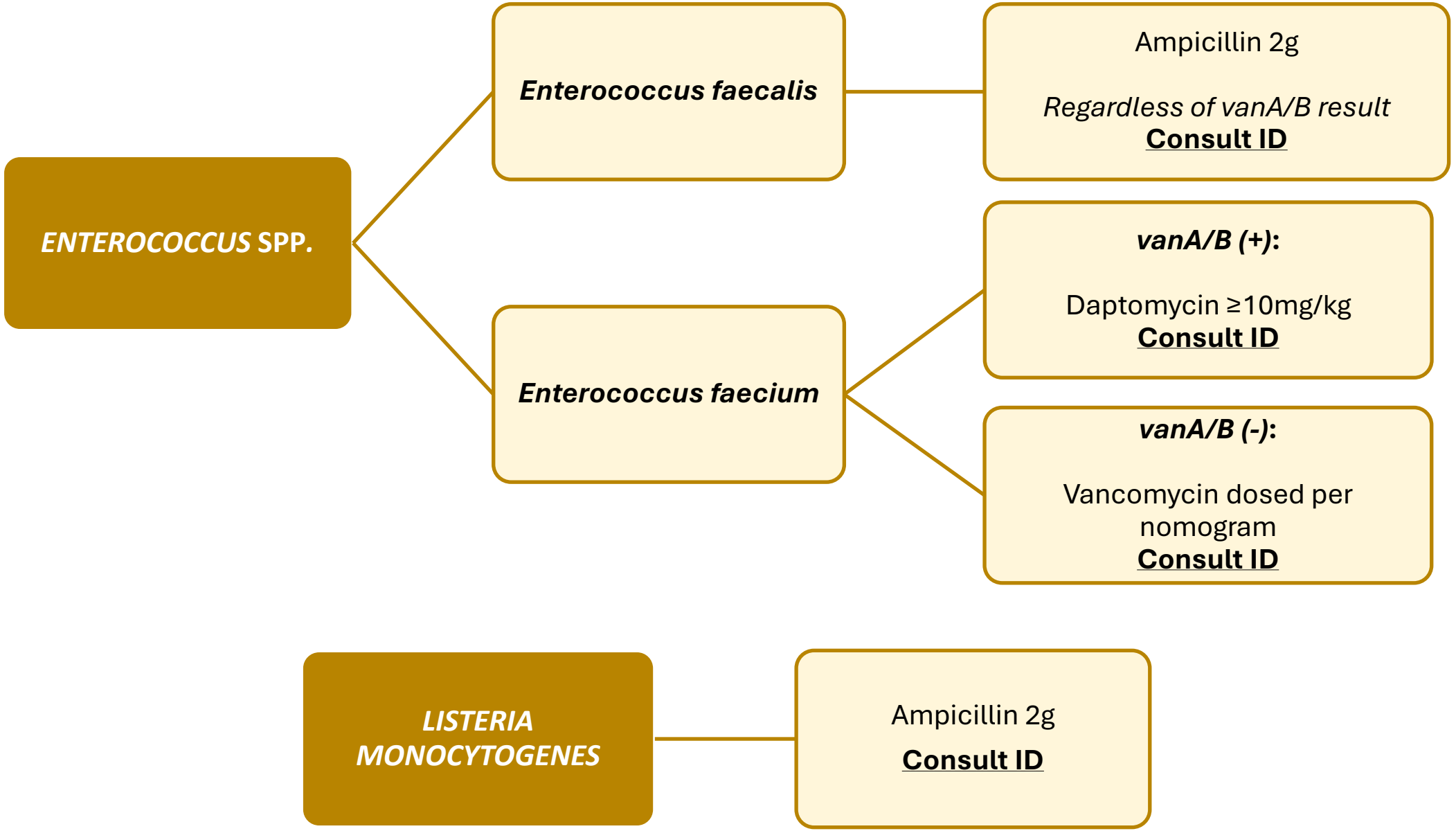

Renal Dosing Guideline

ORGANISM	PREFERRED THERAPY	COMMENTS
Candida albicans	Fluconazole 800mg load	Fluconazole 400mg thereafter
Candida auris	Micafungin 100mg to 200mg	Optimize dose base on weight & MIC
Candida glabrata	Micafungin 100mg	Fluconazole if MIC 8 or less
Candida krusei	Micafungin 100mg	Echinocandins preferred
Candida parapsilosis	Fluconazole 800mg load	Fluconazole 400mg thereafter
Candida tropicalis	Micafungin 100mg	Fluconazole if MIC 8 or less
Cryptococcus neoformans / gatii	Liposomal amphotericin B 3mg/kg + Flucytosine 25mg/kg	Coordinate with ID Pharmacist for Flucytosine
Consult ID or Peds ID as soon as possible		

Renal Dosing Guideline