



GPC to Staph Journey

1/2 Blood Cultures
GPCs

Abx?

Considerations:

- Syndrome (Signs of infxn, ↓ BP)
- Host (Immunosuppression)
- Risk Factors (HD, Lines, Prosthetic Material)
- MRSA coverage depending on risk factors

Repeat
Cultures?

- Depending on suspicion for infection & host

2/2 Blood Cultures
GPCs

Ddx

Common

Virulent*

Staph aureus

Staph lugdunensis

Strep pneumoniae

Strep pyogenes

Less Virulent

Other CoNs

Viridans strep

Enterococci

*Virulent organisms more likely to present w/ sepsis, but all organisms can cause invasive infections

Repeat
Cultures?

Abx?

Most cases, may defer if discrepant cultures w/ non-virulent organisms

Most cases, consider MRSA & VRE coverage depending on risk factors

2/2 Blood Cultures
Staph Aureus

Where did you come from?

Where did you go?

- Skin
 - Cellulitis
 - Phlebitis
 - Joint injections
 - IVDU
 - Indwelling lines
 - Recent Surgery
- Nasal Mucosa
 - Pneumonia
- Heart
 - Valves
- Prosthetic Material
- Spine
- Joints
- Deep Tissue Abscess
- CNS
- Ocular

Abx?

Repeat
Cultures?

- MRSA coverage, de-escalate based on cultures/PCR
- Until Clearance
- TTE+/- TEE
- ID Consult ☆



GPC to Staph Journey

GPC's in Cx

Is this a contaminant?

↓
Clinical
Sx of Infection?
Risk factors?
Immune compromise?

↓
Microbiologic
Organism
of sets/bottles

Frequently a contaminant

CoNS
Micrococcus
Cutibacterium acnes

Sometimes a contaminant

Enterococci
Viridans strep

Never a contaminant

S. aureus
S. pneumoniae
Beta-hemolytic strep
Listeria monocytogenes

Staph Aureus Bacteremia

↓
Evaluation

- 1 H&P
- 2 TTE
- 3 Repeat Cx

↓
Expand evaluation
(As clinically directed)

TEE
MRI spine
CT
PET-CT

↓
Management

- 1 Appropriate ABx
- 2 Source control
 - Remove lines
 - Drain abscesses
- 3 Risk factor mitigation
 - Treat comorbidities
 - Address substance use disorder

GPC = Gram Positive Cocci
TTE = Transthoracic Echocardiography
TEE = Transesophageal Echocardiography
Cx = Culture