# Staph aureus Bacteremia: Key Principles

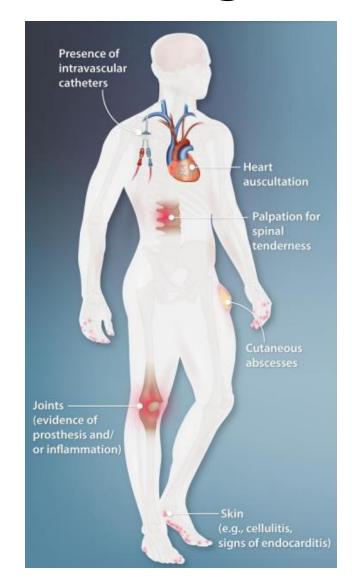
Chloe Bryson-Cahn June 24, 2025

### Why is this different?

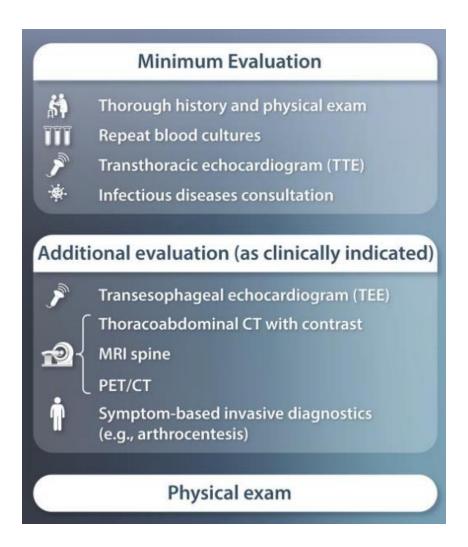
- HIGH mortality (up to 30% 1 year, all cause)
- Can persist, and each day of + blood cultures -> mortality
- HIGH morbidity endocarditis, osteomyelitis, long LOS, high readmission
- MRSA > MSSA

## Where did it come from? Where did it go?

- Symptom onset
- IDU



### **Essential Work-Up**



Minter, et al. CID, 2023. https://doi.org/10.1093/cid/ciad500

### Essentials of treatment

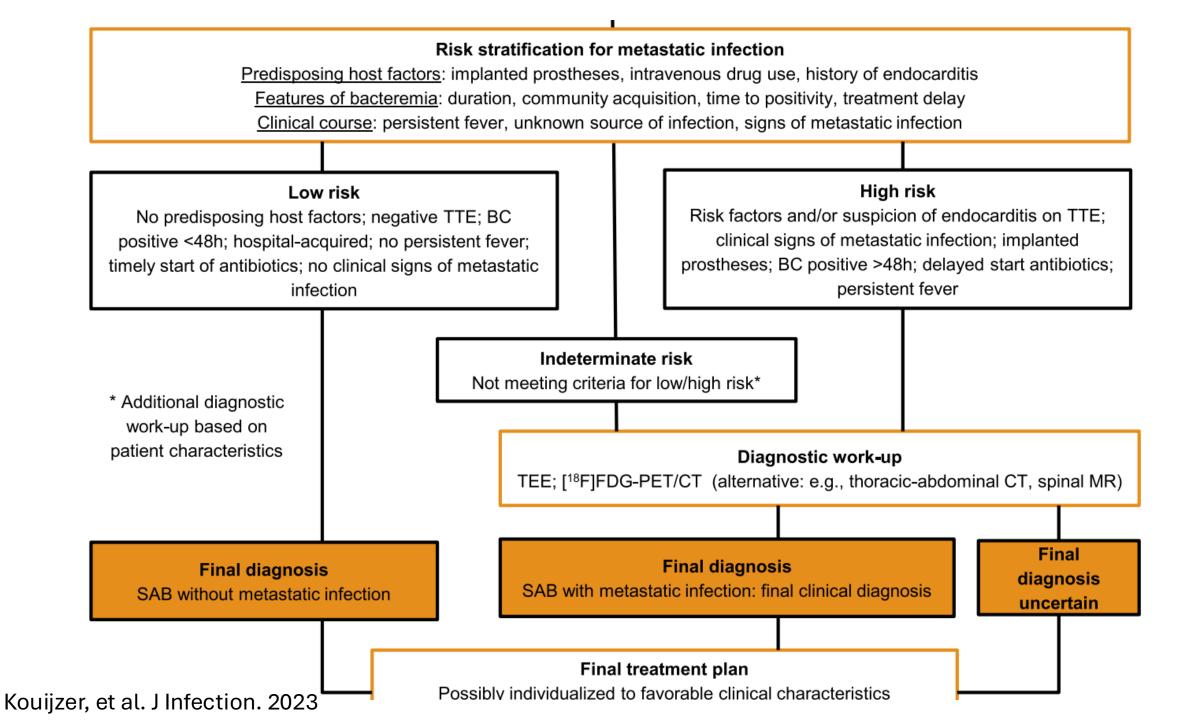
- Start appropriate antibiotics
  - MSSA: cefazolin, ?ASP (oxacillin or nafcillin)
    - Vancomycin is inferior
    - SNAP trial coming soon
  - MRSA: vancomycin, daptomycin (8-10mg/kg)
- Source control the earlier the better
  - Remove lines, drain abscesses
  - Other things often require specialist involvement e.g. CIED, orthopedic hardware
- Document blood culture clearance



#### **Preliminary Results ESCMID 2025**

4000+ recruited

- MSSA Bacteremia
  - 1341 enrolled
  - Cefazolin noninferior to flucloxacillin
  - Endpoint: 90-day mortality
  - AKI lower in cefazolin



# Salvage Therapy – when to escalate?

**MSSA** 

- ASP
- Combo therapy

**MRSA** 

Ceftaroline + daptomycin

### Duration

NO DEEP-SEATED INFECTION, NO METASTATIC FOCI

YES DEEP INFECTION OR METASTATIC FOCI

• 2 weeks

• 4-6 weeks

### Non-traditional Strategies

- Dalbavancin: pending publication of DOTS
  - 1500mg IV day 1 and 8 for "complicated" SAB including right-sided IE

- Oral antibiotics
  - SABATO trial only very low risk patients (5% of evaluated pt population)
- We do these all the time!

### Take Aways

- Staph aureus bacteremia is different
  - High-stakes
  - Complex and thorough work-up required
  - Treatment is longer
- Pharmacists
  - Critical for optimizing antibiotic
- Not everyone needs to be stuck on IV