NHS
Greater Glasgow and Clyde

CLINICAL GUIDELINE

Staphylococcus aureus bacteraemia (SAB) guidelines on management in Adults

A guideline is intended to assist healthcare professionals in the choice of disease-specific treatments.

Clinical judgement should be exercised on the applicability of any guideline, influenced by individual patient characteristics. Clinicians should be mindful of the potential for harmful polypharmacy and increased susceptibility to adverse drug reactions in patients with multiple morbidities or frailty.

If, after discussion with the patient or carer, there are good reasons for not following a guideline, it is good practice to record these and communicate them to others involved in the care of the patient.

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Approval Group:	Antimicrobial Utilisation Committee

Important Note:

The Intranet version of this document is the only version that is maintained.
Any printed copies should therefore be viewed as 'Uncontrolled' and as such, may not necessarily contain the latest updates and amendments.

Guidance on management of proven or suspected *Staphylococcus aureus* bacteraemia (SAB) in adults

Staphylococcus aureus bacteraemia suspected or identified in the laboratory

CLINICAL TEAM INITIAL MANAGEMENT

- Ensure prompt prescription and administration of empirical IV antibiotic therapy
- If NEWS ≥ 5, complete Sepsis 6 bundle
- Consider further microbiology samples (e.g. urine, pus, sputum, prosthetic material)
- Consider risk factors: recent hospitalisation, surgery, vascular device, person who injects drugs (PWID), haemodialysis, or previous SAB
- Discuss with patient's consultant and consider early infection specialist review
- Ensure clinical management plan is documented in notes
- Discuss all patients with complex/ deep seated/ device-related or persistent SABs, Endocarditis and all PWIDs with an infection specialist
- If SAB is healthcare associated discuss with Infection Prevention Control team regarding need for a root cause analysis and consider duty of candour

FURTHER CLINICAL MANAGEMENT

EXAMINE AND INVESTIGATE TO IDENTIFY SOURCE OF SAB
Vascular device, Skin/Soft tissue/Wound, Septic arthritis, Osteomyelitis, Discitis, Endocarditis, Prosthesis, Infected DVT/septic thrombophlebitis, Pneumonia

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SOURCE CONTROL
Remove infected IV device, involve appropriate surgical specialist to remove drain collections, wash out joints etc.

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TRANS THORACIC ECHO (TTE) IN ALL PATIENTS
Consider trans-oesophageal echocardiogram (TOE) if TTE negative and prosthetic valve or higher suspicion of endocarditis

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REPEAT BLOOD CULTURES 48-96 hours after starting IV antibiotics

ANTIBIOTIC TREATMENT

MINIMUM 2 WEEKS IV FLUCLOXACILLIN
(or IV Vancomycin if true allergy or MRSA)

IV FLUCLOXACILLIN is more effective than IV VANCOMYCIN in flucloxacillin-sensitive SAB

- MRSA accounts for <10% of all SABs in Scotland
- IV FLUCLOXACILLIN 2g 6 hourly (consider dose reduction only if Cr Cl < 10 mls/min) or 4-6 hourly if treating Endocarditis as per local policy
- If known MRSA carrier or previous MRSA infection use IV VANCOMYCIN but consider adding IV FLUCLOXACILLIN pending sensitivity results.
- Use IV VANCOMYCIN first line if assessed as true Penicillin allergy
- IV VANCOMYCIN dosing
  - Intermittent (pulsed) infusions: trough of 15-20 mg/L
  - Continuous infusion: steady state concentration of 20-25 mg/L

INFECTION SPECIALIST ROLE (ID physician or clinical microbiologist)

- Advice on further investigation (imaging/need for TOE) and source control
- Advice on therapy duration and need for/selection of ongoing oral therapy or OPAT
- Any antibiotic-related adverse events or failure to respond to treatment

July 2019 Review date: July 2022

Original version of guidance developed by the Scottish Antimicrobial Prescribing Group in collaboration with the Scottish Microbiology and Virology Network