Galway: GAPP - Galway Antimicrobial Prescribing Policy / Guidelines (GAPP): Sepsis

Sepsis - Source Unclear

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1. **Discussion with Microbiology or Infectious Diseases recommended** .
2. If **source is known or suspected** e.g. meningitis, respiratory, urinary, skin and soft tissue, ensure antibiotics are appropriate for the source. Follow the antibiotic recommendations in the **corresponding chapter.**
3. Identify need for further intervention to **address the source of infection** e.g. drainage or removal of source.
4. The regimens below may NOT cover Multi-drug Resistant Organisms (MDRO) in all cases. **See note on MDRO .**
5. Administer antimicrobials promptly once sepsis is suspected. HSE Sepsis Programme Documents & Resources (including Screening form and algorithm) are available at https://www.hse.ie/eng/about/who/cspd/ncps/sepsis/resources/
6. If infection site is known, culture results are available, and/or patient improved, review treatment with new information and consider de-escalation. If antibiotics are still required, use the narrowest spectrum of coverage for the shortest time.
7. **Duration** of treatment is decided on a **case-by-case basis** depending on subsequent diagnosis as well as clinical progress.

Empiric Antibiotics for Sepsis – Source Unclear

Infection	1st Line Antibiotics	Penicillin allergy: delayed onset non-severe reaction	Penicillin allergy: immediate or severe delayed reaction
		See penicillin hypersensitivity section for further information	

The regimens below may NOT cover Multi-drug Resistant Organisms (MDRO) in all cases. **See note on MDRO**

Antibiotics must be given as soon as possible, then discuss with Microbiology or Infectious Diseases.

Meropenem should be considered in patients who are critically ill with sepsis or have a history of a Gram-negative Multi-drug Resistant Organism (MDRO). Discuss use of Meropenem with Microbiology or Infectious Diseases. If meropenem is essential in a patient with a history of severe penicillin allergy e.g. anaphylaxis, close monitoring is required for cross sensitivity e.g. in ICU.

Infection	1st Line Antibiotics	Penicillin allergy: delayed onset non-severe reaction	Penicillin allergy: immediate or severe delayed reaction
Sepsis – Source Unclear No risk factors for MRSA e.g. No CVC/ No IV Drug Use	**Give antibiotics immediately** Piperacillin/tazobactam IV 4.5g every 6 hours + Gentamicin IV **one dose** per GAPP App calculator. See footnote [1] re further doses and monitoring. See footnote [2] re use in pregnancy. See footnote [3] re sepsis in pregnancy.	CefTRIAXone IV 2g every 24 hours + Gentamicin IV **one dose** per GAPP App calculator. See footnote [1] re further doses and monitoring. See footnote [2] re use in pregnancy. **If pregnant or suspected intra-abdominal source:** **Add** Metronidazole IV 500mg every 8 hours See footnote [3] re sepsis in pregnancy.	**Discuss with Microbiology or Infectious Diseases** Ciprofloxacin IV 400mg every 12 hours. See footnote [2] re use in pregnancy. + Gentamicin IV **one dose** per GAPP App calculator. See footnote [1] re further doses and monitoring. See footnote [2] re use in pregnancy. + Vancomycin IV infusion, dose per GAPP App calculator. See footnote [1] re monitoring. **If pregnant or suspected intra-abdominal source:** **Add** Metronidazole IV 500mg every 8 hours See footnote [3] re sepsis in pregnancy.
Sepsis – Source Unclear CVC in situ/ Inflammation at intravascular catheter insertion site/IV Drug Use/ Risk factors for MRSA	**Give antibiotics immediately** Piperacillin/tazobactam IV 4.5g every 6 hours + Gentamicin IV **one dose** per GAPP App calculator. See footnote [1] re further doses and monitoring. See footnote [2] re use in pregnancy. + Vancomycin IV infusion, dose per GAPP App calculator. See footnote [1] re review and monitoring. See footnote [3] re sepsis in pregnancy.	CefTRIAXone IV 2g every 24 hours + Gentamicin IV **one dose** per GAPP App calculator. See footnote [1] re further doses and monitoring. See footnote [2] re use in pregnancy. + Vancomycin IV infusion, dose per GAPP App calculator. See footnote [1] re review and monitoring. **If pregnant or suspected intra-abdominal source:** **Add** Metronidazole IV 500mg every 8 hours See footnote [3] re sepsis in pregnancy.	

[1] Review need for ongoing Gentamicin and Vancomycin on a daily basis. Continue with **once daily Gentamicin** dosing ONLY if **Consultant / Specialist Registrar** recommended. For advice on monitoring see **Gentamicin & Vancomycin** Dosing & Monitoring section.

[2] Gentamicin & Ciprofloxacin are recommended in pregnancy when benefit outweighs risk.

[3] For full detailed guidance on the management of sepsis in a pregnant patient, see WAC Directorate Guideline on the Management of Suspected Sepsis and Sepsis in Obstetric Care (QPulse CLN-OGCP-218). Discuss with Obstetrics.

Refs:

1. *Surviving Sepsis Campaign International Guidelines for Management of Sepsis and Septic Shock 2021*
2. *NCEC Sepsis Management National Clinical Guideline No. 6 2014*
3. *The Sanford Guide to Antimicrobial Therapy Digital Update Oct 2023*
4. *HSE Sepsis programme documents and resources: https://www.hse.ie/eng/about/who/cspd/ncps/sepsis/resources/*

Suspected Meningococcaemia (without features of meningitis)

Suspected Meningococcaemia (without features of meningitis)

1. **Discussion with Microbiology or Infectious Diseases recommended.**
2. When infection with susceptible ***N. meningitidis*** is confirmed, therapy with **Benzylpenicillin** alone is appropriate.
3. **Chloramphenicol** is available in the Emergency Department and in the Pharmacy Department. **Meropenem** may be an alternative to chloramphenicol in patients with a history of penicillin anaphylaxis, as recommended in Irish guidelines, with close monitoring for cross-sensitivity e.g. in ICU.
4. See Appendix 3 for management of **contacts.**

Infection	**1 st Line Antibiotics**	**Penicillin allergy:** **delayed onset non-severe reaction**	**Penicillin allergy:** **immediate or severe delayed reaction**	**Comment**
		See penicillin hypersensitivity section for further information		
Suspected Meningoccaemia (without features of meningitis)	CefTRIAXone IV 2g every 12 hours	CefTRIAXone IV 2g every 12 hours	Give first dose Chloramphenicol IV 25mg/kg and **IMMEDIATELY contact** Microbiology or Infectious Diseases to discuss options. Discuss need for nasopharyngeal eradication for the patient with Microbiology or Infectious Diseases	Duration 7 days