Galway: GAPP - Galway Antimicrobial Prescribing Policy / Guidelines (GAPP): Initial management of neutropenic sepsis - Algorithm			
Galway: GAPP - Galway Antimicrobial Prescribing Policy / Guidelines (GAPP) - Last Updated: March 28, 2025, 10:32 a.m., printed: April 3, 2025, 3:10 p.m.			
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MMEDIATE ASSESSMENT

Neutropenic Sepsis Guidelines GUH - INITIAL Management

Suspicion of Neutropenia and Fever OR Clinical Signs of Sepsis

Assess immediately as an emergency
Neutrophils < 0.5 x 10⁹/L or <1 x 10⁹ /L and falling
Temp ≥ 38.3°C one time or sustained ≥ 38° over
one hour

Start sepsis form and take blood cultures

Review previous microbiology for history of colonisation /infection with antibiotic resistant organisms & assess other risk factor for antibiotic resistance.

If colonised with Multi-drug Resistant Organisms (MDRO) discuss with Microbiology/Infectious Diseases (ID). The regimens below may NOT cover MDRO in all cases. See note on MDRO

Assessment

*FULL history & exam *FBC, onc-profile, CRP, Coag, Lactate *Septic screen *Blood cultures – peripheral and central

*Other samples as clinically indicated *CXR *Consider ABG (if

platelets >50)
*Pulse oximetry

Any signs of sepsis or septic shock (see sepsis form) Contact baematology/

haematology/ oncology registrar or consultant on call & consider need for anaesthetic review

Complete Sepsis Six within 1 hour

Take 3: blood cultures, blood tests, urine output Give 3: O₂, Fluids, Antibiotics

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

Meropenem should be considered as first-line treatment in patients who are **critically ill** with sepsis **OR** have a history of a **Gram-negative MDRO**. Discuss use of Meropenem with Microbiology or ID. 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.

Check allergy status and give antibiotics immediately after taking blood cultures

No penicillin allergy	Penicillin allergy: delayed onset non-severe reaction	Penicillin allergy: immediate or severe delayed reaction	
Piperacillin/tazobactam IV 4.5g every 6 hours PLUS	Meropenem IV 1g every 8 hours	Give first doses, THEN IMMEDIATELY discuss on-going therapy with Microbiology or ID	
Either	Consider need for Vancomycin IV infusion	Aztreonam IV 2g every 8 hours PLUS	
Gentamicin IV One dose per GAPP App calculator. OR	dose per GAPP App calculator (see below)	Vancomycin IV infusion dose per GAPP App calculator PLUS	
If multiple myeloma* Ciprofloxacin IV 400mg every 8 hours		Either <u>Gentamicin</u> IV one dose per GAPP App calculator	
Consider need for Vancomycin IV infusion dose per GAPP App calculator		OR If multiple myeloma* Ciprofloxacin IV 400mg every 8 hours	
(see below)		400mg every o nours	
*In a haemodynamically unstable patient with multiple myeloma, benefit of gentamicin might outweigh risk – discuss with haematology consultant			
Suspected line infection	dose) IFSeptic shock/haemodynamica	*	
 Skin /Soft tissue infection 	MRSA colonization or infection Pneumonia		

DAILY REVIEW Review Gentamicin (or Ciprofloxacin) after 24 hours, then daily.

Continue ONLY if consultant or registrar recommended.

Review patient daily, or more often if indicated.

Reassess treatment at 48 hours - see algorithm below for continuing management.

For information on further treatment, investigations and monitoring, please see Haematology Guidelines for the Management of Adult Febrile Neutropenic Patients in Galway University Hospitals on Opulse

(click on image to enlarge)