មន្ទីរពេទ្យ កាល់ម៉ែត HOPITAL Calmette	**SOP for Management of Neutropenic Sepsis**	Date/Place November 2025/PP	Number of pages 4

OBJECTIVES

To provide guidelines for Physicians and Nurses for the management of neutropenic sepsis in haemato-oncology patients

SCOPE

This document outlines the indication for treatment and management for all those patients with presumed or diagnosed with neutropenic sepsis

REFERENCE TEAM

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STANDARD OPERATING PROCEDURE FOR ALL PATIENTS WITH NEUTROPENIC SEPSIS

Indication
Initial management of neutropenic sepsis in haemato-oncology patients

Patient Definition
ALL patients with neutrophils of < 1.0 x 10^9 PLUS fever/ hypothermia +/- septic shock, who have ANY of the following signs/ symptoms MUST be assumed to be neutropenic and septic: ● Fever of > 38^0C or > 37.5^0C on 2 occasions 30 mins apart OR ● Hypothermia of < 36^0C OR ● Chills, fevers or sweats OR ● Septic shock syndrome: tachycardia, tachypnea, hypotension, rigors, diaphoresis, altered mental status, decreased capillary refill, cyanosis or mottling, dysuria, decreased or increased urine output, ● Other symptoms of infection

Immediate clinical management by team work)
Neutropenic sepsis is a life threatening emergency. Patients should be treated before the confirmation of diagnosis i.e. prior to confirmatory blood results/ blood culture. Patients should be assessed by clinical staff within 15 mins of suspected diagnosis with any of these criteria: 1. Chemo-Immunotherapy (recent) 2. Known patient with hematology disease 3. Known immunocompromised patient 4. Patient with the bone marrow suppression from recent treatment

ALL patients should receive the following investigations/ treatment:

1. Patient should be treated in single room or an isolated room
2. Blood and urine cultures (& other clinically relevant cultures e.g. swabs/ sputum, stool, pus…), including any central line. **The culture must be done before starting antibiotics.**
3. Oxygen to maintain target oxygen saturation
4. Bloods: CBC, CRP, lactate, bicarbonate, electrolyte, liver function (LFT), kidney function and procalcitonin
5. IV fluids (consider 20mg/kg as initial fluid resuscitation in absence of decompensated heart disease
6. Monitor urine output (consider a catheter if haemodynamically unstable)
7. Chest X-Ray +/_ whole abdomen ultrasound

Empirical Antibiotics

- Start IV Antibiotic administration within 30 min for patient with septic shock and within 60 min for all others
- Neutropenia without sepsis does not require treatment
- Consider GCSF:
  - Filgrastim 300mcg qd SC or
  - Filgrastim 300mcg + NSS 60ml IV over 30mn (platelet < 10 gg/L)

DO NOT WAIT FOR RESULTS BEFORE GIVING ANTIBIOTICS

See flow diagram below for choice of antibiotic

Haemato-oncology patient with suspected/ confirmed neutropenic sepsis

Does the patient have septic shock/ is critically unwell?

No

Stop oral antibiotic prophylaxis (e.g. co-trimoxazole, quinolone)

IV piperacillin/ Tazobactam 4.5g q8h-q6h

And consider
IV Gentamicin 4-7 mg/kg
(MAX 4 days of gentamicin)

If current/ recent infection/ colonisation with MRSA or suspected skin/ soft tissue/ IV line infection:

ADD
IV Vancomycin

If true penicillin/ beta-lactam LIFE THREATENING allergy:

Vancomycin + Ciprofloxacin 400mg IV q12h

If Non-Life Threatening allergy (e.g.rash)
Monotherapy of
. Cefepime 2g IV q8h or
. Meropem 1g IV q8h or
. Ceftazidime 2g IV q8h

If remains febrile after 48 hours (and no positive microbiology results- consider changing to meropenem and amikacin

Yes

First line (including penicillin allergy (not anaphylaxis)
. IV Meropenem 1g q8h
. AND IV Amikacin
. AND/OR IV Vancomycin
(see the protocol for the dosage)

If true penicillin/ beta-lactam anaphylaxis
. IV Gentamicin
. AND IV Vancomycin
. AND IV Ciprofloxacin 400 mg q12h

If fever persists for > 1 week

Consider imaging: CT CAP +/- contrast (possible fungal infection/ PJP)

Liaise with infectious disease team to consider antifungal medication if prolonged neutropenia and risk factors