

សាខាបែងចាយ ការថែទាំ HOPITAL Calmette	SOP for Management of Neutropenic Enterocolitis in Adult	Date/Place April 2024/PP	Number of page
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OBJECTIVES

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

SCOPE

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

REFERENCE TEAM

REFERENCES

Hospital Director	Head of Technical Bureau	Representative of Compilation Team
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Definition	Neutropenic enterocolitis is a life-threatening necrotizing inflammation of intestinal tract in patients with neutropenic fever with a mortality rate of 30 to 50%.
Risk Factors	<ul style="list-style-type: none"> - Conditions complicating prolonged neutropenia i.e. hematological malignancies, aplastic anemia, etc. - Patients receiving cytotoxic chemotherapies
Diagnostic criteria	<ul style="list-style-type: none"> - Fever - Absolute neutropenia count $\leq 500/\text{mm}^3$ - Abdominal symptoms i.e. pain, diarrhea, constipation, GI bleeding, etc. - Bowel wall thickening on CT or US exam $> 4 \text{ mm}$
Laboratory testing	<ul style="list-style-type: none"> - CBC, Coagulation studies - Chemistry panels: RFT, LFT, Electrolytes, CRP, Procalcitonin - Infectious workup: <ul style="list-style-type: none"> - Hemoculture , Urine culture, Stool culture, etc. - Clostridium difficile toxin A & B
Principles of therapy	<ul style="list-style-type: none"> - Bowel rest (NPO) +/- nasogastric suction - Intravenous fluids and parenteral nutritional support - Blood product support (PRC, Platelet, and Plasma): <ul style="list-style-type: none"> - Maintaining hemoglobin above 7 g/L - Platelet above 20 Giga/L - Correct coagulation abnormalities - G-CSF (if no contra-indication and preferably should be given intravenously in case of severe thrombopenia) - Empiric antimicrobial therapy <ul style="list-style-type: none"> - Antibiotherapy agents (anti-pseudomonas agents): <ul style="list-style-type: none"> - Piperacillin-tazobactam or - Cefepime or - Carbapenem ** In severe cases, bi-therapy or tri-therapy is recommended in association with anaerobic coverage agent (i.e. metronidazole) and aminoglycoside (i.e. amikacin or gentamicin). - Antifungal agents: <ul style="list-style-type: none"> - Voriconazole or Amphotericin B (if fever persists more than 48 to 72H despite broad-spectrum antibiotics)

	** Supportive care and antimicrobial therapy should continue until resolution of clinical symptoms, resolution of bowel thickening on US or CT scan, and ANC $\geq 1000/\text{mm}^3$.
Complications	<ul style="list-style-type: none"> - Bowel perforation and abscess formation - Sepsis and septic shock - Gastrointestinal bleeding - Malnutrition (from prolonged NPO)
Prevention	<ul style="list-style-type: none"> - Antibacterial prophylaxis: oral ciprofloxacin or levofloxacin - Antifungal prophylaxis: oral fluconazole - G-CSF (if no contra-indication) after chemotherapy
Important notes	<ul style="list-style-type: none"> - Surgical treatment is avoided in neutropenic enterocolitis due to neutropenia and thrombocytopenia but considered when complications like perforation arise. - Neutropenic enterocolitis, especially when it involves the right lower quadrant, can mimic acute appendicitis; resulting in unwanted surgical intervention. - Probiotics should be avoided in neutropenic enterocolitis. - Chemotherapy should be delayed at least 1 or 2 weeks after complete resolution and dose or regimen should be modified to prevent recurrence.