Standard Operating Procedure

Perforated Peptic Ulcer Disease

1. Purpose

To provide a structured and standardized approach for the diagnosis, emergency management, surgical treatment, and postoperative care of patients presenting with perforated peptic ulcer, aiming to reduce morbidity and mortality.

2. Scope

Applicable to all healthcare providers (ER physicians, surgeons, anesthetists, medical officers, and nursing staff) involved in the management of suspected or confirmed perforated peptic ulcer disease.

3. Responsibilities

- Emergency Physician/Medical Officer: Rapid assessment, stabilization, investigations, urgent surgical referral.
- Surgeon: Confirm diagnosis, decide operative approach, perform surgery.
- Physicians: Pre-op fitness assessment.
- Anesthetist: Pre-op assessment, intraoperative monitoring, perioperative care.
- MO/Nursing Staff: Resuscitation support, monitoring, medication administration, pre- and post-op care.

4. Procedure

A. Initial Assessment

- Symptoms: Sudden, severe epigastric pain; may radiate to shoulder/back; nausea/vomiting; history of peptic ulcer disease or NSAID use.
- Signs: Board-like rigidity, peritonitis, tachycardia, hypotension, septic features.

B. Investigations

- Laboratory: CBC, electrolytes, renal function, LFTs, amylase/lipase, blood grouping & cross-match, infection screening.
- Imaging: Erect chest/abdominal X-ray (free air under diaphragm); CT abdomen if uncertain.

C. Resuscitation & Preoperative Management
- Airway, breathing, circulation stabilization.
- IV access, fluid resuscitation with crystalloids.
- Nasogastric tube for decompression.
- Urinary catheter for output monitoring.
- IV antibiotics (broad-spectrum).
- IV proton pump inhibitor (PPI).
- Adequate analgesia.
- Immediate surgical and anesthetic referral.
- Informed consent for laparotomy.

D. Surgical Management
- Exploratory laparotomy.
- Primary closure with suturing and omentoplasty.
- Resection/definitive ulcer surgery in selected cases.
- Peritoneal lavage with warm saline.
- Drain placement if gross contamination.

E. Postoperative Care
- Continue IV antibiotics and PPI.
- Monitor vitals, urine output, drain output.
- Pain control.
- Gradual reintroduction of diet once bowel function returns.
- Early mobilization.
- Monitor for complications (sepsis, abscess, wound infection, leak).

F. Discharge & Long-Term Management
- Oral PPI therapy.

- H. pylori testing and eradication therapy if positive.
- Lifestyle modifications (avoid NSAIDs, smoking, alcohol).
- Surgical OPD follow-up within 1–2 weeks.

5. Documentation

- Admission notes (history, examination findings)
- Resuscitation record
- Operative notes
- Post-op progress notes
- Discharge summary and follow-up instructions