

## GENERAL SURGERY

### PGY-1 Resident

#### Knowledge Objectives:

1. Order and interpret basic laboratory tests and x-rays.
2. Review, prioritize, and order appropriate medications.
3. Understand the nature of the informed consent.
4. Be familiar with intraoperative monitoring and know the doses and complications of local anesthetics, neuromuscular blocking agents, barbiturates, reversing agents, and gas anesthetics.
5. Understand acid-base and fluid-electrolyte imbalance in health and disease. Make adjustments in fluid administration for comorbid conditions.
6. Recognize and treat hypo-hyperkalemia, hypo - hyponatremia, hypo - hypercalcemia, hypo - hypermagnesemia.
7. Know mediators of fever, differential diagnosis, evaluation and management of the febrile patient and initiate appropriate work-up and supportive treatment.
8. Know normal skin and gastrointestinal flora and manifestations of organ system infections.
9. Know antibiotic pharmacodynamics, pharmacokinetics, and side effects, and recognize drug-related complications.
10. Know proper use and duration of antibiotic prophylaxis.
11. Know selection principles of antibiotics for specific infections. Understand the development of antibiotic resistance.
12. Know principles of universal precautions, prevention of nosocomial infections, and diagnosis and prevention of AIDS and of opportunistic infections.
13. Know classification of wound expectancy. Differentiate wound infection, seroma, and hematoma and initiate therapy.
14. Recognize necrotizing fasciitis, detect crepitus. Identify wound dehiscence and evisceration. Know and apply tetanus immunization.
15. Differentiate and describe types of shock and initiate therapy.

16. Assess and manage the following complications:
  - Altered mental status
  - Fever
  - Hypotension, hypovolemia, oliguria
  - Pain
  - Hypoxemia
  - Nausea, distension, vomiting
  - Bleeding from surgical site
  - Atelectasis, aspiration, pneumonia, dyspnea
  - Chest pain, CHF, pulmonary edema, myocardial infarction
  - Phlebitis, DVT, pulmonary embolus
  - Urinary retention
  - Diabetic ketoacidosis
  - Seizure, alcohol or drug withdrawal
17. Recognize and treat acute anaphylaxis
18. Manage a diabetic patient perioperatively.
19. Know pathophysiology of common gastrointestinal diseases. Diagnose and manage ileus and bowel obstruction, inflammatory bowel disease, GI bleeding, colonic volvulus, diarrhea, and appendicitis.
20. Recognize gross and basic microscopic findings of surgical diseases. Understand the implications of positive margins and limitations of frozen section and biopsy technique.
21. Recognize the immunocompromised patient.
22. Understand basic mechanisms of metastasis. Do appropriate metastatic work-up.
23. Know surgical implications of pregnancy.
24. Differentiate stroke, TIA, non-cerebrovascular events.
25. Know acute presentations of intoxication and acute management of intoxicated patient.
26. Appreciate and use cost-benefit analysis in decision making.

Skills Objectives:

1. Obtain a complete H&P including appropriate assessment and plan of therapy. Write daily progress note with synthesis of physical, laboratory, and radiologic findings in a diagnostic and therapeutic plan. Obtain written consent.
2. Obtain ATLS.
3. Dictate discharge summary. Provide efficient discharge planning. Maintain a personal patient log.
4. Interpret the anesthesia record. Position the patient. Insert arterial and central venous lines.

5. Obtain ACLS. Be able to perform endotracheal intubation.
6. Give appropriate fluid resuscitation, manage fluid postoperatively, and correct fluid and electrolyte disturbances.
7. Order and interpret appropriate imaging studies to detect source of sepsis.
8. Know and apply principles of incision and drainage.
9. Perform as first assistant by performing basic maneuvers (suture tie, hemostasis, traction and countertraction, using electrocautery safely).
10. Simple suture technique, wound care including debridement.
11. Tube thoracostomy.
12. Fine needle aspiration biopsy, core biopsy.
13. Perform under supervision:
  - Excision of benign skin and soft tissue lesions
  - Incisional biopsy
  - Breast biopsy
  - Lymph node biopsy
  - Open hernia repair
  - Amputation
  - Tracheostomy
  - Banding of hemorrhoids and hemorrhoidectomy
  - High ligation and vein stripping
14. Insert central venous and pulmonary artery catheters and interpret hemodynamic data to treat patient.
15. Recognize ischemia and arrhythmias on EGG.
16. Develop critical reading skills; understand application of biostatistics and clinical study design.
17. Discuss pertinent aspects of patient's condition with a consultant.
18. Develop skills in patient and family communication. Accept responsibility and demonstrate reliability.
19. Become well organized and efficient to maximize time management.