life & wellness co.
Medical Tourism Provider

Post Travel & Post Op Care

Post Op Care Issues

1. Length of stay
2. Medications
    - Continuation of pre op medications
    - Adjustments in pre op medications
    - New post-op medications (short term & long term)
3. Treatment Plans
    - Wound Care
    - Dietary (progression)
    - Ambulatory/Physical Rehab
    - Cardio-Respiratory Care

Post Op Care Complications

1. Acute Complications
    - Occurs during or immediately following surgery, typically during recovery room stay
    - Anesthesia complications
    - Primary hemorrhage
    - Basal atelectasis
    - Shock
        - Cardiogenic
        - Hypovolemic
        - Septic
    - Acute MI
    - PE
    - Surgical Injury
        - Unavoidable tissue or nerve damage may happen during the surgery. Example: facial nerve damage during cosmetic procedures and prostate damage during the prostate surgery.
        - Diathermy burns
        - Intra operative positioning damage to nerves and joints
        - Transport injury from fall
2. Early Complications : Occurs typically day 1-3 post op, highest incidence of post op complications
    - Confusion; exclude dehydration and sepsis
    - Nausea and vomiting. Analgesia or anesthetic feeling

- Paralytic ileus
- Secondary hemorrhage; often as a result of infection
- Fever
- Wound or anastomosis dehiscence (beak down of healing tissue)
- Deep Vein Thrombosis (DVT)
- Acute Urinary Tract Infection (UTI)
- Respiratory complications
- Fever day 0-2 post op
  - Mild fever (T <38° C) is common
  - Tissue damage and necrosis at operation site
  - Hematoma
  - Persistent fever (T >38° C)
  - Atelectasis: the collapsed alveolar may get infected
  - Specific infections related to the surgery like biliary infection post-surgery or UTI post-urological surgery
  - Blood transfusion or drug reaction
- Fever day 3-5 post op
  - Bronchopneumonia
  - Sepsis
  - Wound infection
  - Drip site infection or phlebitis
  - Abscess formation e.g. subphrenic or pelvic
  - DVT
- Fever after day 5 post op
  - Specific complications related to surgery, e.g. bowel anastomosis breakdown, fistula formation
  - Wound infection
  - Distant site infections e.g. UTI, URI
  - DVT
  - PE
- Respiratory
  - **Atelectasis** (alveolar collapse) happen when airways are obstructed, usually by bronchial secretions. Most cases are mild and may go unnoticed
  - **Symptoms** are slow recovery from operation, poor color, mild tachypnea, tachycardia and low-grade fever

- **Prevention** is by pre and post op physiotherapy. In severe cases, positive pressure ventilation may be required.
- **Pneumonia** requires antibiotics and/or physiotherapy

- DVT risk factors
  - Obesity
  - Smoking
  - Length of surgery
  - Type of surgery
  - Venous stasis
  - Hypercoagulable state
  - Inactivity after surgery such as prolong sitting on an flight
  - Use of oral contraceptive medications

Home Post-Operative

1. Referring/Primary Care Physician Follow Up Care
   - Medical/Surgical reports and communication
     - The PCP needs access to information post op via the following :
     - Mail
     - Fax
     - Web-based communication portals
2. Guide to the early phase treatment plans
   - Respiratory therapy
     - Spirometry (4 times daily for 10 days)
     - Cpap
     - Pulmonary consult
   - Cardiac therapy
     - Cardiac rehab
     - Cardiac consult
   - Wound care
     - When does the destination surgeon want wound site dressing changes to start post operatively?
     - How frequently should the dressing be changed?
     - Are there sutures to be removed and if so, when?
     - Watch for signs of infection

        - Wound discharge
        - Redness
        - Swelling
- Physical Rehab
    - Early ambulation
    - Ambulation aids
    - Special equipment needs
        - Walkers, beds, wheelchairs, crutches
- PT and OT
    - In-home
    - Frequency
    - Goals
        - Early: avoid lifting, limited range of motion
        - Late: increase range of motion, strength training
- Medications
    - Adjustment of pre op medications
    - Adjustment of new post op medications
    - Medications you may want to add to the therapy
    - Medications you may want to discontinue
- Diet progression
    - Clear liquids
    - Full liquids
    - Pureed foods
    - Solid foods
    - Vitamin and mineral supplements
- Follow up Primary Care Physician (PCP) visits and specialty office visits
    - As recommended by the destination surgeon
    - As recommended by PCP
- Follow up Primary Care Physician visits and specialty physician office visits
    - PCP follow up
        - 1st day after returning home
        - One week post op
        - 2 weeks post op

    - » 6 weeks post op
    - » PRN or based upon post op discharge instructions
  - Specialty Physician/Surgeon follow up
    - » Per destination surgeon request
    - » Per post op discharge orders
    - » Per post op complications
- Long-term Care Plan
  - PCP should follow up throughout complete healing process and per postop discharge recommendations by the destination surgeon.
  - PCP should initiate long-term PT, OT, dietary, and other ancillary services to ensure best clinical outcomes.
  - Schedule regular follow up office visits with PCP and recommended medical specialist to ensure best clinical outcomes
  - Ensure that the client is following up with destination surgical team (live or virtual) as recommended.
  - Ensure client is following up with local medical specialties as recommended by surgeon.
  - Share the complications and clinical findings with the client that would require post op consultation or return visit with destination surgeon or local surgeon or an ER visit.
  - Provide destination surgeon outcome data, medical reports, lab etc. that they may have been collecting long-term for their centers of excellence credentialing.

Late Post Op Complications

- Infection
  - Abscess formation
  - Cellulitis
- PE
- Anastomotic leaks (gastric bypass)
  - Abdominal pain, elevated pulse rate (>120bpm), fever>101° F
- Bowel obstruction due to fibrous adhesions
  - If bowel function doesn't return to normal by day 4 post op, consider bowel obstruction
- Disordered wound healing
  - Poor blood supply
  - Excess suture tension
  - Long term steroid use
  - Immunosuppressive therapy

  - Radiotherapy
  - Severe rheumatoid disease
  - Malnutrition and vitamin deficiency
- Wound dehiscence
  - Affects about 2% of mid-line laparotomy wounds
  - Serious complication with a mortality rate of up to around 30%
  - Due to failure of wound closure technique
  - Usually occurs between 7 and 10 days post op
  - Often heralded by serosanguinous discharge from the wound
  - Should be assumed that the defect involves whole of the wound
  - Initial management includes opiate analgesia, sterile dressing of wound, fluid resuscitation and early return to surgery for resuture under general anesthesia
  - Risk factors: poor nutrition, sepsis, anemia, steroid therapy, uremia, diabetes, liver failure, wound infections, poor surgical closure technique and postoperative distention
- Incisional hernia
  - Occurs in 10-15% of the abdominal wounds, usually appears within first year but can be delayed by up to 15 years after surgery.
  - Risk factors include obesity, distention and poovr muscle tone, wound infection and multiple use of same incision site.
  - Presents as a bulge in the abdominal wall close to previous wound. Usually asymptomatic but there may be pain, especially if strangulation occurs. Tends to enlarge over time and become a nuisance.
  - Management surgical repair if there is pain, strangulation or nuisance
- Persistent sinus
- Recurrence of reason for surgery
  - Two stage surgery
  - Malignancy
  - Weight regain (bariatrics)