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Acute Interventions for the Chronic Care Patient

Advanced Care Paramedicine

Module: 11

Section: 03b

Introduction

- A major trend of health care involves the shifting of patients out of the hospital and back into their homes as soon as possible.
- The result has been a huge increase in home health care services.

Epidemiology

- Number of factors contribute to the growth of home care
  - Improved medical technology
  - Improved recovery rates
  - Lower cost
- Increased likelihood of paramedics attending to chronic-care patients

- The home care provider is an important source of information

Common Reasons for Intervention

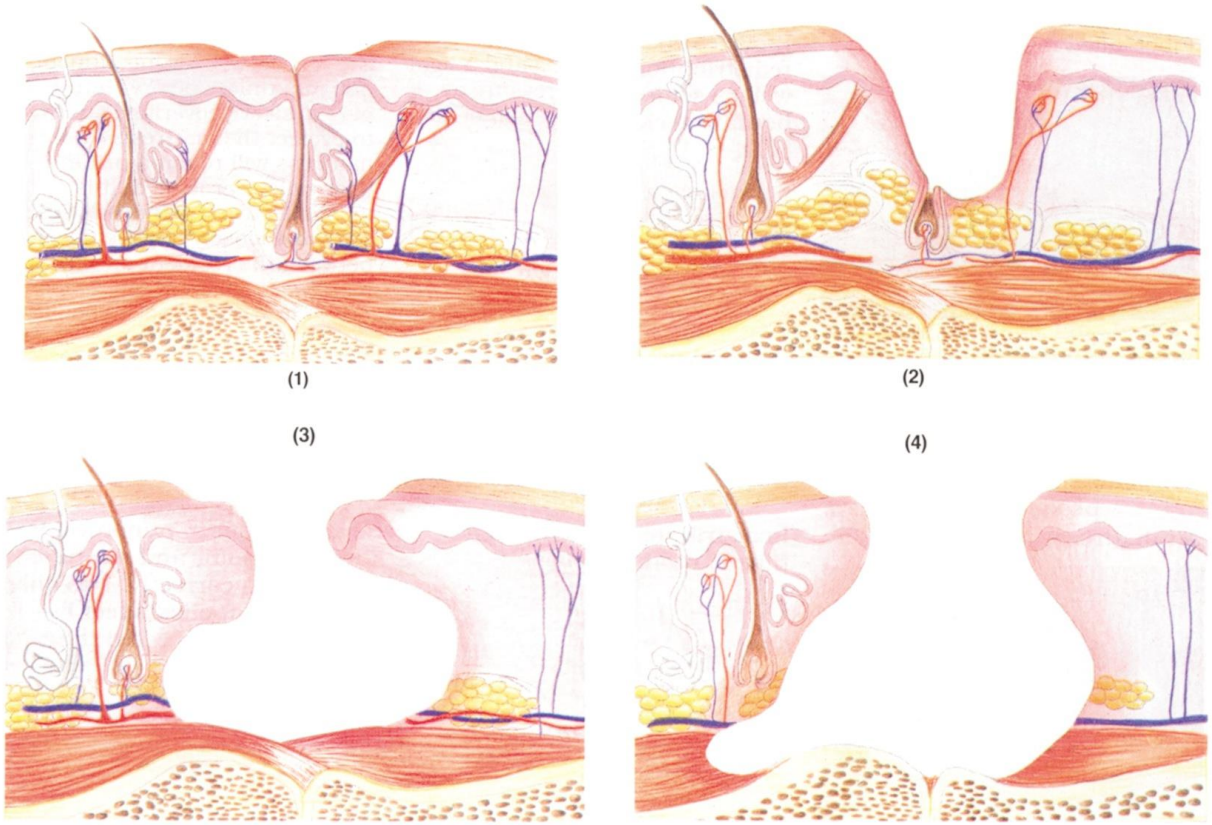
- Equipment failure
- Unexpected complications
- Absence of a caregiver
- Need for transport
- Inability to operate a device

Pathologies

- Pathologies in a home-care setting are the same as others
- Home care patient is in a more fragile state
  - Airway complications
  - Respiratory failure
  - Cardiac decompensation
  - Alterations in peripheral circulation
  - Altered mental status
  - GI/GU crises
  - Infections/septic complications

Pressure Sores

- Pressure sores are classified by the depth of tissue destruction



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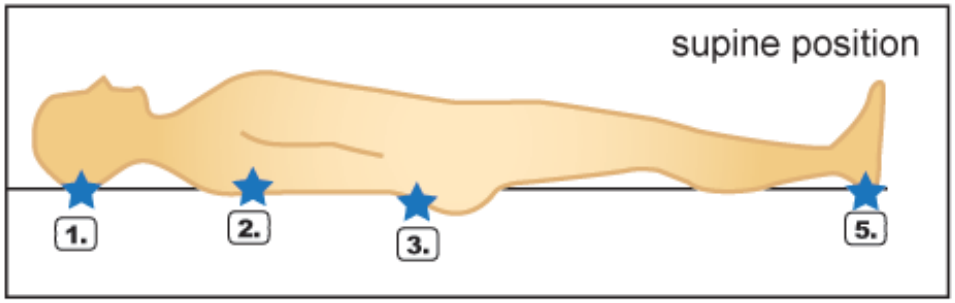
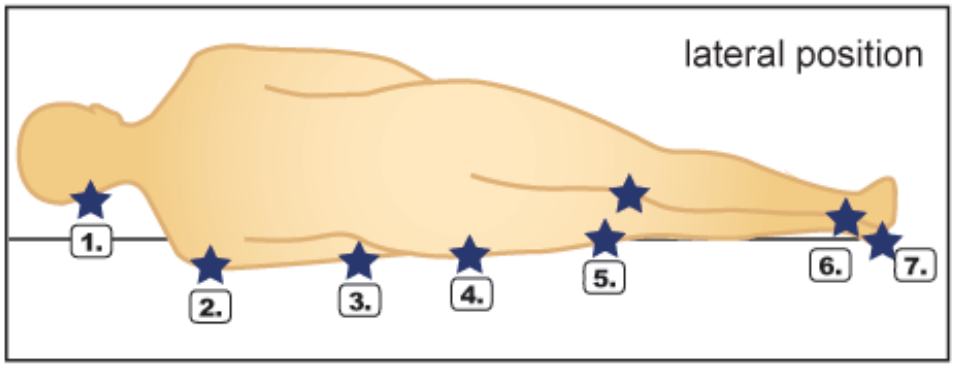
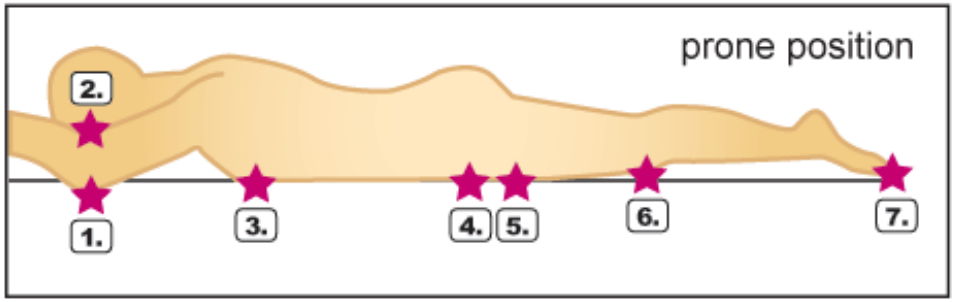
Pressure Sores



1. occiput
2. scalpula
3. sacrum
4. heels



1. ear
2. acromion process
3. elbow
4. trochanter
5. medial & lateral condyle
6. medial & lateral malleolus
7. heels



1. elbow
2. ear, cheek, nose
3. breasts (female)
4. genitalia (male)
5. iliac crest
6. patella
7. toes

Common Medical Devices

- Glucometers
- IV infusions and in-dwelling IV sites
- Nebulized and aerosolized medication administrators
- Shunts, fistulas, and venous grafts
- Oxygen concentrators, oxygen tanks, and liquid oxygen systems
- Oxygen masks and nebulizers

Common Medical Devices

- Tracheotomies and home ventilators
- G-tubes, colostomies, and urostomies
- Surgical drains
- Apnea monitors, cardiac monitors, and pulse oximeters
- Wheelchairs, canes, and walkers

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Medical Devices

GENERAL SYSTEM PATHOPHYSIOLOGY, ASSESSMENT, & MANAGEMENT

Principles

- Assessment of the home-care patient follows the same basic steps as any other patient.
- The one thing home-care calls have in common is their diversity.
- Try and ascertain from the primary care provider the patient's baseline health status.

Scene Assessment

- Is there a wheelchair ramp?
- Is there oxygen equipment?
- Is there a trail of oxygen tubing?
- Are there infection control devices?
- Is there a sharps container?
- Is the patient in a hospital bed?

Safety

- Patient with limited movement may be soiled
- Weeping wounds and ulcers
- Sharps present
- Collection bags for urine and feces
- Tracheostomy patients clear secretions by coughing
- Electrical equipment

Safety

- Hospital beds or walkers may be contaminated
- Oxygen in the presence of an open flame (cigarette)
- Cluttered equipment may cause you to stumble
- Medical wastes may not properly be disposed

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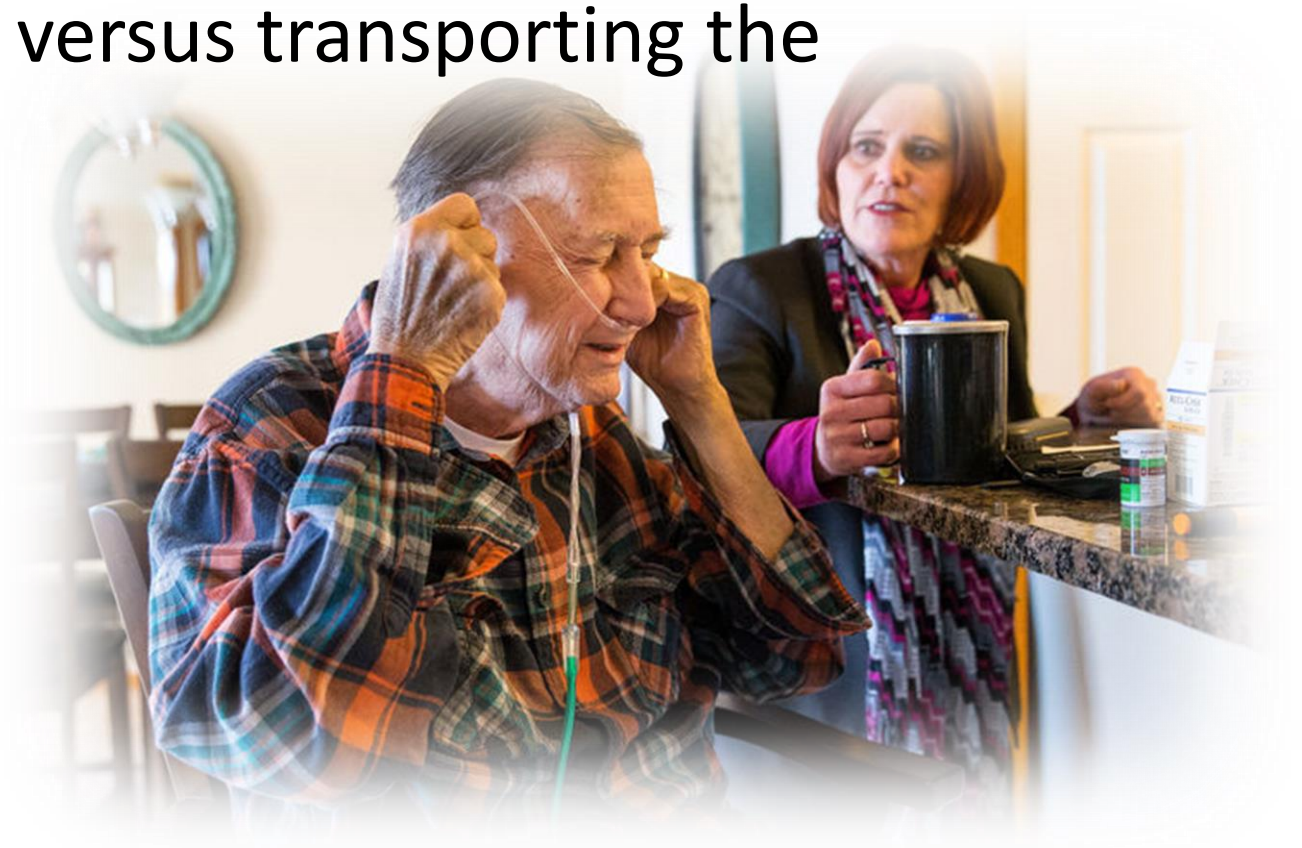
Home-care setting

- Tailor your questions to the home-care setting

Transportation and Management Treatment Plan

- You should critically assess the risks of discontinuing the home health care intervention versus transporting the mechanism.



Specific Health Situations

- Respiratory disorders
  - COPD
  - Bronchitis and emphysema
  - Asthma
  - CHF
  - Cystic fibrosis
  - Bronchopulmonary dysplasia (BPD)

Specific Health Situations

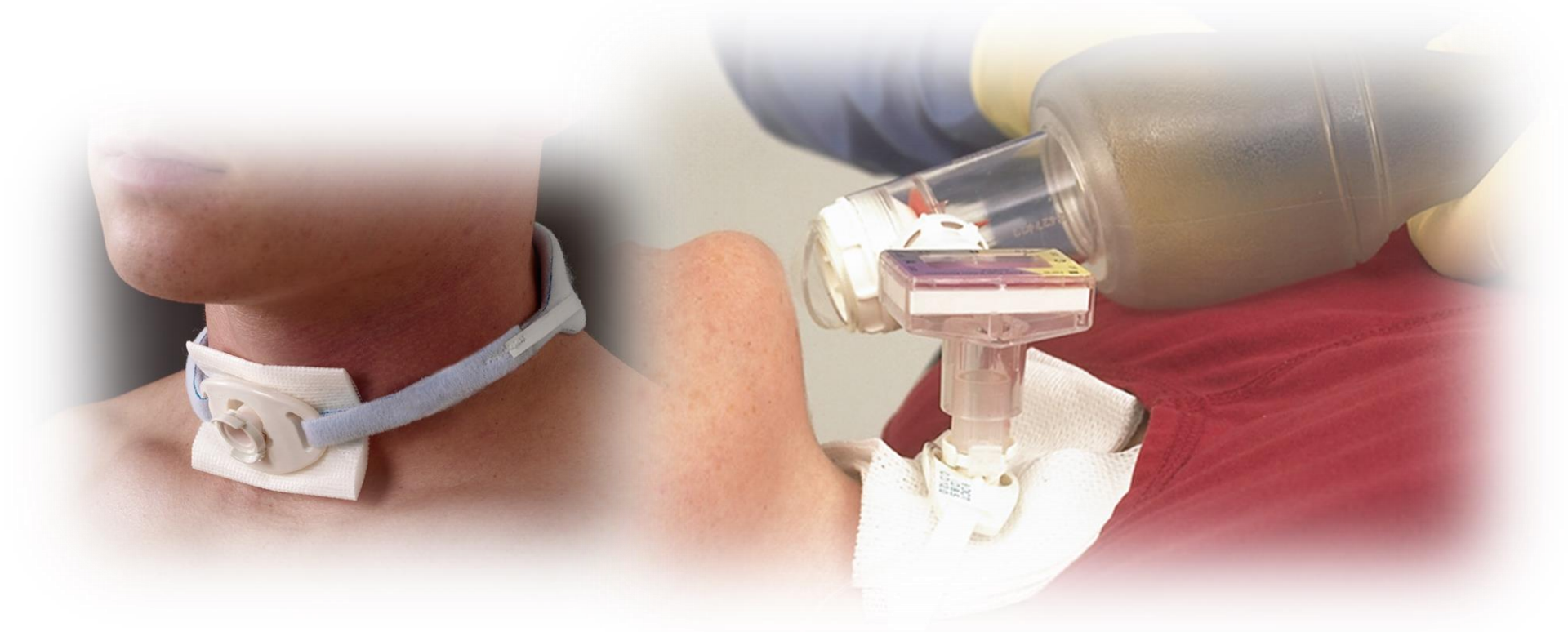
- Neuromuscular degenerative diseases
  - Muscular Dystrophy
  - Poliomyelitis
  - Guillain-Barré Syndrome
  - Myasthenia Gravis
- Sleep apnea
- Patients awaiting lung transplants

Medical Therapy Found in the Home Setting

- Home oxygen therapy
- Artificial airways/tracheostomies
- Vascular access devices
- Ventricular assist devices

Medical Therapy Found in the Home Setting

- Artificial ventilation in a patient with a tracheostomy tube



Medical Therapy Found in the Home Setting

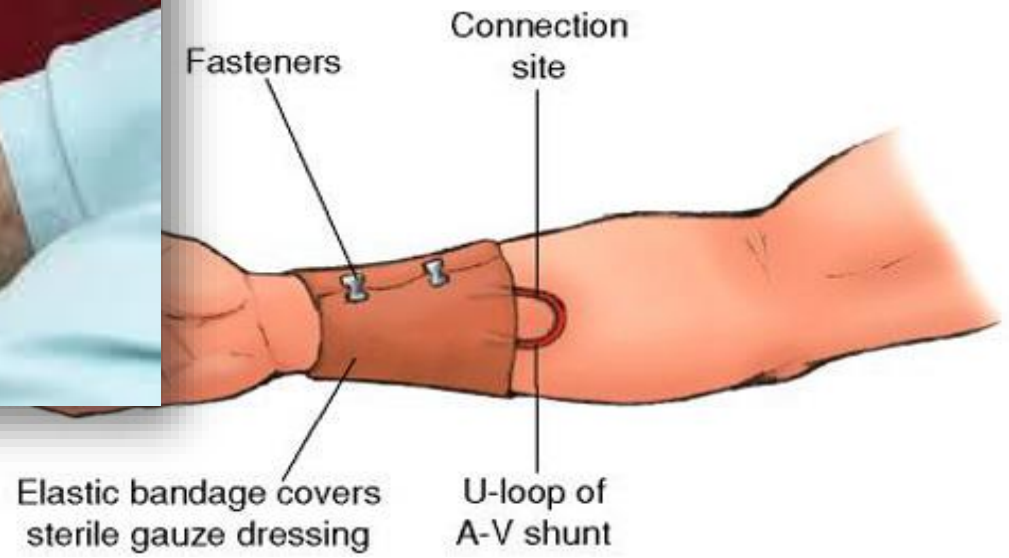
- Use of CPAP for sleep apnea patients

Vascular Access Devices

- Hickman, Broviac, Groshong
- Peripherally inserted central catheters
- Surgically implanted medication delivery systems
- Dialysis shunts

Vascular Access Devices

- An A-V shunt is used in home-care patients requiring dialysis



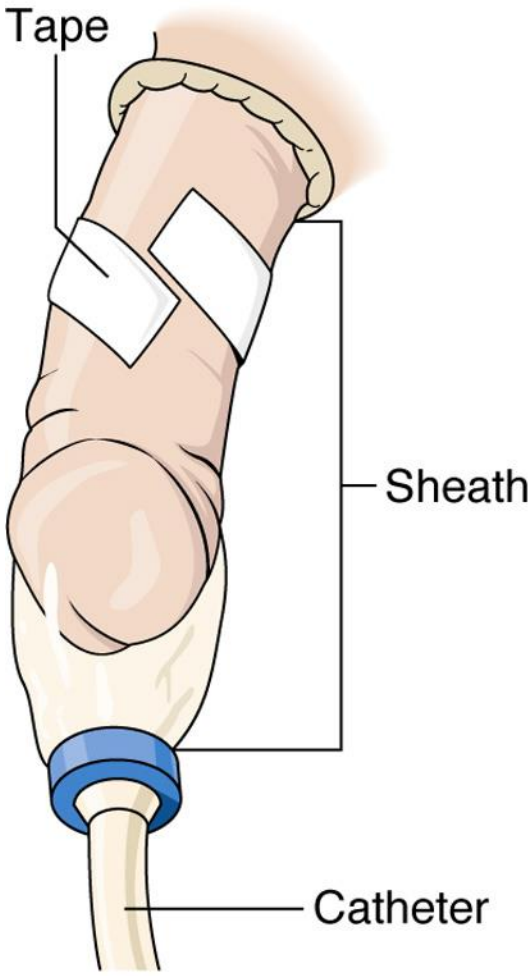
Vascular Access Devices

- Never access a surgically implanted port unless protocols allow you to do so
- Avoid vascular access and blood pressure in the extremity of a shunt

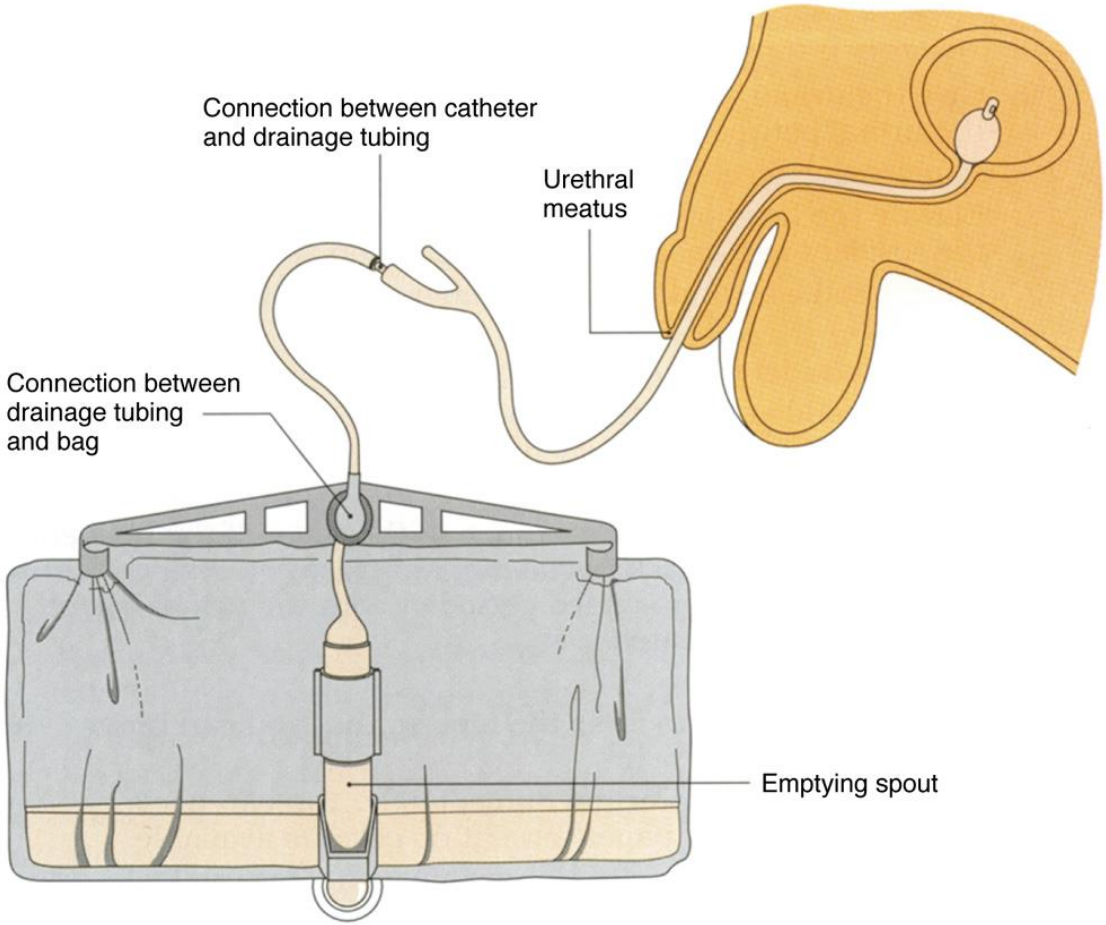
GI/GU Crisis

- Devices to support GI/GU function are common.
- Be familiar with the various devices and their complications

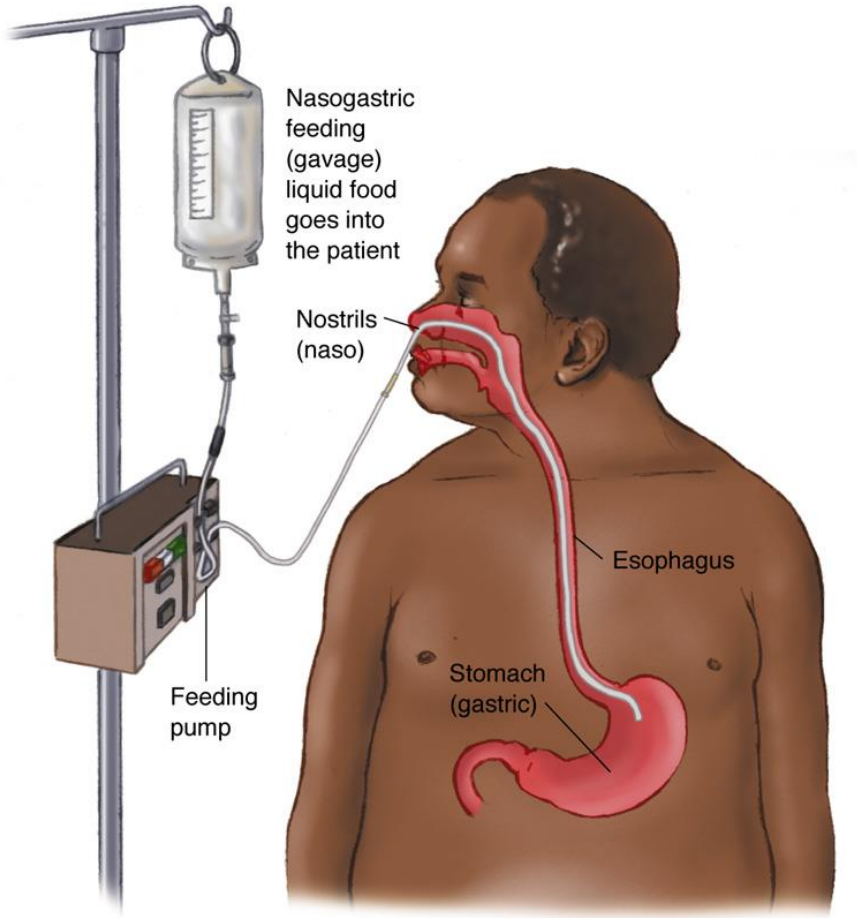
- An external urinary tract device



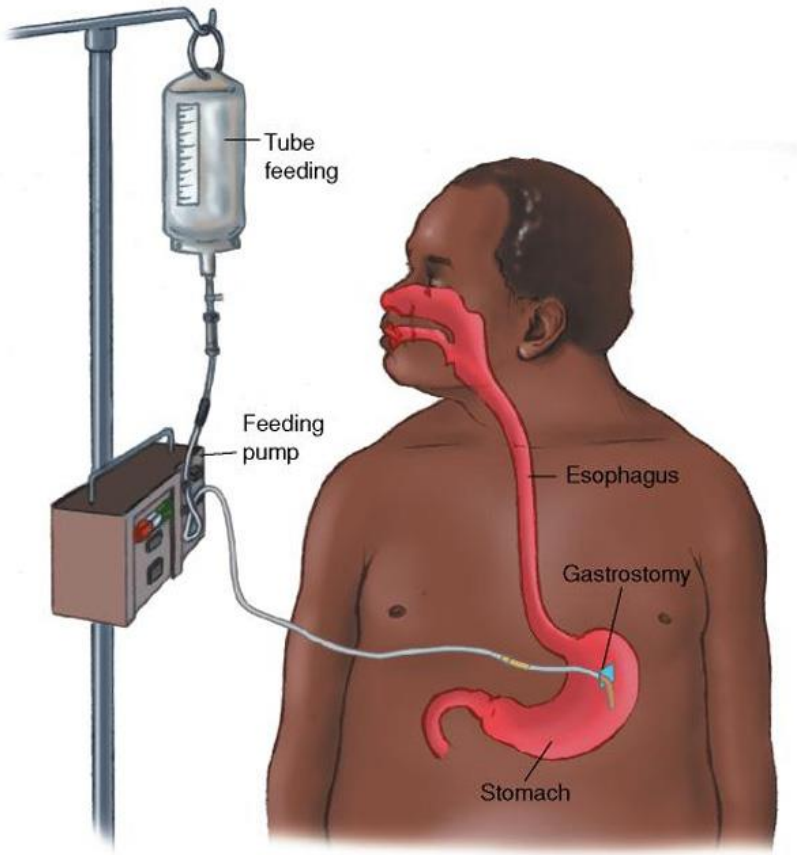
- Internal urinary catheter with balloon



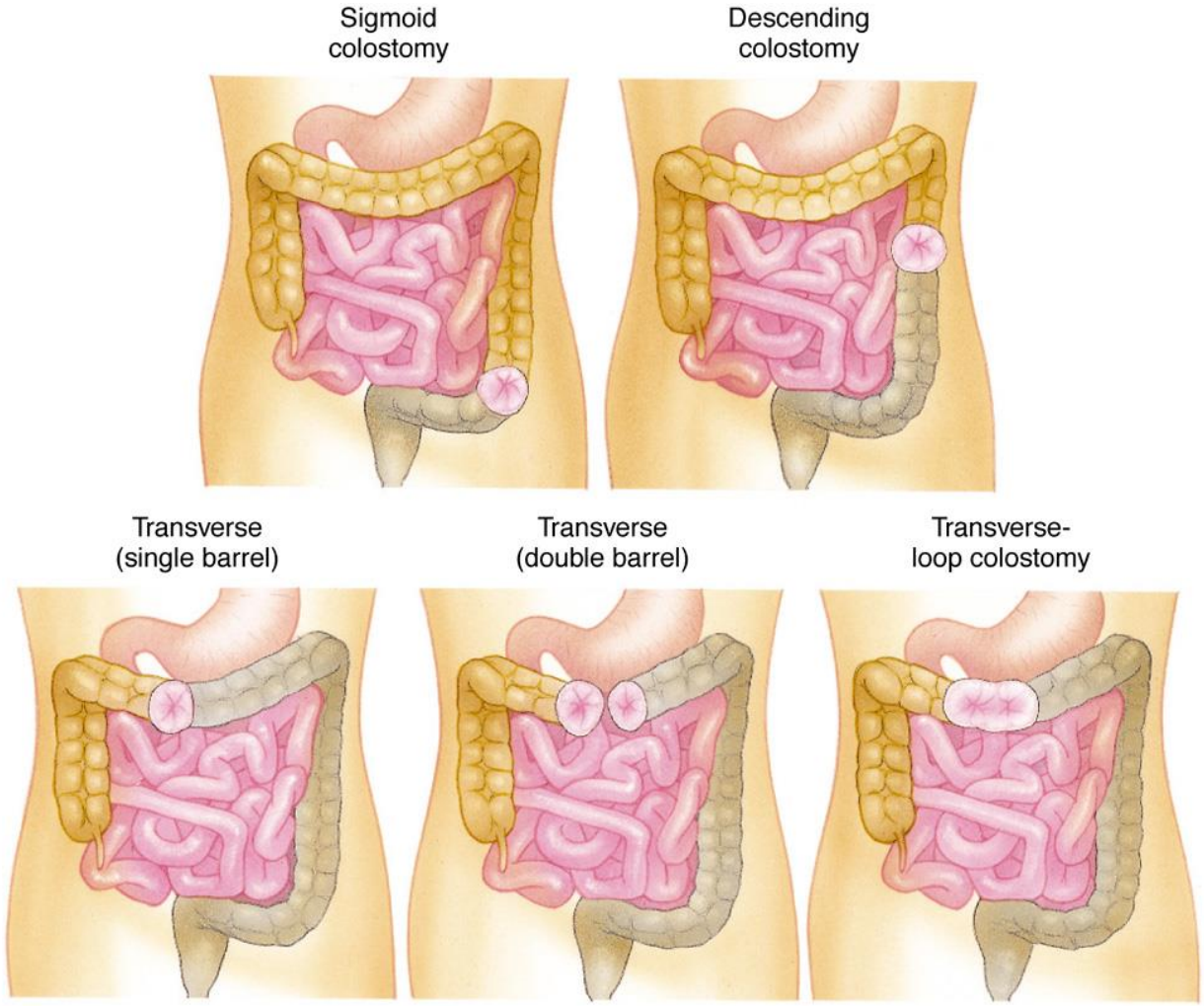
- A nasogastric feeding tube



- A gastrostomy feeding tube



- Examples of colostomy stoma locations



Maternal and Newborn Care

- Many women who deliver their babies in the hospital will be discharged in 24 hours or less.
- ALS providers may be called upon to assist new parents in caring for newborns or post-partum complications.

Maternal and Newborn Care

- Post-partum bleeding and embolus are common complications
- Management includes:
  - Massage of uterus
  - Administration of fluids
  - Administration of pitocin
  - Rapid transport, if necessary

Common Infant/Child Complications

- Signs/symptoms of cardiorespiratory insufficiency include:
  - Cyanosis
  - Bradycardia
  - Rales
  - Respiratory Distress

Medical Therapies for Children

- Mechanical ventilators
- IV medications
- Oxygen therapy
- Tracheostomies
- Feeding tubes
- Pulse oximeters
- Apnea monitors

Hospice

- The goal of hospice care is to provide palliative or comfort care rather than curative care.

Hospice

- Common diseases that you can expect to see in hospice include:
  - Congestive Heart Failure (CHF)
  - Cystic fibrosis
  - COPD
  - AIDS
  - Alzheimer's
  - Cancer

Table 46–1 Percent of Hospice Patients by Age

Age	Percent
Under 45 years	8.1
45-54 years	7.9
55-64 years	14.8
65-69 years	8.7
70-74 years	15.6
75-79 years	14.5
80-84 years	12.3
85 years and older	16.4

Source: National Center for Health Statistics

Summary

- Epidemiology
- Paramedic response
- General system pathophysiology, assessment and management
- Specific acute home health situations