Patient Assessment

Observation, assessment and evaluation are critical thinking skills
Should be considered second nature
Look, listen, smell, feel – always be aware and look for the unexpected
Makes you sensitive to the condition/needs of your patient

Hospital environments are intimidating
When patients feel their needs are met:
they are more cooperative
more receptive to directions
less willing to complain

Proper assessment and evaluation help scheduling
appropriate patient and procedure at the right time
Patient Assessment

Personal Concerns

Fear
Anxiety
Modesty
Discomfort

May manifest as anger, fidgety, quiet, or nervousness
Professional attitude/concern may reduce these responses

Patient Assessment

Introduce yourself
Explain procedures
Introduce environment
Inform them if you have to leave the room
Expectations = cooperation
Position for comfort

Patient Assessment

When clothing/articles must be removed:

- explain the rationale
- secure them safely
- plastic bag with name on it
- remind patient to ask for it at the end of the test
Patient Assessment

Physical Assessment is an ongoing process

Observation – comparison, evaluation

Skin color – can be early sign of change or distress
(cyanosis or pallor in lips, nail beds, mucous membranes)

Do not leave patient alone if change is acute – call for help

May be a chronic condition – ask patient

Skin temperature
- cool/clammy – diaphoresis
- hot/flushed – febrile

Can affect LOC

Patient Assessment

Homeostasis

Body’s "steady state" maintained by adaptive responses that promote health

- Heartbeat
- Blood pressure
- Body temperature
- Respiratory rate
- Electrolyte balance

Patient Assessment

Vital Signs

- Temperature
- Respiratory rate
- Blood pressure
- Heart rate
- Pulse oximetry
- Level of consciousness (LOC)
Patient Assessment

Normal VS

Temperature
97.7° to 99.5° F

Respirations
Adult 12 to 20 breaths per minute
Child 20 to 30 breaths per minute

Pulse
Adult 60 to 100 BPM
Child 70 to 120 BPM

Blood Pressure
Systolic <120 mm Hg
Diastolic <80 mm Hg

Patient Assessment

Temperature
Oral, rectal, tympanic, axillary, temporal
Different routes have advantages and disadvantages
Good skill to possess at home and work
Varies according to circadian rhythms
96.8 – 99°F (36-38°C)
Pyrexia = hyperthermia = fever
No longer use glass thermometers – OSHA
Temp dots
Can monitor continuously – gi, gu, rectal, tympanic

Patient Assessment

Heart Rate (Pulse)
Measured in beats per minute
Normal – 60-100
Tachycardia – >100
fever, anxiety, pain, exertion, cardiac conditions
Bradycardia – < 60
athletes, medications, cardiac conditions
Patient Assessment

Pulse

Quality – note weak, thready, bounding graded as 0, +1, +2

Carotid, brachial, radial, femoral, Apical – loudest at 5th ICS/LSB

Felt over superficial arteries as a pulsatile motion

Felt by gently placing two fingers over the site

Count for full minute

Do not use your thumb

Patient Assessment

Respirations

Know the signs of distress

rapid, shallow, noisy, use of accessory muscles

Count for a full minute

Normal 12-20/minute

Tachypnea > 20/minute

Agonal – guppy breaths

Kussmaul – typical with diabetics with high blood sugars

Cheyne stokes – rapid, shallow, with periods of apnea

Patient Assessment

Blood Pressure

Systolic – top number

pressure in LV exerted at time of contraction

Diastolic – bottom number

pressure in LV immediately after a contraction

Normal – 120/80

Hypertension – systolic > 140, diastolic > 90

Hypotension – 20% drop from patients normal (90/50)

Never treat one BP

Check both arms if abnormal the first time

Ask the patient what is their normal

Do not use the side of dialysis access or breast surgery
Patient Assessment

Pulse Oximetry

- Finger, toe, forehead, or earlobe
- Measures the oxygen carrying capacity of blood
- Normal is > 94%
- If low – may need an order for O2

Patient Assessment

Oxygen

- Essential for life - colorless, tasteless, and odorless gas
- Plays a critical role in cellular metabolism
- Makes up 21% of atmospheric gas
- Not flammable, but supports combustion
- Oxygen is considered a drug and must be ordered as such
- Clinically indicated to correct hypoxemia and tissue hypoxia

Patient Assessment

Oxygen

- Devices may be continuous flow or conserving device systems
- Devices are in liters per minute (LPM)
- Flowmeter is green
- Check portable tanks before transport
Patient Assessment

Nasal cannula
Masks
Tents and oxyhood

Patient Assessment

Ventilators

Patient Assessment

Indications for Ventilators
- Mechanical ventilation or O2 delivery
- Inadequate arterial oxygenation
- Chronic or acute need
- Upper-airway obstruction
- Impending gastric acid reflux or aspiration
- Tracheobronchial toilet (lavage)
- Radiograph needed for placement (check for gastric tube)
Patient Assessment

Oxygen

Need may arise suddenly
Know where O2 is kept
Know how to administer
Nasal cannula – nose prongs (1-6L)
Masks – shaped to fit face (delivers up to 100%)
  simple mask, venti-mask, nonrebreather
O2 tents – pediatrics (keep airtight as much as possible)

Patient Assessment

Never remove oxygen from a patient without consent of a physician, respiratory care practitioner, or attending nurse.

Patient Assessment

Suctioning

Performed when airway is obstructed
  blood, mucous, vomit
Wall mounted or portable units
Pump, receptacle, tubing, suction catheter, or yankaur
Patient Assessment

Thoracostomy Tubes (chest tubes)

- Drain fluid or air from the intra-pleural space and mediastinum
- Creates negative pressure
- Atelectasis, Pneumothorax, Hemothorax, Pleural effusion, Empyema

Patient Assessment

Central Venous Catheters (CVADS)

- Inserted into the central circulation via large vein
- Wide variety of clinical applications
  - Administer drugs, fluids, obtain blood samples, monitor cardiac pressures
  - Broviac, Hickman, PICC, Port-A-Cath, TLC, Swan-Ganz catheter
- Distal end in SVC just above the opening of the right atrium

Patient Assessment

Swan-Ganz catheters (PA catheters)

- Inserted through right side of heart into pulmonary artery
- Measures left side of heart/pulmonary pressures
- Extrapolates values by monitoring right-side of heart and PA pressures
- Used for critical patients
Patient Assessment

Electrocardiography (ECG)

Patients from ICU or ED may arrive on monitors

Should have nurse in attendance

Cardiac – skin leads on chest to monitor heart (EKG)
  electrodes may have to be moved to do xray
  ‘flat line’ may be artifact – get help

Graphs conduction through the heart

SA Node
AV Node
Bundle of His
Purkinje Fibers

Patient Assessment

ECG Tracings

baseline is the isoelectric line (signifies resting)
P-wave (represents atrial contraction)
QRS-complex (represents ventricular contraction)
PR-interval (measures how long between atrial/ventricular contraction)
T-wave (represents ventricular rest/repolarization)
U-wave (represents papillary muscles and Purkinje fibers)
  not always visualized
References