CATHETERIZATION

Review A & P Textbook 1285-1288

Altered urinary production/elimination
- Polyuria (diuresis)-
  - Polydipsia-
  - Oliguria-less than 500mL/day or 30 mL/hr can be emergency situation
  - Anuria-
  - Dialysis-
  - Nocturia-
  - Urgency-
  - Dysuria-
  - Hesitancy-
  - Enuresis-
  - Diurnal enuresis-
  - Incontinence-
  - Retention-
  - Neurogenic bladder-

- Residual urine- urine remaining in bladder after voiding.
  - Can be measured using straight catheter procedure.
  - Bladder scan (ultrasound) non-invasive method (See Research Note, pg. 1299 in text)
  - Physician will order placement of indwelling catheter if residual exceeds specified amount

- Applying External Urinary Drainage Device (condom catheter)
  - Risk of UTI minimal.
  - Follow manufacture’s instructions.
  - May be applied at night only or continuous.
  - Clean and dry genital area thoroughly to avoid irritation and excoriation.
- Allow 1 inch space between penis and connecting tube.
- Secure with tape provided with kit/ if not with kit, use elastic tape or Velcro, do not impede circulation.
- Secure to drainage system.
- Inspect 30 minutes, after application.
- Swell, discoloration, flow.
- Condom should be changed daily.

**Urinary Catheterization**

- Perform only when absolutely necessary due to risk of introducing microorganisms which can ascend to kidneys.
- Strict sterile technique.
- Trauma-especially to males as urethra longer and curved.
  1. Do not force catheter through stricture or at incorrect angle.
  2. In male- curve straightened by position penis perpendicular to body.

- Catheters
  1. Size by diameter of lumen French (Fr) scale.
  2. Larger number, larger lumen.
  3. Straight-intended to drain bladder and immediately remove.
  4. Retention-remains in bladder.

- Straight catheters
  - Single lumen with small open about ½ inch from tip.
  - Coude - more rigid with tapered, curved-tip used with prostatic hypertrophy as more easily controlled and less traumatic on insertion.

- Retention
  - Double lumen.
  - Larger drains urine.
  - Smaller to inflate balloon at tip.
  - Three-way for continuous or intermittent bladder irrigation.
  - Third lumen allows irrigant to flow through.
  - Exits with urine via larger lumen.
  - Balloons 5 to 30 mL.
  - Connected to closed drainage system to decrease risk.
  - Drains by gravity.

- Catheter insertion
  - Some agencies have policy to only drain 750-1000 mL at one time.

Review Nursing Interventions Textbook pg. 1309.

- Changing catheter and Tubing
  - Routine not recommended.
- Sediment in catheter or tubing and impaired drainage signals for change.

- Removing Retention Catheter
  - Short time-usually no problems with removal.
    - Slight swelling of urethra may initially interfere with voiding.
  - Longer time-bladder muscle tone may have been lost.
    - Bladder retaining begins a few days before removal, clamp for 2-4 hours at a time, bladder distends and stimulates musculature.
  - Many agencies require specimen at time of removal.
    - NEVER remove if unsure if balloon deflated.
    - NEVER cut catheter balloon lumen with scissors.
    - Examine catheter after removal to make sure it’s intact.
    - Watch voiding patterns for 24 hours, but especially in first 8 hours
    - Contact physician if client has not voided in 8 hours.

**Clean Intermittent Self Catheter**

- Performed by clients with some form of neurogenic bladder (spinal cord injury).
  1. Client independence, gains control of bladder.
  2. Decreased UTI.
  3. Avoid upper urinary tract reflex.
  4. Normal sexual relations without incontinence.
  5. Reduces use of aids and appliance (financial savings).

**Urinary Irrigation**

- Must have physician’s order.
- Used to wash out bladder or apply medication to bladder lining.
- To maintain or restore potency of catheter (remove pus or blood clots).
- Closed method preferred- less risk of introducing microorganisms.
- Three-way or triple lumen catheter generally used.
- Open irrigation to restore patency.

**Urinary Diversion**

- Surgical rerouting of urine from kidneys to site other than bladder
- Bladder removed due to cancer, trauma.
- Types:
  - Cutaneous ureterostomy- ureters brought directly to surface of skin to form small stomas.
    - Direct access for micro organisms
    - Small stomas hard to fit with appliance
  - Ileal conduit or loop.
    - Segment of ileum removed
- One end closed to form pouch, other end creates stoma
- Ureters attached to pouch.
- Appliance fits better
- Protection from ascending infection
  - Kock pouch or continent ileal bladder conduit
    - Client empties pouch by insertion clean catheter into pouch every 4 hours

**Intake/output**
- Assess changes in urine color, odor, clarity.
- Mucous shreds common

**Suprapubic Catheter**
- Through abdominal wall into bladder
- Assess
- Often will begin to clamp to establish voiding.