Nursing Care Procedures

Key steps, tasks & decisions crucial to patient care—including vital signs, documentation & communication, specimens, wound care & more!

**introduction**

- A procedure is a series of activities, tasks, decisions, calculations and other processes, which, when undertaken in the appropriate sequence, produces the desired result, product or outcome.
- These procedures include the objects and tools used by the nurse, such as stethoscopes, pharmaceuticals, monitors, catheters and other tubes, and computers; these tools must be used with knowledge, reflective practice and professional judgment to result in an outcome that benefits patients and society.

**therapeutic communications**

- Therapeutic nurse/patient relationships can occur only when each person views the other as a unique human being; characteristics of the therapeutic relationship include clear definitions of goals and boundaries.
  - **goal-directed and purposeful interaction involves:**
    - establishing a contract for the time, place and focus of the nurse/patient meetings.
    - planning conditions for termination at the onset and throughout the relationship.
    - roles and responsibilities should be clearly defined.
    - the nurse is the professional caregiver and facilitator.
    - the patient’s needs and problems are the focus of the relationship.
    - **confidentiality** is maintained by:
      - sharing information only with professional staff who have a need to know.
      - informing the patient of all information to be shared beforehand.
      - advising the patient that information that deals with harming him/herself or others will be communicated to the staff as needed.

- **Therapeutic behaviors by the nurse include:**
  - self-awareness of thoughts, feelings and behaviors.
  - clarification of personal values.
  - empathic understanding.
  - effective communication.
  - realistic goal setting.
  - collaborative work with patients.
  - responsible and ethical practice.

- Therapeutic use of self is the ability to use one’s personality consciously and with full awareness in an attempt to establish relatedness and to structure nursing interventions; the nurse must possess: self-awareness, self-understanding, self-reflection.

THE NURSE KNOWS:

- the difference between a caring relationship and an over-involved relationship is narrow; you must learn to distinguish between professional and personal interactions.
- always begin with the question: was the intervention designed for the benefit of the patient or the nurse?

**aspecis:** the absence of microorganisms.

- Microorganisms are found everywhere in the world.
- Pathogens (pathogenic microorganisms) cause disease.
- Nonpathogenic organisms do not cause disease.
- Some microorganisms are nonpathogenic in their normal environment (e.g., Escherichia coli [E. coli] in the intestines) but are pathogens in other environments (e.g., E. coli in the urinary tract results in a urinary tract infection [UTI]).

- Providing a safe environment to prevent the transmission of nosocomial infections.
  - An infection acquired in the hospital/health-care setting that was not present or incubating at the time of admission is called a nosocomial infection.
  - **Aseptic technique** is an infection control procedure that decreases the transmission of pathogens and, thereby, reduces the incidence of infection.
  - Medical asepsis: practices that reduce the number, growth and spread of microorganisms or the absence of pathogens.
    - AKA: “clean technique.”
    - Clean objects have the presence of some microorganisms that are usually not pathogenic.
    - Soiled/dirty objects have the presence of a high number of microorganisms that are potentially pathogenic.
    - Medical asepsis procedures include:
      - Hand washing.
      - Gloves.
      - Daily linen changes.
      - Clean floor and furniture.
      - Designation of clean and dirty areas.

- Research suggests that nonverbal communication is more important to understanding human behavior than words alone—the nonverbal “channels” seem to be more powerful than what people say.
  - eye contact.
  - facial expressions.
  - gestures.
  - posture & body orientation.
  - proximity.
  - paralinguistics.
- **5 principles** regarding the establishment of professional boundaries:
  - Rule of abstinence: the professional must abstain from personal gratification at the patient’s expense.
  - Duty to neutrality: the professional should not interfere in the patient’s personal relationships.
  - Promotion of patient’s autonomy and self-determination.
  - Fiduciary relationship: the professional should act in the best interests of the patient.
  - Respect for human dignity.

- This guide provides procedure-specific knowledge on the methods of performing certain tasks.
- But nursing is more than just the competent completion of a series of tasks; it is equally important that the nurse uses critical thinking to integrate knowledge of the individual patient and his/her nursing care needs in the application of these procedures to each nursing situation.
- Critical thinking for nursing procedures is the ability to think in a systematic and logical manner, with openness to questions and reflection on the reasoning process used to ensure safe nursing practice and quality care.
- The nurse knows:
  - To assess each patient to determine his/her specific needs.
  - To implement medical asepsis procedures include:
    - Hand washing.
    - Gloves.
    - Daily linen changes.
    - Clean floor and furniture.
    - Designation of clean and dirty areas.

- THE NURSE KNOWS: to assess each patient to determine his/her specific needs.

**Rapport**
- Implies special feelings on the part of both the patient and the nurse based on acceptance, warmth, friendliness, common interest, a sense of trust and a nonjudgmental attitude.

**Trust**
- Implies a feeling of confidence in another person’s presence, reliability, integrity, veracity and sincere desire to provide assistance when requested; trust is the basis of a therapeutic relationship.

**Respect**
- Implies the dignity and worth of an individual regardless of his/her unacceptable behavior.

**Genuineness**
- Refers to the nurse’s ability to be open, honest and “real” in interactions with the patient; genuineness implies congruence between what is being felt and what is being expressed.

**Empathy**
- A process wherein an individual is able to see beyond outward behavior and sense accurately another’s inner experience at a given time; with empathy, the nurse’s feelings remain on an objective level—it differs from sympathy in that, with sympathy, the nurse subjectively shares what the other person is feeling and experiences a personal need to alleviate distress.

**Nonverbal Communication**
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  - Eye contact.
  - Facial expressions.
  - Gestures.
  - Posture & body orientation.
  - Proximity.
  - Paralinguistics.

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- Respect for human dignity.
are physical indications that an individual is alive:

- ethylene gas
- ... (continued)

... reduce friction to the object while under the running water...

- what about dress and hygiene?
- germicides used on human skin include antiseptic preparations,

- dirty areas: specimen/lab area, central service pick-up area,
- cross-contamination must be avoided
- articles that touch the floor are contaminated and must be disposed of properly
- cleaning is conducted from the cleanest to the least-clean area; for example, clean an incision from the central portion outward to the periphery of the skin

- surgical asepsis: practices that eliminate all microorganisms from an object or area
  - AKA: “sterile technique”
  - removes all microorganisms and spores from an object or area
- spores: single-celled organisms in a resting or inactive state

Reducing or eliminating infectious agents
- contact with inanimate objects can be the source of transmission of microorganisms
- this chain of infection can be broken by reducing or destroying the microorganisms on an object

- cleansing: removal of soil and organic material from instruments or equipment
  - reusable objects need to be cleansed after use with each patient
  - objects are cleansed before disinfection or sterilization
  - objects are cleansed with water, mechanical action and, sometimes, a detergent
    - rinse under cold water (warm water causes protein in organic material to coagulate and stick)
    - create friction to the object while under the running water
    - rinse under warm water
    - dry the object
  - nurses need to use personal protective equipment—such as gloves, masks, goggles—during cleansing to prevent potential hazard to the nurse from splashing of contaminated materials

- disinfection: the elimination of pathogens, except for spores
  - chemical solutions are used to clean inanimate objects, such as stethoscopes, blood pressure cuffs, linens, electronic fetal monitor attachments and some types of endoscopes
  - some common disinfectants are alcohol, sodium hypochlorite, quaternary ammonium bleach
  - > a germicide is a chemical that can be applied to both animate and inanimate objects to eliminate pathogens
  - germicides used on human skin include antiseptic preparations, such as alcohol and silver sulfadiazine

- sterilization: the total elimination of all microorganisms, including spores

Methods of sterilization include:
- moist heat/steam
- radiation
- chemicals
- ethylene gas

- choice of method depends upon type of contamination, amount of contamination and object to be sterilized
- boiling water is not an effective sterilization method, as some viruses and spores can survive temperatures above 121° Fahrenheit (F)

Hand Washing
- The Centers for Disease Control and Prevention found that:
  - there is only a 48% compliance rate for hand washing
  - on average, hands were washed for 8.5 to 9.5 seconds, but a minimum of 10 to 15 seconds is needed to prevent the spread of infection
  - compliance with effective hand washing technique is higher among nurses than other health-care personnel, including physicians
- The most basic and effective infection control measure (when done properly)
- The rubbing together of all surfaces and crevices of the hands

Essential elements of effective hand washing
- soap or chemical
  - prevents the spread of micro-organisms
- water
  - adequate flow of water, but without splashing that will contaminate uniform
  - warm water—cold water inhibits sudsing and cleansing, and hot water damages the skin
  - wetness facilitates distribution of soap over entire surface
- friction: physical removal of soil and transient flora—most important!
  - rub vigorously with a circular motion while keeping fingers lower than wrists
  - rub all sides of each finger, then between the fingers, then the palms, and finally, the backs of the hands
- hand washing must take a minimum of 10 to 15 seconds in order to produce the mechanical action necessary to allow antimicrobial products to achieve the intended effect
- hands soiled with organic matter require soap or detergents with antisepsics and water to be effectively cleaned
- waterless antisepsics agents are useful only when hands look clean

THE NURSE KNOWS:
- always wash your hands—
  - after arriving at work
  - before leaving work
  - between patient contacts
  - after removing gloves
  - before and after performing invasive procedures
  - after handling contaminated equipment

Vital signs (VS)

Vital signs (VS) are physical indications that an individual is alive:
- temperature
- heartbeat or pulse
- breathing rate
- blood pressure (BP)

These signs can be observed, measured and monitored to assess an individual’s level of physical functioning
- normal vital signs vary, depending upon age, sex, weight, exercise tolerance, and condition

Preparing to check vital signs:
- examination/hospital room should be quiet, warm and well-lit
- prior to measuring vital signs, the patient should have had the opportunity to sit or rest in bed for approximately 5 minutes, so that the values are not affected by the exertion required to walk to the exam room or other activities

All measurements are made while the patient is seated/reclining

Observation: before diving in, take a minute or so to look at the patient in his/her entirety, making your observations
- does the patient seem anxious, in pain, upset?
- what about dress and hygiene?
- remember, the data collection process begins as soon as you lay eyes on the patient

Normal ranges for the average healthy adult
- temperature: 97.8–99.1° Fahrenheit (F); 36.5–37.2°C
  - normal = 98.6° F; 37°C
  - generally obtained using an oral thermometer that provides a digital reading when the sensor is placed under the patient’s tongue
  - temperature is measured in degrees, either Celsius (C) or Fahrenheit (F), with a fever defined as greater than 38–38.5°C or 100.4–101.5°F
  - rectal temperature, which most closely reflects the body’s core temperature, is approximately one degree Fahrenheit (1°) higher than oral temperature

- breathing: 12 to 18 respirations (breaths) per minute
  - respirations should be counted for at least 30 seconds; the total number of breaths in a 15-second period is relatively small, and any miscounting can result in rather large errors when multiplied by 4
  - try to count respirations inconspicuously as possible so that the patient does not consciously alter his/her rate of breathing; this can be done by observing the rise and fall of the patient’s hospital gown while you appear to be taking his/her pulse
  - respiratory rate, particularly in the presence of cardiopulmonary illness, can be a very reliable marker of disease activity
  - pulse: 60 to 80 beats per minute (at rest)
  - can be measured at any place where there is a large artery (e.g., carotid or femoral) or simply by listening over the heart
  - for the sake of convenience, it is generally done by palpating the radial pulse
  - place the tips of your index and middle fingers just proximal to the patient’s wrist on the thumb side, orienting them so that they both are over the length of the vessel

Blood pressure (BP)
- systolic: less than 120 mm of mercury (mm Hg)
- diastolic: less than 80 mm Hg
  - readings are reported in millimeters of mercury (mm Hg)
  - the size of the BP cuff will affect the accuracy of these readings
  - the inflatable bladder, which can be felt through the vinyl covering of the cuff, should reach approximately 80% around the circumference of the arm
  - the width of the inflatable bladder should cover approximately 40% of the upper arm
  - if the cuff is too small, the readings will be artificially elevated
  - if the cuff is too large, the readings will be artificially low

THE NURSE KNOWS: these numbers provide critical information about a patient’s state of health—that’s why they’re called “vital signs”
wounds & wound care

Skin: the body’s largest organ and its primary defense against infection

Wound: a disruption in the integrity of body tissue

- any wound sets in motion a complex set of responses
  - wound healing occurs in a 3-phase process:
    - defensive (inflammatory) phase: occurs immediately after injury and lasts 3 to 4 days; **hemostasis** and **inflammation** are the major events
      - hemostasis: the cessation of bleeding
        - occurs with vasoconstriction of large blood vessels
        - platelets, activated by the injury, aggregate to form a platelet plug and stop the bleeding
      - activation of the clotting cascade leads to the formation of fibrin and a fibrinous meshwork, which traps platelets and other cells
      - fibrin clot formation provides initial wound closure, and prevents excessive loss of blood and body fluids
  - inflammation: the body’s defensive adaptation to tissue injury; involves both vascular and cellular responses
    - tissue injury stimulates the release of chemical mediators, such as histamine (from mast cells), serotonin (from platelets), complement and kinins; all these are vasoactive substances that cause the blood vessels to dilate and become more permeable, resulting in increased blood flow, which carries the nutrients and oxygen that are essential to wound healing
      - increased blood flow transports leukocytes (white blood cells [WBC]) to the area to participate in phagocytosis (the engulfment and disposal of microorganisms)
      - increased blood supply also removes the dead cells, bacteria and exudates (material and cells discharged from the blood vessels)
    - inflammation results in the area’s appearing red, edematous (swollen) and warm to the touch, with varying amounts of exudates present
      - reconstructive (proliferative) phase: begins on day 3 or 4 following the injury and lasts for 2 to 3 weeks
        - begins with collagen deposition; collagen is the most abundant protein in the body and is the material of tissue repair
        - connective tissue contains fibroblasts, which migrate into the wound as a result of cellular mediators
        - fibroblasts secrete collagen
        - initially, collagen is gel-like; however, over months of healing time, it forms collagen fibrils and adds tensile strength to the wound
        - as the wound become stronger, the risk of wound separation or rupture decreases
      - a properly healing wound can resist normal stress, such as tension or twisting, after 15 to 20 days
  - angiogenesis: the formation of new blood vessels
    - with injury, the endothelial cells in the existing vessels produce enzymes that break down the basement membrane; as a result, new vessels form and grow across the wound to increase blood flow, and the supply of nutrients and oxygen necessary for wound healing
  - granulation: tissue development
    - granulation tissue (new tissue) grows inward from the surrounding healthy connective tissue
    - granulation tissue is filled with new capillaries that are fragile and bleed easily; granulation tissue is red and translucent, with a granular appearance
  - wound contraction: the process of wound closure; contraction is noticeable 6 to 12 days after injury
    - the edges of the wound are drawn together by the action of myofibroblasts, which are specialized cells that contain bundles of parallel fibers in the cytoplasm; these myofibroblasts bridge across a wound and then contract to pull the wound closed
  - maturation phase: the final stage of healing; begins on day 21 (approx.) and can continue for up to 2 years, depending on the depth of the wound; scar tissue is remodeled by collagen deposition, lysis (disintegration) and **debridement** (removal, usually surgical) of wound edges

Wound Drainage

- there are 3 types of wound drainage:
  - serous exudate, which is primarily serum (the clear portion of blood); appearance is watery and has a low protein count; seen with mild inflammation, such as blister formation after a burn
  - purulent exudate, which is pus; generally occurs with severe inflammation and infection; exudate is thick because of the presence of leukocytes, liquefied dead tissue debris, and bacteria; purulent drainage may vary in color (yellow, brown, green), depending on the causative organism
  - hemorrhagic exudate, which is primarily red blood cells (RBC) and is caused by capillary damage; this type of exudate is associated with severe inflammation; the color of the exudate reflects whether the bleeding is fresh (bright red) or old (dark red)

Wound Healing

- there are 3 types of wound healing:
  - primary intention: wounds with minimal tissue loss and edges that are well-approximated (closed); healing occurs with minimal granulation tissue and minimal scarring
  - secondary intention: wounds with extensive tissue loss or in which the wound edges cannot be approximated; repair time is longer as granulation tissue gradually fills in the deficit; tissue replacement and scarring is greater, and the susceptibility to infection is increased
  - tertiary intention: delayed closure; conditions in which healing by tertiary intention may occur include poor circulation or infection; suturing of the wound is delayed until the problem resolves and more favorable conditions exist for wound healing

Hyperbaric Oxygen Treatment (HBO2 or HBOT)

- oxygen used under pressure can assist wound healing by increasing the amount of oxygen delivered to body tissues by the bloodstream
- HBO2 provides the oxygen needed to stimulate and support wound healing, and to kill germs
- HBOT is a supplemental therapy to be used in addition to the current medical and surgical therapy

urine collection

- The type of testing determines the method of collection
- All urine collection requires the use of universal precautions to prevent the transmission of microorganisms
  - random collection
    - order is written for a UA (routine urine analysis)
    - collected at any time using a clean container, not a sterile container
    - after the patient urinates into the specimen collection container, it is sealed, labeled and placed in a biohazard bag for transport to the laboratory
  - timed collections
    - urine is collected over a 24-hour period and stored in a plastic gallon container
    - container contains a preservative
    - if the analyte to be studied is light-sensitive, a dark plastic container is needed
    - container is refrigerated or kept on ice throughout the 24-hour time period
  - at the beginning of the collection period, the patient voids and discards the first specimen; all subsequent urine is saved until the end of the 24-hour period—a complete, forced voiding at the exact end of the 24-hour period is the last specimen added to the container
- collection from a closed drainage system
  - a sterile specimen can be obtained to culture the urine
  - to obtain a “fresh” specimen:
    - manipulate the tubing so that urine drains from the tubing into the collection bag
    - clamp the tubing below the aspiration port for 10 to 15 minutes
    - wash hands and wear gloves
    - cleanse the aspiration port and insert needle/syringe to aspirate urine (this is a sterile procedure)
    - transfer the specimen to a sterile container; seal, label and transport to lab immediately
- clean/voided specimens
  - a clean-catch or midstream-voided specimen is done to collect a specimen of urine uncontaminated by skin flora
  - the first voiding in the morning is the best time to obtain this specimen
  - different aseptic techniques are used for women and men:
    - women are instructed to cleanse from the front to the back
    - men are instructed to cleanse from the tip of the penis downward
      - for infants and young children, a sterile collection bag is placed over the perineum or penis/scrotum

THE NURSE KNOWS:

- privacy and respect for the person is critical in obtaining a urine specimen
- proper collection technique and timely transport of the specimen to the lab will influence the validity of the results
Venipuncture: puncturing of a vein with a needle to aspirate blood
   - equipment needed:
     - sterile needle and syringe
     - vacuum tube holder with a sterile two-sided needle
     - collecting tubes (universally color-coded):
       - red = no additive
       - lavender = EDTA (ethylenediaminetetraacetic acid)
       - light blue = sodium citrate
       - green = sodium heparin
       - gray = potassium oxalate
       - black = sodium oxalate
     - sources of variability that can lead to inaccuracy
       - hemocoagulation: reduced plasma volume and increased concentration of blood cells, plasma proteins and protein-bound constituents
       - hemolysis: breakdown of red blood cells (RBC) and the release of hemoglobin
       - contamination with IV fluids: when blood is drawn from a site above an intravenous infusion

The Nurse Knows:
   - to use a needle gauge appropriate to the size of the vessel, which prevents hemolysis
   - to perform an Allen test to measure for collateral circulation before arterial puncture
   - to wait a minimum of 20 minutes after any respiratory treatments

Capillary Punctures
   - skin punctures to obtain small quantities of blood or when the patient has poor peripheral veins
   - common sites for capillary puncture:
     - heel: the plantar surface of the heel, beyond the lateral and medial limits of the calcaneus (heel bone); the puncture should NEVER be performed on the central area of the infant’s foot (area of the arch)
     - fingertip: the inner aspect of palmar fingertip
     - earlobe: when the patient is in shock or the extremities are edematous

Arterial Samples
   - puncturing a peripheral artery, such as the radial or femoral artery, to aspirate blood
   - central line puncture: arterial blood samples can also be obtained from an arterial line

THE NURSE KNOWS:
   - application of heat prior to capillary puncture leads to vasodilation
   - after the puncture, the first drop of blood is discarded to avoid hemolyzed cells

Physiologic Basis
   - the consumption of nutrients is necessary to support the physiologic activities of digestion, absorption and metabolism, as well as to maintain homeostasis
   - nutrition is the process by which the body metabolizes and uses nutrients
   - the metabolism of nutrients plays a critical role in supplying the body with the substances needed to maintain internal homeostasis
   - nutrients are classified into 3 groups:
     - energy nutrients, which release energy for maintenance of homeostasis
     - organic nutrients, which build and maintain body tissues, and regulate body processes
     - inorganic nutrients, which provide a medium for chemical reactions, transport materials, maintain body temperature, promote bone formation and conduct nerve impulses

Diet Therapy
   - therapeutic nutrition requires consideration of the patient’s total needs: cultural, socioeconomic, psychological and physiological
   - nurses need a solid comprehension of diet therapy in order to assist the patient in making lifestyle adaptations and informed choices
   - nothing by mouth (non per os – NPO): a type of diet modification, as well as a fluid restriction; this intervention is ordered to rest the gastrointestinal (GI) tract, either prior to surgery and certain diagnostic procedures, or when the source of the patient’s nutritional problem is unidentified
   - clear liquid diet: consists of liquids that have NO residue, such as water, apple juice and gelatin; dairy products are not allowed
   - liquid or full-liquid diet: consists of substances that are liquid at room temperature (e.g., ice cream, pudding)
   - soft diet: promotes mechanical digestion of foods; useful for patients with difficulty in chewing or swallowing, or with impaired digestion and/or absorption; foods to be avoided include nuts, seeds (including tomatoes or berries with seeds), raw fruits and vegetables, fried foods, whole grains
   - low-residue diet: consists of reduced fiber and cellulose, prescribed to decrease GI mucosal irritation; foods to be avoided are raw fruits (except bananas), vegetables, seeds, plant fiber, whole grains; dairy products are limited to 2 servings per day
   - high-fiber diet: consists of foods high in fiber and/or cellulose; used to increase the forward motion of indigestible wastes through the colon
   - sodium-restricted diet: used with patients who have excess fluid volume, hypertension, heart failure, myocardial infarction and/or renal failure; sodium intake may be restricted as follows:
     - mild: 2,000 to 3,000 mg (2 to 3 grams)
     - moderate: 1,000 mg (1 gram)
     - strict: 500 mg (1/2 gram)

Enteral Nutrition
   - large-bore nasogastric tube: a tube is inserted through nostril and passed into gastric cavity
     - advantages
       - easy to place
       - large volume can be delivered intermittently
       - acid environment may reduce infection
       - less risk of dumping syndrome
       - uses normal GI-emptying mechanisms and prevents intestinal overload
     - disadvantages
       - limited use (1 week maximum)
       - gastric retention, reflux and aspiration are possible
       - large tube is uncomfortable and visible to others
       - allows regurgitation by interfering with normal upper and lower esophageal sphincter function
       - gastric ulceration may occur
   - gastrostomy or PEG tube: tube is inserted directly into gastric cavity
     - advantages

The Nurse Knows:
   - application of heat prior to capillary puncture leads to vasodilation
   - after the puncture, the first drop of blood is discarded to avoid hemolyzed cells
long-term use possible
allows intermittent feeding
normal gastric emptying time occurs
tube is not visible to others
medication administration is easier
less risk of infection
esophageal irritation is avoided

disadvantages:
requires surgical placement with sedation or local anesthesia
necessitates local skin care
may ulcerate gastric mucosa

nasointestinal tube: tube is inserted through nose and passed into intestines—either duodenum or jejunum

disadvantages:
smaller tube, more comfortable
less risk of aspiration and reflux

disadvantages:
requires X-ray confirmation of placement
tube is more difficult to place
position needs to be maintained
constant infusion is needed because of osmotic response of the small intestine

cramping, diarrhea, vomiting and distension are more common
tube may migrate back into stomach, increasing the risk of aspiration

greater risk of infection due to alkaline environment
limited use (4 weeks maximum)

advantages

jejunostomy (tube surgically inserted into jejunum)

advantages:
tube position is guaranteed
tube is not visible
less risk of reflux and aspiration

disadvantages:
requires general anesthesia for placement
continuous infusion is required
cramping, diarrhea, vomiting and distension are more common
tube can migrate back into stomach, increasing the risk of aspiration

greater risk of infection due to alkaline environment

disadvantages:
greater risk of infection

Disadvantages:
may ulcerate gastrointestinal mucosa

Types of enteral formulas:

osmotic: contains proteins, fats and carbohydrates with a high molecular weight and osmolarity equal to that of the body

elemental: contains monosaccharides and amino acids with minimal triglycerides content in hypertonic concentrations

fluid restriction formula: contains highly concentrated source of kilocalories

Parenteral nutritional formula:

provides nutrition via a route outside the alimentary tract

infusion of solution directly into the vein to meet daily nutritional needs

total parenteral nutrition (TPN): consists of an intravenous solution containing dextrose, amino acids, fats, essential fatty acids, vitamins and minerals

Advantages:

provides nutrition via a route outside the alimentary tract

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Methods of Documentation:

narrative charting: a story format that describes the patient's status, interventions and treatment, as well as the patient's response to treatment

advantage

easy to use in an emergency situation in which a simple chronologic order of events needs to be recorded

disadvantages:

lacks analysis and critical decision-making on the part of the nurse
difficult to avoid subjectivity

SOAP: a structured logical format applied to narrative charting; the acronym SOAP stands for:

S: subjective data—what the patient says

O: objective data—what is observed/inspected

A: assessment/analysis—the conclusion reached on the basis of the data in “S” and “O” formulated as the patient's problem or nursing diagnosis

P: plan—actions to be taken to change the status of the patient’s problem

Advantage

requires analysis of collected data to identify the problem

Disadvantage:

no opportunity to evaluate and revise the plan of care within the same note

PIE: acronym for problem, intervention, evaluation

AIR: acronym for assessment, implementation, revision (a variation of PIE)

focused charting: a method of identifying and organizing the narrative documentation of patient concerns to include data, actions and responses

CBE (charting by exception): a method that requires the nurse to document only deviations from pre-established norms

Accurate charting/documentation reflects the nurse's decision-making ability and the patient's plan of care
Hygiene

- **Hygiene**: the science of health; it provides cleanliness, comfort, relaxation, positive self-image and skin integrity
- hygiene is influenced by social and cultural practices, personal preferences, socioeconomic status and knowledge
- nurses need to be aware of the meaning of self-care activities in the area of hygiene

Cleansing baths: purpose is personal hygiene and part of routine care
- an excellent time to perform a complete skin assessment
- provides time for the nurse to meet the patient’s psychosocial needs
- provides a time to educate the patient on basic and special hygiene needs

- **types of baths**
  - **shower**: for ambulatory patients, with minimal assistance from the nurse
  - **tub bath**: permits washing and rinsing in the tub
  - **self-help bath**: for patients confined to bed; the nurse prepares bath equipment but provides minimal assistance—usually limited to washing difficult-to-reach places
  - **complete bed bath**: for dependent patients confined to bed—the nurse washes the patient’s entire body
  - **partial bath**: cleaning only body areas that would cause discomfort or odor if not washed
  - **therapeutic bath**: usually done in a tub and typically lasting from 20 to 30 minutes
    - Requires a physician’s order stating the:
      - type of bath
      - temperature of the water
      - surface to be treated
      - type of medicated solution to be used

**Physiologic Effects of Immobility**

- **Neurologic**
  - sensory deprivation
- **Gastrointestinal (GI)**
  - decreased appetite
  - stress ulcers
  - constipation
  - fecal impaction
- **Cardiovascular**
  - increased cardiac workload
  - orthostatic hypotension
  - formation of thrombus
- **Urineary**
  - urinary stasis
  - urinary tract infection (UTI)
  - calculi
- **Respiratory**
  - increased respiratory effort
  - hypostatic pneumonia
  - altered gas exchange
- **Integumentary**
  - pressure ulcers
  - skin shearing
- **Musculoskeletal**
  - decreased bone density
  - contractures
  - muscle atrophy
  - increased pain
- **Psychological**
  - anxiety
  - depression
  - helplessness, hopelessness
  - increased dependency

**Range-of-motion (ROM) exercises**

- ROM exercises are used to preserve full flexibility, maintain muscle tone and strength, prevent contractures and improve circulation
- during ROM exercises, each joint is taken through its full functional motion

**Skin Care**

- **skin**, the body’s largest organ, provides a protective barrier between internal and external environments:
  - regulates body temperature
  - secretes sebum
  - excretes sweat
  - transmits sensations
  - facilitates absorption of vitamin D
- skin care promotes optimal functioning of the skin; excessive or abrasive skin care can damage the skin and result in a loss of protective functions
- optimal skin care includes:
  - perineal care: to prevent or eliminate infection and odor, to promote healing, remove secretions and provide comfort
  - back rubs: to stimulate circulation, relax muscles and relieve muscle tension
  - foot and nail care: to prevent problems that may interfere with ambulation and standing
  - oral care: to maintain the integrity of the mucous membranes, teeth, gums and lips
  - hair care: to promote hair growth, prevent hair loss, prevent infections and infestations, promote circulation of the scalp, evenly distribute oils along hair shafts and maintain physical appearance
  - brushing and combing
  - shampooing
  - shaving

**THE NURSE KNOWS:**

- all hygiene practices are influenced by the patient’s background and cultural values
- to ask the patient before performing care and to show sensitivity to the practices that are different from your own