FUNDAMENTALS OF NURSING

HISTORICAL PERSPECTIVES OF NURSING

The Earliest Hospitals Established were the following:

a. **Hospital Real de Manila (1577).** It was established mainly to care for the Spanish King's soldiers, but also admitted Spanish civilians. Founded by Gov. Francisco de Sande
b. **San Lazaro Hospital (1578)** – built exclusively for patients with leprosy. Founded by Brother Juan Clemente

The Earliest Hospitals Established

a. **Hospital de Indio (1586).** Established by the Franciscan Order; Service was in general supported by alms and contribution from charitable persons.
b. **Hospital de Aguas Santas (1590).** Established in Laguna, near a medicinal spring, Founded by Brother J. Bautista of the Franciscan Order.
c. **San Juan de Dios Hospital (1596).** Founded by the Brotherhood de Misericordia and support was derived from alms and rents. Rendered general health service to the public.

Nursing During the Philippine Revolution

The prominent persons involved in the nursing works were:

a. **Josephine Bracken –** wife of Jose Rizal. Installed a field hospital in an estate house in Tejeros. Provided nursing care to the wounded night and day.
b. **Rosa Sevilla De Alvero –** converted their house into quarters for the Filipino soldier, during the Philippine-American war that broke out in 1899.
c. **Dona Hilaria de Aguinaldo** – Wife of Emilio Aguinaldo; Organized the Filipino Red Cross under the inspiration of Apolinario Mabini.
d. **Dona Maria de Aguinaldo**- second wife of Emilio Aguinaldo. Provided nursing care for the Filipino soldier during the revolution. President of the Filipino Red Cross branch in Batangas.
e. **Melchora Aquino (Tandang Sora) –** Nurse the wounded Filipino soldiers and gave them shelter and food.
f. **Captain Salome** – A revolutionary leader in Nueva Ecija; provided nursing care to the wounded when not in combat.
g. **Agueda Kahabagan** – Revolutionary leader in Laguna, also provided nursing services to her troop.
h. **Trinidad Tecson** – "Ina ng Biac na Bato", stayed in the hospital at Biac na Bato to care for the wounded soldier.

Hospitals and Nursing Schools

1. Iloilo Mission Hospital School of Nursing (Iloilo City, 1906)

- It was ran by the Baptist Foreign Mission Society of America.
- **Miss Rose Nicolet**, a graduate of New England Hospital for woman and children in Boston, Massachusetts, was the first superintendent.
- **Miss Flora Ernst**, an American nurse, took charge of the school in 1942.

2. **St. Paul's Hospital School of Nursing (Manila, 1907)**

- The hospital was established by the Archbishop of Manila, The Most Reverend Jeremiah Harty, under the supervision of the Sisters of St. Paul de Chartres.
- It was located in Intramuros and it provided general hospital services.

3. **Philippine General Hospital School of Nursing (1907)**

- In 1907, with the support of the Governor General Forbes and the Director of Health and among others, she opened classes in nursing under the auspices of the Bureau of Education.
- **Anastacia Giron-Tupas,** was the first Filipino to occupy the position of chief nurse and superintendent in the Philippines, succeeded her.

4. **St. Luke's Hospital School of Nursing (Quezon City, 1907)**

- The Hospital is an Episcopalian Institution. It began as a small dispensary in 1903. In 1907, the school opened with three Filipino girls admitted.
- **Mrs. Vitiliana Beltran** was the first Filipino superintendent of nurses.

5. **Mary Johnston Hospital and School of Nursing (Manila, 1907)**

- It started as a small dispensary on Calle Cervantes (now Avenida)
- It was called Bethany Dispensary and was founded by the Methodist Mission.
- Miss Librada Javelera was the first Filipino director of the school.

6. **Philippine Christian Mission Institute School of Nursing.**

- The United Christian Missionary of Indianapolis, operated Three schools of Nursing:
    1. Sallie Long Read Memorial Hospital School of Nursing (Laoag, Ilocos Norte,1903)
    2. Mary Chiles Hospital School of Nursing (Manila, 1911)
    3. Frank Dunn Memorial Hospital

7. **San Juan de Dios Hospital School of Nursing (Manila, 1913)**

8. **Emmanuel Hospital School of Nursing (Capiz,1913)**

9. **Southern Island Hospital School of Nursing (Cebu,1918)**
    - The hospital was established under the Bureau of Health with **Anastacia Giron-Tupas** as the organizer.

The First Colleges of Nursing in the Philippines

a. University of Santo Tomas .College of Nursing (1946)
b. Manila Central University College of Nursing (1948)
c. University of the Philippines College of Nursing (1948). Ms.Julita Sotejo was its first Dean

THE BASIC HUMAN NEEDS

- Each individual has unique characteristics, but certain needs are common to all people.
- A need is something that is desirable, useful or necessary.
- Human needs are physiologic and psychologic conditions that an individual must meet to achieve a state of health or well-being.

Maslow's Hierarchy of Basic Human Needs

Physiologic
1. Oxygen
2. Fluids
3. Nutrition
4. Body temperature
5. Elimination
6. Rest and sleep
7. Sex – necessary for survival of mankind not for individual survival

Safety and Security
1. Physical safety
2. Psychological safety
3. The need for shelter and freedom from harm and danger

Love and belonging
1. The need to love and be loved
2. The need to care and to be cared for.
3. The need for affection: to associate or to belong
4. The need to establish fruitful and meaningful relationships with people, institution, or organization

Self-Esteem Needs
1. Self-worth
2. Self-identity
3. Self-respect
4. Body image

Self-Actualization Needs
1. The need to learn, create and understand or comprehend
2. The need for harmonious relationships
3. The need for beauty or aesthetics
4. The need for spiritual fulfillment

Characteristics of Basic Human Needs
1. Needs are universal.
2. Needs may be met in different ways
3. Needs may be stimulated by external and internal factor
4. Priorities may be deferred
5. Needs are interrelated

CONCEPTS OF HEALTH AND ILLNESS

HEALTH

a. **Health** is the fundamental right of every human being. It is the state of integration of the body and mind
b. **Health and illness** are highly individualized perception. Meanings and descriptions of health and illness vary among people in relation to geography and to culture.
c. **Health** is the state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity. (WHO)
d. **Health** is the ability to maintain the internal milieu. Illness is the result of failure to maintain the internal environment.(Claude Bernard)
e. **Health** is the ability to maintain homeostasis or dynamic equilibrium. Homeostasis is regulated by the negative feedback mechanism.(Walter Cannon)
f. **Health** is being well and using one's power to the fullest extent. Health is maintained through prevention of diseases via environmental health factors.(Florence Nightingale)
g. **Health** is viewed in terms of the individual's ability to perform 14 components of nursing care unaided. (Henderson)
h. **Positive Health** symbolizes wellness. It is value term defined by the culture or individual. (Rogers)
i. **Health** is a state of a process of being becoming an integrated and whole as a person.(Roy)
j. **Health** is a state the characterized by soundness or wholeness of developed human structures and of bodily and mental functioning.(Orem)
k. **Health** is a dynamic state in the life cycle; illness is an interference in the life cycle. (King)
l. **Wellness** is the condition in which all parts and subparts of an individual are in harmony with the whole system. (Neuman)
m. **Health** is an elusive, dynamic state influenced by biologic, psychologic, and social factors. Health is reflected by the organization, interaction, interdependence and integration of the subsystems of the behavioral system.(Johnson)

ILLNESS AND DISEASE

Illness

- is a personal state in which the person feels unhealthy.
- Illness is a state in which a person's physical, emotional, intellectual, social, developmental, or spiritual functioning is diminished or impaired compared with previous experience.
- Illness is not synonymous with disease.

Disease

- An alteration in body function resulting in reduction of capacities or a shortening of the normal life span.

Common Causes of Disease

1. Biologic agent – e.g. microorganism
2. Inherited genetic defects – e.g. cleft palate
3. Developmental defects – e.g. imperforate anus
4. Physical agents – e.g. radiation, hot and cold substances, ultraviolet rays
5. Chemical agents – e.g. lead, asbestos, carbon monoxide
6. Tissue response to irritations/injury – e.g. inflammation, fever
7. Faulty chemical/metabolic process – e.g. inadequate insulin in diabetes
8. Emotional/physical reaction to stress – e.g. fear, anxiety

Stages of Illness

1. **Symptoms Experience** - experience some symptoms, person believes something is wrong in 3 aspects: physical, cognitive, emotional
2. **Assumption of Sick Role** – acceptance of illness, seeks advice
3. **Medical Care Contact** – seeks advice to professionals for validation of real illness, explanation of symptoms, reassurance or predict of outcome
4. **Dependent Patient Role** – The person becomes a client dependent on the health professional for help; Accepts/rejects health professional's suggestions; Becomes more passive and accepting.
5. **Recovery/Rehabilitation** – Gives up the sick role and returns to former roles and functions.

Risk Factors of a Disease

a. **Genetic and Physiological Factors.** For example, a person with a family history of diabetes mellitus, is at risk in developing the disease later in life.
b. **Age.** Age increases and decreases susceptibility (risk of heart diseases increases with age for both sexes

c. **Environment.** The physical environment in which a person works or lives can increase the likelihood that certain illnesses will occur.
d. **Lifestyle.** Lifestyle practices and behaviors can also have positive or negative effects on health.

Classification of Diseases

1. According to Etiologic Factors

a. **Hereditary** – due to defect in the genes of one or other parent which is transmitted to the offspring
b. **Congenital** – due to a defect in the development, hereditary factors, or prenatal infection
c. **Metabolic** – due to disturbances or abnormality in the intricate processes of metabolism.
d. **Deficiency** – results from inadequate intake or absorption of essential dietary factor.
e. **Traumatic-** due to injury
f. **Allergic** – due to abnormal response of the body to chemical and protein substances or to physical stimuli.
g. **Neoplastic** – due to abnormal or uncontrolled growth of cell.
h. **Idiopathic** – cause is unknown; self-originated; of spontaneous origin
i. **Degenerative** –results from the degenerative changes that occur in the tissue and organs.
j. **Iatrogenic –** results from the treatment of the disease

2. According to Duration or Onset

a. **Acute Illness** – An acute illness usually has a short duration and is severe. Signs and symptoms appears abruptly, intense and often subside after a relatively short period.
b. **Chronic Illness** – chronic illness usually longer than 6 months, and can also affects functioning in any dimension. The client may fluctuate between maximal functioning and serious relapses and may be life threatening. It is characterized by remission and exacerbation.
   Remission- periods during which the disease is controlled and symptoms are not obvious.
   Exacerbations – The disease becomes more active given again at afuture time, with recurrence of pronounced symptoms.
c. **Sub-Acute** – Symptoms are pronounced but more prolonged than the acute disease.

3. Disease may also be described as:

a. **Organic –** results from changes in the normal structure, from recognizable anatomical changes in an organ or tissue of the body.
b. **Functional –** no anatomical changes are observed to account from the symptoms present, may result from abnormal response to stimuli.
c. **Occupational** – Results from factors associated with the occupation engaged in by the patient.
d. **Venereal** – usually acquired through sexual relation
e. **Familial** – occurs in several individuals of the same family
f. **Epidemic –** attacks a large number of individuals in the community at the same time. (e.g. SARS)
g. **Endemic** – presents more or less continuously or recurs in a community. (e.g. malaria, goiter)
h. **Pandemic** – an epidemic which is extremely widespread involving an entire country or globe.
i. **Sporadic –** a disease in which only occasional cases occur. (e.g. dengue, leptospirosis)

LEAVELL AND CLARK'S THREE LEVELS OF PREVENTION

a. **Primary Prevention** – seeks to prevent a disease or condition at a prepathologic state ; to stop something from ever happening.

Health Promotion
- health education
- marriage counseling
- genetic screening
- good standard of nutrition adjusted to developmental phase of life

Specific Protection
- use of specific immunization
- attention to personal hygiene
- use of environmental sanitation
- protection against occupational hazards
- protection from accidents
- use of specific nutrients
- protections from carcinogens
- avoidance to allergens

b. **Secondary Prevention** – also known as "Health Maintenance"; Seeks to identify specific illnesses or conditions at an early stage with prompt intervention to prevent or limit disability; to prevent catastrophic effects that could occur if proper attention and treatment are not provided

Early Diagnosis and Prompt Treatment
- case finding measures

- individual and mass screening survey
- prevent spread of communicable disease
- prevent complication and sequelae
- shorten period of disability

Disability Limitations

- adequate treatment to arrest disease process and prevent further complication and sequelae.
- provision of facilities to limit disability and prevent death.

c. **Tertiary Prevention** – occurs after a disease or disability has occurred and the recovery process has begun; Intent is to halt the disease or injury process and assist the person in obtaining an optimal health status. To establish a high-level wellness. "To maximize use of remaining capacities"

Restoration and Rehabilitation

- work therapy in hospital
- use of shelter colony

NURSING

As defined by the **INTERNATIONAL COUNCIL OF NURSES** as written by Virginia Henderson:
"The unique function of the nurse is to assist the individual, sick or well, in the performance of those activities contributing to health, it's recovery, or to a peaceful death the client would perform unaided if he had the necessary strength, will or knowledge."

- Help the client gain independence as rapidly as possible.

CONCEPTUAL AND THEORETICAL MODELS OF NURSING PRACTICE

A. NIGHTINGALE'S THEORY (mid-1800)

- Focuses on the patient and his environment .
- Developed the described the first theory of nursing. Notes on Nursing: What It Is, What It Is Not. She focused on changing and manipulating the environment in order to put the patient in the best possible conditions for nature to act.
- She believed that in the nurturing environment, the body could repair itself.
- Client's environment is manipulated to include appropriate noise, nutrition, hygiene, socialization and hope.

B. PEPLAU, HILDEGARD (1951)

- Defined nursing as a therapeutic, interpersonal process which strives to develop a nurse- patient relationship in which the nurse serves as a resource person, counselor and surrogate.
- Introduced the **Interpersonal Model.** She defined nursing as an interpersonal process of therapeutic between an individual who is sick or in need of health services and a nurse especially educated to recognize and respond to the need for help .
- She identified **four phases of the nurse client relationship** namely:
  1. **Orientation:** the nurse and the client initially do not know each other's goals and testing the role each will assume. The client attempts to identify difficulties and the amount of nursing help that is needed;
  2. **Identification:** the client responds to help professionals or the significant others who can meet the identified needs. Both the client and the nurse plan together an appropriate program to foster health;
  3. **Exploitation:** the clients utilize all available resources to move toward a goal of maximum health functionality;
  4. **Resolution:** refers to the termination phase of the nurse-client relationship. it occurs when the client's needs are met and he/she can move toward a new goal.
- Peplau further assumed that nurse-client relationship fosters growth in both the client and the nurse.

C. ABDELLAH, FAYE G. (1960)

- Defined nursing as having a problem-solving approach, with key nursing problems related to health needs of people; **developed list of 21 nursing-problem areas.**
- Introduced **Patient – Centered Approaches to Nursing Model**
- She defined nursing as service to individual and families; therefore the society. Furthermore, she conceptualized nursing as an art and a science that molds the attitudes, intellectual competencies and technical skills of the individual nurse into the desire and ability to help people, sick or well, and cope with their health needs.

D. ORLANDO, IDA

- She conceptualized The Dynamic Nurse – Patient Relationship Model.

E. LEVINE, MYRA (1973)

- Believes nursing intervention is a **conservation activity**, with conservation of energy as a primary concern, four conservation principles of nursing: conservation of client energy, conservation of structured integrity, conservation of personal integrity, conservation of social integrity.
- Described the **Four Conversation Principles**
- She advocated that nursing is a human interaction and proposed four conservation principles of nursing which are concerned with the unity and integrity of the individual. The four conservation principles are as follows:
  a. **Conservation of Energy .** The human body functions by utilizing energy. The human body needs energy producing input (food, oxygen, fluids) to allow energy utilization output.
  b. **Conservation of Structural Integrity** . The human body has physical boundaries (skin and mucous membrane) that must be maintained to facilitate health and prevent harmful agents from entering the body.
  c. **Conservation of Personal Integrity** . The nursing interventions are based on the conservation of the individual client's personality. Every individual has **s**ense of identity, self worth and self esteem, which must be preserved and enhanced by nurses.
  d. **Conservation of Social Integrity** . The social integrity of the client reflects the family and the community in which the client functions. Health care institutions may separate individuals from their family. It is important for nurses to consider the individual in the context of the family.

F. JOHNSON, DOROTHY (1960, 1980)

- Focuses on how the client adapts to illness; the goal of nursing is to reduce stress so that the client can move more easily through recovery.
- Viewed the patient's behavior as a system, which is a whole with interacting parts.
- **The nursing process is viewed as a major tool.**
- Conceptualized the Behavioral System Model. According to Johnson, each person as a behavioral system is composed of seven subsystems namely:
  a. **Ingestive.** Taking in nourishment in socially and culturally acceptable ways.
  b. **Eliminated.** Riddling the body of waste in socially and culturally acceptable ways**.**
  c. **Affiliative.** Security seeking behavior**.**
  d. **Aggressive.** Self – protective behavior**.**
  e. **Dependence.** Nurturance – seeking behavior.
  f. **Achievement.** Master of oneself and one's environment according to internalized standards of excellence.
  g. **Sexual role identity behavior**

G. ROGERS, MARTHA

- Considers man as a unitary human being co-existing with in the universe, views nursing primarily as a science and is committed to nursing research.

H. OREM, DOROTHEA (1970, 1985)

- Emphasizes the client's **self-care needs**, nursing care becomes necessary when client is unable to fulfill biological, psychological, developmental or social needs.
- Developed the **Self-Care Deficit Theory**. She defined self-care as "the practice of activities that individuals initiate to perform on their own behalf in maintaining life, health well-being."
- She conceptualized three systems as follows:
  a. **Wholly Compensatory**: when the nurse is expected to accomplish all the patient's therapeutic self-care or to compensate for the patient's inability to engage in self care or when the patient needs continuous guidance in self care;
  b. **Partially Compensatory**: when both nurse patient engage in meeting self care needs;
  c. **Supportive-Educative**: the system that requires assistance decision making, behavior control and acquisition knowledge and skills.

I. IMOGENE KING (1971, 1981)

- Nursing process is defined as dynamic interpersonal process between nurse, client and health care system.
- Postulated the **Goal Attainment Theory**
- She described nursing as a helping profession that assists individuals and groups in society to attain, maintain, and restore health. If is this not possible, nurses help individuals die with dignity.
- In addition, King viewed nursing as an interaction process between client and nurse whereby during perceiving, setting goals, and acting on them transactions occurred and goals are achieved.

J. BETTY NEUMAN

- Stress reduction is a goal of system model of nursing practice. Nursing actions are in primary, secondary or tertiary level of prevention.

K. SISTER CALLISTA ROY (1979, 1984)

- Views the client as an adaptive system. The goal of nursing is to help the person adapt to changes in physiological needs, self-concept, role function and interdependent relations during health and illness.
- Presented the **Adaptation Model.**
- She viewed each person as a unified biopsychosocial system in constant interaction with a changing environment.
- She contented that the person as an adaptive system, functions as a whole through interdependence of its part.
- The system consist of input, control processes, output feedback.

L. LYDIA HALL (1962)

- The client is composed of the ff. overlapping parts: person (core), pathologic state and treatment (cure) and body (care).
- Introduced the model of Nursing: What Is It?, focusing on the notion that centers around three components of **CARE, CORE and CURE.**
  a. Care represents nurturance and is exclusive to nursing.
  b. Core involves the therapeutic use of self and emphasizes the use of reflection.
  c. Cure focuses on nursing related to the physician's orders. Core and cure are shared with the other health care providers.

M. VIRGINIA HENDERSON (1955)

- Introduced **The Nature of Nursing Model.**
- She identified **fourteen basic needs.**
- She postulated that the unique function of the nurse is to assist the clients, sick or well, in the performance of those activities contributing to health or its recovery, the clients would perform unaided if they had the necessary strength, will or knowledge.
- She further believed that nursing involves assisting the client in gaining independence as rapidly as possible, or assisting him achieves peaceful death if recovery is no longer possible.

N. MADALEINE LEININGER (1978, 1984)

- Developed the **Transcultural Nursing Model**. She advocated that nursing is a humanistic and scientific mode of helping a client through specific cultural caring processes (cultural values, beliefs and practices) to improve or maintain a health condition.

O. IDA JEAN ORLANDO (1961)

- Conceptualized **The Dynamic Nurse – Patient Relationship Model.**
- She believed that the nurse helps patients meet a perceived need that the patient cannot meet for themselves. Orlando observed that the nurse provides direct assistance to meet an immediate need for help in order to avoid or to alleviate distress or helplessness.
- She emphasized the importance of validating the need and evaluating care based on observable outcomes.

P. ERNESTINE WEIDANBACH (1964)

- Developed the ***Clinical Nursing – A Helping Art Model***.
- She advocated that the nurse's individual philosophy or central purpose lends credence to nursing care.
- She believed that nurses meet the individual's need for help through the identification of the needs, administration of help, and validation that actions were helpful.
- Components of clinical practice: Philosophy, purpose, practice and an art

Q. JEAN WATSON (1979-1992)

- Introduced the ***theory of Human Becoming***. She emphasized free choice of personal meaning in relating value priorities, co – creating the rhythmical patterns, in exchange with the environment, and co transcending in many dimensions as possibilities unfold.

R. JOYCE TRAVELBEE (1966,1971)

- She postulated the **Interpersonal Aspects of Nursing Model.**
- She advocated that the goal of nursing individual or family in preventing or coping with illness, regaining health finding meaning in illness, or maintaining maximal degree of health.
- She further viewed that interpersonal process is a human-to-human relationship formed during illness and "experience of suffering"
- She believed that a person is a unique, irreplaceable individual who is in a continuous process of becoming, evolving and changing.

S. JOSEPHINE PETERSON AND LORETTA ZDERAD (1976)

- Provided the **Humanistic Nursing Practice Theory**. This is based on their belief that nursing is an existential experience.

- Nursing is viewed as a lived dialogue that involves the coming together of the nurse and the person to be nursed.
- The essential characteristic of nursing is nurturance. Humanistic care cannot take place without the authentic commitment of the nurse to being with and the doing with the client. Humanistic nursing also presupposes responsible choices.

T. HELEN ERICKSON, EVELYN TOMLIN, AND MARY ANN SWAIN (1983)

- Developed **Modeling and Role Modeling Theory**
- The focus of this theory is on the person. The nurse models (assesses), role models (plans), and intervenes in this interpersonal and interactive theory.
- They asserted that each individual unique, has some self-care knowledge, needs simultaneously to be attached to the separate from others, and has adaptive potential. Nurses in this theory, facilitate, nurture and accept the person unconditionally.

U. MARGARET NEWMAN

- Focused on **health as expanding consciousness.** She believed that human are unitary in whom disease is a manifestation of the pattern of health.
- She defined consciousness as the information capability of the system which is influenced by time, space movement and is ever – expanding.

V. PATRICIA BENNER AND JUDITH WRUDE L (1989)

- Proposed the **Primacy and Caring Model.** They believed that caring central to the essence of nursing. Caring creates the possibilities for coping and creates the possibilities for connecting with and concern for others.

W. ANNE BOYKIN AND SAVINA SCHOENHOFER

- Presented the **grand theory of Nursing as Caring**. They believed that all person are caring, and nursing is a response to a unique social call.
- The focus of nursing is on nurturing person living and growing in caring in a manner that is specific to each nurse-nursed relationship or nursing situation. Each nursing situation is original.
- They support that caring is a moral imperative. Nursing as Caring is not based on need or deficit but is egalitarian model helping.

Moral Theories

1. Freud (1961)

▪ Believed that the mechanism for right and wrong within the individual is the **superego, or conscience** . He hypnotized that a child internalizes and adopts the moral standards and character or character traits of the model parent through the process of identification.

▪ The strength of the superego depends on the intensity of the child's feeling of aggression or attachment toward the model parent rather than on the actual standards of the parent.

2. Erikson (1964)

▪ Erikson's theory on the **development of virtues** or unifying strengths of the "good man" suggest that moral development continuous throughout life. He believed that if the conflicts of each psychosocial developmental stages favorably resolved, then an 'egostrength" or virtue emerges.

3. Kohlberg

▪ Suggested three levels of moral development. He focused on the reason for the making of a decision, not on the morality of the decision itself.

1. **At first level called the premolar or the preconventional level,** children are responsive to cultural rules and labels of good and bad, right and wrong. However children interpret these in terms of the physical consequences of the actions, i.e., punishment or reward.
2. **At the second level, the conventional level,** the individual is concerned about maintaining the expectations of the family, groups or nation and sees this as right.
3. **At the third level,** people make postconventional, autonomous, or principal level. At this level, people make an effort to define valid values and principles without regard to outside authority or to the expectations of others. These involve respect for other human and belief that **relationship are based on mutual trust.**

4. Peter (1981)

▪ Proposed a concept of **rational morality based on principles.** Moral development is usually considered to involve three separate components: moral emotion (what one feels), moral judgment (how one reasons), and moral behavior (how one acts).

▪ In addition, Peters believed that the development of **character traits or virtues is an essential aspect or moral development.** And that virtues or character traits can be learned from others and encouraged by the example of others.

- Also, Peters believed that some can be described as habits because they are in some sense automatic and therefore are performed habitually, such as politeness, chastity, tidiness, thrift and honesty.

5. Gilligan (1982)

- Included the **concepts of caring and responsibility.** She described three stages in the process of developing an "Ethic of Care" which are as follows.

1. Caring for oneself.
2. Caring for others.
3. Caring for self and others.

- She believed the **human see morality in the integrity of relationships and caring.** For women, what is right is taking responsibility for others as self-chosen decision. On the other hand, **men consider what is right to be what is just.**

Spiritual Theories

Fowler (1979)

- Described the development of faith. He believed that faith, or the spiritual dimension is a force that gives meaning to a person's life.
- He used the term "faith" as a form of knowing a way of being in relation "to an ultimate environment." To Fowler, faith is a relational phenomenon: it is "an active made-of-being-in-relation to others in which we invest commitment, belief, love, risk and hope."

ROLES AND FUNCTIONS OF THE NURSE

- **Care giver**
- **Decision-maker**
- **Protector**
- **Client Advocate**
- **Manager**
- **Rehabilitator**
- **Comforter**
- **Communicator**
- **Teacher**
- **Counselor**
- **Coordinator**
- **Leader**
- **Role Model**
- **Administrator**

Selected Expanded Career Roles of Nurses

1. Nurse Practitioner

- A nurse who has an advanced education and is a graduate of a nurse practitioner program.
- These nurses are in areas as adult nurse practitioner, family nurse practitioner, school nurse practitioner, pediatric nurse practitioner, or gerontology nurse practitioner.
- They are employed in health care agencies or community based settings. They usually deal with non-emergency acute or chronic illness and provide primary ambulatory care.

2. Clinical Nurse Specialist

- A nurse who has an advanced degree or expertise and is considered to be an expert in a specialized area of practice (e.g., gerontology, oncology).
- The nurse provides direct client care, educates others, consults, conducts research, and manages care.
- The American Nurses Credentialing Center provides national certification of clinical specialists.

3. Nurse Anesthetist

- A nurse who has completed advanced education in an accredited program in anesthesiology.
- The nurse anesthetist carries out pre-operative visits and assessments, and
- Administers general anesthetics for surgery under the supervision of a physician prepared in anesthesiology.
- The nurse anesthetist also assesses the postoperative of clients

4. Nurse Midwife

- An RN who has completed a program in midwifery.
- The nurse gives pre-natal and post-natal care and manages deliveries in normal pregnancies.

- The midwife practices the association with a health care agency and can obtain medical services if complication occurs.
- The nurse midwife may also conduct routine Papanicolaou smears, family planning, and routine breast examination.

5. Nurse Educator

- Nurse educator is employed in nursing programs, at educational institutions, and in hospital staff education.
- The nurse educator usually ha a baccalaureate degree or more advanced preparation and frequently has expertise in a particular area of practice.
- **The nurse educator is responsible for classroom and often clinical teaching.**

6. Nurse Entrepreneur

- A nurse who usually has an advanced degree and manages a health-related business.
- The nurse may be involved in education, consultation, or research, for example.

COMMUNICATION IN NURSING

COMMUNICATION

- Is the means to establish a helping-healing relationships. All behavior communication influences behavior.
- Communication is essential to the nurse-patient relationship
- Is the vehicle for establishing a therapeutic relationship.
- It the means by which an individual influences the behavior of another, which leads to the successful outcome of nursing intervention.

Basic Elements of the Communication Process

1. SENDER – is the person who encodes and delivers the message
2. MESSAGES – is the content of the communication. It may contain verbal, nonverbal, and symbolic language.
3. RECEIVER – is the person who receives the decodes the message.
4. FEEDBACK – is the message returned by the receiver. It indicates whether the meaning of the sender's message was understood.

Modes of Communication

1. **Verbal Communication** – use of spoken or written words.
2. **Nonverbal Communication** – use of gestures, facial expressions, posture/gait, body movements, physical appearance and body language

Characteristics of Good Communication

- **Simplicity –** includes uses of commonly understood, brevity, and completeness.
- **Clarity** – involves saying what is meant. The nurse should also need to speak slowly and enunciate words well.
- **Timing and Relevance** – requires choice of appropriate time and consideration of the client's interest and concerns. Ask one question at a time and wait for an answer before making another comment.
- **Adaptability** – Involves adjustments on what the nurse says and how it is said depending on the moods and behavior of the client.
- **Credibility** – Means worthiness of belief. To become credible, the nurse requires adequate knowledge about the topic being discussed. The nurse should be able to provide accurate information, to convey confidence and certainty in what she says.

Communicating With Clients Who Have Special Needs

A. Clients who cannot speak clearly (aphasia, dysarthria, muteness)

- Listen attentively, be patient, and do not interrupt.
- Ask simple question that require "yes" and "no" answers.
- Allow time for understanding and response.
- Use visual cues (e.g., words, pictures, and objects)
- Allow only one person to speak at a time.
- Do not shout or speak too loudly.
- Use communication aid: -pad and felt-tipped pen, magic slate, pictures denoting basic needs, call bells or alarm.

B. Clients who are cognitively impaired

- Reduce environmental distractions while conversing.
- Get client's attention prior to speaking
- Use simple sentences and avoid long explanation.
- Ask one question at a time
- Allow time for client to respond
- Be an attentive listener
- Include family and friends in conversations, especially in subjects known to client.

C. Client who are unresponsive

- Call client by name during interactions
- Communicate both verbally and by touch
- Speak to client as though he or she could hear
- Explain all procedures and sensations
- Provide orientation to person, place, and time
- Avoid talking about client to others in his or her presence
- Avoid saying things client should not hear

D. Communicating with hearing impaired client

- Establish a method of communication (pen/pencil and paper, sign-language)
- Pay attention to client's non-verbal cues
- Decrease background noise such as television
- Always face the client when speaking
- It is also important to check the family as to how to communicate with the client
- It may be necessary to contact the appropriate department resource person for this type of disability

E. Client who do not speak English

- Speak to client in normal tone of voice (shouting may be interpreted as anger)
- Establish method for client o signal desire to communicate (call light or bell)
- Provide an interpreter (translator) as needed
- Avoid using family members, especially children, as interpreters.
- Develop communication board, pictures or cards.
- Have dictionary (English/Spanish) available if client can read.

REPORTS

Are oral, written, or audiotaped exchanges of information between caregivers.

Common reports:

1. Change-in-shift report
2. Telephone report
3. Telephone or verbal order – only RNs are allowed to accept telephone orders.
4. Transfer report
5. Incident report

DOCUMENTATION

Is anything written or printed that is relied on as record or proof for authorized person.

- ✓ Nursing documentation must be: accurate, comprehensive, and flexible enough to retrieve critical data, maintain continuity of care, track client outcomes, and reflects current standards of nursing practice
- ✓ Effective documentation ensures continuity of care, saves time and minimizes the risk of error.
- ✓ As members of the health care team, nurses need to communicate information about clients accurately and in timely manner
- ✓ If the care plan is not communicated to all members of the health care team, care can become fragmented, repetition of tasks occurs, and therapies may be delayed or omitted.
- ✓ Data recorded, reported, or communicated to other health care professionals are CONFIDENTIAL and must be protected.

CONFIDENTIALITY

- ✓ nurses are legally and ethically obligated to keep information about clients confidential.
- ✓ Nurses may not discuss a client's examination, observation, conversation, or treatment with other clients or staff not involved in the client's care.
- ✓ **Only staff directly involved in a specific client's care have legitimate access to the record.**
- ✓ Clients frequently request copies of their medical record, and they have the right to read those records.
- ✓ Nurses are responsible for protecting records from all unauthorized readers.
- ✓ When nurses and other health care professionals have a legitimate reason to use records for data gathering, research, or continuing education, appropriate authorization must be obtained according to agency policy.

- ✓ Maintaining confidentiality is an important aspect of profession behavior.
- ✓ It is essential that the nurse safe-guard the client' right to privacy by carefully protecting information of a sensitive, private nature.
- ✓ Sharing personal information or gossiping about others violates nursing ethical codes and practice standards.
- ✓ It sends the message that the nurse cannot be trusted and damages the interpersonal relationships.

Guidelines of Quality Documentation and Reporting

1. Factual
- a record must contain descriptive, objective information about what a nurse sees, hears, feels, and smells.
- the use of vague terms, such as *appears, seems, and apparently* , is not acceptable because these words suggests that the nurse is stating an opinion.
  Example: " the client seems anxious" (the phrase seems anxious is a conclusion without supported facts.)

2. Accurate
- The use of exact measurements establishes accuracy. (example: "Intake of 350 ml of water" is more accurate than " the client drank an adequate amount of fluid"
- Documentation of concise data is clear and easy to understand.
- It is essential to avoid the use of unnecessary words and irrelevant details

3. Complete
- The information within a recorded entry or a report needs to be complete, containing appropriate and essential information.
  Example: The client verbalizes sharp, throbbing pain localized along lateral side of right ankle, beginning approximately 15 minutes ago after twisting his foot on the stair. Client rates pain as 8 on a scale of 0-10.

4. Current
- Timely entries are essential in the clients ongoing care. To increase accuracy and decrease unnecessary duplication, many healthcare agencies use records kept near the client's bedside, which facilitate immediate documentation of information as it is collected from a client

5. Organized
- The nurse communicates information in a logical order. For example, an organized note describes the client's pain, nurse's assessment, nurse's interventions, and the client's response

Legal Guidelines for Recording

a. Draw single line through error, write word error above it and sign your name or initials. Then record note correctly.
b. Do not write retaliatory or critical comments about the client or care by other health care professionals. Enter only objective descriptions of client's behavior; client's comments should be quoted.
c. Correct all errors promptly. Errors in recording can lead to errors in treatment. Avoid rushing to complete charting, be sure information is accurate.
d. Do not leave blank spaces in nurse's notes. Chart consecutively, line by line; if space is left, draw line horizontally through it and sign your name at end.
e. Record all entries legibly and in blank ink. Never use pencil, felt pen. Blank ink is more legible when records are photocopied or transferred to microfilm.
f. If order is questioned, record that clarification was sought. If you perform orders known to be incorrect, you are just as liable for prosecution as the physician is.
g. Chart only for yourself. Never chart for someone else. You are accountable for information you enter into chart.
h. Avoid using generalized, empty phrases such as "status unchanged" or "had good day".
i. Begin each entry with time, and end with your signature and title.
j. Do not wait until end of shift to record important changes that occurred several hours earlier. Be sure to sign each entry.
k. For computer documentation keep your password to yourself. Maintain security and confidentiality. Once logged into the computer do not leave the computer screen unattended.

BASIC NURSING SKILLS

Assessing Vital Signs

Vital Signs or Cardinal Signs are:
- Body temperature
- Pulse
- Respiration

- Blood pressure
- Pain

I. Body Temperature

▪ The balance between the heat produced by the body and the heat loss from the body.

Types of Body Temperature

▪ Core temperature –temperature of the deep tissues of the body.
▪ Surface body temperature

Alteration in body Temperature

▪ ***Pyrexia*** – Body temperature above normal range(hyperthermia)
▪ **Hyperpyrexia** – Very high fever, 41ºC(105.8 F) and above
▪ **Hypothermia** – Subnormal temperature.

Normal Adult Temperature Ranges

▪ **Oral** 36.5 –37.5 ºC
▪ **Axillary** 35.8 – 37.0 ºC
▪ **Rectal** 37.0 – 38.1 ºC
▪ **Tympanic** 36.8 – 37.9ºC

Methods of Temperature-Taking

1. **Oral** – most accessible and convenient method.
a. Put on gloves, and position the tip of the thermometer under the patients tongue on either of the frenulun as far back as possible. It promotes contact to the superficial blood vessels and ensure a more accurate reading.
b. Wash thermometer before use.
c. Take oral temperature for 2-3 minutes.
d. Allow 15 min to elapse between client's food intake of hot or cold food, smoking.
e. Instruct the patient to close his lips but not to bite down with his teeth to avoid breaking the thermometer in his mouth.

Contraindications

▪ Young children an infants
▪ Patients who are unconscious or disoriented
▪ Who must breath through the mouth
▪ Seizure prone
▪ Patient with N/V
▪ Patients with oral lesions/surgeries

2. Rectal- most accurate measurement of temperature
a. Position- lateral position with his top legs flexed and drape him to provide privacy.
b. Squeeze the lubricant onto a facial tissue to avoid contaminating the lubricant supply.
c. Insert thermometer by 0.5 – 1.5 inches
d. Hold in place in 2minutes
e. Do not force to insert the thermometer

Contraindications

▪ Patient with diarrhea
▪ Recent rectal or prostatic surgery or injury because it may injure inflamed tissue
▪ Recent myocardial infarction
▪ Patient post head injury

3. Axillary – safest and non-invasive
a. Pat the axilla dry
b. Ask the patient to reach across his chest and grasp his opposite shoulder. This promote skin contact with the thermometer
c. Hold it in place for 9 minutes because the thermometer isn't close in a body cavity
Note:

▪ Use the same thermometer for repeat temperature taking to ensure more consistent result
▪ Store chemical-dot thermometer in a cool area because exposure to heat activates the dye dots.

4. Tympanic thermometer
a. Make sure the lens under the probe is clean and shiny
b. Stabilized the patient's head; gently pull the ear straight back (for children up to age 1) or up and back (for children 1 and older to adults)

c. Insert the thermometer until the entire ear canal is sealed
d. Place the activation button, and hold it in place for 1 second

5. Chemical-dot thermometer
a. Leave the chemical-dot thermometer in place for 45 seconds
b. Read the temperature as the last dye dot that has change color, or fired.

Nursing Interventions in Clients with Fever
a. Monitor V.S
b. Assess skin color and temperature
c. Monitor WBC, Hct and other pertinent lab records
d. Provide adequate foods and fluids.
e. Promote rest
f. Monitor I & O
g. Provide TSB
h. Provide dry clothing and linens
i. Give antipyretic as ordered by MD

II. Pulse – the wave of blood created by contractions of the left ventricles of the heart.

Normal Pulse rate

1 year	80-140 beats/min
2 years	80- 130 beats/min
6 years	75- 120 beats/min
10 years	60-90 beats/min
Adult	60-100 beats/min

Tachycardia – pulse rate of above 100 beats/min
Bradycardia- pulse rate below 60 beats/min
Irregular – uneven time interval between beats.

What you need:
a. Watch with second hand
b. Stethoscope (for apical pulse)
c. Doppler ultrasound blood flow detector if necessary

Radial Pulse
a. Wash your hand and tell your client that you are going to take his pulse
b. Place the client in sitting or supine position with his arm on his side or across his chest
c. Gently press your index, middle, and ring fingers on the radial artery, inside the patient's wrist.
d. Excessive pressure may obstruct blood flow distal to the pulse site
e. Counting for a full minute provides a more accurate picture of irregularities

Doppler device
a. Apply small amount of transmission gel to the ultrasound probe
b. Position the probe on the skin directly over a selected artery
c. Set the volume to the lowest setting
d. To obtain best signals, put gel between the skin and the probe and tilt the probe 45 degrees from the artery.
e. After you have measure the pulse rate, clean the probe with soft cloth soaked in antiseptic. Do not immerse the probe

III. Respiration - is the exchange of oxygen and carbon dioxide between the atmosphere and the body

Assessing Respiration
- Rate – Normal 12-20 breaths per min in adult
- The best time to assess respiration is immediately after taking client's pulse
- Count respiration for 60 second
- As you count the respiration, assess and record breath sound as stridor, wheezing, or stertor.
- Respiratory rates of less than 10 or more than 40 are usually considered abnormal and should be reported immediately to the physician.

IV. Blood Pressure

- Adult – 90- 132 systolic; 60- 85 diastolic
- Elderly – 140-160 systolic; 70-90 diastolic
- Ensure that the client is rested

- Use appropriate size of BP cuff.
- If too tight and narrow- false high BP
- If too loose and wide-false low BP
- Position the patient on sitting or supine position
- Position the arm at the level of the heart, if the artery is below the heart level, you may get a false high reading
- Use the bell of the stethoscope since the blood pressure is a low frequency sound.
- If the client is crying or anxious, delay measuring his blood pressure to avoid false-high BP

Electronic Vital Sign Monitor

a. An electronic vital signs monitor allows you to continually tract a patient's vital sign without having to reapply a blood pressure cuff each time.
b. Example: Dinamap VS monitor 8100
c. Lightweight, battery operated and can be attached to an IV pole
d. Before using the device, check the client's pulse and BP manually using the same arm you'll using for the monitor cuff.
e. Compare the result with the initial reading from the monitor. If the results differ call the supply department or the manufacturer's representative.

V. Pain

How to assess Pain

a. You must consider both the patient's description and your observations on his behavioral responses.
b. First, ask the client to rank his pain on a scale of 0-10, with 0 denoting lack of pain and 10 denoting the worst pain imaginable.
c. Ask:
   - Where is the pain located?
   - How long does the pain last?
   - How often does it occur?
   - Can you describe the pain?
   - What makes the pain worse
d. Observe the patient's behavioral response to pain (body language, moaning, grimacing, withdrawal, crying, restlessness muscle twitching and immobility)
e. Also note physiological response, which may be sympathetic or parasympathetic

Managing Pain

1. Giving medication as per MD's order
2. Giving emotional support
3. Performing comfort measures
4. Use cognitive therapy

Height and weight

a. Height and weight are routinely measured when a patient is admitted to a health care facility.
b. It is essential in calculating drug dosage, contrast agents, assessing nutritional status and determining the height-weight ratio.
c. Weight is the best overall indicator of fluid status, daily monitoring is important for clients receiving a diuretics or a medication that causes sodium retention.
d. Weight can be measured with a standing scale, chair scale and bed scale.
e. Height can be measured with the measuring bar, standing scale or tape measure if the client is confine in a supine position.

Pointers:

a. Reassure and steady patient who are at risk for losing their balance on a scale.
b. Weight the patient at the same time each day. (usually before breakfast), in similar clothing and using the same scale.
c. If the patient uses crutches, weigh the client with the crutches or heavy clothing and subtract their weight from the total determined patient' weight.

Laboratory and Diagnostic examination

I. Urine Specimen

1. Clean-Catch mid-stream urine specimen for routine urinalysis, culture and sensitivity test

- Best time to collect is in the morning, first voided urine
- Provide sterile container
- Do perineal care before collection of the urine

- Discard the first flow of urine
- Label the specimen properly
- Send the specimen immediately to the laboratory
- Document the time of specimen collection and transport to the lab.
- Document the appearance, odor, and usual characteristics of the specimen.

2. 24-hour urine specimen

- Discard the first voided urine.
- Collect all specimen thereafter until the following day
- Soak the specimen in a container with ice
- Add preservative as ordered according to hospital policy

3. Second-Voided urine – required to assess glucose level and for the presence of albumin in the urine.

- Discard the first urine
- Give the patient a glass of water to drink
- After few minutes, ask the patient to void

4. Catheterized urine specimen

- Clamp the catheter for 30 min to 1 hour to allow urine to accumulate in the bladder and adequate specimen can be collected.
- Clamping the drainage tube and emptying the urine into a container are contraindicated after a genitourinary surgery.

II. Stool Specimen

1. Fecalysis – to assess gross appearance of stool and presence of ova or parasite

- Secure a sterile specimen container
- Ask the pt. to defecate into a clean , dry bed pan or a portable commode.
- Instruct client not to contaminate the specimen with urine or toilet paper(urine inhibits bacterial growth and paper towel contain bismuth which interfere with the test result)

2. Stool culture and sensitivity test

- To assess specific etiologic agent causing gastroenteritis and bacterial sensitivity to various antibiotics.

3. Fecal Occult blood tests are valuable test for detecting occult blood (hidden) which may be present in colo-rectal cancer, detecting melena stool

a. Hematest- (an Orthotolidin reagent tablet)
b. Hemoccult slide- (filter paper impregnated with guaiac)
Both test produces blue reaction id occult blood lost exceeds 5 ml in 24 hours.
c. Colocare – a newer test, requires no smear

Instructions:

a. Advise client to avoid ingestion of red meat for 3 days
b. Patient is advise on a high residue diet
c. Avoid dark food and bismuth compound
d. If client is on iron therapy, inform the MD
e. Make sure the stool in not contaminated with urine, soap solution or toilet paper
f. Test sample from several portion of the stool.

Venipuncture

Pointers

- Never collect a venous sample from the arm or a leg that is already being use d for I.V therapy or blood administration because it may affect the result.
- Never collect venous sample from an infectious site because it may introduce pathogens into the vascular system
- Never collect blood from an edematous area, AV shunt, site of previous hematoma, or vascular injury.
- Don't wipe off the povidine-iodine with alcohol because alcohol cancels the effect of povidine iodine.
- If the patient has a clotting disorder or is receiving anticoagulant therapy , maintain pressure on the site for at least 5 min after withdrawing the needle.

Arterial puncture for ABG test

- Before arterial puncture, perform Allen's test first.

- If the patient is receiving oxygen, make sure that the patient's therapy has been underway for at least 15 min before collecting arterial sample
- Be sure to indicate on the laboratory request slip the amount and type of oxygen therapy the patient is having.
- If the patient has just receive a nebulizer treatment, wait about 20 minutes before collecting the sample.

IV. Blood specimen

a. No fasting for the following tests:
- CBC, Hgb, Hct, clotting studies, enzyme studies, serum electrolytes

b. Fasting is required:
- FBS, BUN, Creatinine, serum lipid (cholesterol, triglyceride)

V. Sputum Specimen

1. Gross appearance of the sputum
- Collect early in the morning
- Use sterile container
- Rinse the mount with plain water before collection of the specimen
- Instruct the patient to hack-up sputum

2. **Sputum culture and sensitivity test**
- Use sterile container
- Collect specimen before the first dose of antibiotic

3. Acid-Fast Bacilli
- To assess presence of active pulmonary tuberculosis
- Collect sputum in three consecutive mornings

4. Cytologic sputum exam - to assess for presence of abnormal or cancer cells.

Diagnostic Test

1. PPD test
- read result 48 – 72 hours after injection.
- For HIV positive clients, induration of 5 mm is considered positive

2. Bronchography
- Secure consent
- Check for allergies to seafood or iodine or anesthesia
- NPO 6-8 hours before the test
- NPO until gag reflex return to prevent aspiration

3. Thoracentesis – aspiration of fluid in the pleural space.
- Secure consent, take V/S
- Position upright leaning on overbed table
- Avoid cough during insertion to prevent pleural perforation
- Turn to unaffected side after the procedure to prevent leakage of fluid in the thoracic cavity
- Check for expectoration of blood. This indicate trauma and should be reported to MD immediately.

4. Holter Monitor
- it is continuous ECG monitoring, over 24 hours period
- The portable monitoring is called telemetry unit

5. Echocardiogram
- ultrasound to assess cardiac structure and mobility
- Client should remain still, in supine position slightly turned to the left side, with HOB elevated 15-20 degrees

6. Electrocardiography
- If the patient's skin is oily, scaly, or diaphoretic, rub the electrode with a dry 4x4 gauze to enhance electrode contact.
- If the area is excessively hairy, clip it

- Remove client`s jewelry, coins, belt or any metal
- Tell client to remain still during the procedure

7. Cardiac Catheterization

- Secure consent
- Assess allergy to iodine, shelfish
- V/S, weight for baseline information
- Have client void before the procedure
- Monitor PT, PTT, ECG prior to test
- NPO for 4-6 hours before the test
- Shave the groin or brachial area
- After the procedure : bed rest to prevent bleeding on the site, do not flex extremity
- Elevate the affected extremities on extended position to promote blood supply back to the heart and prevent thrombophlebitis
- Monitor V/S especially peripheral pulses
- Apply pressure dressing over the puncture site
- Monitor extremity for color, temperature, tingling to assess for impaired circulation.

8. MRI

- secure consent
- the procedure will last 45-60 minute
- Assess client for claustrophobia
- Remove all metal items
- Client should remain still
- Tell client that he will feel nothing but may hear noises
- Client with pacemaker, prosthetic valves, implanted clips, wires are not eligible for MRI.
- Client with cardiac and respiratory complication may be excluded
- Instruct client on feeling of warmth or shortness of breath if contrast medium is used during the procedure

9. UGIS – Barium Swallow

- instruct client on low-residue diet 1-3 days before the procedure
- administer laxative evening before the procedure
- NPO after midnight
- instruct client to drink a cup of flavored barium
- x-rays are taken every 30 minutes until barium advances through the small bowel
- film can be taken as long as 24 hours later
- force fluid after the test to prevent constipation/barium impaction

10. LGIS – Barium Enema

- instruct client on low-residue diet 1-3 days before the procedure
- administer laxative evening before the procedure
- NPO after midnight
- administer suppository in AM
- Enema until clear
- force fluid after the test to prevent constipation/barium impaction

11. Liver Biopsy

- Secure consent,
- NPO 2-4 hrs before the test
- Monitor PT, Vit K at bedside
- Place the client in supine at the right side of the bed
- Instruct client to inhale and exhale deeply for several times and then exhale and hold breath while the MD insert the needle
- Right lateral post procedure for 4 hours to apply pressure and prevent bleeding
- Bed rest for 24 hours
- Observe for S/S of peritonitis

12. Paracentesis

- Secure consent, check V/S
- Let the patient void before the procedure to prevent puncture of the bladder
- Check for serum protein. excessive loss of plasma protein may lead to hypovolemic shock.

13. Lumbar Puncture

- obtain consent
- instruct client to empty the bladder and bowel
- position the client in lateral recumbemt with back at the edge of the examining table
- instruct client to remain still
- obtain specimen per MDs order

NURSING PROCEDURES

1. Steam Inhalation

a. It is dependent nursing function.
b. Heat application requires physician's order.
c. Place the spout 12-18 inches away from the client's nose or adjust the distance as necessary.

2. Suctioning

a. Assess the lungs before the procedure for baseline information.
b. Position: conscious – semi-Fowler's
c. Unconscious – lateral position
d. Size of suction catheter- adult- fr 12-18
e. Hyper oxygenate before and after procedure
f. Observe sterile technique
g. Apply suction during withdrawal of the catheter
h. Maximum time per suctioning –15 sec

3. Nasogastric Feeding (gastric gavage)

Insertion:

a. Fowler's position
b. Tip of the nose to tip of the earlobe to the xyphoid

Tube Feeding

a. Semi-Fowler's position
b. Assess tube placement
c. Assess residual feeding
d. Height of feeding is 12 inches above the tube's point of insertion
e. Ask client to remain upright position for at least 30 min.
f. Most common problem of tube feeding is Diarrhea due to lactose intolerance

4. Enema

a. Check MD's order
b. Provide privacy
c. Position: left lateral
d. Size of tube Fr. 22-32
e. Insert 3-4 inches of rectal tube
f. If abdominal cramps occur, temporarily stop the flow until cramps are gone.
g. Height of enema can – 18 inches

5. Urinary Catheterization

a. Verify MD's order
b. Practice strict asepsis
c. Perineal care before the procedure
d. Catheter size: male-14-16 , female – 12 – 14
e. Length of catheter insertion: male – 6-9 inches ,female – 3-4 inches

For retention catheter:

a. Male –anchor laterally or upward over the lower abdomen to prevent penoscrotal pressure
b. Female- inner aspect of the thigh

6. Bed Bath

a. Provide privacy
b. Expose, wash and dry one body part a time
c. Use warm water (110-115 F)
d. Wash from cleanest to dirtiest
e. Wash, rinse, and dry the arms and leg using Long, firm strokes from distal to proximal area – to increase venous return.

7. Foot Care

a. Soaking the feet of diabetic client is no longer recommended

b. Cut nail straight across

8. Mouth Care

a. Eat coarse, fibrous foods (cleansing foods) such as fresh fruits and raw vegetables
b. Dental check every 6 mounts

9. Oral care for unconscious client

a. Place in side lying position
b. Have the suction apparatus readily available

10. Hair Shampoo

a. Place client diagonally in bed
b. Cover the eyes with wash cloth
c. Plug the ears with cotton balls
d. Massage the scalp with the fatpads of the fingers to promote circulation in the scalp.

11. Restraints

a. Secure MD's order for each episode of restraints application.
b. Check circulation every 15 min
c. Remove restraints at least every 2 hours for 30 minutes

Normal Values	
Bleeding time	**1-9 min**
Prothrombin time	**10-13 sec**
Hematocrit	
Male	**42-52%**
Female	**36-48%**
Hemoglobin	
Male	**13.5-16 g/dl**
Female	**12-16 g/dl**
Platelet	**150,00- 400,000**
RBC	
Male	**4.5-6.2 million/L**
Female	**4.2-5.4 million/L**
Amylase	**80-180 IU/L**
Bilirubin (serum)	
Direct	**0-0.4 mg/dl**
Indirect	**0.2-0.8 mg/dl**
Total	**0.3-1.0 mg/dl**
pH	**7.35- 7.45**
PaCo2	**35-45**
HCO3	**22-26 mEq/L**
Pa O2	**80-100 mmHg**
SaO2	**94-100%**
Sodium	**135- 145 mEq/L**
Potassium	**3.5- 5.0 mEq/L**
Calcium	**4.2- 5.5 mEq/dL**
Chloride	**98-108 mEq/L**
Magnesium	**1.5-2.5 mg/dl**
BUN	**10-20 mg/dl**
Creatinine	**0.4- 1.2**
CPK-MB	
Male	**50 –325 mu/ml**
Female	**50-250 mu/ml**
Fibrinogen	**200-400 mg/dl**
FBS	**80-120 mg/dl**
Glycosylated Hgb	**4.0-7.0%**
Uric Acid	**2.5 –8 mg/dl**
ESR	
Male	**15-20 mm/hr**
Female	**20-30 mm/hr**
Cholesterol	**150 - 200 mg/dl**
Triglyceride	**140-200 mg/dl**
Lactic Dehydrogenase	**100-225 mu/ml**
Alkaline phospokinase	**32-92 U/L**
Albumin	**3.2- 5.5 mg/dl**

PRINCIPLES OF MEDICATION ADMINISTRATION
I - "**Six Rights" of drug administration**

1. The Right Medication – when administering medications, the nurse compares the label of the medication container with medication form.
The nurse does this 3 times:
a. Before removing the container from the drawer or shelf
b. As the amount of medication ordered is removed from the container
c. Before returning the container to the storage

2. Right Dose –when performing medication calculation or conversions, the nurse should have another qualified nurse check the calculated dose\

3. Right Client – an important step in administering medication safely is being sure the medication is given to the right client.
a. To identify the client correctly:
b. The nurse check the medication administration form against **the client's identification bracelet and asks the client to state his or her name** to ensure the client's identification bracelet has the correct information.

4. Right Route - if a prescriber's order does nor designate a route of administration, the nurse consult the prescriber. Likewise, if the specified route is not recommended, the nurse should alert the prescriber immediately.

5. Right Time
a. the nurse must know why a medication is ordered for certain times of the day and whether the time schedule can be altered
b. each institution has are commended time schedule for medications ordered at frequent interval
c. Medication that must act at certain times are given priority (e.g insulin should be given at a precise interval before a meal)

6. Right Documentation –Documentation is an important part of safe medication administration
a. The documentation for the medication should clearly reflect the client's name, the name of the ordered medication, the time, dose, route and frequency
b. Sign medication sheet immediately after administration of the drug

CLIENT'S RIGHT RELATED TO MEDICATION ADMINISTRATION
A client has the following rights:
a. To be informed of the medication's name, purpose, action, and potential undesired effects.
b. To refuse a medication regardless of the consequences
c. To have a qualified nurses or physicians assess medication history, including allergies
d. To be properly advised of the experimental nature of medication therapy and to give written consent for its use
e. To received labeled medications safely without discomfort in accordance with the six rights of medication administration
f. To receive appropriate supportive therapy in relation to medication therapy
g. To not receive unnecessary medications

II – Practice Asepsis – wash hand before and after preparing the medication to reduce transfer of microorganisms.

III – Nurse who administer the medications are responsible for their own action. Question any order that you considered incorrect (may be unclear or appropriate)

IV – Be knowledgeable about the medication that you administer
"A FUNDAMENTAL RULE OF SAFE DRUG ADMINISTRATION IS: "NEVER ADMINISTER AN UNFAMILIAR MEDICATION"

V – Keep the Narcotics in locked place.

VI– Use only medications that are in clearly labeled containers. Relabelling of drugs are the responsibility of the pharmacist.

VII – Return liquid that are cloudy in color to the pharmacy.

VIII – Before administering medication, identify the client correctly

IX – Do not leave the medication at the bedside. Stay with the client until he actually takes the **medications.**

X – The nurse who prepares the drug administers it.. Only the nurse prepares the drug knows what the drug is. Do not accept endorsement of medication.

XI – If the client vomits after taking the medication, report this to the nurse incharge or physician.

XII – Preoperative medications are usually discontinued during the postoperative period unless ordered to be continued.

XIII- When a medication is omitted for any reason, record the fact together with the reason.

XIV – When the medication error is made, report it immediately to the nurse incharge or physician. To implement necessary measures immediately. This may prevent any adverse effects of the drug.

Medication Administration

1. Oral administration
Advantages
a. The easiest and most desirable way to administer medication
b. Most convenient
c. Safe, does nor break skin barrier
d. Usually less expensive

Disadvantages
a. Inappropriate if client cannot swallow and if GIT has reduced motility
b. Inappropriate for client with nausea and vomiting
c. Drug may have unpleasant taste
d. Drug may discolor the teeth
e. Drug may irritate the gastric mucosa
f. Drug may be aspirated by seriously ill patient.

Drug Forms for Oral Administration
a. Solid: tablet, capsule, pill, powder
b. Liquid: syrup, suspension, emulsion, elixir, milk, or other alkaline substances.
c. Syrup: sugar-based liquid medication
d. Suspension : water-based liquid medication. Shake bottle before use of medication to properly mix it.
e. Emulsion: oil-based liquid medication
f. Elixir: alcohol-based liquid medication. After administration of elixir, allow 30 minutes to elapse before giving water. This allows maximum absorption of the medication.
"NEVER CRUSH ENTERIC-COATED OR SUSTAINED RELEASE TABLET"
Crushing enteric-coated tablets – allows the irrigating medication to come in contact with the oral or gastric mucosa, resulting in mucositis or gastric irritation.

Crushing sustained-released medication – allows all the medication to be absorbed at the same time, resulting in a higher than expected initial level of medication and a shorter than expected duration of action

2. SUBLINGUAL
a. A drug that is placed under the tongue, where it dissolves.
b. When the medication is in capsule and ordered sublingually, the fluid must be aspirated from the capsule and placed under the tongue.
c. A medication given by the sublingual route should not be swallowed, or desire effects will not be achieved

Advantages:
a. Same as oral
b. Drug is rapidly absorbed in the bloodstream

Disadvantages
a. If swallowed, drug may be inactivated by gastric juices.
b. Drug must remain under the tongue until dissolved and absorbed

3. BUCCAL
a. A medication is held in the mouth against the mucous membranes of the cheek until the drug dissolves.
b. The medication should not be chewed, swallowed, or placed under the tongue (e.g sustained release nitroglycerine, opiates,antiemetics, tranquilizer, sedatives)
c. Client should be taught to alternate the cheeks with each subsequent dose to avoid mucosal irritation

Advantages:
a. Same as oral
b. Drug can be administered for local effect
c. Ensures greater potency because drug directly enters the blood and bypass the liver

Disadvantages:
a. If swallowed, drug may be inactivated by gastric juice

4. TOPICAL – Application of medication to a circumscribed area of the body.

1. Dermatologic – includes lotions, liniment and ointments, powder.
a. Before application, clean the skin thoroughly by washing the area gently with soap and water, soaking an involved site, or locally debriding tissue.
b. Use surgical asepsis when open wound is present
c. Remove previous application before the next application
d. Use gloves when applying the medication over a large surface. (e.g large area of burns)
e. Apply only thin layer of medication to prevent systemic absorption.

2. **Opthalmic -** includes instillation and irrigation
a. Instillation – to provide an eye medication that the client requires.
b. Irrigation – To clear the eye of noxious or other foreign materials.
c. Position the client either sitting or lying.
d. Use sterile technique
e. Clean the eyelid and eyelashes with sterile cotton balls moistened with sterile normal saline from the inner to the outer canthus
f. Instill eye drops into lower conjunctival sac.
g. Instill a maximum of 2 drops at a time. Wait for 5 minutes if additional drops need to be administered. This is for proper absorption of the medication.
h. Avoid dropping a solution onto the cornea directly, because it causes discomfort.
i. Instruct the client to close the eyes gently. Shutting the eyes tightly causes spillage of the medication.
j. For liquid eye medication, press firmly on the nasolacrimal duct (inner canthus) for at least 30 seconds to prevent systemic absorption of the medication.

3. Otic
Instillation – to remove cerumen or pus or to remove foreign body
a. Warm the solution at room temperature or body temperature, failure to do so may cause vertigo, dizziness, nausea and pain.
b. Have the client assume a side-lying position (if not contraindicated) with ear to be treated facing up.
c. Perform hand hygiene. Apply gloves if drainage is present.
d. Straighten the ear canal:
- 0-3 years old: pull the pinna downward and backward
- Older than 3 years old: pull the pinna upward and backward

e. Instill eardrops on the side of the auditory canal to allow the drops to flow in and continue to adjust to body temperature
f. Press gently but firmly a few times on the tragus of the ear to assist the flow of medication into the ear canal.
g. Ask the client to remain in side lying position for about 5 minutes
h. At times the MD will order insertion of cotton puff into outermost part of the canal.Do not press cotton into the canal. Remove cotton after 15 minutes.

4. Nasal – Nasal instillations usually are instilled for their astringent effects (to shrink swollen mucous membrane), to loosen secretions and facilitate drainage or to treat infections of the nasal cavity or sinuses. Decongestants, steroids, calcitonin.
a. Have the client blow the nose prior to nasal instillation
b. Assume a back lying position, or sit up and lean head back.
c. Elevate the nares slightly by pressing the thumb against the client's tip of the nose. While the client inhales, squeeze the bottle.
d. Keep head tilted backward for 5 minutes after instillation of nasal drops.
e. When the medication is used on a daily basis, alternate nares to prevent irritations

5. Inhalation – use of nebulizer, metered-dose inhaler
a. Simi or high-fowler's position or standing position. To enhance full chest expansion allowing deeper inhalation of the medication
b. Shake the canister several times. To mix the medication and ensure uniform dosage delivery
c. Position the mouthpiece 1 to 2 inches from the client's open mouth. As the client starts inhaling, press the canister down to release one dose of the medication. This allows delivery of the medication more accurately into the bronchial tree rather than being trapped in the oropharynx then swallowed

d. Instruct the client to hold breath for 10 seconds. To enhance complete absorption of the medication.
e. If bronchodilator, administer a maximum of 2 puffs, for at least 30 second interval. Administer bronchodilator before other inhaled medication. This opens airway and promotes greater absorption of the medication.
f. Wait at least 1 minute before administration of the second dose or inhalation of a different medication by MDI
g. Instruct client to rinse mouth, if steroid had been administered. This is to prevent fungal infection.

6. Vaginal – drug forms: tablet liquid (douches). Jelly, foam and suppository.
a. Close room or curtain to provide privacy.
b. Assist client to lie in dorsal recumbent position to provide easy access and good exposure of vaginal canal, also allows suppository to dissolve without escaping through orifice.
c. Use applicator or sterile gloves for vaginal administration of medications.

Vaginal Irrigation – is the washing of the vagina by a liquid at low pressure. It is also called douche.
a. Empty the bladder before the procedure
b. Position the client on her back with the hips higher than the shoulder (use bedpan)
c. Irrigating container should be 30 cm (12 inches) above
d. Ask the client to remain in bed for 5-10 minute following administration of vaginal suppository, cream, foam, jelly or irrigation.

7. RECTAL – can be use when the drug has objectionable taste or odor.
a. Need to be refrigerated so as not to soften.
b. Apply disposable gloves.
c. Have the client lie on left side and ask to take slow deep breaths through mouth and relax anal sphincter.
d. Retract buttocks gently through the anus, past internal sphincter and against rectal wall, 10 cm (4 inches) in adults, 5 cm (2 in) in children and infants. May need to apply gentle pressure to hold buttocks together momentarily.
e. Discard gloves to proper receptacle and perform hand washing.
f. Client must remain on side for 20 minute after insertion to promote adequate absorption of the medication.

8. PARENTERAL- administration of medication by needle.

Intradermal – under the epidermis.
a. The site are the inner lower arm, upper chest and back, and beneath the scapula.
b. Indicated for allergy and tuberculin testing and for vaccinations.
c. Use the needle gauge 25, 26, 27: needle length 3/8", 5/8" or ½"
d. Needle at 10–15 degree angle; bevel up.
e. Inject a small amount of drug slowly over 3 to 5 seconds to form a wheal or bleb.
f. Do not massage the site of injection. To prevent irritation of the site, and to prevent absorption of the drug into the subcutaneous.
Subcutaneous – vaccines, heparin, preoperative medication, insulin, narcotics.
The site:
- outer aspect of the upper arms
- anterior aspect of the thighs
- Abdomen
- Scapular areas of the upper back
- Ventrogluteal
- Dorsogluteal

a. Only small doses of medication should be injected via SC route.
b. Rotate site of injection to minimize tissue damage.
c. Needle length and gauge are the same as for ID injections
d. Use 5/8 needle for adults when the injection is to administer at 45 degree angle; ½ is use at a 90 degree angle.
e. For thin patients: 45 degree angle of needle
f. For obese patient: 90 degree angle of needle
g. For heparin injection :
- Do not aspirate.
- Do not massage the injection site to prevent hematoma formation

j. For insulin injection:
- Do not massage to prevent rapid absorption which may result to hypoglycemic reaction.
- Always inject insulin at 90 degrees angle to administer the medication in the pocket between the subcutaneous and muscle layer. Adjust the length of the needle depending on the size of the client.

m. For other medications, aspirate before injection of medication to check if the blood vessel had been hit. If blood appears on pulling back of the plunger of the syringe, remove the needle and discard the medication and equipment.

Intramuscular
a. Needle length is 1", 1 ½", 2" to reach the muscle layer

b. Clean the injection site with alcoholized cotton ball to reduce microorganisms in the area.
c. Inject the medication slowly to allow the tissue to accommodate volume.

Sites:
Ventrogluteal site
a. The area contains no large nerves, or blood vessels and less fat. It is farther from the rectal area, so it less contaminated.
b. Position the client in prone or side-lying.
c. When in prone position, curl the toes inward.
d. When side-lying position, flex the knee and hip. These ensure relaxation of gluteus muscles and minimize discomfort during injection.
e. To locate the site, place the heel of the hand over the greater trochanter, point the index finger toward the anterior superior iliac spine, then abduct the middle (third) finger. The triangle formed by the index finger, the third finger and the crest of the ilium is the site.

Dorsogluteal site
a. Position the client similar to the ventrogluteal site
b. The site should not be use in infant under 3 years because the gluteal muscles are not well developed yet.
c. To locate the site, the nursedraw an imaginary line from the greater trochanter to the posterior superior iliac spine. The injection site id lateral and superior to this line.
d. Another method of locating this site is to imaginary divide the buttock into four quadrants. The upper most quadrant is the site of injection. Palpate the crest of the ilium to ensure that the site is high enough.
e. Avoid hitting the sciatic nerve, major blood vessel or bone by locating the site properly.

Vastus Lateralis
a. Recommended site of injection for infant
b. Located at the middle third of the anterior lateral aspect of the thigh.
c. Assume back-lying or sitting position.

Rectus femoris site –located at the middle third, anterior aspect of thigh.
Deltoid site
a. Not used often for IM injection because it is relatively small muscle and is very close to the radial nerve and radial artery.
b. To locate the site, palpate the lower edge of the acromion process and the midpoint on the lateral aspect of the arm that is in line with the axilla. This is approximately 5 cm (2 in) or 2 to 3 fingerbreadths below the acromion process.

IM injection – Z track injection
- Used for parenteral iron preparation. To seal the drug deep into the muscles and prevent permanent staining of the skin.
- Retract the skin laterally, inject the medication slowly. Hold retraction of skin until the needle is withdrawn
- Do not massage the site of injection to prevent leakage into the subcutaneous.

GENERAL PRINCIPLES IN PARENTERAL ADMINISTRATION OF MEDICATIONS
1. Check doctor's order.
2. Check the expiration for medication – drug potency may increase or decrease if outdated.
3. Observe verbal and non-verbal responses toward receiving injection. Injection can be painful.client may have anxiety, which can increase the pain.
4. Practice asepsis to prevent infection. Apply disposable gloves.
5. Use appropriate needle size. To minimize tissue injury.
6. Plot the site of injection properly. To prevent hitting nerves, blood vessels, bones.
7. Use separate needles for aspiration and injection of medications to prevent tissue irritation.
8. Introduce air into the vial before aspiration. To create a positive pressure within the vial and allow easy withdrawal of the medication.
9. Allow a small air bubble (0.2 ml) in the syringe to push the medication that may remain.
10. Introduce the needle in quick thrust to lessen discomfort.
11. Either spread or pinch muscle when introducing the medication. Depending on the size of the client.
12. Minimize discomfort by applying cold compress over the injection site before introduction of medication to numb nerve endings.
13. Aspirate before the introduction of medication. To check if blood vessel had been hit.
14. Support the tissue with cotton swabs before withdrawal of needle. To prevent discomfort of pulling tissues as needle is withdrawn.
15. Massage the site of injection to haste absorption.
16. Apply pressure at the site for few minutes. To prevent bleeding.
17. Evaluate effectiveness of the procedure and make relevant documentation.

Intravenous
The nurse administers medication intravenously by the following method:
1. As mixture within large volumes of IV fluids.
2. By injection of a bolus, or small volume, or medication through an existing intravenous infusion line or intermittent venous access (heparin or saline lock)
3. By "piggyback" infusion of solution containing the prescribed medication and a small volume of IV fluid through an existing IV line.

a. Most rapid route of absorption of medications.
b. Predictable, therapeutic blood levels of medication can be obtained.
c. The route can be used for clients with compromised gastrointestinal function or peripheral circulation.
d. Large dose of medications can be administered by this route.
e. The nurse must closely observe the client for symptoms of adverse reactions.
f. The nurse should double-check the six rights of safe medication.
g. If the medication has an antidote, it must be available during administration.
h. When administering potent medications, the nurse assesses vital signs before, during and after infusion.

Nursing Interventions in IV Infusion
a. Verify the doctor's order
b. Know the type, amount, and indication of IV therapy.
c. Practice strict asepsis.
d. Inform the client and explain the purpose of IV therapy to alleviate client's anxiety.
e. Prime IV tubing to expel air. This will prevent air embolism.
f. Clean the insertion site of IV needle from center to the periphery with alcoholized cotton ball to prevent infection.
g. Shave the area of needle insertion if hairy.
h. Change the IV tubing every 72 hours. To prevent contamination.
i. Change IV needle insertion site every 72 hours to prevent thrombophlebitis.
j. Regulate IV every 15-20 minutes. To ensure administration of proper volume of IV fluid as ordered.
k. Observe for potential complications.

Types of IV Fluids
Isotonic solution – has the same concentration as the body fluid
a. D5 W
b. Na Cl 0.9%
c. Plain Ringer's lactate
d. Plain Normosol M

Hypotonic – has lower concentration than the body fluids.
a. NaCl 0.3%

Hypertonic – has higher concentration than the body fluids.
a. D10W
b. D50W
c. D5LR
d. D5NM

Complication of IV Infusion

1. Infiltration – the needle is out of nein, and fluids accumulate in the subcutaneous tissues.
Assessment:
- Pain, swelling, skin is cold at needle site, pallor of the site, flow rate has decreases or stops.

Nursing Intervention:
- Change the site of needle
- Apply warm compress. This will absorb edema fluids and reduce swelling.

2. Circulatory Overload - Results from administration of excessive volume of IV fluids.
Assessment:
- Headache
- Flushed skin
- Rapid pulse
- Increase BP
- Weight gain
- Syncope and faintness
- Pulmonary edema
- Increase volume pressure
- SOB

- Coughing
- Tachypnea
- shock

Nursing Interventions:

- Slow infusion to KVO
- Place patient in high fowler's position. To enhance breathing
- Administer diuretic, bronchodilator as ordered

3. **Drug Overload** – the patient receives an excessive amount of fluid containing drugs.

Assessment:

- Dizziness
- Shock
- Fainting

Nursing Intervention

- Slow infusion to KVO.
- Take vital signs
- Notify physician

4. **Superficial Thrombophlebitis –** it is due to o0veruse of a vein, irritating solution or drugs, clot formation, large bore catheters.

Assessment:

- Pain along the course of vein
- Vein may feel hard and cordlike
- Edema and redness at needle insertion site.
- Arm feels warmer than the other arm

Nursing Intervention:

- Change IV site every 72 hours
- Use large veins for irritating fluids.
- Stabilize venipuncture at area of flexion.
- Apply cold compress immediately to relieve pain and inflammation; later with warm compress to stimulate circulation and promotion absorption.
- "Do not irrigate the IV because this could push clot into the systemic circulation

5. **Air Embolism** – Air manages to get into the circulatory system; 5 ml of air or more causes air embolism.

Assessment:

- Chest, shoulder, or backpain
- Hypotension
- Dyspnea
- Cyanosis
- Tachycardia
- Increase venous pressure
- Loss of consciousness

Nursing Intervention

- Do not allow IV bottle to "run dry"
- "Prime" IV tubing before starting infusion.
- Turn patient to left side in the trendelenburg position. To allow air to rise in the right side of the heart. This prevent pulmonary embolism.

6. **Nerve Damage** – may result from tying the arm too tightly to the splint.

Assessment

- Numbness of fingers and hands

Nursing Interventions

- Massage the area and move shoulder through its ROM
- Instruct the patient to open and close hand several times each hour.
- Physical therapy may be required

Note: apply splint with the fingers free to move.

7. Speed Shock – may result from administration of IV push medication rapidly.

- To avoid speed shock, and possible cardiac arrest, give most IV push medication over 3 to 5 minutes.

BLOOD TRANSFUSION THERAPY

Objectives:

1. To increase circulating blood volume after surgery, trauma, or hemorrhage
2. To increase the number of RBCs and to maintain hemoglobin levels in clients with severe anemia
3. To provide selected cellular components as replacements therapy (e.g clotting factors, platelets, albumin)

Nursing Interventions:
a. Verify doctor's order. Inform the client and explain the purpose of the procedure.
b. Check for cross matching and typing. To ensure compatibility
c. Obtain and record baseline vital signs
d. Practice strict Asepsis
e. At least 2 licensed nurse check the label of the blood transfusion
Check the following:
- Serial number
- Blood component
- Blood type
- Rh factor
- Expiration date
- Screening test (VDRL, HBsAg, malarial smear)

- this is to ensure that the blood is free from blood-carried diseases and therefore, safe from transfusion.
f. Warm blood at room temperature before transfusion to prevent chills.
g. Identify client properly. Two Nurses check the client's identification.
h. Use needle gauge 18 to 19. This allows easy flow of blood.
j. Use BT set with special micron mesh filter. To prevent administration of blood clots and particles.
k. Start infusion slowly at 10 gtts/min. Remain at bedside for 15 to 30 minutes. Adverse reaction usually occurs during the first 15 to 20 minutes.
l. Monitor vital signs. Altered vital signs indicate adverse reaction.
- **Do not mixed medications with blood transfusion. To prevent adverse effects**
- **Do not incorporate medication into the blood transfusion**
- **Do not use blood transfusion line for IV push of medication.**

m. Administer 0.9% NaCl before, during or after BT. Never administer IV fluids with dextrose. Dextrose causes hemolysis.
n. Administer BT for 4 hours (whole blood, packed rbc). For plasma, platelets, cryoprecipitate, transfuse quickly (20 minutes) clotting factor can easily be destroyed.

Complications of Blood Transfusion

1. Allergic Reaction – it is caused by sensitivity to plasma protein of donor antibody, which reacts with recipient antigen.
Assessments
- Flushing
- Rush, hives
- Pruritus
- Laryngeal edema, difficulty of breathing

2. **Febrile, Non-Hemolytic** – it is caused by hypersensitivity to donor white cells, platelets or plasma proteins. This is the most symptomatic complication of blood transfusion
Assessments:
- Sudden chills and fever
- Flushing
- Headache
- Anxiety

3. **Septic Reaction** – it is caused by the transfusion of blood or components contaminated with bacteria.
Assessment:
- Rapid onset of chills
- Vomiting
- Marked Hypotension
- High fever

4. **Circulatory Overload –** it is caused by administration of blood volume at a rate greater than the circulatory system can accommodate.
Assessment
- Rise in venous pressure
- Dyspnea
- Crackles or rales
- Distended neck vein
- Cough
- Elevated BP

5. Hemolytic reaction. It is caused by infusion of incompatible blood products.

Assessment

- Low back pain (first sign). This is due to inflammatory response of the kidneys to incompatible blood.
- Chills
- Feeling of fullness
- Tachycardia
- Flushing
- Tachypnea
- Hypotension
- Bleeding
- Vascular collapse
- Acute renal failure

Nursing Interventions when complications occurs in Blood transfusion

1. If blood transfusion reaction occurs. STOP THE TRANSFUSION.
2. Start IV line (0.9% NaCl)
3. Place the client in fowlers position if with SOB and administer O2 therapy.
4. The nurse remains with the client, observing signs and symptoms and monitoring vital signs as often as every 5 minutes.
5. Notify the physician immediately.
6. The nurse prepares to administer emergency drugs such as antihistamines, vasopressor, fluids, and steroids as per physician's order or protocol.
7. Obtain a urine specimen and send to the laboratory to determine presence of hemoglobin as a result of RBC hemolysis.
8. Blood container, tubing, attached label, and transfusion record are saved and returned to the laboratory for analysis.

Reference: Mastering Fundamentals of Nursing by Josie Q. Udan, RN, MAN

ROBERT C. REÑA, BSN
Lyceum of the Philippines University Batangas
Class MMIX