Collecting Subjective Data: the interview and health history
Collecting Objective Data: the physical examination

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Introduction

- Nursing is an art of applying scientific principles in a humanitarian way to care of people
- The nursing process serves as the organizational framework for the practice of nursing.

Assessment process:

Is a systematic method by which nursing plans and provides care for patients.

This involves a problem-solving approach that enables the nurse to identify patient problems and potential at-risk needs (problems) and to plan, deliver, and evaluate nursing care in an orderly, scientific manner.

Components of nursing process:

The nursing process consists of five dynamic and interrelated phases:

1. assessment
2. diagnosis
3. planning
4. implementation
5. evaluation.

The Process

- The nurse gathers information to identify the health status of the patient.
- Assessments are made initially and continuously throughout patient care.
- The remaining phases of the nursing process depend on the validity and completeness of the initial data collection.

Purposes of assessment

To establish Database: all the information about a client: it includes:

- The nursing health history
- Physical examination
  - Results of laboratory and diagnostic tests

Purpose

Assessment is part of each activity the nurse does for and with the patient.

The purposes is

1. To validate a diagnosis
2. To provide basis for effective nursing care.
3. It helps in effective decision making
4. Basis for accurate diagnosis
5. It promote holistic nursing care
6. To provide effective and innovative nursing care
7. To collecting data for nursing research
8. To evaluation of nursing care

Types of Assessment

Initial comprehensive assessment

An initial assessment, also called **an admission assessment**, is performed when the client enters a health care from a health care agency. The purposes are to evaluate the client's health status, to identify functional health patterns that are problematic, and to provide an in-depth, comprehensive database, which is critical for evaluating changes in the client's health status in subsequent assessments.

Problem-focused assessment

A problem focus assessment collects data about a problem that has already been identified. This type of assessment has a narrower scope and a shorter time frame than the initial assessment. In focus assessments, nurse determine whether the problems still exists and whether the status of the problem has changed (i.e. improved, worsened, or resolved). This assessment also includes the appraisal of any new, overlooked, or misdiagnosed problems. In intensive care units, may perform focus assessment every few minute.

Emergency assessment

Emergency assessment takes place in life-threatening situations in which the preservation of life is the top priority. Time is of the essence rapid identification of and intervention for the client's health problems. Often the client's difficulties involve airway, breathing and circulatory problems (the ABCs). Abrupt changes in self-concept (suicidal thoughts) or roles or relationships (social conflict leading to violent acts) can also initiate an emergency. Emergency assessment focuses on few essential health patterns and is not comprehensive.

Time-lapsed assessment or Ongoing assessment

Time lapsed reassessment, another type of assessment, takes place after the initial assessment to evaluate any changes in the clients functional health. Nurses perform time-lapsed reassessment when substantial periods of time have elapsed between assessments (e.g., periodic output patient clinic visits, home health visits, health and development screenings)

Steps of Assessment

A. **Collection of data**

   a) **Subjective data collection**

   b) **Objective data collection**

B. **Validation of data**

C. **Organization of data**

D. **Recording/documentation of data**

Collection of Data

- **gathering information about the client**
- **includes physical, psychological, emotional, socio-cultural, spiritual factors that may affect client's health status**
- **includes past health history of client (allergies, past surgeries, chronic diseases, use of general healing methods)**
- **includes current/present problems of client (pain, nausea, sleep pattern, religious practices, medication or treatment the client is taking now)**

Types of Data

When performing an assessment the nurse gathers subjective and objective data.

Subjective data (symptoms or covert data):

- are the verbal statements provided by the patient.

Subjective data consist of: sensations and symptoms, feelings, perceptions, desires, preferences, beliefs, ideas, values and personal information

Objective Data

Objective data (signs or overt data), are detectable by an observer or can be measured or tested against an accepted standard. They can be seen, heard, felt, or smelt, and they are obtained by observation or physical examination. For example: discoloration of the skin

Data Collection Methods

1. Observing: to observe is to gather data by using the senses.
2. Interviewing: an interview is a planned communication or conversation with a purpose.
3. Examining: Performance of a physical examination. The physical examination is often guided by data provided by the patient. A head-to-toe approach is frequently used to provide systematic approach that helps to avoid omitting important data

Interviewing

- Obtaining a valid nursing health history requires professional, interpersonal, and interviewing skills.
- The nursing interview is a communication process that has two focuses:

1. Establishing rapport and a trusting relationship with the client to elicit accurate and meaningful information
2. Gathering information on the client's developmental, psychological, physiologic, sociocultural, and spiritual statuses to identify deviations that can be treated with nursing and collaborative interventions or strengths that can be enhanced through nurse–client collaboration.

Phases of the interview

1- Preintroductory Phase

The nurse reviews the medical record before meeting with the client. This information may assist the nurse with conducting the interview by knowing some of the client's biographical information that is already documented.

If the client has been in the system for some time, it may reveal additional information. For example, the record may indicate that the client has difficulty hearing in one ear. This information will guide the nurse as to which side of the client would be best to conduct the interview. The record may also reveal the client's reason for seeking health care and past health history. However, there may not be a medical record established in some instances. The nurse will then need to rely on interview skills to elicit valid and reliable data from the client and that individual's family or significant other.

Phases of the interview

2- Introductory Phase

After introducing herself /himself to the client, the nurse explains:

a. the purpose of the interview
b. discusses the types of questions that will be asked
c. explains the reason for taking notes
d. and assures the client that confidential information will remain confidential.
e. The nurse also makes sure that the client is comfortable (physically and emotionally) and has privacy.
f. It is also essential for the nurse to develop trust and rapport at this point in the interview. This can begin by conveying a sense of priority and interest in the client. Developing rapport depends heavily on verbal and nonverbal communication on the part of the nurse.

Phases of the interview

3- Working Phase

During this phase, the nurse elicits the client's comments about major biographic data, reasons for seeking care, history of present health concern, past health history, family history, review of body systems for current health problems, lifestyle and health practices, and developmental level.

The nurse then listens, observes cues, and uses critical thinking skills to interpret and validate information received from the client.

The nurse and client collaborate to identify the client's problems and goals. The facilitating approach may be free-flowing or more structured with specific questions, depending on the time available and the type of data needed.

Phases of the interview

4- Summary and Closing Phase

During the summary and closing, the nurse summarizes information obtained during the working phase and validates problems and goals with the client.

She also identifies and discusses possible plans to resolve the problem (nursing diagnoses and collaborative problems) with the client.

Finally, the nurse makes sure to ask if anything else concerns the client and if there are any further questions.

Physical assessment

Assessment Sequencing

- Head – to - Toe Assessment
- Body Systems Assessment

Head-to-toe Assessment

Physical Assessment using head toe approach

General General health status Vital signs and weight Nutrional status **Mobility and self care** Observe posture Assess gait and balance Evaluate mobility Activities of daily living **Head, face and neck** Evaluate cognition LOC Orientation Mood Language and memory Sensory function Test vision Inspect and examine ears	Test hearing Cranial nerves Inspect lymph nodes Inspect neck veins **Chest** Inspect and palpate breast Inspect and auscultate lungs Auscultate heart **Abdomen** Inspect, auscultate, palpate four quadrants Palpate and percuss liver, stomach, bladder Bowel elimination Urinary elimination

Cont.....

Skin, hair and nails
Inspect scalp, hair & nails
Evaluate skin turgor
Observe skin lesion
Assess wounds

Genitalia
Inspect female client
Inspect male client

Extremities
Palpate arterial pulses
Observe capillary refill
Evaluate edema
Assess joint mobility
Measure strength
Assess sensory function
Assess circulation, movement, & sensation
Deep tendon reflexes
Inspect skin and nails

Body System approach: Review Of Systems

- **General presentation of symptoms:** Fever, chills, malaise, pain, sleep patterns, fatigability
- **Diet:** Appetite, likes and dislikes, restrictions, written dairy of food intake
- **Skin, hair, and nails:** rash or eruption, itching, color or texture change, excessive sweating, abnormal nail or hair growth
- **Musculoskeletal:** Joint stiffness, pain, restricted motion, swelling, redness, heat, deformity
- ***Head and neck*:**

Eyes: visual acuity, blurring, diplopia, photophobia, pain, recent change in vision

Ears: Hearing loss, pain, discharge, tinnitus, vertigo

Nose: Sense of smell, frequency of colds, obstruction, epistaxis, sinus pain, or postnasal discharge

Throat and mouth: Hoarseness or change in voice, frequent sore throat, bleeding o swelling, of gums, recent tooth abscesses or extractions, soreness of tongue or mucosa.

- **Endocrine and genital reproductive:** Thyroid enlargement or tenderness, heat or cold intolerance, unexplained weight change, polyuria, polydipsia, changes in distribution of facial hair; *Males:* Puberty onset, difficulty with erections, testicular pain, libido, infertility; *Females:* Menses {onset, regularity, duration and amount}, Dysmenorrhea, last menstrual period, frequency of intercourse, age at menopause, pregnancies {number, miscarriage, abortions} type of delivery, complications, use of contraceptives; breasts {pain, tenderness, discharge, lumps}

- **Chest and lungs:** Pain related to respiration, dyspnea, cyanosis, wheezing, cough, sputum {character, and quantity}, exposure to tuberculosis (TB), last chest X-ray
- **Heart and blood vessels:** Chest pain or distress, precipitating causes, timing and duration, relieving factors, dyspnea, orthopnea, edema, hypertension, exercise tolerance

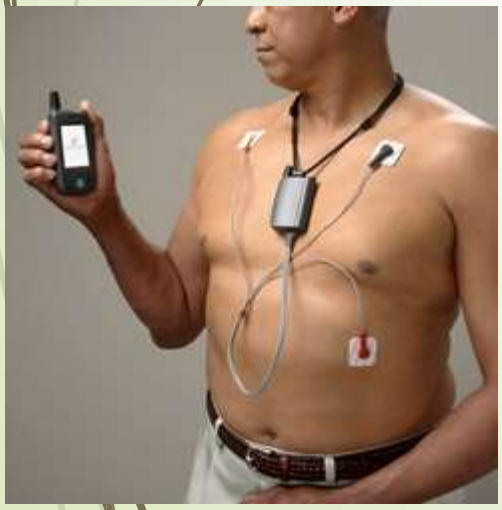
- **Gastrointestinal:** Appetite, digestion, food intolerance, dysphagia, heartburn, nausea or vomiting, bowel regularity, change in stool color, or contents, constipation or diarrhea, flatulence or hemorrhoids
- **Genitourinary:** Dysuria, flank or suprapubic pain, urgency, frequency, nocturia, hematuria, polyuria, hesitancy, loss in force of stream, edema, sexually transmitted disease
- **Neurological:** Syncope, seizures, weakness or paralysis, abnormalities of sensation or coordination, tremors, loss of memory
- **Psychiatric:** Depression, mood changes, difficulty concentrating nervousness, tension, suicidal thoughts, irritability.
- **Pediatrics: along with systemic approach in case of pediatrics, measure anthropometric measurement and neuromuscular assessment.**

Assessment techniques

- Inspection
- Palpation
- Percussion
- Auscultation
- The innovative Telemetry Monitoring System

Assessment techniques - Inspection

- Close and careful visualization of the person as a whole and of each body system
- *Ensure good lighting*
- *Perform at every encounter with your client*

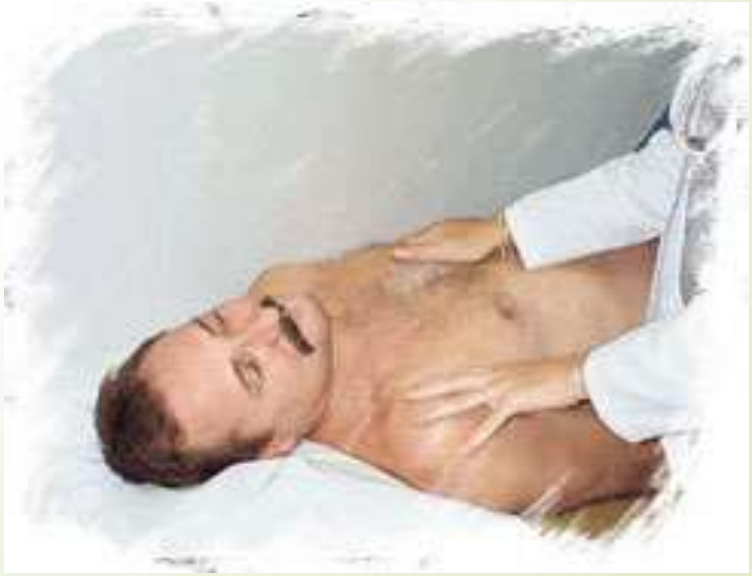


Assessment techniques Palpation

- Temperature, Texture, Moisture
- Organ size and location
- Rigidity or spasticity
- Crepitation & Vibration
- Position & Size
- Presence of lumps or masses
- Tenderness, or pain

Palpation Techniques

- Light
- Deep



Assessment techniques Percussion

- assess underlying structures for **location, size, density of underlying tissue.**

- **Direct**
- **Indirect**
- **Blunt percussion**

Percussion Sounds

- Resonance: A hollow sound.
- Hyper resonance: A booming sound.
- Tympany: A musical sound or drum sound like that produced by the stomach.
- Dullness: Thud sound produced by dense structures such as the liver, and enlarged spleen, or a full bladder.
- Flatness: An extremely dull sound like that produced by very dense structures such as muscle or bone.

Percussion sounds

Sound	Intensity	Pitch	Length	Quality	Example of origin
Resonance (heard over part air and part solid	Loud	Low	Long	Hollow	Normal lung
Hyper-resonance (heard over mostly air	Very loud	Low	Long	Booming	Lung with emphysema
Tympany (heard over air)	Loud	High	Moderate	Drum like	Puffed-out cheek, gastric bubble
Dullness (heard over more solid tissue	Medium	Medium	Moderate	Thud like	Diaphragm, pleural effusion
Flatness (heard over very dense tissue	Soft	High	short	Flat	Muscle, Bone, Thigh

Assessment techniques: Auscultation

- Listening to sounds produced by the body

- Instrument: stethoscope (to skin)
  - Diaphragm –high pitched sounds

    Heart

    Lungs

    Abdomen
  - Bell – low pitched sounds

    Blood vessels

Assessment techniques -Setting

- Environment & Equipment

Technique

- General survey
- Head to toe or systems approach
- Minimize exposure
- Areas to assess first – unaffected areas, external before internal parts

Physical Health Exam-*General Survey*

- ***Appearance***
  - *Age, skin color, facial features*
  - *Body Structure - Stature, nutrition, posture, position, symmetry*
  - *Mobility - Gait, ROM*
- ***Behavior***
  - *Facial expression, mood/affect, speech, dress, hygiene*
- ***Cognition***
  - *Level of Consciousness and Orientation (x4)*
- *Include any signs of distress- facial grimacing, breathing problems*

Basic components of the complete health history

- Chief complaint
- Present health status
- Past health history
- Current lifestyle
- Psychosocial status
- Family history
- Review of systems

Basic components of the complete health history

CHIEF COMPLAIN

- So, tell me why you have come here today?
- Tell me what your biggest complaint is right now?

PRESENT HEALTH STATUS

- Use **PQRST** to assess each symptom and after any intervention to evaluate any changes or responses to treatment.

PAST HEALTH HISTORY

- childhood illnesses and immunizations, accidents or traumatic injuries, hospitalizations, psychiatric or mental illnesses, allergies, and chronic illnesses.

Basic components of the complete health history

CHILDHOOD ILLNESSES:

- Data related to childhood illnesses is more pertinent to children than adults and the elderly.
- For adults, nurse want to know if they have ever had rheumatic fever and if their tetanus and hepatitis B vaccinations are current.
- For the elderly, nurse may want to ask if they ever had polio, rheumatic fever, or chicken pox. Pertinent vaccinations for the elderly would include tetanus and influenza.

P	Q	R	S	T
Provocative Or Palliative What relives the symptoms? What make the symptoms worsen?	**Quality or quantity** What dose the symptoms like? Are you having the symptoms right now?	**Region or radiation** Where in the body do the symptoms occur?	**Severity** How sever is the symptoms? How would you rate it on a scale 1 to 10	**Timing** When did the symptoms begin? Was the onset sudden or gradual?

Sources of Data

Data can be obtained from primary or secondary sources.

The primary source of data is the patient. In most instances the patient is considered to be the most accurate reporter. The alert and oriented patient can provide information about past illness and surgeries and present signs, symptoms, and lifestyle.

When the patient is unable to supply information because of deterioration of mental status, age, or seriousness of illness, secondary sources are used.

- *The Secondary sources of data* include family members, significant others, medical records, diagnostic procedures, ….
- Members of the patient's support system may be able to furnish information about the patient's past health status, current illness, allergies, and current medications.
- Other health team professionals are also helpful secondary sources (Physicians, other nurses.)

Validating Data

The information gathered during the assessment phase must be complete, factual, and accurate because the nursing diagnosis and interventions are based on this information.

Validation is the act of "double-checking" or verifying data to confirm that it is accurate and factual.

Purposes of Data Validation

- ensure that data collection is complete
- ensure that objective and subjective data agree
- obtain additional data that may have been overlooked
  - avoid jumping to conclusion
    - differentiate cues and inferences

Data Requiring Validation

Not every piece of data you collect must be verified. For example: you would not need to verify or repeat the client's pulse, temperature, or blood pressure unless certain conditions exist. Conditions that require data to be rechecked and validated include:

- Discrepancies or gaps between the subjective and objective data. For example, a male client tells you that he is very happy despite learning that he has terminal cancer.

Data Requiring Validation

- Discrepancies or gaps between what the client says at one time and then another time. For example, your female patient says she has never had surgery, but later in the interview she mentions that her appendix was removed at a military hospital.
  - Findings those are very abnormal and inconsistent with other findings. For example, the client has a temperature of 104^{o}F degree. The client is resting comfortably. The client's skin is warm to touch and not flushed.

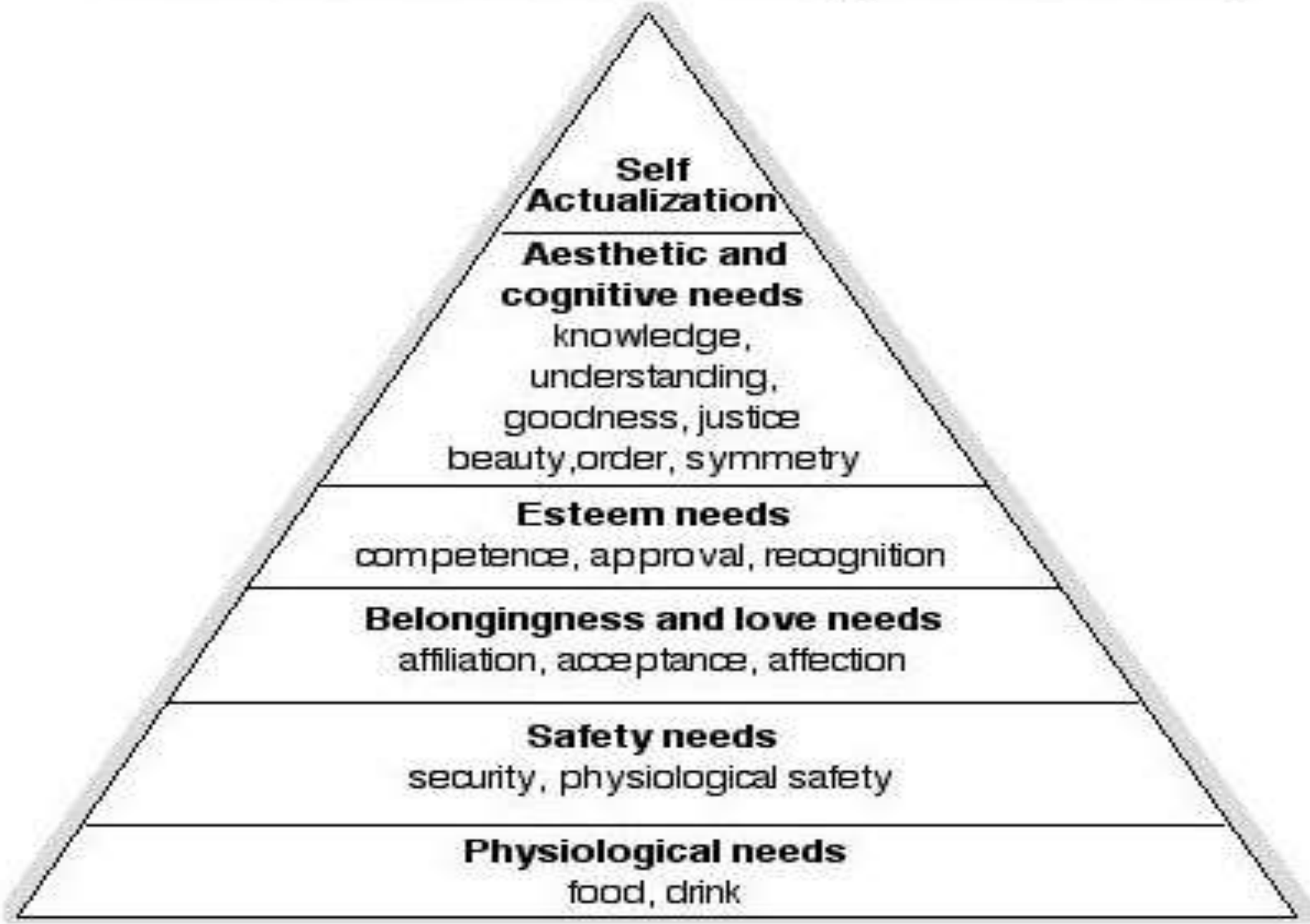
Methods of validation

- Recheck your own data through a repeat assessment. For example, take the client's temperature again with a different thermometer.
- Clarify data with the client by asking additional questions. For example: if a client is holding his abdomen the nurse may assume he is having abdominal pain, when actually the client is very upset about his diagnosis and is feeling
    - Verify the data with another health care professional. For example, ask a more experienced nurse to listen to the abnormal heart sounds you think you have just heard.
    - Compare your objective findings with your subjective findings to uncover discrepancies. For example, if the client state that she "never gets any time in the sun" yet has dark, wrinkled, suntanned skin, you need to validate the client's perception of never getting any time in the sun

Organizing data

The nurse uses a written or computerized format that organizes the assessment data systematically. The format may be modified according to the client's physical status.

Maslow's Hierarchy of Needs



Body System Model

The Body systems model (also called the medical model or review of systems) focuses on the client's major anatomic systems. The framework allows nurses to collect data about past and present condition of each organ or body system and to examine thoroughly all body systems for actual and potential problems

Gordon's Functional Health Patterns:

The client's strengths, talents and functional health patterns are an integral part of the assessment data. An assessment of functional health focuses on client's normal function and his or her altered function or risk for altered function.

- Health perception-health management pattern.
- Nutritional-metabolic pattern
- Elimination pattern
- Activity-exercise pattern
- Sleep-rest pattern
- Cognitive-perceptual pattern
- Self-perception-concept pattern
- Role-relationship pattern
- Sexuality-reproductive pattern
- Coping-stress tolerance pattern
- Value-belief pattern

Documenting Data:

To complete the assessment phase, the nurse records client's data.

Accurate documentation is essential and should include all data collected about the client's health status. Data are recorded in a factual manner and not interpreted by the nurse.

E.g.: the nurse record the client's breakfast intake as" coffee 240 mL. Juice 120 mL, 1 egg". Rather than as "appetite good".

Purposes of documentation

- Provides a chronological source of client assessment data and a progressive record of assessment findings that outline the client's course of care.
- Ensures that information about the client and family is easily accessible to members of the health care team; provides a vehicle for communication; and prevents fragmentation, repetition, and delays in carrying out the plan of care.
- Establishes a basis for screening or validation proposed diagnoses.
- Acts as a source of information to help diagnose new problems.

Purposes of documentation cont.…

- Offers a basis for determining the educational needs of the client, family, and significant others.
- Provides a basis for determining eligibility for care and reimbursement. Careful recording of data can support financial reimbursement or gain additional reimbursement for transitional or skilled care needed by the client.
- Constitutes a permanent legal record of the care that was or was not given to the client.
- Provides access to significant epidemiologic data for future investigations and research and educational endeavors.

Guidelines for documentation

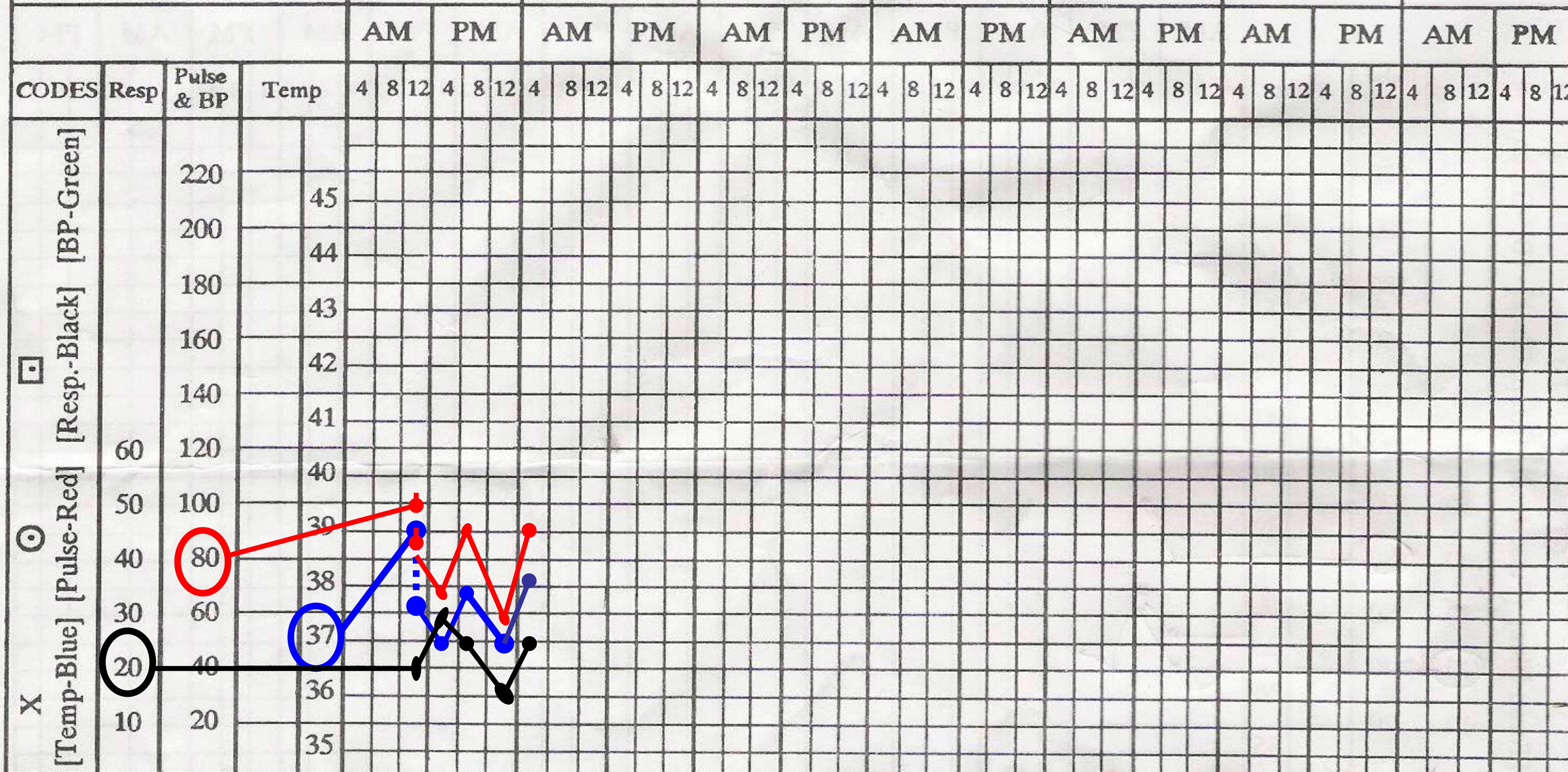
- Document legibly or print neatly in unerasable ink
- Use correct grammar and spelling
- Avoid wordiness that creates redundancy
- Use phrases instead of sentences to record data
- Record data findings, not how they were obtained
- Write entries objectively without making premature judgments or diagnosis

Guidelines for documentation

- Record the client's understanding and perception of problems
- Avoid recording the word "normal" for normal findings
- Record complete information and details for all client symptoms or experiences
- Include additional assessment content when applicable
- Support objective data with specific observations obtained during the physical examination

VITAL SIGNS CHART استمارة العلامات الحيوية

DATE:	10/10/1428	11/10/1428						
DAY OF HOSPITALIZATION	1	2						
Post-operative Day		1						
ALLERGIES :	iodine	iodine						



Blood Pressure

WEIGHT

Nursing Assessment

- **Assessment is the first stage of the nursing process in which the nurse should carry out a complete and holistic nursing assessment of every patient's needs, regardless of the reason for the encounter. Usually, an assessment framework, based on a nursing model is used.**
- **The purpose of this stage is to identify the patient's nursing problems. These problems are expressed as either actual or potential. For example, a patient who has been rendered immobile by a road traffic accident may be assessed as having the "potential for impaired skin integrity related to immobility".**

Components of a nursing assessment

- **Biographic data – name, address, age, sex, martial status, occupation, religion.**
- **Reason for visit/Chief complaint – primary reason why client seek consultation or hospitalization.**
- **History of present Illness – includes: usual health status, chronological story, family history, disability assessment.**
- **Past Health History – includes all previous immunizations, experiences with illness.**
- **Family History – reveals risk factors for certain diseases (Diabetes, hypertension, cancer, mental illness).**

Components of a nursing assessment

- **Review of systems – review of all health problems by body systems**
- **Lifestyle – include personal habits, diets, sleep or rest patterns, activities of daily living, recreation or hobbies.**
- **Social data – include family relationships, ethnic and educational background, economic status, home and neighborhood conditions.**
- **Psychological data – information about the client's emotional state.**
- **Pattern of health care – includes all health care resources: hospitals, clinics, health centers, family doctors.**

Psychological And Social Examination

- Client's perception (why they think they have been referred/are being assessed; what they hope to gain from the meeting)
- Emotional health (mental health state, coping styles etc)
- Social health (accommodation, finances, relationships, genogram, employment status, ethnic back ground, support networks etc)
- Physical health (general health, illnesses, previous history, appetite, weight, sleep pattern, diurinal variations, alcohol, tobacco, street drugs; list any prescribed medication with comments on effectiveness)

Psychological And Social Examination

- Spiritual health (is religion important? If so, in what way? What/who provides a sense of purpose?)
- Intellectual health (cognitive functioning, hallucinations, delusions, concentration, interests, hobbies etc

Physical examination

- A nursing assessment includes a physical examination: the observation or measurement of signs, which can be observed or measured, or symptoms such as nausea or vertigo, which can be felt by the patient.
- The techniques used may include Inspection, Palpation, Auscultation and Percussion in addition to the "vital signs" of temperature, blood pressure, pulse and respiratory rate, and further examination of the body systems such as the cardiovascular or musculoskeletal systems.

Documentation of the assessment

The assessment is documented in the patient's medical or nursing records, which may be on paper or as part of the electronic medical record which can be accessed by all members of the healthcare team.

Assessment Tools

The index of independence in **activities of daily living**

- **Activities of daily living** (**ADLs**) are "the things we normally do in daily living including any daily activity we perform for self-care (such as feeding ourselves, bathing, dressing, grooming), work, homemaking, and leisure."

The Barthel index

The Barthel Index consists of 10 items that measure a person's daily functioning specifically the activities of daily living and mobility. The items include feeding, moving from wheelchair to bed and return, grooming, transferring to and from a toilet, bathing, walking on level surface, going up and down stairs, dressing, continence of bowels and bladder.

Patient Name: _____ **Rater:** _____ **Date:** / / :

Activity	Score
Feeding 0 = unable 5 = needs help cutting, spreading butter, etc., or requires modified diet 10 = independent	0 5 10
Bathing 0 = dependent 5 = independent (or in shower)	0 5
Grooming 0 = needs to help with personal care 5 = independent face/hair/teeth/shaving (implements provided)	0 5
Dressing 0 = dependent 5 = needs help but can do about half unaided 10 = independent (including buttons, zips, laces, etc.)	0 5 10
Bowels 0 = incontinent (or needs to be given enemas) 5 = occasional accident 10 = continent	0 5 10

Bladder 0 = incontinent, or catheterized and unable to manage alone 5 = occasional accident 10 = continent	0 5 10
Toilet Use 0 = dependent 5 = needs some help, but can do something alone 10 = independent (on and off, dressing, wiping)	0 5 10
Transfers (bed to chair and back) 0 = unable, no sitting balance 5 = major help (one or two people, physical), can sit 10 = minor help (verbal or physical) 15 = independent	0 5 10 15
Mobility (on level surfaces) 0 = immobile or < 50 yards 5 = wheelchair independent, including corners, > 50 yards 10 = walks with help of one person (verbal or physical) > 50 yards 15 = independent (but may use any aid; for example, stick) > 50 yards	0 5 10 15
Stairs 0 = unable 5 = needs help (verbal, physical, carrying aid) 10 = independent	0 5 10
TOTAL (0 - 100)	_____

Cont…..

- The general health **questionnaire**
- **Mental health status** examination

The Mental Status Exam (MSE) is a series of questions and observations that provide a snapshot of a client's current mental, cognitive, and behavioural condition.

Glasgow Coma Scale

Best eye response (E)	Spontaneous--open with blinking at baseline	4
	Opens to verbal command, speech, or shout	3
	Opens to pain, not applied to face	2
	None	1
Best verbal response (V)	Oriented	5
	Confused conversation, but able to answer questions	4
	Inappropriate responses, words discernible	3
	Incomprehensible speech	2
	None	1
Best motor response (M)	Obeys commands for movement	6
	Purposeful movement to painful stimulus	5
	Withdraws from pain	4
	Abnormal (spastic) flexion, decorticate posture	3
	Extensor (rigid) response, decerebrate posture	2
	None	1

Conclusion

Assessment is the first and most critical step of nursing process. Accuracy of assessment data affects all other phases of the nursing process. A complete data base of both subjective and objective data allows the nurse to formulate nursing diagnosis, develop client goals, and intervenes to promote heath and prevent disease.

THANKS