Clinical Assessment

Definition

Clinical assessment is the systematic process of collecting, interpreting, and evaluating a patient's **medical history, physical examination findings, and diagnostic data** to form a diagnostic impression and guide decision-making.

It is a **cornerstone of medical practice**, especially in preoperative, emergency, and inpatient care.

Objectives

- Identify the underlying cause of symptoms
- Evaluate the severity and progression of disease
- Detect comorbid conditions or complications
- Stratify perioperative or procedural risk
- Guide further investigations and treatment plans

Components of Clinical Assessment

1. History Taking

Domain	Key Elements
Chief complaint (CC)	Primary reason for consultation
History of present illness (HPI)	Onset, duration, quality, intensity, radiation, timing, exacerbating/relieving factors
Past medical history (PMH)	Chronic diseases, surgeries, hospitalizations
Medications	Prescription, OTC, herbal supplements
Allergies	Drug, food, latex; type of reaction
Family history	Genetic diseases, sudden deaths
Social history	Smoking, alcohol, drugs, occupation, support
Functional status	ADLs, mobility, frailty (esp. elderly)
Review of systems (ROS)	Systematic inquiry of symptoms by body system

2. Physical Examination

System	Key Findings
General appearance	Level of consciousness, distress, cachexia
Vital signs	BP, HR, RR, Temp, SpO_2
Cardiovascular	Murmurs, edema, pulses
Respiratory	Breath sounds, signs of consolidation or effusion
Neurological	GCS, cranial nerves, motor/sensory/reflexes, cerebellar signs
Abdominal	Tenderness, masses, organomegaly

System	Key Findings
Musculoskeletal	Deformities, range of motion
Skin	Rashes, ulcers, signs of infection
Surgical site	Previous incisions, lesions, implants

3. □ Risk Stratification and Functional Scoring

- **ASA classification** (pre-anesthesia)
- **Frailty scores** (e.g., Clinical Frailty Scale)
- **Karnofsky or ECOG** (oncologic patients)
- **Cardiovascular risk**: Revised Cardiac Risk Index (RCRI)
- **Nutritional assessment**: BMI, albumin, sarcopenia

□ Adjuncts to Clinical Assessment

- Laboratory studies (CBC, electrolytes, renal/hepatic function, coagulation)
- Imaging (X-rays, CT, MRI, ultrasound)
- Functional tests (e.g., spirometry, ECG, echocardiography)

□ Relevance in Neurosurgery

- Assess **neurological baseline** prior to intervention
- Identify **surgical contraindications or red flags**
- Tailor anesthesia and ICU plan
- Determine need for **neuro-monitoring or pre-op steroids**

Patient assessment is a critical process in healthcare that involves evaluating and gathering information about a patient's medical condition, symptoms, medical history, and overall health status. It is a systematic approach to gathering data and identifying the patient's healthcare needs. Patient assessment is typically conducted by healthcare professionals, including physicians, nurses, and other members of the healthcare team. Here are some key aspects of patient assessment:

Medical History: Gathering a comprehensive medical history involves collecting information about the patient's past and current medical conditions, surgeries, allergies, medications, family history of diseases, and social and lifestyle factors that may impact their health. This information helps to provide context and identify potential risk factors or underlying conditions.

Chief Complaint and Presenting Symptoms: The patient's chief complaint is the main reason for seeking medical attention. Assessing the patient's symptoms involves obtaining a detailed description of their symptoms, such as the onset, duration, severity, location, and any associated factors. It helps to identify the primary concerns and guide further evaluation and treatment.

Physical Examination: A physical examination involves a systematic assessment of the patient's body systems, including observation, palpation, auscultation, and percussion. It may include assessing vital signs (e.g., blood pressure, heart rate, respiratory rate, temperature), examining specific body regions or systems, and performing diagnostic maneuvers to elicit signs of disease or abnormality.

Diagnostic Tests and Laboratory Investigations: Based on the patient's medical history and physical examination findings, healthcare professionals may order diagnostic tests and laboratory investigations to further evaluate the patient's condition. These may include blood tests, imaging studies (such as X-rays, CT scans, or MRIs), electrocardiograms (ECGs), or specialized tests to assess organ function or specific conditions.

Psychosocial Assessment: In addition to physical health, patient assessment also considers the patient's psychological and social well-being. This includes assessing their mental health, emotional state, support systems, lifestyle factors, and any psychosocial factors that may impact their health or recovery.

Pain Assessment: Assessing and managing pain is an essential part of patient care. It involves evaluating the patient's pain intensity, location, quality, and factors that aggravate or alleviate the pain. Various pain assessment scales and tools may be used to quantify and monitor pain levels.

Documentation: Accurate and thorough documentation of the patient assessment findings is crucial for effective communication among healthcare providers, continuity of care, and legal and regulatory compliance. Clear and concise documentation ensures that critical information is recorded and accessible to the healthcare team.

Patient assessment is an ongoing process that continues throughout the patient's care journey, guiding treatment decisions, monitoring progress, and identifying any changes or new concerns that may arise. It serves as the foundation for developing an appropriate care plan and facilitating effective communication and collaboration among healthcare providers.

The action of assessing someone or something.

Example: Pain Assessment.

Sports Concussion Assessment Tool 5 (SCAT5) is a standardized concussion assessment, available as a pdf or online , used by healthcare providers when a concussion is suspected in athletes ages 12 and older.

Neuropsychological assessment

Neuropsychological assessment

Response Assessment

Response Assessment

Summary

Clinical assessment is a dynamic, patient-centered process that integrates **history**, **examination**,

and **clinical judgment**. It is indispensable for safe diagnosis, risk stratification, and planning—especially in **preoperative and neurosurgical contexts**.