- concomitant medical and neurologic problems
- availability of technology and personnel to administer special types of treatment
- cooperation and reliability of the client

Early medical treatment:
- maintenance of an open airway
- hydration with intravenous fluids
- treatment of hypertension

DVT
- DVT is the formation of a blood clot (thrombus) in a deep vein, usually in the lower extremity
- a common risk in clients who have prolonged periods of bedrest and immobility
- incidence of DVT in individuals with stroke ranges from 22% to 73%
- Emboli that are released from deep veins and subsequently lodge in the lungs are referred to as pulmonary emboli
- **Pulmonary embolism** - most common cause of death in the first 30 days after a stroke
- evaluation:
    > daily evaluation of leg temperature
    > color
    > circumference
    > tenderness
    > appearance
- preventive treatments:
    > medication
    > use of elastic stockings
    > use of reciprocal compression devices
    > early mobilization of the client

Respiratory problems and pneumonia
- National Survey of Stroke reported that a third of clients who had sustained strokes also had respiratory infections
- Symptoms:
    > low-grade fever
    > increased lethargy
- Medical management:
    > administration of fluids and antibiotics
    > aggressive pulmonary hygiene
    > mobilization of the client
- **Ventilatory insufficiency** – major factor contributing to the high frequency of pneumonia
- **hemiparesis associated with stroke** - involves the muscles of respiration
    > Exercise programs that involve strengthening and endurance training of both the inspiratory and expiratory muscles help improve breathing and cough effectiveness and reduce the frequency of pneumonia

Cardiac Disease
- stroke itself may cause the cardiac abnormality, or the client may have had a pre-existing cardiac condition
- former is treated in the same manner as any new cardiac diagnosis
- self-care evaluations:
    > Monitoring of the heart rate
    > blood pressure
    > electrocardiogram (ECG)

Bowel and Bladder Dysfunction
- common
- Physician's responsibilities:
    > ordering a specific bowel program that includes:
        = time schedule
        = adequate fluid intake
        = stool softeners
        = suppositories
        = oral laxatives
        = medications or procedures to treat fecal impaction
- **timed or scheduled toilet program** - essential in treating urinary incontinence
- **Catheterization** may be necessary during stroke rehabilitation

=Evaluation and Intervention Procedures for Clients Who Sustained a Stroke=
- location of the stroke is determined by: CT or MRI

Anomic Aphasia
- difficulty in word retrieval
- Anomia, or word-finding difficulty - occurs in all types of aphasia.
- word-finding difficulty - primary or only symptom may be said to have anomic aphasia
    > speech of these clients is fluent, grammatically correct, and well articulated but accompanied by significant difficulty in word finding
- result in hesitant or slow speech and the substitution of descriptive phrases for the actual names of things.
- Mild to severe deficits in reading comprehension and written expression occur, and mild deficits in mathematic skills may be present

Dysarthria
- an articulation disorder
- absence of aphasia, because of dysfunction of the CNS mechanisms that control the speech musculature.
- This disorder results in paralysis and incoordination of the organs of speech, which causes the speech to: **sound thick, slurred, and sluggish**

Communication with Clients Who Have Aphasia
- use of gestures for communication should be encouraged
- client should be reassured that the language disorder is part of the disability, not a manifestation of mental illness
- strategies:
    - Understanding is facilitated when one person talks at a time. Extra noise creates confusion.
    - Give the client time to respond.
    - Carefully phrase questions to make it easier for the client to respond; for example, use “yes/no” and “either/or” questions.
    - Use visual cues or gestures with speech to help the client understand.
    - Never force a response.
    - Use concise sentences.
    - Do not rush communication because this may increase frustration and decrease the effectiveness of communication.

Inability to Perform Chosen Occupations Secondary to Neurobehavioral/Cognitive-Perceptual Impairments

Neurobehavioral Deficit - functional impairment of an individual manifested as defective skill performance resulting from a neurologic processing dysfunction that affects performance components such as affect, body scheme, cognition, emotion, gnosis, language, memory, motor movement, perception, personality, sensory awareness, spatial relations, and visuospatial skills

***Box 33-2

Degrees Of Transfer Of Learning
- number of task characteristics that differ from those of the original task
- characteristics:
    > spatial orientation
    > mode of presentation (e.g., auditory or visual)
    > movement requirements
    > environmental context
- **near transfer or learning**
    > transfer between two tasks that have one or two differing characteristics
    > remedial tasks to similar tasks is possible for all clients with brain injury
- **Intermediate transfer**
    > transfer of learning to a task that varies by three to six characteristics
    > remedial to functional tasks will occur only in clients with localized brain lesions and good cognitive skills and after training with a variety of treatment tasks
- **far transfer**
    > task that is conceptually similar but has one or no characteristics in common
    > remedial to functional tasks will occur only in clients with localized brain lesions and good cognitive skills and after training with a variety of treatment tasks
    > remedial to functional tasks will not occur in clients with diffuse injury and severe cognitive deficits.
- **very far transfer**
    > spontaneous application of what has been learned in treatment to everyday living.
    > remedial to functional tasks will occur only in clients with localized brain lesions and good cognitive skills and after training with a variety of treatment tasks
    > remedial to functional tasks will not occur in clients with diffuse injury and severe cognitive deficits

Inability to Perform Chosen Tasks Secondary to Upper Extremity Dysfunction

Loss of UE control
- common after a stroke
- 88% of clients who sustained a stroke having some level of UE dysfunction

Factors the affects the client’s ability to integrate the affected arm
1. Pain
2. Contracture and deformity
3. Loss of selective motor control
4. Weakness
5. Superimposed orthopedic limitations