CARE OF AN UNCONCIOUS PATIENT

Lec.7

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What is consciousness

CONSCIOUSNESS

- A state of awareness of yourself and your surroundings
- Ability to perceive sensory stimuli and respond appropriately to them.

What is unconsciousness

Abnormal state - client is unarousable and unresponsive.

- Coma is a deepest state of unconsciousness.
- Unconsciousness is a symptom rather than a disease.

Degrees of unconsciousness that vary in length and severity:

- Brief – fainting
- Prolonged – deep coma

Causes of unconsciousness

- Trauma
- Epidural / Subdural hematoma
- Brain contusion
- Hydrocephalus
- Stroke
- Tumor

- Infection
- Meningitis
- Encephalitis
- Hypo/hyperglycemia
- Hepatic encephalopathy
- Hyponatremia
- Drug /alcohol overdose
- Poisoning /intoxication

Sign and Symptom

- The person will be unresponsive (does not respond to activity, touch, sound, or other stimulation
- Is unaware of his surroundings and does not respond to sound
- Makes no purposeful movements
- Does not respond to questions or to touch
- Drowsiness
- Inability to speak or move parts of his or her body
- Loss of bowel or bladder control (incontinence)
- Stupor

- Respiratory changes (cheyne stroke respiration, cluster breathing, ataxic breathing, hyperventilation)
- Abnormal pupil reactions

normal – both pupils constrict

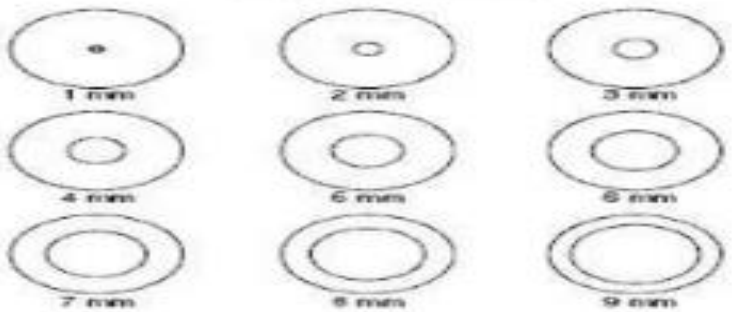
CN III lesion – loss of consensual pupillary light reflex

CN II lesion – loss of direct pupillary light reflex

Assessment

- G.C.S. (eye + verbal + motor).
- Vital signs: - TPR, BP,
- Pupil – size and reaction.
- Limb movement and tendon reflex. etc

Pupil Size Chart



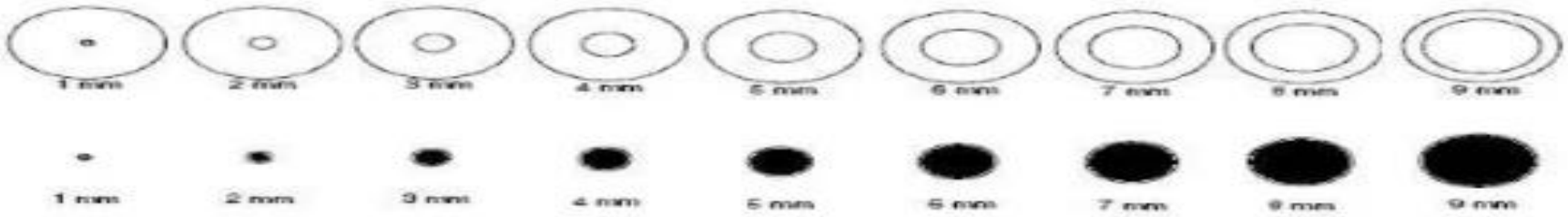
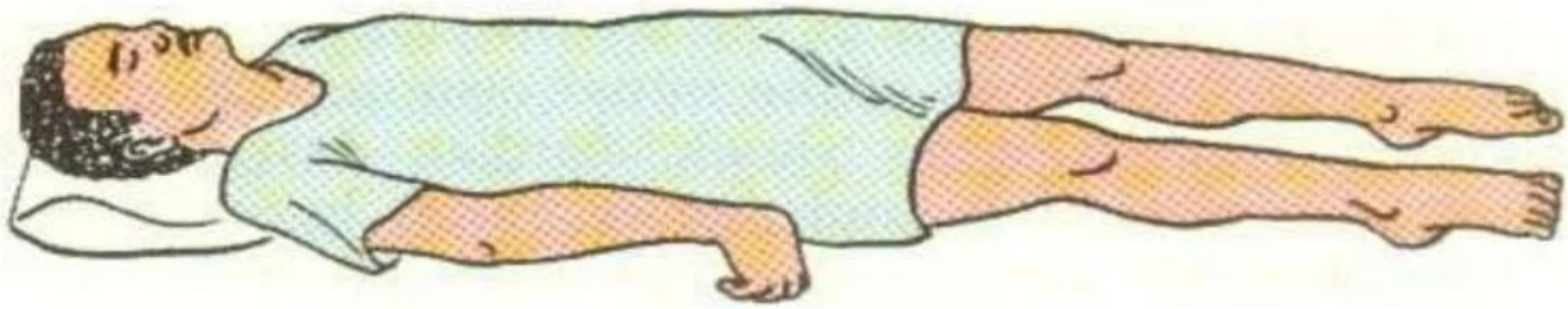


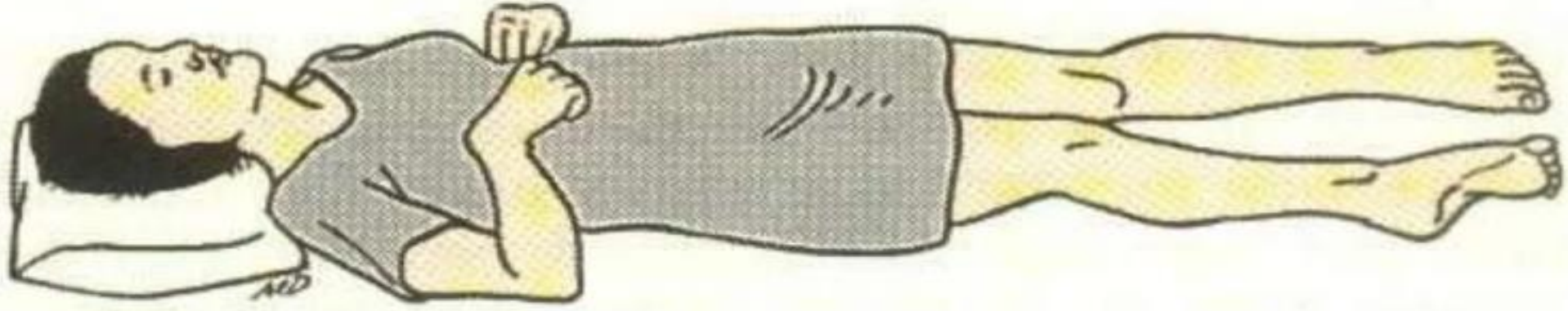
TABLE 38-2

Glasgow Coma Scale

BEHAVIOR	RESPONSE	SCORE
Eye opening response	Spontaneously	4
	To speech	3
	To pain	2
	No response	1
Best verbal response	Oriented to time, place, and person	5
	Confused	4
	Inappropriate words	3
	Incomprehensible sounds	2
	No response	1
Best motor response	Obeys commands	6
	Moves to localized pain	5
	Flexion withdrawal from pain	4
	Abnormal flexion (decorticate)	3
	Abnormal extension (decerebrate)	2
	No response	1
Total score:	*Best response*	15
	Comatose client	8 or less
	Totally unresponsive	3



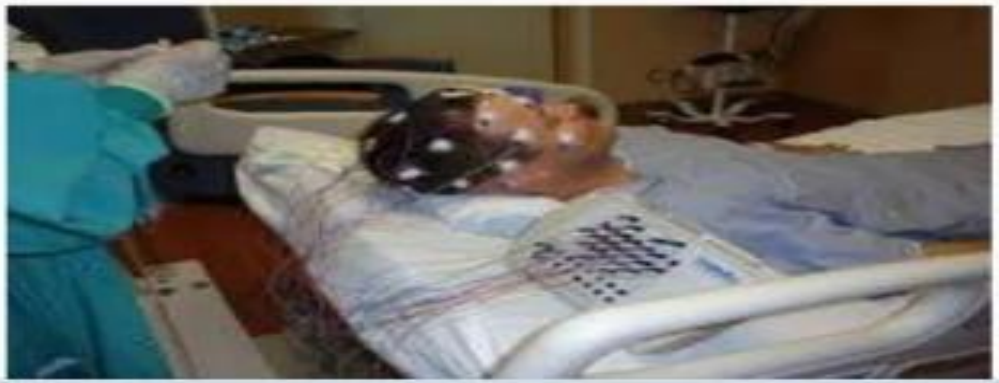
A. Extension posturing (decerebrate rigidity)

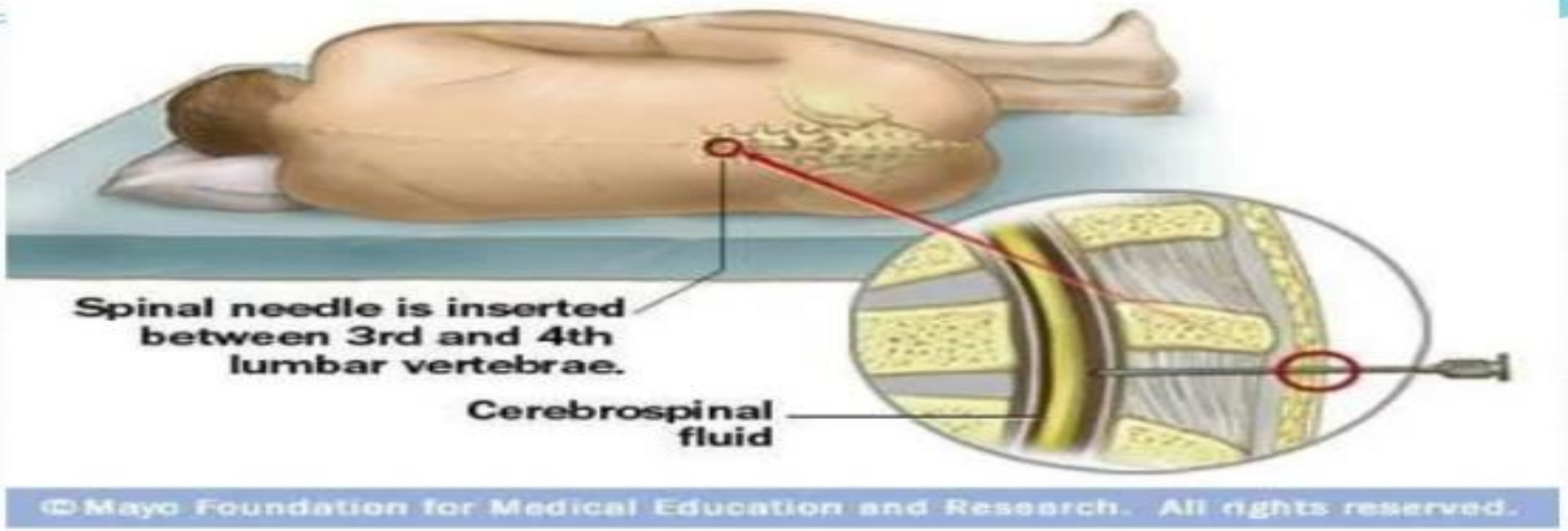


B. Abnormal flexion (decorticate rigidity)

Diagnostic test

- X-ray
- MRI (magnetic resonance imaging) : tumors, vascular abnormalities, IC bleed
- CT (computerized tomography) : cerebral edema, infarctions, hydrocephalus
- Lumbar puncture : cerebral meningitis, CSF evaluation
- PET (positron emission tomography)
- EEG: electric activity of cerebral cortex
- Blood test like CBC, LFT, RFT, ABG etc.





Complications of immobility

- Skin: - Pressure sore, laceration.
- Respiratory: - Hypostatic pneumonia, pulmonary. Embolism.
- C.V. complications: - DVT, postural hypotension, thrombo embolism.
- G.I. system: - Paralytic ilius, constipation, distention.
- Urological: - UTI, stone.
- Muskulo skeleton: - Contracture, osteoporosis, dystrophy, weakness.
- Neurological: - Foot drop.
- Psychological: - Anxiety, depression

Medical Management

The goal of medical management are to preserve brain function and prevent further damage.

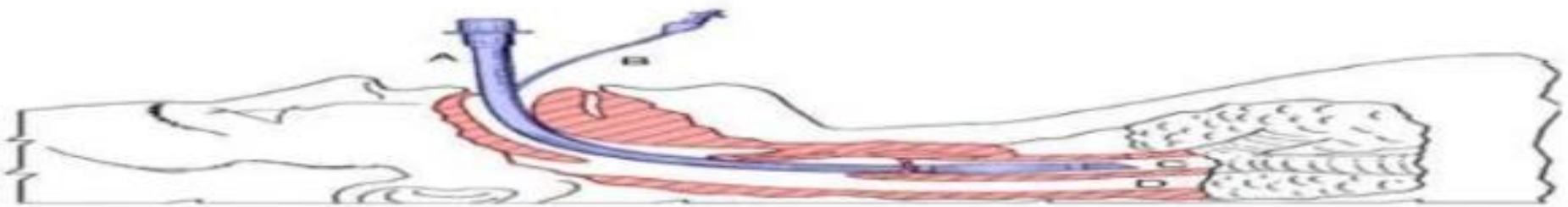
- Ventilatory support
- Oxygen therapy
- Management of blood pressure
- Management of fluid balance
- Management of seizures : anti epileptic sedatives, paralytic agents

- Treating Increased ICP : mannitol, corticosteroids
- Management of temperature regulation (fever): ice packs, tepid sponging, Antipyretics, NSAIDS
- Management of elimination : laxatives
- Management of nutrition: TPN and RT feeds (Ryle's tube)
- DVT prophylaxis

Nursing management of unconscious patient (emergency care)

Maintaining a patent airway

- ABC Management
- ABG results must be interpreted to determine the degree of oxygenation provided by the ventilators or oxygen.
- Assess for cough and swallow reflexes
- Use an oral artificial airway to maintain patency
- Tracheotomy or endo-tracheal intubation and mechanical ventilation maybe necessary
- Preventing airway obstruction



- Oronasopharyngeal suction equipment may be necessary to aspirate secretions.
- If facial palsy or hemi paralysis is present the affected side must be kept the uppermost.
- Dentures are removed
- Nasal and oral care is provided to keep the upper airway free of accumulated secretions debris
- Monitoring neurological signs at intervals determined by their condition and document results.

Ineffective cerebral tissue perfusion

- Assess the GCS, SPO2 level and ABG of the patient.
- Monitor the vital signs of the patients (increased temperature)
- Head elevation of 30 degrees, neutral position maintained to facilitate venous drainage.
- Reduce agitation .(Sedation.)
- Reduce cerebral edema (Corticosteroids, osmotic or loop diuretics.) Generally peaks within 72 hrs after trauma and subsides gradually.

- Talk softly and limit touch and stimulation.
- Administer laxatives, and antiemetic as ordered
- Manage temperature with antipyretics and cooling measures.
- Prevent seizure with ordered dilantin.
- Administer mannitol 25-50 g IV bolus if ICP >20, as prescribed.

Risk for increased ICP.

- Head elevation of 30 degrees, neutral position maintained to facilitate venous drainage and prevent aspiration.
- Pre-oxygenation before suctioning should be mandatory , and each pass of the catheter limited to 10 seconds, with appropriate sedation to limit the rise in ICP.
- Insertion of an oral airway to suction the secretions.
- As fluid intake is restricted and glucose is avoided to control cerebral edema and intravenous infusion cannot be considered as a nutritional support.

Nursing management of unconscious patient (routine care)

fluid and electrolyte balance

- Intake-Output chart should be meticulously maintained.
- Assess and document symptoms that may indicate fluid volume overload or deficit.
- Diuretics may be prescribed to correct fluid overload and reduce edema.
- Over hydration and intravenous fluids with glucose are always avoided in comatose patients as cerebral edema may follow.

Skin integrity

- The nurse should provide intervention for all self-care needs including bathing, hair care, skin and nail care.
- Frequent back care should be given.
- Comfort devices should be used.
- Positions should be changed.
- Special mattresses or airbeds to be used.
- Adequate nutritional and hydration status should be maintained.
- Patient's nails should be kept trimmed.
- Cornea should be kept moist by instilling methyl cellulose 0.5% to 1%.

- Protective eye shields can be applied or the eyelids closed with adhesive strips if the corneal reflex is absent. These measures prevent corneal abrasions and irritation.
- Inspect the oral cavity.
- Keep the lips coated with a water-soluble lubricant to prevent encrustation, drying, cracking. Inspect the paralyzed cheek.
- Frequent oral hygiene every 4 hourly.
- Nasal passages may get occluded so they may be cleaned with a cotton tipped applicator.

proper positioning

- Lateral position on a pillow to maintain head in a neutral position
- Upper arm positioned on a pillow to maintain shoulder
- alignment
- Upper leg supported on a pillow to maintain alignment of the hip
- Change position to lie on alternate sides every 2-4hrs
- taking care to prevent injury to soft tissue and nerves, edema or disruption of the blood supply
- Maintaining correct positioning enables secretions to drain from the client's mouth, the tongue does not obstruct the airway and postural deformities are prevented.


REFORMER
DIRECTOR
MOTIVATOR
INSPIRER
HELPER
SUPPORTER
COORDINATOR
OBSERVER

Self care deficit

- **Attending to the hygiene needs of the unconscious** patient should never become ritualistic, and despite the patient's perceived lack of awareness, dignity should not be compromised.
- Involving the family in self care needs.
- Fingernails and toenails also need to be assessed
- Chronic illnesses, such as diabetes needs more attention
- Minimum two nurses should bathe an unconscious patient as turning the patient may block the airway.
- Proper assessment of the condition of the skin must be done when giving a bed bath.
- Hair care should not be neglected

Oral Hygiene:

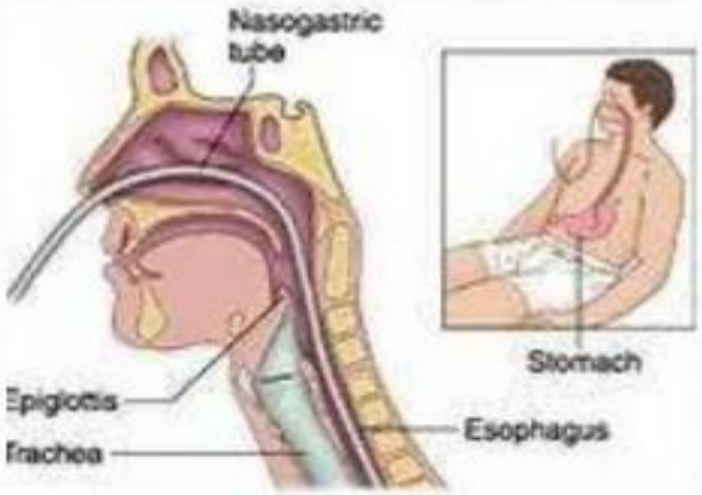
- A chlorhexidine based solution is used.
- Airway should be removed when providing oral care. It should be cleaned and then reinserted.
- If the patient has an endotracheal tube the tube should be fixed alternately on each side.
- Minimum of four-hourly oral care to reduce the potential of infection from micro-organisms.
- Also not to damage the gingiva by using excessive force

Eye Care:

- In assessing the eyes, observe for signs of irritation, corneal drying, abrasions and oedema.
- Gentle cleaning with gauze and 0.9% sodium chloride should be sufficient to prevent infection.
- Artificial tears can also be applied as drops to help moisten the eyes.
- Corneal damage can result if the eyes remain open for a longer time.
- Tape can be used to close the eyes

Nutrition need

- TPN (Total parenteral nutrition)
- Enteral feeding via Nasogastric, nasojejunal or PEG tube (Percut. Endoscopic Gastrostomy)
- Intravenous fluids are administered for comatose patients

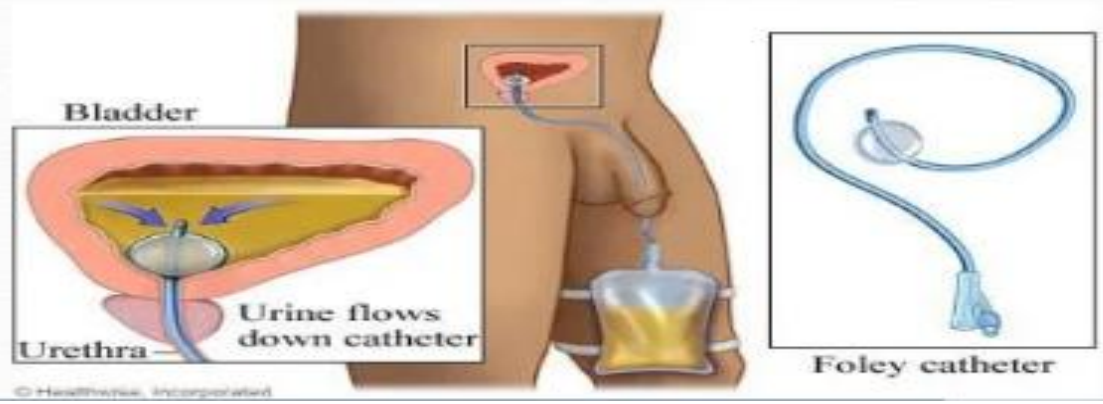


Risk for injury

- Side rails must be kept whenever the patient is not receiving direct care.
- Seizure precautions must be taken.
- Adequate support to limbs and head must be given when moving or turning an unconscious patient.
- Protect from external sources of heat.
- Oversedation should be avoided – as it impedes the assessment of the level of consciousness and impairs respiration.
- Assess the Need for restrain.

Impaired bowel/ bladder functions

- Assess for constipation and bladder distention.
- Auscultate bowel sounds.
- Stool softeners or laxatives may be given.
- Bladder catheterization may be done.
- Catheter care must be provided under aseptic techniques.
- Monitor the urine output and colour.
- Initiate bladder training as soon as consciousness has regained.



Risk for contractures

- Maintain the extremities in functional positions by providing proper support.
- Remove the support devices every four hours for passive ROM exercises and skin care.
- Foot support should be provided.

Sensory stimulation

- Brain needs sensory input
- Widely believed that hearing is the last sense to go
- **Talk, explain to the patient what is going on**
- Upon waking many clients remember….. and will accurately recall events and processes that happened while they were "sleeping"(unconscious)

Nurses must:

- Show respect
- Encourage family to contribute to the care of their loved ones
- Afford the privacy both the client and family deserve

Encourage stimulation by:

- Massage
- Combing/washing hair
- Playing music/radio/CD/TV
- Reading a book
- Bring in perfumed flowers
- Update them with family news

Impaired family process

- Include the **family members in patient's care.**
- **Communicate frequently with the family members.**
- The family members should be allowed to stay with the patient when and where it is possible.
- Use **external support systems like professional**
- counsellors, religious clergy etc.
- **Clarifications and questions should be encouraged.**

Any Question or Suggestion is Welcome