

PRECAUTIONS FOR CARE OF NEUROSURGICAL PATIENT

- Do not lower head in Trendelenburg's position or place in supine position.
- Do not suction through nose without specific order.
- Be careful when administering sedative drugs and narcotics.
 - a. Cannot evaluate neurologic status.
 - b. May cause respiratory embarrassment.
- Do not give oral fluids unless patient is fully conscious.
- Do not administer enemas or cathartics (may cause straining, therefore increasing intracranial pressure).
- Do not place on operative side if large tumor or bone removed.

- ◆ C. Dilantin.
 1. Prevents seizures through depression of the motor areas of the brain.
 2. Side effects include gastrointestinal symptoms and rash.
- D. Valium.
 1. Relieves restlessness.
 2. Decreases seizure activity.
- E. Phenobarbital.
 1. Reduces responsiveness of normal neurons to the nervous impulses arising in the focal site.
 2. Side effects are drowsiness, ataxia, nystagmus.
 3. Toxic effects produce rash but usually no nausea and vomiting.

Neurosurgical Postoperative Complications

Increased Intracranial Pressure

- ◆ A. Signs and symptoms.
 1. Brain becomes compressed as intracranial pressure increases.
 2. Change in level of consciousness.
 3. Lethargy, slurring speech, and slow responses.
 4. Changes in condition (often rapid).
 - a. Patient becomes restless.
 - b. Patient becomes confused.
 - c. Increased drowsiness.
 - d. Stupor to coma.
- ◆ 5. Changes in vital signs.
 - a. Pulse changes—may decrease to 60 or occasionally increase above 100.
 - b. Respiratory irregularities—progresses to Cheyne–Stokes and apnea can result.
 - c. Blood pressure increases with wide pulse pressure (difference between systolic and diastolic).
 - d. Moderately elevated temperature.
- 6. Headache.
- 7. Vomiting.

8. Pupil changes—increasing pressure or an expanding clot can displace the brain against the oculomotor or optic nerve.

- ◆ B. Nursing care.
 1. Inform physician of any vital sign changes or sensorium changes.
 2. Observe intake and output for possible fluid overload leading to cerebral edema.
 3. Observe surgical incision site for signs of edema.
 4. Administer diuretics or steroids to decrease edema as ordered.
 5. Administer anticonvulsant drugs as ordered.
 6. Have spinal or ventricular puncture tray available to drain off cerebrospinal fluid as necessary.
 7. Observe for level of consciousness—lethargy, slurred speech, slowed responses.
 8. See Precautions for Care of Neurosurgical Patient (above).

Seizures

- A. Signs and symptoms—tonic–clonic seizures (grand mal, see p. 215).
- B. Nursing care.
 1. Administer drugs as ordered (Dilantin, phenobarbital, and other related drugs).
 - ◆ 2. Provide safe environment.
 - a. Pad siderails.
 - b. Do not restrain during seizure.
 - c. Only use tongue blade to prevent tongue from falling back into throat prior to seizure onset.
 3. Observe and record.
 - a. Activities preceding the seizure (aura, movements, etc.).
 - b. Type of movements and area of body involved.
 - c. Incontinence.
 - d. Presence of unconsciousness during seizure.
 - e. Length of seizure.
 - f. Conditions following seizure.
 - (1) Somnolent.
 - (2) Continuation of previous activities.
 - (3) Awareness of seizure activity.
 4. Provide privacy during seizure.

Brain Abscess or Wound Infection

- A. Signs and symptoms.
 1. Increased temperature unless abscess walled off, in which case temperature can be subnormal.
 2. Headache.
 3. Neurologic deficits relative to area involved (focal seizures, blurred vision, etc.).
 4. Increased intracranial pressure.