HEAD AND SPINE INJURIES

Nursing care of a patient with head and spine injuries

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Goals of Nursing Care

- Maximizing respiratory function
- Preventing secondary injuries to the spinal cord and the brain
- Promoting mobility and/or independence
- Preventing or minimizing complications
- Supporting the psychological adjustment of patient
- Providing information

Management at site

- Stabilize the head and neck
- Keep the head in line with the spine and prevent movements
- Call for medical help
- Stop any bleeding
- Begin CPR if no signs of circulation
- Don’t tilt the head back to open the airway

Specific Nursing care

- Patient is received and nursed on emergency unit /intensive care unity / surgical ward
- Bed firm and cot sided to prevent further damage to brain/spine
- Cervical spine is maintained in line and mobilized with cervical collar
- AIR WAY – Position
  - Insert oral air way piece
  - Assist in endotracheal intubation
  - Suction PRN

Cont….

Breathing

- Nurse observes the movement of the chest wall and count the respirations
- Maintain good position, head of the bed raised to prevent obstruction by secretions
- Ensure patent endotracheal tube by suction
- Mechanical ventilator ensured
- Monitor oxygen circulation and if is below 80% its administered

Vital observations

- Pulse
- Temperature
- Blood pressure
- Respirations
- Pain assessment
- Nasal gastric tube
- Catheter passed,
- IV line

Cont…

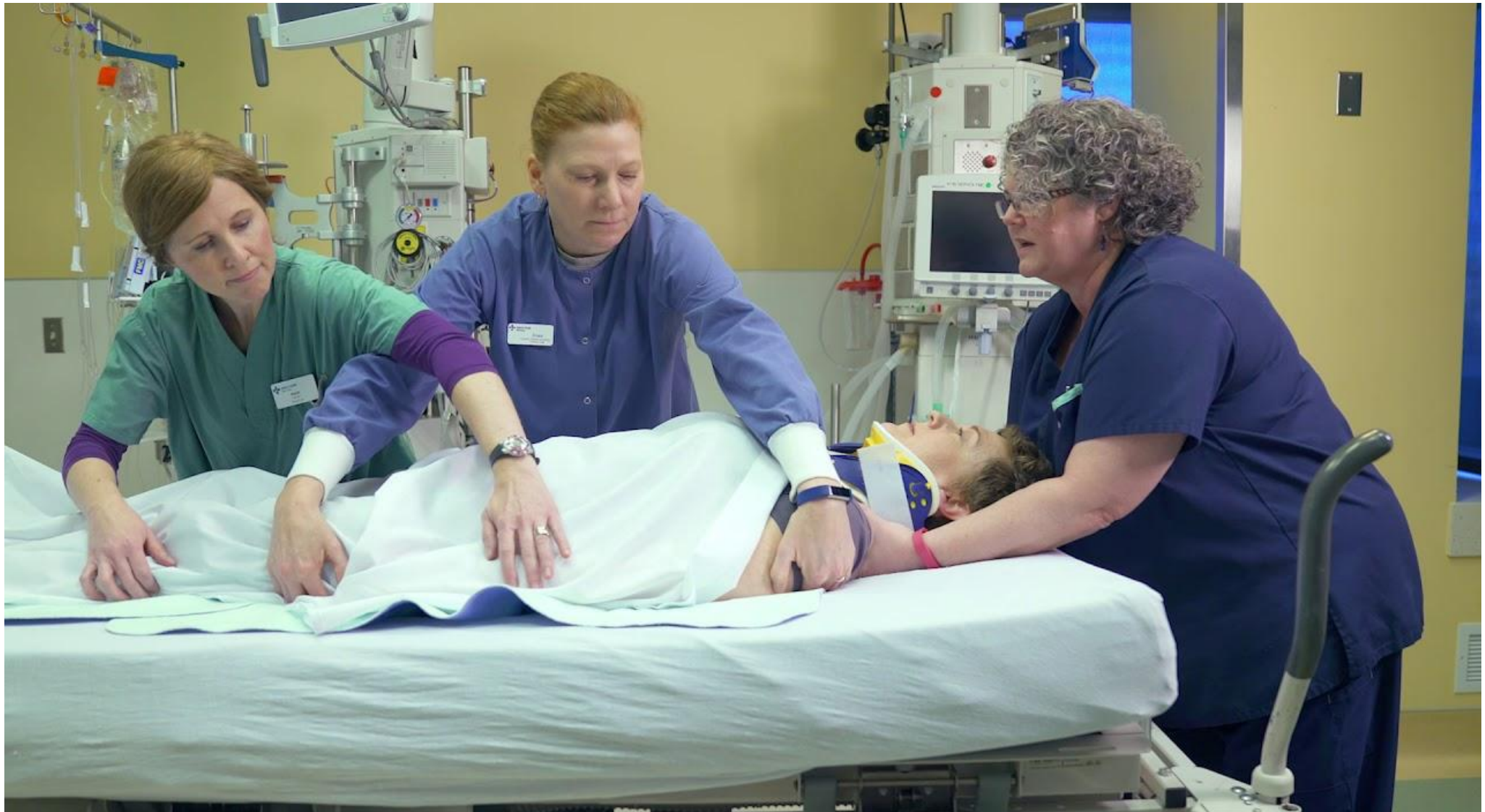
Circulation

- Arrest any hemorrhage
- Observe for pallor
- Continue monitoring B/P and pulse rate
- Check for capillary refill ,should be less than 2 seconds

Deformity

- Prevent further injuries, Provide a hazards free and quite environment
- Cervical spine well supported in a collar turn patient using a log rolling to keep spine in proper alignment.

Figure showing how to handle cervical injured patients



Neurological assessment using Glasgow coma scale

- A nurse continues to carry out a full neurological assessment, which comprises:
- Level of consciousness;
- Pupillary reaction;
- Vital signs;
- Motor function;
- Sensory function;

Specific Nursing Care Cont.,

- Observe for signs of increased intra cranial pressure
- Provide stress ulcer and DVT prophylaxis by giving the prescribed drugs
- Ensure all prescribed drugs are given on time and documented

General nursing care

- Ensure hygiene, prevention of pressure ulcers,nutrition,exercise,care of bowel and bladder, reassurance ,and continuous giving of information about the prognosis is done
- Family involvement for continuous support

When to seek help

- If there is un responsiveness
- Fluid coming from the nose or ears
- Persistent fever
- Unstable vitals
- Presence of new neurological deficit
- Un equal pupils

Out come Identifications

- Awake, oriented, alert
- Able to eat
- Moves the extremities
- Able to ambulate

Risk Management

- Hyperglycemia may worsen the outcome
- Elevated temperatures may increase the intra cranial pressure
- Prolonged seizure may worsen the secondary brain injuries

ADVISE ON DISCHAGE

- Honor follow up appointments
- Told to come back in case of problem seen like severe headache ear discharge
- To avoid strenuous activities
- Do not drive or operate heavy machines until your doctor clears you to do so.
- Stay within easy reach of telephone and medical help for some few days
- Don’t take sleeping pills or sedatives unless prescribed
- Stay with a care taker for some few days
- Incase of dependent pt like after cervical injury pt is attached to spine injury association for peer support

Rehabilitation

- It's a multi disciplinary management
- A group of people are involved in rehabilitating these patients back in their communities like;
  - Physiotherapists,
  - occupational therapists,
  - social workers,
  - family members,
  - community psychosocial therapists etc.

Health Teaching and Health Promotion

- Educate on safety when playing sports
- Wear helmets while working with highly risky jobs.
- Wear sit belts when driving
- Never drink and drive

Example of Head Injury Observation Chart

MINISTRY OF HEALTH
DEPARTMENT OF ANESTHESIA
Head Injury Observation Chart

Name……
Ward……
IP No. ……..
Bed No……..

Date

Time

Eye Opening	Spontaneous	4	Eyes closed by swelling =c
	To speech	3	
	To pain	2	
	None	1	
Best Verbal Response	Directed	5	Endotracheal Tube or Tracheostomy = T
	Continued	4	
	Inappropriate words	3	
	Interpretative Earth	2	
	None	1	
Best Motor Response	Obeys Commands	6	Usually Record the Best Arm Response
	Localizes on pain	5	
	Withdraw on pain	4	
	Flexion to pain	3	
	Extension on pain	2	
	None	1	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

Pupil Scale (mm)

Blood pressure and Pulse.

Respiration

- 250
- 240
- 230
- 220
- 210
- 190
- 180
- 170
- 150
- 110
- 100
- 50
- 80
- 70
- 60
- 50
- 40
- 30
- 20
- 40
- 30
- 20
- 10

Temperature X ^{O}C

40
39
38
37
35
35
34
33
32
32
31
30

Temperature X ^{O}C

Pupils	Right	Size Reaction	• Reacts - No Reaction C Eye Closed
	Left	Size Reaction	
Blood Glucose			

- *Thank you for Listening*