**MATRIC NO:17/MHS02/108**

**LEVEL:400L**

**COURSE CODE:NSC 408**

Identify and explain four (4) more emergency nursing conditions and their management

Emergency nursing conditions and their management includes:

**MANAGEMENT OF STROKE (CEREBROVASCULAR ACCIDENT)**

 **Cerebrovascular Accident** is an ischaemic stroke or brain attack which is a sudden loss of brain function resulting from cerebral vascular Accident (ischemic stroke) a disruption of the blood supply to a part of the brain. It can also be haemorrhagic. Risk factors include non-modifiable (advanced age, gender(male), race (African American) and modifiable (hypertension, atrial fibrillation, hyperlipidaemia, obesity, smoking, diabetes).

Nursing management

**Assessment**

During the acute phase, a neurologic flow sheet is maintained to provide data about the following important measures of the patient’s clinical status:

* Change in level of consciousness or responsiveness, ability to speak, orientation
* Presence or absence of voluntary or involuntary movements of the extremities: muscle tone, body posture, and head position.
* Stiffness or flaccidity of the neck
* Eye opening, or comparative size of pupils and pupillary reactions to light, and ocular position
* Colour of face and extremities, temperature and moisture of skin
* Quality and rates of pulse and respiration; ABGs, body temperature, and arterial pressure.
* Volume of fluids ingested or administered and volume of urine excreted per 24hours
* Signs of bleeding
* Blood pressure maintained within normal limits.

Post-Acute Phase: Assess the following functions:

* Mental status (memory, attention, span, perception, orientation, affect, speech/language).
* Sensation and perception (usually the patient has decreased awareness of pain and temperature).
* Motor control (upper and lower extremity movement); swallowing ability, nutritional and hydration status, skin integrity, activity tolerance, and bowel and bladder function.
* Continue focusing nursing assessment or impairment of function in patient’s daily activities.

Medical management

* Recombinant tissue plasminogen activator(Tpa): It would be prescribed unless contraindicated, and there should be monitoring for bleeding.
* Anticoagulant therapy
* Management of increased intracranial pressure(ICP): osmotic diuretics, maintain Paco2 at 30-35mmhg, position to avoid hypoxia (elevate the head of bed to promote venous drainage and to lower increased ICP)
* Possible hemicranectomy for increased ICP from brain oedema in a very large stroke
* Intubation with an endotracheal tube to establish a patent airway, if necessary
* Continuous hemodynamic
* monitoring (the goals for blood pressure remain controversial for a patient who has not received thrombolytic therapy; antihypertensive treatment may be withheld unless the systolic blood pressure or the diastolic blood pressure exceeds 120mmhg)
* Neurologic assessment to determine if the stroke is evolving and if other acute complications are developing.

**MANAGEMENT OF BURNS**

**First Aid**

Completion of first aid for a child who has sustained a burn injury is an important initial aspect of care as it assists with pain relief as well as minimising the progression of tissue damage. First aid is effective for up to three hours post time of injury. If appropriate first aid was not initiated and it is still within the 3-hour time frame post burn injury, first aid should be completed as outlined below prior to any wound care:

* The area of tissue damaged should be cooled with cool running water for 20minutes.
* Cooling for longer than 20minutes is not beneficial
* Ensure the unburnt areas of the patient are covered and warm to prevent hypothermia.

**Fluids**

Burn injuries greater than 10% TBSA and including the dermis result in circulatory compromise secondary to fluid loss through damaged tissue, widespread vasodilation as well as increase capillary permeability and fluid shifts (third spacing). This can result in hypovolemia leading to burns shock. Therefore, it is vital that adequate fluid is administered to the patient in combination with on-going circulatory and fluid balance assessment.

* A strict fluid balance must be maintained at all times, including all intake (both intravenous and oral) and strict measurement of all output(weigh nappies, weight pans/bottle, measure IDC)
* Fluid resuscitation is required in patients who have >10-15% TBSA.
* Patients receiving fluid resuscitation should have two large bore intravenous cannulas inserted.
* Intravenous maintenance fluid should be administered in conjunction with fluid resuscitation

**Anagelsia**

 Burn pain can be extremely intense and distressing for pandemic patients and can also be challenging to manage due to the individual’s experience and its unique characteristics.

* Initial and ongoing pain management is vital to ensure patient comfort, maximize healing and minimize risk mental trauma/post-traumatic stress
* Initial pain should be administered immediately following an accurate pain assessment
* Regular pain relief should be charted and administered, consider a combination of paracetamol and opioids only.
* Recommend routes of administration of analgesia which include: oral, intravenous or intranasal. Intramuscular is not recommended in patients with burn injuries.
* Pre-emptive analgesia may be necessary prior to repositioning, physiotherapy and follow up outpatient appointments
* Reassessment and evaluation of pain management is vital, referral to children’s pain management service may be necessary.

Burn pain experienced by patients is likely to increase during procedures such as dressing changes. Management of pain during procedures such as dressing changes.

**Preparation for Burns Dressing**

Preparation of patient and family

* Burn dressing changes can produce feelings of anxiety and distress in both patients and families. It is very important that both patients and families are physically and emotionally prepared and well informed regarding the procedure and the pain management options.
* Families/Primary care givers should be given a thorough explanation of the procedure, where appropriate pictures could be used to visualise the procedure along with orientation to the treatment room/bathroom to be used.
* Involve the parents where possible when providing an age appropriate explanation of the procedure to the patient.
* Optimising the parent’s role may assist in reducing both the child’s and parent’s anxiety during the procedure. Involving them in distraction and support of the child may be useful.

**MANAGEMENT OF FRACTURE**

Nursing Management

Assessment: When assessing a patient with fracture, check the “5 Ps”-pain, pulse, pallor, paraesthesia and paralysis.

1. Pain: Determine where the pain is located and if it is worse or better? Worsening pain may indicate increased edema, lack of adequate blood supply, or tissue damage.
2. Pulse: Check the peripheral pulses, especially those distal to the fracture site. Compare all pulses with those on the unaffected side. Pulses should be strong and equal.
3. Pallor: Observe the colour and temperature of the skin, especially around the fracture site. Perform the capillary refill (blanching) test.
4. Paraesthesia: Examine the injured area for increase or decrease in sensation. Can the patient detect tactile stimulation such as a blunt touch or a sharp pinprick? Does the patient complain of numbness or tingling?
5. Paralysis: Check the patient’s mobility. Can he wiggle his toes and fingers? Can he move his extremities?

All nursing assessment findings should be documented in the patient’s chart so that comparison can be made with notes at both earlier and later dates. In this way, the patient’s progress can be followed and changes in status are easily recognized. In addition to the five P’s mentioned above, the patient’s level of consciousness and temperature should be checked regularly. Mental status changes and temperature elevation could indicate the presence of infection. Reposition the patient as necessary to relieve pressure areas. Check all dressings, bandages, casts, splints, and traction equipment to ensure that nothing is causing constriction or pressure. Frequent and thorough checking and observation on the part of the nursing staff will promote healing and prevent complications.

 The principles of fracture management include: reduction, immobilization and rehabilitation

1. Reduction: It is the process of restoring the bone ends (and any fractured fragments) into their normal anatomical positions. This is accomplished by open or closed manipulation of the affected area, referred to as open and close reduction.
2. Closed Reduction: Is accomplished by bringing the bone ends into alignment by manipulation and manual traction-rays are taken to determine the position of the bones. Cast is applied to immobilize the extremity
3. In open reduction, a surgical opening, allowing the bones to be reduced manually under direct visualization. Frequently internal fixation devices will be used to maintain the bone fragments in reduction.
4. Immobilization: It is necessary to maintain fracture reduction until healing occurs. Immobilization may be accomplished by external or internal fixation
5. Methods of external fixation include casts, splints and continuous traction.
6. Internal fixation devices include pins, wire, screws, rods, nails and plates. These are attached to the side of the bone or inserted through the bone.
7. Rehabilitation: Is the regaining of strength and normal function in the affected area. Specific rehabilitation for each patient will be based upon the type of fracture and the methods of reductions and immobilization used.

**MANAGEMENT OF STATUS EPILEPTICUS**

Status epilepticus(SE) is a common, life-threatening neurologic disorder that is essentially an acute, prolonged epilepticus crisis.

General initial management include:

* Support airway and ventilation; monitor blood pressure and ECG waveform; perform blood gas analysis; supplement glucose and thiamine as required; measure serum antiepileptic drug levels, electrolyte (including management), blood counts, hepatic and renal function tests. Identify and treat the underlying cause.

Initial pharmacological treatment of generalized convulsive status epilepticus

* Administer IV lorazepam as first line treatment. Administer IV diazepam if IV lorazepam is unavailable, or buccal midazolam if unable to secure immediate IV access. Administer a maximum of two doses of the first-line treatment (including pre-hospital treatment).
* If seizures continue, administer IV phenobarbital or phenytoin as second-line treatment. Fosphenytoin (a pro-drug of phenytoin) can be given more rapidly and, when given intravenously, causes fewer injection-site reactions that phenytoin.

Pharmacological Treatment for refractory GSCE and subtle status epilepticus

* Administer IV midazolam, propofol or thiopental sodium to treat adults with refractory convulsive status epilepticus. Administer IV midazolam or thiopental sodium to treat children and young people with refractory convulsive status epilepticus.
* Adequate monitoring, including blood levels of anti-epileptic drugs(AEDs), and critical life systems support are required.

Emergency investigation in hospital

* Pulse oximetry; blood gases
* Blood for glucose, renal function, electrolytes, liver function, calcium and magnesium; FBC and clotting; AED levels.
* 5ml of serum and 50ml of urine samples should be saved for future analysis, including toxicology, especially if the cause of the status epilepticus is uncertain.