NURSING CARE PLAN The Child with Bacterial Meningitis

GOAL	INTERVENTION	RATIONALE	EXPECTED OUTCOME
1. Inability to Sustain Spontaneous Ventilation related to level of consciousness			
	NIC Priority Intervention: **Respiratory Monitoring:** Collection and analysis of patient data to assure airway patency and adequate gas exchange.		NOC Suggested Outcome: **Vital Sign Status:** Pulse, respiration, and blood pressure are within expected range for age.
The child's respiratory failure does not progress to respiratory arrest.	■ Place the child on a cardiorespiratory monitor with a 20-second alarm. ■ Have resuscitation equipment, including oxygen, resuscitation bag with mask, and suction apparatus at bedside. ■ Stimulate child if apneic; if no response, begin manual ventilations and call for emergency resuscitation. ■ Monitor heart rate and perform compressions if necessary.	■ The alarm on the monitor alerts staff that the child is having bradycardia or an apneic spell. ■ Equipment should be at bedside in case of respiratory arrest. Bag-valve mask ventilation is recommended as the child's respiratory secretions contain bacteria. ■ Stimulation may encourage spontaneous respirations; if not, ventilation is necessary. Calling for emergency resuscitation ensures help in managing the child in a timely manner. ■ The apneic child may have bradycardia resulting from cardiac hypoxia.	The child's respiratory failure is easily managed with prompt assessment and treatment.
2. Risk for Injury related to infection of cerebrospinal fluid and potential sequelae			
	NIC Priority Intervention: **Complication Monitoring:** Evaluation of fever, shock, and consciousness responses to bacterial infection of the meninges.		NOC Suggested Outcome: **Risk Control:** Actions to eliminate or reduce actual personal and modifiable health threats.
The child will suffer minimal CNS injury secondary to infection.	■ Administer prescribed antibiotics and corticosteroids as scheduled. ■ Note return of fever, nuchal rigidity, or irritability. Monitor vital signs, assess for signs of increased intracranial pressure, measure head circumference once or twice daily, note changes in responsiveness. Notify the physician immediately if any signs are detected.	■ Administration of antibiotics helps eradicate the pathogen and prevent cerebral edema. Adminstration of corticosteroids diminishes inflammatory response and reduces the chance of neurologic sequelae. ■ Watching for common sequelae such as subdural effusions or septic arthritis ensures prompt treatment.	The child's condition improves significantly within 48–72 hours (fever decreases and no signs of neurologic sequelae are detected).
The child will not develop cerebral edema as a result of water retention.	■ Monitor for syndrome of inappropriate antidiuretic hormone secretion (SIADH) and watch for signs of increased intracranial pressure (ICP). ■ Perform strict intake and output measurements. Determine urine specific gravity. Check electrolytes and osmolality of both serum and urine. Weigh the child daily. Restrict fluids and give sodium chloride as ordered.	■ SIADH can be either avoided or quickly managed if early recognition is achieved. ■ Low urine output with a high specific gravity is a sign of fluid retention and SIADH. The child is maintained with lower fluids and provided sodium supplements to reduce the possibility for cerebral edema.	Cerebral edema does not develop. If SIADH or increased ICP occurs, the condition is treated promptly so effects on the child are minimal.

(continued)

NURSING CARE PLAN The Child with Bacterial Meningitis (continued)

GOAL	INTERVENTION	RATIONALE	EXPECTED OUTCOME
2. Risk for Injury related to infection of cerebrospinal fluid and potential sequelae (continued)			
The child will be free of injury resulting from disseminated intravascular coagulation (DIC).	■ Be aware of needle sticks that continue to bleed and lesions that continue to ooze. Monitor clotting times. ■ Administer blood products, vitamin K, or heparin as ordered.	■ Prompt recognition leads to management of the coagulopathy. ■ Prompt recognition allows for early initial treatment of DIC. The child may bleed to death if treatment is delayed.	The child does not sustain injury from DIC.
The child will be free of injury secondary to shock.	■ Monitor vital signs including pulse, respirations, and blood pressure. Note perfusion (capillary refill, central versus proximal pulses). Check level of consciousness. Note urine output. ■ Begin fluid resuscitation as ordered. ■ Administer inotropes if ordered.	■ Monitoring allows for prompt diagnosis of shock based on clinical signs. ■ Intravenous fluid bolus may improve perfusion. ■ Inotropes enhance perfusion when response to fluid challenge is minimal.	The child recovers from shock quickly with no complications. Prompt management of shock can enhance the child's recovery, since it prevents complications associated with poor perfusion (tissue acidosis and ischemia).
3. Impaired Social Interaction related to decreased level of consciousness, hospitalization, and isolation			
	NIC Priority Intervention: **Socialization Enhancement:** Facilitation of the child's ability to interact with others.		NOC Suggested Outcome: **Role Performance:** Congruence of the child's role behavior with role expectations.
The child's social interaction will be near normal despite isolation.	■ Educate parents and other visitors to use proper infection control techniques. ■ Encourage parents to help with daily activities such as feeding and bathing. ■ Have age-appropriate games and toys in the room. Play with the child. When the child is feeling better, encourage watching television/videotape or listening to the radio/audiotape.	■ Family members help fulfill the emotional and social needs of the ill and contagious child. ■ Parental involvement in the child's care provides the child with a sense of security and emotional well-being. Parents have a sense of control and a feeling that they are doing something to enhance the child's recovery. ■ Providing the child with toys and games as well as sensory stimulation helps the child achieve a sense of well-being.	The child's social and developmental needs are met by family members despite the child's illness and hospitalization.
The child with any degree of hearing loss will be identified.	■ Arrange for hearing assessment prior to discharge.	■ Hearing loss is a common complication. Early intervention is needed to promote growth and development.	The child with identified hearing loss is referred to appropriate specialist or program for intervention.
4. Pain related to meningeal irritation			
	NIC Priority Intervention: **Pain Management:** Alleviation of pain or reduction in pain to a level of comfort that is acceptable to patient.		NOC Suggested Outcome: **Comfort Level:** Feelings of physical and psychologic ease.
The child will be as comfortable as possible.	■ Minimize tactile stimulation.	■ Sensory stimulation increases discomfort.	The child is calm and expresses increased comfort.

NURSING CARE PLAN The Child with Bacterial Meningitis (continued)

GOAL	INTERVENTION	RATIONALE	EXPECTED OUTCOME
4. Pain related to meningeal irritation (continued)			
	■ Allow the child to assume a position of comfort. ■ Keep the lights dim. ■ Maintain a quiet environment. Keep doors closed.	■ The child determines the most comfortable position. Opisthotonic position, with the head and neck hyperextended, may be the most comfortable. ■ Dim lights reduce the discomfort from photophobia. ■ Noise can disturb the child.	
5. Risk for Infection (Family and Close Contacts) related to pathogens in the cerebrospinal fluid			
	NIC Priority Intervention: **Infection Control:** Minimizing the acquisition and transmission of infectious agents.		NOC Suggested Outcome: **Risk Control:** Actions to eliminate an actual health threat.
Caretakers or family members will have no apparent evidence of infection.	■ Explain rationale and dose schedule for taking rifampin or ciprofloxacin.	■ Rifampin and ciprofloxacin provide prophlylaxis for many bacterial pathogens responsible for meningitis.	Family members and other close contacts verbalize schedule for rifampin or ciprofloxacin therapy.