

ADMITTING DIAGNOSIS Bacterial Meningitis SYMPTOMS Lethargy, fever, headache, photophobia, petechiae on feet and legs. PATIENT INFORMATION 27 y/o male, lying on the ER waiting room floor, mom and sister brought patient to ER but could not awaken him. PATIENT SOCIAL HISTORY Patient had been out at bar drinking and smoking the night before.

1. PMH

1.1. Obese

1.2. Vision Issues - wears glasses

Link:

- 1.3. History of Cannabis use
- 1.4. Current Smoker Tobacco
- 1.5. Unhealthy Drinking

2. Social History

- 2.1. 27 y/o male
- 2.2. Single with one child
- 2.3. Works full time
- 2.4. Lives in a house
- 2.5. Difficulty in School possible ADD

3. Social Risk Factors

- 3.1. Risky lifestyle choices
- 3.2. Education Level

3.2.1. Knowledge deficit regarding meningitis risks

3.2.2. Knowledge deficit regarding healthy diet

3.2.3. High School Dropout - GED

3.3. Genetics

3.3.1. Family history of alcoholism

4. Carper's Ways of Knowing

4.1. Personal

4.1.1. Validate Feelings

4.1.2. Listen to Concerns

4.1.3. Ask Open-/ended Questions

4.1.4. Be Empathetic in my interactions

4.1.5. Be present in my interactions

4.2. Empirical

4.2.1. Assess Learning Style

- 4.2.1.1. Provide Information based on Learning Style
- 4.2.2. Assess Readiness to Learn
 - 4.2.2.1. Provide Quiet Environment
 - 4.2.2.2. Ask Permission to Teach

4.2.3. Incorporate Teach Back

4.2.3.1. Smile

4.2.3.2. Make Eye Contact

4.2.3.3. Communicate Clearly

4.2.3.4. Provide Listening

4.3. Ethical

4.3.1. Honesty

4.3.2. Positive Attitude

4.3.3. Develop Trust

4.4. Aesthetic

4.4.1. Be Mindful and Supportive of Family's Stress

4.4.2. Be Aware of Body Language/Non-Verbal Cues of Family

4.4.3. Promote Self Care

5. UNITARY CARING SCIENCE INTERVENTIONS

6. Unitary Caring Science

6.1. Caritas 1

6.1.1. My respect for this patient/family allows me to be available.

6.2. Caritas 2

6.2.1. By listening, I am able to honor patient's/family's belief system and enable them to feel a sense of faith/hope.

6.3. Caritas 3

6.3.1. By being more responsive to the patient's/family's needs and feelings, I am able to create a trusting-caring relationship.

6.4. Caritas 4

6.4.1. I develop trusting-caring relationships with patients/families/member of the health care team.

6.5. Caritas 5

6.5.1. I co-create caring relationships in caring environments to promote spiritual growth.

6.6. Caritas 6

6.6.1. I exercise problem solving in caring for the patient/family.

6.7. Caritas 7

6.7.1. The co-created relationship promotes knowledge, growth, empowerment and healing processes and possibilities for patient/families/self.

6.8. Caritas 8

6.8.1. By promoting caring relationships I create space for patients/families to generate their own wholeness and healing.

6.9. Caritas 9

6.9.1. I am able to help meet the needs this patient/family identified.

6.10. Caritas 10

6.10.1. I allow for miracles to take place with self and others.

7. Bacterial Meningitis is an inflammation of the meninges, in particular the arachnoid and the pia mater, associated with the invasion of bacteria into the subarachnoid space.

8. Pathophysiology / Complications / Risk Factors of Bacterial Meningitis & Most Common Bacterias Involved

- 8.1. Bacterial Invasion from the bloodstream to the Central Nervous System (CNS)
 - 8.1.1. Inflammation of the menial covering of the brain and spinal cord
 - 8.1.1.1. Elevated ICP
 - 8.1.1.2. ALOC
 - 8.1.1.3. Photosensitivity
 - 8.1.1.4. Possible Seizure
 - 8.1.2. Meningococcal bacteria reproduce in the bloodstream and release poisons (septicemia).
 - 8.1.2.1. As the infection progresses, blood vessels can become damaged.
 - 8.1.2.1.1. This can cause a faint skin rash that looks like tiny pinpricks
 - 8.1.2.1.2. The skin may simply look blotchy and can appear anywhere on the body.
- 8.2. Complications
 - 8.2.1. Waterhouse-Friderichsen Syndrome
 - 8.2.1.1. Adrenal gland failure typically caused by Neisseria meningitidis
 - 8.2.1.1.1. Massive bleeding into one or (usually) both adrenal glands
 - 8.2.2. Abducens Palsy
 - 8.2.2.1. Inflammation of the 6th cranial nerve

8.2.3. Subdural empyema

8.2.4. Increased Intercranial Pressure

8.2.4.1. Due to cerebral edema

8.2.5. Septic shock, DIC (disseminated intravascular coagulation), SIADH (syndrome of inappropriate antidiuretic hormone secretion)

8.3. Risk Factors

- 8.3.1. Defects in Cell-Mediated Immunity
 - 8.3.1.1. (AIDS, Hodgkin Lymphome, Drug-induced Immunosuppression)
- 8.3.2. Defects in Humoral Immunity
 - 8.3.2.1. Splenectomy
- 8.3.3. Neutropenia
- 8.4. Most Common Bacterias

8.4.1. S. pneumonia, L. monocytogenes, Pseudomonas aeruginosa, Mycobacterium tuberculosis, N. meningitides, Gramnegative bacteria

9. Bacterial Meningitis is a medical emergency requiring immediate diagnosis and subsequent treatment.

10. Assessment

10.1. Neuro Checks Q 1hr

10.2. Maintain Airway

10.3. HOB 30 degrees

10.4. VS Q 1hr

10.5. Maintain NPO status/NG

10.6. Low Lighting

10.7. I/O Monitoring

11. Potential Symptoms

11.1. Lethargy

11.1.1. ALOC

11.2. Fever

11.3. Headache

11.4. Tachycardia

11.5. Photophobia

11.5.1. Sensitivity to light

11.6. Petechiae

11.7. Nucal Regidity

11.7.1. Inability to flex the neck forward due to rigidity of the neck muscles

11.8. Kernig's Sign

11.8.1. Inability to extend knees past a 90 degree angle without pain

11.9. Brudzinski Sign

11.9.1. Lifting you head while flat on your back causes flexion of the hips

12. Disposition & Prognosis

12.1. Current disposition - Admit to ICU

12.2. Current prognosis - guarded, semi-comatose state, airway maintained, PIV started, blood cultures drawn, antibiotics given (cefotaxime), corticosteroids given, lumbar puncture ordered.

12.3. Future prognosis - guarded, semi comatose state, NG placed, this is a wait and see situation, frequent neuro checks, will follow up with infectious disease.

13. BACTERIAL MENINGITIS MINDMAP LEGEND GREY--Social History Association GOLD--Carper's Ways of Knowing Associations RED--Unitary Caring Science Associations BLUE--Medical Intervention Associations GREEN--Potential Symptoms Associations TEAL--Medication Associations

14. Meciations

- 14.1. Antibiotics
 - 14.1.1. Cefotaxime, Ampicillin, Vancomycin
- 14.2. Dexamethasone
 - 14.2.1. Decrease cerebral and cranial nerve inflammation and edema
- 14.3. Osmotic Diuretic
 - 14.3.1. Decrease cerebral swelling
- 14.4. Analgesics
 - 14.4.1. Potential pain from cerebral swelling
- 14.5. Anticonvulsant

15. Medical Interventions

15.1. EKG

15.1.1. NSR

15.2. LABS

- 15.2.1. Blood Cultures Ordered/Drawn
- 15.2.2. Lumbar Puncture Ordered
 - 15.2.2.1. CSF analysis
- 15.2.3. Metabolic Panel Ordered/Drawn
- 15.2.4. CBC and Differential Ordered/Drawn
- 15.3. CT
 - 15.3.1. Assess increased ICP

15.4. MRI

- 15.4.1. Assess increased ICP
- 15.5. X-Ray
- 15.6. Urine Culture
- 15.7. Respiratory Culture