

MDC 4 – Examination 1 Blueprint

Iggy Chapter: Neurological-42, 43, 44, 45. Perioperative- 14, 15, 16

For all conditions you must understand the Pathophysiology, Clinical manifestations including labs, Possible problems (nursing Diagnosis), interventions and client teaching.

Alzheimer's: This is the most common type of Dementia that affects people older than 65

- Stages-

Mild stage- Independent in ADLS

Denies presence of symptoms

Forgets names and misplaces household items

Has short term memory loss and difficulty recalling new information

Subtle changes in personality

Decrease performance especially when stressed

Decreased sense of smell

Middle or Moderate stage-

Has impairment of all cognitive function

Demonstrates problem with handling or unable to handle finances.

Disoriented to place time and event

Possibly depressed or agitated

Is increasingly dependent In ADLS

Has difficulty driving and gets lost

Incontinent

Has episodes of wandering and trouble sleeping

Severe or stage three

Completely bedridden

Totally dependent in ADLS

Has loss of mobility and verbal skills

Has agnosia- Inability to recognize faces.

- Safety - The nurse will prevent injury or accident as well as elder abuse
- Caregiver care- Respite care
- Orientation vs validation- Orientation therapy is used for patients who are in the mild stage of Alzheimer's disease to orientate them to the environment
- While Validation therapy is used for patient with moderate or severe stage of Alzheimer's disease, this is used to acknowledge the patient's feelings and concerns.
- Routines-

Parkinson's Disease- This is a progressive neurodegenerative disease, it is a debilitating disease affecting mobility.

- **Manifestations**

- Tremor
- Muscle rigidity
- Bradykinesia with rigidity
- Postural instability
- Depression
- Drooling with slurred speech

Expressionless, fixed gaze (mask-like)

- Fall Prevention intervention- **Priority Problems:**
 - Decreased mobility (and possible self-care deficit) related to muscle rigidity, tremors, and postural instability
 - Potential for decreased self-esteem related to impaired cognition, tremors, and self-care deficit
 - **Medication**
 - Dopamine agonists (stimulate dopamine receptors)
 - Most effective early
 - Apomorphine, pramipexole, ropinarole
 - Sinemet (most common) combo of levodopa-carbidopa
 - COMT inhibitors (prolong action of levodopa)
 - Entacapone

- MAOIs (increase dopamine concentration)
- Rasagiline mesylate
- Dopamine receptor agonists (promote release of dopamine, later in disease)
- Bromocriptine mesylate
- Antiviral (anti-Parkinson benefits)
- Amantadine

Surgical management for Parkinson

- Stereotactic pallidotomy
Probing first, then scarring if probing successful
- DBS
Electrodes implanted into brain, generator like a pacemaker

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- Dealing with clinical manifestations

Migraines- Migraine headaches are painful, unilateral, and throbbing in nature. The headache is associated with symptoms such as **nausea, photophobia, phonophobia, and visual changes**. The symptoms can last up to 72 hours. There may be known triggers such as stress, red wine, caffeine, and monosodium glutamate (MSG). If the client identifies a possible trigger, then the client is taught to avoid the suspected trigger. This therapy is known as trigger avoidance therapy. Migraine headaches may be associated with an **aura** such as a sensation or a visual change alerting the client that a headache is imminent.

The approach to therapy is abortive and preventive therapy. Abortive therapy is most effective when administering the prescribed medication during the aura or shortly after the headache has begun. Preventative therapy is used to suppress the onset of headaches that can occur as frequently as twice a week

- **Triggers-** pickled foods, chocolate, wine/beer, cultured food/dairy, nuts/butters, onions, tomatoes, caffeine, Beans, banana, citrus fruits, monosodium glutamate

Aura- sensation or a visual change alerting the client that a headache is imminent.

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- **Abortive** - Acetaminophen (APAP), Ibuprofen (Motrin) NSAIDs, Naproxen (Naprosyn), Migraine HA tablets that contain caffeine, Triptan preparations

- sumatriptan (Imitrex)
- eletriptan (Relpax)
- naratriptan (Amerge)
- almotriptan (Axert)
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Ergotamine preparations

- cafergot (Ergotamine)
- Dihydroergotamine (DHE)- Migranal
- Midrin

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● vs. **preventative therapy**

Beta Blockers

- propranolol (Inderal)
- Timolol

Calcium Channel Blocker

- verapamil (Calan)

Antiepileptic drugs

- topiramate (Topamax)

Tricyclic antidepressant

- nortriptyline (Pamelor)
- onabotulinumtoxinA (Botox)

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Multiple Sclerosis

- Medications
- Teaching

• **Meningitis=** Inflammation of meninges of brain and spinal cord

- **Droplet-requirements-** Surgical mask and proper hand hygiene

● **Causes**

- Bacterial, viral most often, can be fungal, protozoal, sterile (cancer, drugs)
- Direct introduction: penetrating trauma, ruptured brain abscess, basilar skull fracture, infection in eye, ear, nose, mouth
- Meningococcal meningitis is highly contagious, high mortality rate

- **Decreased or changed LOC. Disorientation to person, place, year**
- **Nuchal rigidity, Brudzinski, Kernig's signs**
- **Pupil reaction & eye movements: Photophobia, nystagmus, abnormal eye movements**

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- Motor response: Normal early, later hemiparesis, hemiplegia, decreased muscle tone; cranial nerve dysfunction (CN III, IV, VI, VII, VIII)
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- Memory changes: Attention span (short), personality & behavior changes, bewilderment, severe/unrelenting headaches
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- General: Generalized muscle aches and pain, nausea and vomiting, fever and chills, tachycardia, red macular rash (meningococcal meningitis)

Laboratory Assessment

- CSF analysis,
- Immune electrophoresis on CSF
 - Gram stain for bacterial source
 - WBC elevated
 - CT/MRI brain

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- **Lumbar Puncture-** Precautions are taken for clients over the age of 60 presenting with signs of increased Intracranial Pressure (ICP). For client's that are suspected of having increased ICP, the primary care provider will order a CT and delay evaluation by lumbar puncture (LP) until the procedure is considered safe to