DEPARTMENT OF PHYSIOTHERAPY

COURSE NAME : BPT

COURSE FACULTY : EZHILARASU T

QUESTION BANK

UNIT III – Clinical Features & Management (Childhood Disorders, Stroke, Trauma, Spinal Cord Diseases)

Puzzle 1: The Uneven Crawl

In pediatric clinic, intern Lila Chen observes Timmy, 4, with cerebral palsy: scissoring gait, toe-walking. Spastic diplegia from periventricular leukomalacia. Functional implications: balance issues.

Possible hypotheses:

1. Bilateral pyramidal tract involvement.
2. Basal ganglia dystonia.
3. Cerebellar contribution.
4. Sensory deficit overlay.

Structured reasoning: Feature accuracy; efficiency in peds; no urgency; resources therapy; long-term mobility; ethical family support.

Puzzle 2: The Swollen Crown

Student Raj Patel examines baby Mia with hydrocephalus: enlarged head, sunset eyes. Ventricular dilation affecting cortical function.

Possible next steps:

1. Measure head circumference.
2. Fundoscopy for papilledema.
3. Ultrasound ventricles.
4. Neurosurgery consult.

Structured reasoning: Accuracy signs; safety pressure; urgency; resources imaging; outcomes development; ethics parental consent.

Puzzle 3: The Dimpled Back

Junior clinician Sarah Kim assesses spina bifida in child Leo: lower limb weakness, sensory loss below L4. Cord tethering possible.

Possible hypotheses:

1. Myelomeningocele with cord lesion.
2. Occulta with subtle deficits.
3. Hydrocephalus association.
4. Orthopedic deformity.

Structured reasoning: Feature localization; efficiency; urgency infection; resources; functional outcomes; ethics.

Puzzle 4: The Sudden Slump

In ER, intern Theo Nash sees Mr. Vargas post-stroke: right hemiparesis, aphasia. Thrombotic vs. embolic.

Possible next steps:

1. NIHSS scoring.
2. CT head stat.
3. Aspirin initiation.
4. Cardiology echo.

Structured reasoning: Etiology accuracy; urgency time-sensitive; safety; resources; short-term vs. long-term recovery; ethics.

Puzzle 5: The Bleeding Blur

Clinician Mia Grant observes hemorrhagic stroke in Ms. Lee: headache, vomiting, left weakness. Localization to basal ganglia.

Possible hypotheses:

1. Hypertensive bleed.
2. Aneurysmal rupture.
3. Amyloid angiopathy.
4. Traumatic overlay.

Structured reasoning: Classification accuracy; urgency evacuation; efficiency; resources; outcomes; ethical end-of-life if severe.

Puzzle 6: The Dazed Fall

Student Alex Torres evaluates head injury in Mr. Ruiz: confusion, amnesia. Concussion vs. contusion.

Possible next steps:

1. Glasgow Coma Scale.
2. Pupil exam.
3. CT for bleed.

4. Observation unit.

Structured reasoning: Trauma signs accuracy; urgency herniation; safety; resources; recovery outcomes; ethics consent.

Puzzle 7: The Paralyzed Drop

Intern Nora Hale assesses spinal cord injury in Ms. Patel post-fall: paraplegia, sensory level T10.

Possible hypotheses:

1. Complete transection.
2. Anterior cord syndrome.
3. Central cord.
4. Brown-Sequard.

Structured reasoning: Lesion accuracy; efficiency; urgency stabilization; resources MRI; functional outcomes; ethics rehab.

Puzzle 8: The Neck Knot

Junior clinician Kai Liu examines craniocerebral junction anomaly in Mr. Wong: neck pain, ataxia. Basilar invagination.

Possible next steps:

1. Flexion-extension X-ray.
2. MRI craniovertebral.
3. Neurological monitoring.
4. Surgical referral.

Structured reasoning: Anomaly accuracy; safety instability; urgency; resources; long-term; ethics.

Puzzle 9: The Expanding Void

Student Isla Mendes sees syringomyelia in Ms. Garcia: cape-like sensory loss, hand weakness.

Possible hypotheses:

1. Chiari malformation association.
2. Post-traumatic syrinx.
3. Idiopathic.
4. Tumor-related.

Structured reasoning: Disease feature; efficiency; urgency progression; resources; outcomes; ethics pain.

Puzzle 10: The Slipped Barrier

Clinician Ethan Nash assesses lumbar disc lesion in Mr. Singh: sciatica, foot drop.

Possible next steps:

1. Straight leg raise test.
2. Reflex ankle.
3. MRI lumbar.
4. Pain management.

Structured reasoning: Lesion accuracy; efficiency; urgency cauda; resources; functional; ethics.

Answers for UNIT III

1. **Best hypothesis:** 1 – Spastic features match; long-term therapy focus.
2. **Best next step:** 3 – Accuracy in dilation; urgency pressure.
3. **Best hypothesis:** 1 – Sensory/motor fit; ethical support.
4. **Best next step:** 2 – Urgency for thrombolysis window; safety.
5. **Best hypothesis:** 1 – Common in hypertension; outcomes bleed control.
6. **Best next step:** 3 – Urgency for intracranial pressure; accuracy.
7. **Best hypothesis:** 4 – If hemisection signs; rehab ethics.
8. **Best next step:** 2 – Localization accuracy; instability safety.
9. **Best hypothesis:** 1 – Classic association; progression urgency.
10. **Best next step:** 3 – Confirm lesion; functional outcomes.