



SNS COLLEGE OF NURSING

(Affiliated to the Tamil Nadu Dr. M.G.R Medical University, Chennai)

Recognized by the Indian Nursing Council (INC) New Delhi

The Tamil Nadu Nurses and Midwives Council, Chennai.)

QUIZ TIME

Riddle 1: The Marathon Runner's Fatigue

A 35-year-old avid marathon runner collapses mid-race, complaining of profound tiredness, muscle cramps, and a racing heart that feels like it's in overdrive. Labs show a pituitary messenger gone wild (sky-high at 15 mIU/L), while the thyroid's free messengers (fT4 at 8 pmol/L and fT3 at 2.5 pmol/L) are whispering too softly. What organ is rebelling, and which tests betray the betrayal?

Riddle 2: The Office Worker's Yellow Dawn

A 42-year-old accountant wakes up looking like she's auditioned for a jaundiced sunset—skin and eyes tinged golden. She reports vague abdominal discomfort after a fatty meal. Her blood reveals a pigment overload (total bilirubin at 35 $\mu\text{mol/L}$), with liver guardians (ALT at 120 U/L and AST at 90 U/L) sounding alarms, though proteins hold steady (albumin 40 g/L). Which organ's pigment pipeline is clogged, and what tests paint the picture?

Riddle 3: The Retiree's Swollen Ankles

An elderly gentleman, 68, lounges too much but notices his ankles balloon like overfilled balloons, with foamy urine and high blood pressure creeping in. His filtration estimate plummets (eGFR at 45 mL/min/1.73 m²), and waste builds up (serum creatinine 180 $\mu\text{mol/L}$, urea 12 mmol/L), while salts teeter (K⁺ at 5.5 mmol/L). What vital filter is failing, and which parameters signal the strain?

Riddle 4: The New Mom's Weight Woes

A 28-year-old postpartum woman battles unexplained weight gain, constipation, and hair thinning like autumn leaves. Her labs expose a thyroid accelerator floored (TSH at 0.1 mIU/L), with free hormones surging (fT4 at 35 pmol/L, fT3 at 9 pmol/L). Yet her liver enzymes whisper normalcy (ALT 30 U/L). Which gland is overclocked, and what tests rev the engine?

Riddle 5: The Hiker's Itchy Mystery

A 50-year-old hiker returns from a wild adventure with itchy skin, dark urine, and pale stools, plus fatigue that grounds her. Her liver's bile sentinel spikes (ALP at 200 U/L), bilirubin climbs (total 28 $\mu\text{mol/L}$), but cell enzymes are mildly grumpy (AST 50 U/L). Kidney checks are clear (creatinine 80 $\mu\text{mol/L}$). What hepatic highway is blocked, and which scouts report the jam?

Answers:

Riddles	Answers
1	Thyroid dysfunction (primary hypothyroidism). Key abnormalities: Elevated TSH (>4.0 mIU/L), low fT4 (<12 pmol/L) and fT3 (<3.1 pmol/L). The high TSH indicates pituitary overcompensation for underactive thyroid, explaining fatigue and cramps.
2	Liver dysfunction (e.g., obstructive jaundice or hepatitis). Key abnormalities: Elevated total bilirubin (>21 $\mu\text{mol/L}$), ALT (>56 U/L), and AST (>40 U/L). The rise suggests impaired bilirubin processing and hepatocyte damage.
3	Renal dysfunction (chronic kidney disease, stage 3). Key abnormalities: Reduced eGFR (<90 mL/min/1.73 m ²), elevated creatinine (>110 $\mu\text{mol/L}$ males), urea (>7.1 mmol/L), and hyperkalemia ($\text{K}^+ >5.0$ mmol/L). These indicate declining glomerular filtration.
4	Thyroid dysfunction (hyperthyroidism, e.g., Graves' disease). Key abnormalities: Suppressed TSH (<0.4 mIU/L), elevated fT4 (>22 pmol/L) and fT3 (>6.8 pmol/L). Low TSH with high free hormones points to autonomous thyroid overproduction.
5	Liver dysfunction (cholestasis or bile duct obstruction). Key abnormalities: Elevated ALP (>147 U/L) and total bilirubin (>21 $\mu\text{mol/L}$), with mildly raised AST. ALP rise highlights biliary issues, explaining itch and color changes.