

Subject-Basic ECG

Unit-1

Logic Grid Puzzle - Standard Limb Lead Matching

Case Scenario Puzzles on Electrocardiography Principles

Puzzle 1: Logic Grid Adaptation - Standard Limb Lead Misplacement

This scenario requires the deduction of lead properties based on placement, adapting the structure of the Logic Grid Puzzle - Enzyme Matching.

Scenario: A technician is setting up the Standard Limb Leads for a routine ECG. Three leads (I, II, III) are correctly identified by name, but the technician has forgotten which specific potential differences (RA LA, RA LL, LA LL) correspond to which vector angle on the frontal plane.

Clues:

1. Lead I is positioned along the horizontal axis (0°).
2. The lead that measures the potential between the Right Arm (RA) and the Left Leg (LL) is aligned with 120°.
3. Lead III measures the potential difference across the left side of the torso (LA to LL).

Task: Complete the grid below to restore the fundamental correlation between the Standard Limb Leads, the measured potential, and the vector angle:

Standard Limb Lead	Potential Difference Measured	Approximate Vector Angle
Lead I		
Lead II		
Lead III		

The lead that measures the potential between the Right Arm (RA) and the Left Leg (LL) is aligned with 120°. 3. Lead III measures the potential difference across the left side of the torso (LA to LL).

Task: Complete the grid below to restore the fundamental correlation between the Standard Limb Leads, the measured potential, and the vector angle:

Standard Limb Lead	Potential Difference Measured	Approximate Vector Angle
Lead I		
Lead II		
Lead III		