

Lipid Profile Data and Measurements

Experiment 20 - Practical Notes

Name: _____ Roll no.: _____ Date: _____

Aim

To organise lipid-profile measurements and interpret their calculation basis.

Principle

A lipid profile reports distinct measurements such as total cholesterol, HDL cholesterol and triglycerides. A calculated LDL value is valid only under the method's stated conditions; it is not interchangeable with a direct LDL assay.

Requirements

- Coded teaching assay results or approved lipid test system, calibration and quality-control information.

Procedure

1. Identify the panel

Record each analyte, method, reporting unit and relevant material conditions.

2. Verify quality

Check the stated control results and any interference or method limitation.

3. Organise

Tabulate total cholesterol, HDL, triglycerides and the assigned LDL reporting method.

4. Calculate where appropriate

Apply only the calculation approved for the supplied teaching dataset and document its assumptions.

Observations and Record

Analyte	Method / unit	Result
Total cholesterol	_____	_____
HDL cholesterol	_____	_____
Triglycerides	_____	_____
LDL cholesterol	Direct or calculated	_____

Worked Example

The numbers below are illustrative; enter your own observations in the record.

- Non-HDL cholesterol = total cholesterol – HDL cholesterol. Example: 180 – 50 = 130 mg/dL.
- Do not apply a calculated-LDL formula without checking its validity for the dataset and units.

Result

Record the completed observations, calculations and conclusion with units. State any limitation of the observation.

Precautions

- Keep all compared values on the same unit basis.
- Use current clinical guidance and patient-specific context for any actual risk assessment.

Viva Questions and Answers

1. Is total cholesterol the whole lipid profile?

No; different lipid fractions and triglycerides provide different information.

2. Why label a calculated value?

Its assumptions and limitations differ from a directly measured value.

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