

Guideline

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| Title | Harmonised Lipid Reporting – Recommendations from the Harmonisation Workshop 2018 |
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The AACB Harmonisation of Lipids Expert Group have drafted the following guidelines and following a period for public comment, they have been endorsed by AACB in August 2018.

Harmonised Lipid Reporting – Recommendations from the Harmonisation Workshop 2018

A guidance document for Australian laboratories.

Scope –

1. Tests included in the full lipid panel.
2. Decision limits (cut-off values) in fasting state.
3. Endorsement of reporting non-fasting lipids results as routine.
4. Decision limits for non-fasting lipids.
5. FH alert on reports.

Agreement –

1. The full Lipid Panel should contain 5 tests: 3 by analysis; total cholesterol, triglycerides, HDL-cholesterol, and 2 by calculation; LDL-cholesterol and non-HDL cholesterol^a.
2. Samples for lipid testing should be routinely collected at any time (fasting or non-fasting), unless a fasting sample is specifically requested. At the time of collection, the fasting status should be recorded. Reports should clearly indicate fasting status of the collection (*and apply appropriate references if different limits are adopted, see 5 below*).
3. TC/HDL-C ratio MAY be included as an additional test in the fasting lipid panel (decision to be made locally; agreement 0.60^b and 0.60). If reported a comment should be applied regarding use^c.
4. For labs reporting lipid results with a decision limit, the following are recommended:
 - a. Total cholesterol 5.5 mmol/L (values greater than 5.5 to be flagged)
 - b. Triglycerides 2.0 mmol/L (values greater than 2.0 to be flagged)
 - c. LDL-cholesterol 3.0 mmol/L (values greater than 3.0 to be flagged)
 - d. HDL-cholesterol 1.0 mmol/L in males; 1.2 mmol/L in females (values lower than 1.0 and 1.2 respectively to be flagged)
 - e. Non HDL-cholesterol 4.0 mmol/L (values greater than 4.0 to be flagged).

It is recognised that the decision limits are neither population reference intervals nor clinical action limits. A flag based on these limits may be taken as an indication to review the absolute cardiovascular risk of the patient.

^a An explanatory comment for non-HDL cholesterol is recommended. Note also that Medicare requires HDL cholesterol to be specifically requested.

^b Denotes results of voting by Harmonisation Workshop delegates (10-05-18, n, 31 – 43), and by voting by AACB Harmonisation of Lipids Expert Group (09-05-18, n, 10).

^c “TC/HDL-C ratio should not be interpreted in isolation” is the preferred comment. The clinician should be directed to the on-line risk calculator for determination of total risk. If a cut-off value is required 4.5 may be used.

Agreement (pending feedback from labs) -

- Cut off values for non-fasting lipids to be the same as for fasting lipids (PROPOSAL)

The assigning of cut-off values for non-fasting lipids did not reach majority agreement by vote. The use of the SAME cut-off values for tests as fasting was found in favour by the Lipid Expert Group (0.60), and this is recommended as the default setting for labs in the absence of evidence supporting a different cut-off(s). Please note the EAS and EFCCLM (2016) Eur Heart J 37(25):1944-58 recommended TRIGs > 2 in non-fasting and > 1.7 in fasting as abnormal, and non-HDLc > 3.9 in non-fasting and > 3.8 in fasting as abnormal.

Agreement (2016 Workshop)

Laboratories may provide targets for therapy routinely on the full lipid report. The Harmonisation Workshop in 2016 agreed to the following:

Lipid treatment targets for patients at high risk of cardiovascular disease:

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| Total cholesterol | <4.0 mmol/L |
| HDL cholesterol | >1.0 mmol/L |
| LDL cholesterol | <2.5 mmol/L (<1.8 mmol/L for very high risk) |
| Non-HDL cholesterol | <3.3 mmol/L (<2.5 mmol/L for very high risk) |
| Fasting triglycerides | <2.0 mmol/L |

Lipid ranges from Australian National Heart Foundation; High risk – primary prevention; very high risk – secondary prevention.

Agreement (2016 and 2018) but further discussion required -

Providing an alert to Familial Hypercholesterolaemia on the report was discussed at the 2016 Harmonisation Workshop with consensus agreement. A standardised interpretive comment regarding FH had 0.80 agreement by the Lipids Expert Group (2018) however discussions are required on the limits for total cholesterol, LDL cholesterol and non-HDL cholesterol at which the comment should be applied.

The Lipids Expert group also supported standardised comments for life-threatening and extremely abnormal lipid concentrations (for example, triglycerides > 10 mmol/L as a risk for pancreatitis; agreed 0.70). Specific recommendations are anticipated pending consultation and review.