Training Program
Performing systematic reviews of critical values in key laboratory analytes

A collaboration between
Australasian Association of Clinical Biochemists,
Royal College of Pathologists of Australasia
Macquarie University

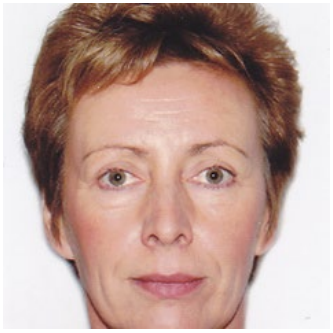
MACQUARIE University
SYDNEY·AUSTRALIA

aacb testing for health

RCPA
The Royal College of Pathologists of Australasia

Welcome and Thank You

RCPA-AACB HIGH RISK RESULTS WORKING PARTY



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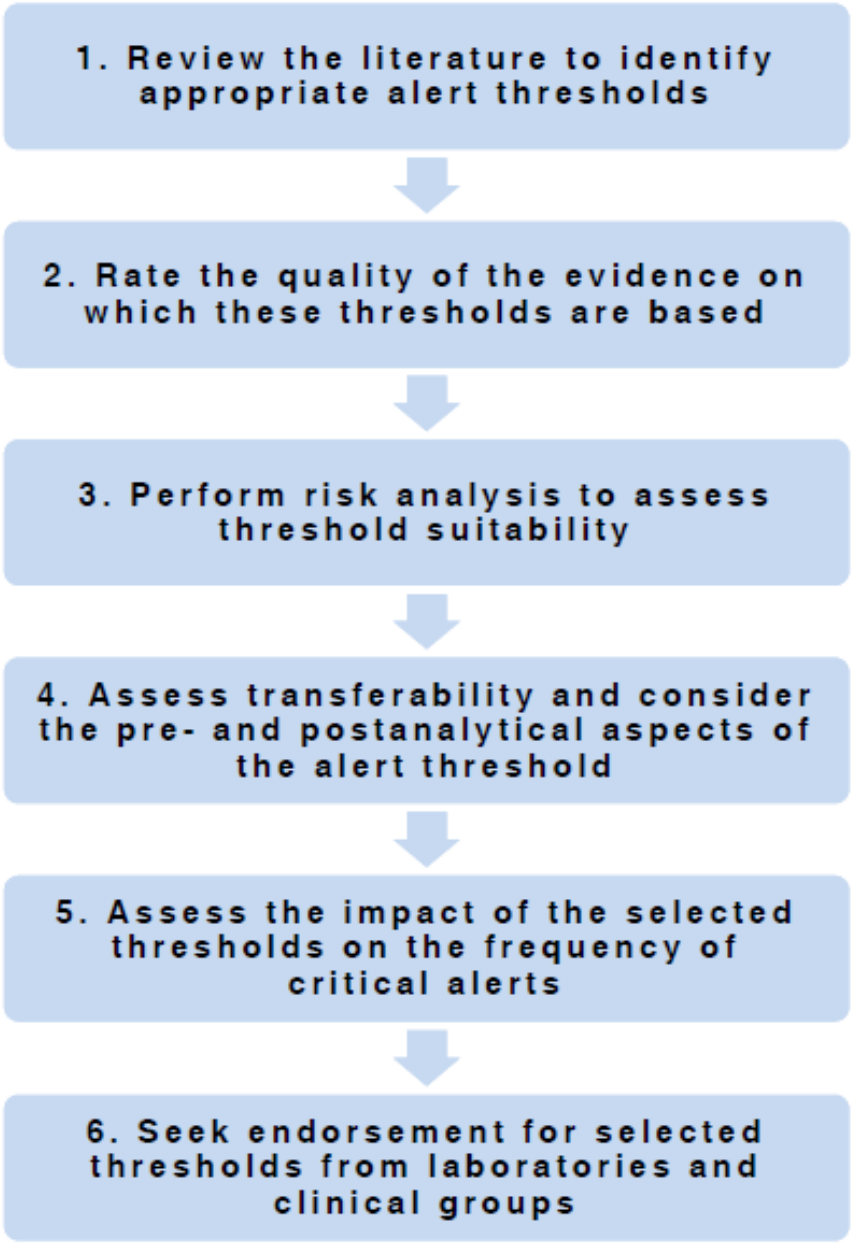
Towards a Harmonized Alert Table

- Don’t need to produce complete table in first pass.
- Be ready to ready to defend any recommended alert thresholds.
- A systematic, transparent approach is required for wide adoption.



Campbell CA, Lam Q, Horvath AR. An evidence- and risk-based approach to a harmonized laboratory alert list in Australia and New Zealand. Clin Chem Lab Med. 2018 Dec 19;57(1):89-94.

Risk Management Approach

Table 1. Examples of Risk Management for Critical- and Significant-Risk Results[20]

Stage of Risk Management		Abnormal Laboratory Result	
Risk Analysis	Hazard identification	Neonatal hypoglycemia (< 40 mg/dL; < 2.2 mmol/L)	Unexpected malignancy in routine anatomic pathology specimen
	Potential harm associated with the laboratory or anatomic pathology result	Irreversible neurological injury	Progression of disease that affects therapy, prognosis
	Clinical intervention that can reduce the risk of harm	Correction of hypoglycemia	Referral to specialist for consideration of therapy
Risk Estimation	**Probability:** Is there reasonable likelihood of harm in absence of intervention?	Yes	Yes
	Severity: Is there reasonable likelihood of severe damage if harm occurs?	Yes	Yes
	Urgency: Is immediate intervention necessary to reduce risk of harm?	Yes	No
	Risk of Process Failure: Is there reasonable likelihood that routine reporting would not permit timely intervention?	Yes	Possible
Risk Evaluation	Is the risk of process failure greater than the clinically acceptable risk, given the estimation of potential harm?	Yes	Yes (unless organization has a process to identify routine reports that are not reviewed by clinician)
Risk Control	Category of abnormal laboratory result (critical-risk vs significant-risk)	Critical-risk result	Significant-risk result
Risk Monitoring	• Are results communicated within intended time frame? • Do outcomes support the alert threshold? • Are alternative systems available for communicating results available?	N/A	N/A

Abbreviation: N/A, not applicable.

CLSI GP47 Management of Critical- and Significant-Risk Results

It would be great if the evidence supports a particular alert threshold

BUT it is just as important to know:

That there is a **lack** of high quality evidence.