

Detecting non-alcoholic fatty liver disease and risk factors in health databases: accuracy and limitations of the ICD-10-AM

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Additional Methods

QHAPDC

The Queensland Hospital Admitted Patient Data Collection (QHAPDC) registry contains clinical and socio-demographic information on all hospital episodes of care for patients admitted to hospital in Queensland, Australia. The state of Queensland adopted ICD-10-AM from ICD-9-AM in the year 1999. Data relating to admitted episodes of care are coded using the current version of ICD-10-AM; Australian Classification of Health Interventions; and Australian Coding Standards, “as a means by which admitted patient activity can be reported, monitored, evaluated, planned for and researched, thereby allowing improved and objective decision-making” (Statistical Services Branch, Queensland Health. QHAPDC standard: Clinical coding. Brisbane, 2020).

Calculating Sensitivity, Specificity, Positive and Negative Predictive Values

Supplementary Table 1A. Measures of accuracy between ICD-10-AM codes and the medical record

Measure	Calculation
Sensitivity <i>Proportion of patients who have the disease/condition that are correctly identified by the ICD-10-AM code(s)</i>	True positive / (true positive + false negative)
Specificity <i>Proportion of patients who do not have the disease/condition that do not have the ICD-10-AM code(s)</i>	True negative / (false positive + true negative)
PPV <i>Proportion of encounters with ICD-10-AM code(s) that correctly identify patients with the disease/condition</i>	True positive / (true positive + false positive)
NPV <i>Proportion of encounters without ICD-10-AM code(s) that correctly identify patients without the disease/condition</i>	True negative / (true negative + false negative)

Supplementary Table 1B. Classification table cells and definitions

		Disease / condition (on medical record review)	
		Present (+)	Absent (-)
Test (ICD-10-AM code)	Code present (+)	True Positive	False Positive
	Code absent (-)	False Negative	True Negative