

Using Labs Wisely at Island Health



Island Health has joined the newly launched **Using Labs Wisely** collaborative with a focus on reducing low-value lab tests that can exhaust healthcare resources, lead to false positives, unnecessary follow-ups, and potential harm for patients. Bundling of tests is one driver of low-value lab testing and is often the result of historic systems and practices that nudge towards unnecessary testing. By focusing on unbundling we can reduce unnecessary AST and urea testing island-wide.

Unbundling aspartate aminotransferase (AST) and alanine aminotransferase (ALT)

- ✓ Hepatic function: Aspartate aminotransferase (AST) and alanine aminotransferase (ALT) are liver enzymes which may indicate hepatic inflammation or injury. ALT is specific to liver; AST is non-specific to liver and may also be present in disorders of skeletal and cardiac muscle, red blood cells, kidneys and brain.

✓ Consider ALT alone if: Suspected hepatic inflammation or injury.

- ✓ Consider both ALT and AST if: Suspected alcoholic liver disease, assessment of liver fibrosis/cirrhosis of any cause. Management of patients with hepatic fibrosis/cirrhosis may require additional laboratory testing to define and stage fully.

✓ Serial/daily measures of AST and ALT are generally not informative for assessment of disease progression.

Unbundling urea and creatinine

- ✓ Renal function: Both urea and creatinine reflect glomerular filtration rate (GFR). The use of urea as a marker of renal function is generally less useful than serum creatinine, as numerous factors unrelated to glomerular filtration rate may influence levels including protein intake, diuretic use and corticosteroid use. Serum creatinine is a more reliable measure of GFR and a more valuable test of renal function.

✓ Non-renal function: Elevated urea may be helpful in patients with GI bleeds, pancreatitis or monitoring of parenteral nutrition.

✓ Consider creatinine if: Assessment of GFR required.

✓ Consider urea if: Significant GI bleed or pancreatitis.

✓ Consider both urea and creatinine if: monitoring parenteral nutrition; differentiating pre-renal from other causes of acute kidney injury (AKI)

✓ Both urea and creatinine are necessary in assessment of dialysis adequacy via pre and post hemodialysis change.

Want to learn more about Using Labs Wisely at Island Health?
Visit the [Medical Staff Website Choosing Wisely Page](#) or
email MedStaffQI@islandhealth.ca

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[Using Labs Wisely: Unbundling of Lab Tests](#)
located on the 'Quality Improvement' section of the *Report* PORTAL
under the heading '[Medical Quality](#)'.
****Island Health login is required****