

Utilization Initiatives and Outcomes from the Division of Chemistry, Department of Laboratory Medicine, in Line with the Choosing Wisely Campaign

The following report outlines the initiatives taken and outcomes of some of the test utilization issues that we needed to address in the Department of Pathology and Laboratory Medicine and which align with both specific and general recommendations of the Choosing Wisely Campaign in Canada.

We would like to take this opportunity to thank our colleagues in Primary Care for their cooperation and engagement with our services which enabled us to make efficiency savings. The evidence worldwide has repeatedly demonstrated that efficiency in the use of diagnostics paves the way for better patient care as a whole and provides opportunities for innovative testing.

Strategies used between October 2013- February 2015

We utilized principles of Evidence Based Laboratory Medicine (EBLM) to drive changes in ordering practices for a number of tests ; CEA, FOB, Folate, Vitamin D, SPE (serum protein electrophoresis) and electrolytes as follows:

- Feedback letters including important educational components were sent to highest requesting primary care physicians (PCPs).
- Memoranda were sent with educational and directional elements to all physicians.
- Educational talks on utilization were organized.
- Information on appropriate testing was published in ‘Lab Corner’ in the Physician Newsletters .
- Implementation/change of laboratory rules for testing- for all physicians as follows:
 - Clinical details on the requisition form are required to process LD requests.
 - The ‘electrolyte panel’ was removed as an orderable- each test ordered as clinically required.
 - FOB as point of care discontinued (recognized as non-conformity to accreditation).

Outcomes.

The following reduction in test numbers and subsequent savings, marginal (reagent) and total (based on overall cost per test), in the fiscal year 2014 are summarized in the below table and paragraph:

Test	Total: 2013	Total: 2014	Reduction (%)	Marginal savings	Total Savings
CEA	7,094	4,911	31%	\$8,929	\$15,674
FOB	10,979	8,498	23%	\$4,937	\$6,153
Serum Folate	38,262*	21,797*	43%*	\$21,240	\$72,117*
Vitamin D	23,922	21,230	11%	\$10,902	\$14,698
LD	63,151	14,763	77%	\$6,290	\$54,195
Total	143,408	71,199	50%	\$52,298	\$162,837

Effect on 'unbundling' of the electrolyte panel

- 67% reduction in chloride and 75% reduction in TCO₂ testing.
- Marginal savings equivalent to \$42,500 per annum on chloride, and \$48,000 on TCO₂. The total savings are equivalent to \$366,000 on chloride and \$410,000 on TCO₂.

Recommendations for the future

- A local 'pathology handbook' must be built on which we can draw for effective long-term education and guidance as follows:
 - Clinical guidance on testing
 - Limitations of each test
 - Help in interpretation of test results
 - Information for patients
- Order entry clinical decision support system would be ideal to curb unnecessary testing prior to requesting and would also help to implement lab utilization rules
- If the above is not implemented in the near future, a new 'utilization form' to request certain tests should be introduced.
- Physician 'report cards' are currently under development by the informatics team under Dr Calvino Cheng's supervision. This will be instrumental for direct and regular feedback to physicians on their test ordering practices.

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