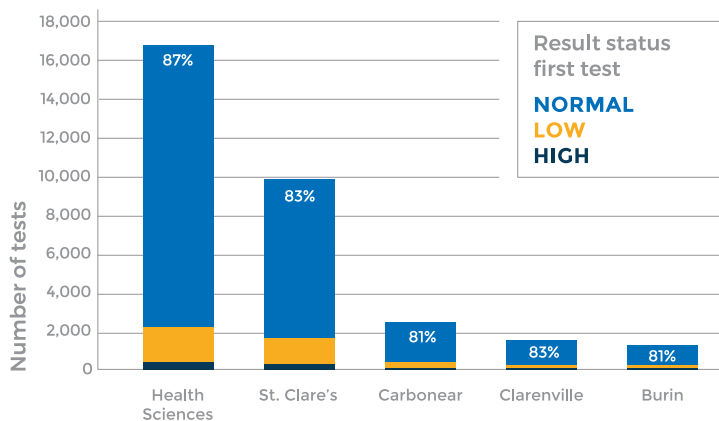


Overuse of Renal Function Tests in Medical-Surgical Units of Eastern Health

Practice Points

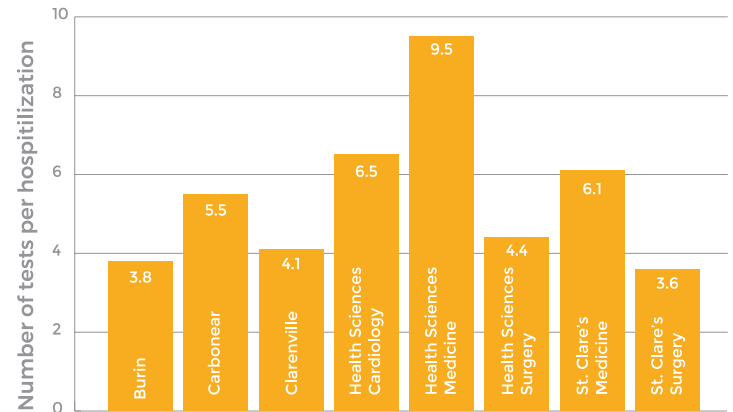
1. Renal function testing comprises five tests often ordered as a bundle.
2. Serum creatinine is a good measure of glomerular filtration rate.
3. Blood urea is helpful in evaluating renal function in patients at risk of acute kidney injury.
4. Serum sodium concentration provides information on the amount of water in the body relative to the total body sodium.
5. Serum potassium concentration is a measure of extracellular potassium concentration.
6. Serum bicarbonate is a measure of acid-base function.
7. Often a bundle is ordered when only one test is of clinical interest.
8. Data was analyzed on use of serum sodium testing in the medical-surgical units of Eastern Health from 1 Sept 2014 to 31 Aug 2016.

Number of Initial Tests by Hospital



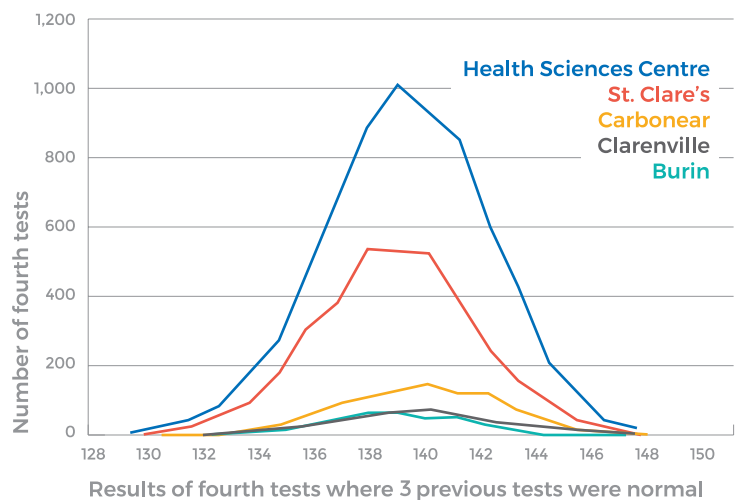
85% of first serum sodium tests are normal

Average Number of Tests per Hospitalization



Repeat tests of serum sodium is high

95% of 4th Serum Sodium Tests were Normal where 3 Previous Tests were Normal!



Conclusions

1. Excessive renal function testing occurs in the medical-surgical units of Eastern Health, particularly at the Health Sciences Centre medicine unit.
2. Even when serum sodium has repeatedly been reported as normal, it is frequently re-ordered.
3. Do not order renal function tests as a bundle, but as individual tests for a specific clinical indication.