

Using Labs Wisely

During Global Blood Tube and Other Resource Shortages

COVID-19 has put extraordinary strain on laboratory medicine in Canada due to **critical shortages** in blood tubes, devices, and lab staffing. The current shortages are forcing health care institutions to take **immediate action to conserve tubes and supplies**. Physicians and patients are key partners with the laboratory in preserving supplies for testing where it is needed most.

Before ordering tests, please consider:

- If and how immediate this test result will change patient management.
- Strategies to minimize collections e.g., avoid or limit standing orders.
- Avoid duplications, e.g., check previous results.
- Talking to your local lab professionals about how you can help conserve tubes.

RECOMMENDATIONS FOR CONSERVING LAB RESOURCES IN HOSPITALS

1

In the inpatient setting, don't order repeated CBC and chemistry testing in the face of clinical and lab stability. | Internal Medicine

DID YOU KNOW that just one blood draw per day for 'routine' daily lab testing can add up to removing the equivalent of ½ a unit of blood per week? The result is 20-30 blood tubes wasted, and iatrogenic anemia has a negative effect on patient outcomes.

2

Don't order baseline laboratory studies (complete blood count, coagulation testing, or serum biochemistry) for asymptomatic patients undergoing low-risk non-cardiac surgery.

| Anesthesiology

DID YOU KNOW that 1 in 20 results for healthy individuals fall outside the reference interval? Testing without an indication provides no clinical value, involves numerous blood tubes, and unexpected abnormal results can unnecessarily delay surgery.

3

Don't request a serum protein electrophoresis in asymptomatic patients in the absence of otherwise unexplained hypercalcemia, renal insufficiency, anemia or lytic bone lesions.

| Medical Biochemistry

DID YOU KNOW that serum protein electrophoresis and immunofixation are labour-intensive tests in the lab, and the results are affected by acute illness? Often ordering these tests in hospital only leads to repeat testing after the reactive process resolves.

4

Don't order ANA as a screening test in patients without specific signs or symptoms of systemic lupus erythematosus or another connective tissue disease. | Rheumatology

DID YOU KNOW Antinuclear antibodies (ANAs) are measurable in approximately 25% of the population, and testing in the lab is labour-intensive? Most individuals with a positive ANA do not have an autoimmune disease and are unlikely to develop one.

5

Don't order an erythrocyte sedimentation rate (ESR) to screen asymptomatic patients or as a general test to look for inflammation in patients with undiagnosed conditions.

| Medical Biochemistry

DID YOU KNOW that ESR is a manual test in many laboratories, often drawn on a blood tube by itself, and takes up to 90 minutes of lab staff time to complete? Currently the special tube for this test is in short supply.