

DATE:	2021 October 7
TO:	All Health Care Providers
FROM:	Alberta Precision Laboratories (APL) – Public Health Laboratory
RE:	Rapid COVID-19 Serology testing for the use of casirivimab/imdevimab in North, Central and South Zones

PLEASE POST OR DISTRIBUTE AS WIDELY AS APPROPRIATE

Key Message

- Starting October 7, 2021, rapid COVID-19 serology testing will be conducted in regional hospital-based APL labs in Grande Prairie, Red Deer, Lethbridge, Medicine Hat, and DynaLife (inpatient) in Fort McMurray and High Level.
- Testing will be limited to emergency room patients being admitted and hospital in-patients with newly diagnosed COVID-19 (based on PCR or rapid antigen testing).
- Rapid testing is limited to evaluating patients for eligibility for receipt of the monoclonal antibody product casirivimab/imdevimab (REGEN-COV™).
- If COVID-19 serology testing is required for any other reason, do NOT order the 'rapid' testing option.

Background

- One of the treatments for mild-to-severe COVID-19 is a combination of monoclonal antibodies known as casirivimab/imdevimab (tradename REGEN-COV™).
- A criterion to qualify for this treatment, based on current evidence, is that patients must be COVID-19 spike IgG **negative** at the time of receipt.
- To help improve testing turnaround times for the North, Central, and South Zones, rapid COVID-19 serology testing is being implemented in these zones.
- This testing will be available in regional APL labs based out of hospitals in Grande Prairie, Red Deer, Lethbridge, and Medicine Hat, and DynaLife hospital labs in Fort McMurray and High Level.

Rapid COVID-19 serology test method

- Rapid COVID-19 IgG testing will be conducted using a Health Canada approved lateral flow assay that has been validated at the Public Health Laboratory, APL.
- This assay detects the presence of SARS-CoV-2 total IgG (a combination of viral spike and nucleocapsid IgG's),
- The sensitivity and specificity, respectively, of this assay in detecting total SARS-CoV-2 IgG at >21 days is 90% and 100%.
- Testing should only be done if:
 - The patient is COVID-19 positive (recent test),
 - The patient has NOT received a COVID-19 vaccine in the past (or not more than 14 days from their first vaccine dose),
 - it has been confirmed that a supply of casirivimab/imdevimab is available (check with your pharmacy).
 - Exception: **serology testing is not required for severe immunocompromised patients. Consult with pharmacy at your hospital to inquire about use of REGEN-COV in these patients.**



Interpretation

<i>Result</i>	<i>Interpretation</i>
IgG DETECTED	Seroconversion as a result of: <ul style="list-style-type: none">• natural SARS-CoV-2 infection; or• receipt of a Health Canada COVID-19 vaccine.
IgG NOT DETECTED	The patient does not have IgG antibodies to SARS-CoV-2.
INVALID	The specimen collected does not produce a result. In this instance, repeat testing is advised if still clinically indicated.

- Cross-reactivity with other antibodies or substances in the blood is uncommon.

Follow-up serology testing

- To evaluate for eligibility for REGEN-COV, COVID-19 serology only needs to be done **once**.
- Repeat testing is **NOT** indicated post receipt of the treatment.

How to order the testing

- Order using the 'Rapid COVID-19 Serology' orderable in Meditech or Connect Care.
- Please ensure you use the 'Rapid' orderable.
- You will encounter several questions which **must** be answered.
- The specimen will be transported to the nearest lab on the next available transport, where testing is performed.

How can I find the results?

- All results will be reported to NetCare. The lab will endeavor to get results reported within 24-hours.
- The laboratory will NOT be contacting clinical teams with the results of the rapid COVID-19 serology testing.

Special notes

- Testing for COVID-19 antibodies is **NOT** required for use of the drug **tocilizumab** or any other monoclonal antibodies (e.g. bamlanivimab, sotrovimab, estevimab) at this present time.
- It is only used to assess eligibility for REGEN-COV.

ATTACHMENTS: Graphics showing how to order Rapid COVID-19 Serology in Meditech and Connect Care.

Inquiries and feedback may be directed to

- Dr. Jamil Kanji, Medical Microbiologist, Interim APL Public Health Laboratory programme leader for COVID-19 serology, jamil.kanji@ahs.ca

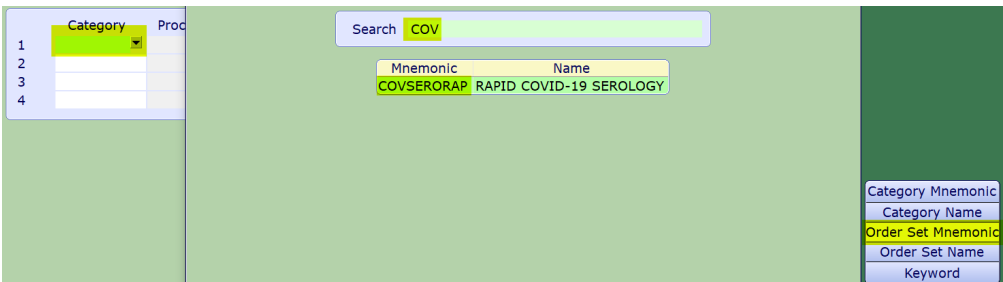
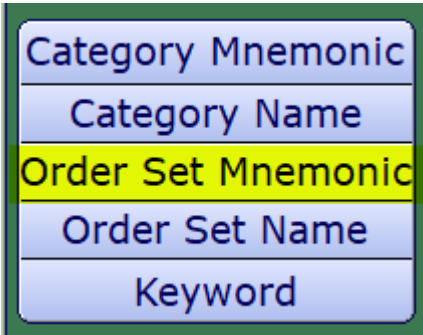
This bulletin has been reviewed and approved by

- Dr. Graham Tipples, Medical-Scientific Director, Public Health Laboratory, APL



How to order Rapid COVID-19 Serology in Meditech (Nurse order entry):

1. From the Category Field, Choose **ORDER SET MNEMONIC: COVSERORAP** (Rapid Covid-19 Serology)



2. Order set includes RAPID COVID-19 SEROLOGY and PROV LAB SEROLOGY STORAGE TUBE:

Order	Name
SARSCOVAB	RAPID COVID-19 SEROLOGY
PLST SERO	PROV LAB SEROLOGY STORAGE TU...



3. Answer Mandatory Queries:

- * Is this request for treatment with casirivimab/imdevimab?
- * Is this patient immunocompromised?

4. Rapid testing - Patient status must be Inpatient or ER patient only



How to order Rapid COVID-19 Serology in Meditech (Lab requisition entry):

1. Choose Order Group: COVSERORAP – Rapid Covid-19 Serology

The screenshot shows the LIS Order Lookup interface. At the top, there is a table with columns: Order, Name, Px, Source, Spec Desc, Ct, Pr. The 'Order' column contains 'COVS'. Below this is a search bar with 'Search COVS'. Below the search bar is a table with columns: Mnemonic, Name, Number, Mod, Ord. The first row is highlighted in yellow and contains: COVSERORAP, RAPID COVID-19 SEROLOGY, O, Y.

2. Order group includes RAPID COVID-19 SEROLOGY and PROV LAB SEROLOGY STORAGE TUBE.

3. Answer Mandatory Queries:

The screenshot shows the LIS Order Lookup interface. At the top, there is a table with columns: Order, Name, Px, Source, Spec Desc, Ct, Pr. The first row is SARSCOVAB, RAPID COVID-19 SEROLOGY, H, 1, R. The second row is PLST SERO, PROV LAB SEROLOGY STORAGE TU..., D, 1, R. Below the table is a section for mandatory queries. The first query is '*Is this request for treatment with casirivimab/imdevimab?' with a dropdown menu. The second query is '*Is this patient immunocompromised?' with a text input field.

4. Rapid testing - Patient status must be Inpatient or ER patient only, otherwise order COVIDSER.



How to order Rapid COVID-19 Serology from Connect Care:

1. Search for the order 'Rapid COVID-19 Serology'

The screenshot shows the 'Order and Order Set Search' interface. The search term 'RAP SER COV' is entered in the search bar. The results are categorized into 'Order Sets & Panels', 'During Visit Medications', 'During Visit Procedures', 'After Visit Medications', and 'After Visit Procedures'. The 'During Visit Procedures' section is expanded, showing a table with one entry: 'Rapid Covid-19 Serology' with a Type of 'Lab' and a Pref List of 'AHS IP FACILITY LABS'.

2. Fill in the electronic requisition. **Be sure to answer the mandatory questions or your test could be delayed.**

The screenshot shows the 'Rapid Covid-19 Serology -- Blood, Venous' requisition form. The form includes fields for Frequency (Once), Starting date (30/9/2021), and Time (1126). The Specimen Type is 'Blood' and the Specimen Source is 'Blood, Venous'. A mandatory question is highlighted with a red circle and an arrow: 'Is this serology test to evaluate eligibility for casirivimab/imdevimab (Regen-CoV)'. The answer is 'Yes'. Another arrow points to the 'STAT' button. The form also includes a 'RESPONSE REQUIRED' section for immunocompromised status, a 'Comments' section, and an 'Add-on' section. The bottom of the form has a 'Next Required' button and 'Accept'/'Cancel' buttons.

3. Accept and sign the order.