| **DATE:** | 12 May 2023 |
|---|---|
| **TO:** | All Health Care Providers and Laboratory Staff |
| **FROM:** | Alberta Public Health Laboratory |
| **RE:** | **Connect Care Infectious Disease Serology Utilization Rules** |

## PLEASE POST OR DISTRIBUTE AS WIDELY AS APPROPRIATE

**Key Message**
- Many infectious disease serology tests are repeated unnecessarily without clinical benefit.
- Immunocompetent individuals previously vaccinated or infected remain positive for immunoglobulin G (IgG) for life.
- Repeating these tests wastes health care resources and results in unnecessary blood draws.
- Utilization rules have now been built in Connect Care to automatically cancel tests or redirect clinicians to the appropriate test performed at Alberta Public Health Laboratory (ProvLab).

**Background**
- Before Connect Care (CC) Launch 6, ProvLab would automatically cancel serology requests for Varicella Zoster IgG and Rubella IgG if an individual previously tested positive or showed immunity, thereby reducing test volumes and saving significant resources.
- As of May 6 2023, ProvLab has expanded utilization rules to multiple other tests. Three general classes of rules have been implemented:
    1. Autocancel if previously positive (with advice on appropriate testing when indicated).
    2. Autocancel if the same test was previously ordered within a defined time period.
    3. Reflex to the alternate appropriate test.
- Utilization rules were implemented using two mechanisms:
    1. Best practice advisories (BPAs) in CC which trigger at the time of signing an order with the following information. See Appendix for examples.
        a. Individual has a previous positive serology and date of previous result.
        b. Directing the user to an appropriate alternate test.
        c. Individual was recently tested within 3 days for IgM and 7 days for IgG.
    2. Automatic cancelation of orders when the specimen is collected. A report will go to the ordering provider with a comment as to why it was cancelled. See Table on the next page for details.
- Rules do not apply to transplant donor screening tests for infectious disesase markers.

**Action Required**
- If ordering in CC, follow instructions in the BPA if ordering in CC. Click "accept" unless repeat testing is indicated. The default selection is to remove the test.
- For community collections, the patient collection site will collect the sample and send to ProvLab. You will receive a report saying the sample will not be tested and the reason.
- For patients previously confirmed positive for syphilis will have RPR ordered by default if Syphilis Screen/Serology is ordered. See Figure in Appendix for more details.
- How do I get a test affected by these rules performed if it is clinically indicated?
    - Ordering in CC:
      While you are signing an order and see a utilization BPA, select "keep" and contact the ProvLab microbiologist/virologist on-call (MOC). If the MOC is not contacted, the test will not be run.
    - Ordering outside of CC:
      Contact the ProvLab MOC if you see a report indicating that the test was cancelled.

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**Table:** Orders affected by autocancel rules for repeat testing within a time period or due to a previous result

| Serology Order | Autocancel repeat testing within | Autocancel previous |
|---|---|---|
| Hepatitis B virus surface antibody | 7 days | Immune result ≥ 10 IU/L) |
| Hepatitis A virus immunity serology- IgG | 7 days | Positive/reactive IgG |
| Hepatitis A virus acute serology - IgM | 3 days | Positive/reactive IgG |
| Measles immunity serology - IgG | 7 days | Positive/reactive IgG |
| Mumps virus immunity serology - IgG | 7 days | Positive/reactive IgG |
| Varicella Zoster virus immunity serology - IgG | 7 days | Positive/reactive IgG |
| CMV serology – IgG and IgM | 3 days | Applies only to CMV IgM if previous positive/reactive IgG |
| Rubella immunity serology - IgG | 7 days | Rubella IgG ≥10 IU/L |
| Hepatitis B virus core antibody, Total | 7 days | Positive/reactive HepB Core Total |
| Hepatitis B virus core antibody, IgM | 3 days | Positive/reactive HepB Core Total |
| Hepatitis B virus surface antigen | 7 days | No rule |
| Human T cell Lymphotropic virus I and II serology (HTLV I/II) | 7 days | HTLV confirmation positive |
| Hepatitis C virus serology | 7 days | Hepatitis C RNA confirmation positive |
| HIV 1 and 2 serology (antigen and antibody) and Rapid HIV serology | None | HIV 1/2 Geenius positive twice or once with positive HIV NAT/viral load or western blot |
| Syphilis screen | 7 days | INNO-LIA or TPPA positive |
| Syphilis RPR | 7 days | None |
| Prenatal Syphilis RPR | 72 hours | None |

*Rules apply to:* Routine diagnostic testing, blood and bodily fluid exposures (BBFE), and prenatal panel orders.
*Rules do NOT apply to:* All transplant donor screening test orders.
Autocancel previous rules do not fire if patient is <2 years old, except for syphilis which is <18 months (to be updated to <5 years). No age-based rule applies to IgM tests, HTLV I/II, and Hepatitis B core total antibody.

**Effective** May 6, 2023

**Questions/Concerns**
*Ordering tests that trigger a BPA or reinstating orders:*
Contact information for the ProvLab MOC can be found in AHS ROCA or by contacting the Foothills Medical Centre (South and Calgary Zone) or University of Alberta (Central, Edmoton, and North Zone) switchboards.

*General inquiries:*
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Carmen Charlton, Clinical Microbiologist, APL carmen.charlton@aplabs.ca

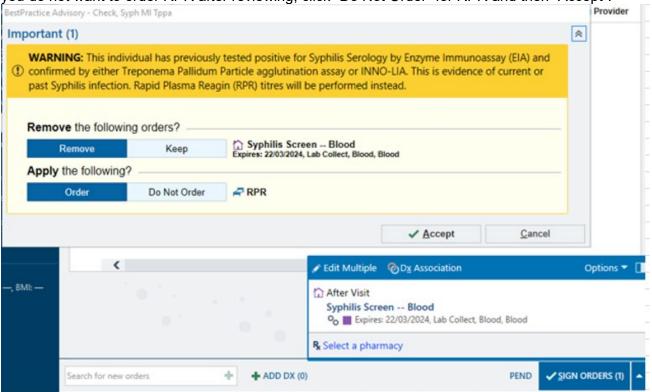*Transplant program-specific inquiries:*
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**Approved by** Graham Tipples, Medical/Scientific Director, Public Health Laboratory, APL
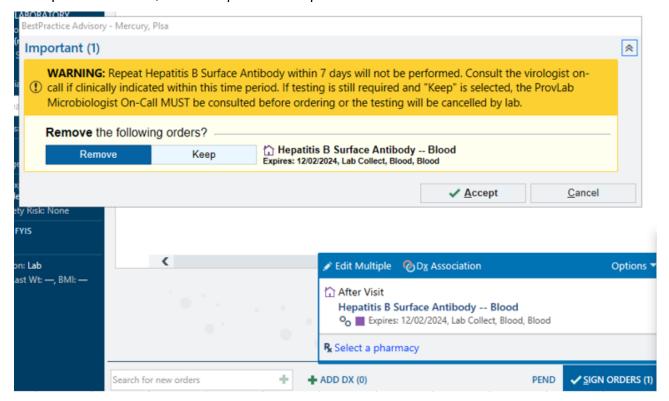
**APPENDIX (see 3 figures below):**

Example of the Syphilis Screen BPA- To continue and proceed with ordering testing for RPR, click "Accept". If you do not want to order RPR after reviewing, click "Do Not Order" for RPR and then "Accept".

Example of a BPA triggered because the test was ordered recently. To continue and cancel the test, click "Accept". To override, click "Keep" and "Accept" then contact the ProvLab MOC.



Example of a utilization BPA triggered when a test was previously positive. To proceed, click "Accept" and order the suggested test. To override click "Keep" and "Accept" and then contact the ProvLab MOC.