COVID-19 Testing Innovation – Rapid Antigen Testing

Implementing Rapid Antigen Screening Program: BD Veritor™

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Visit ontariohealth.ca/antigen-test to watch a training video on this topic.

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Objectives

By the end of this session, you will understand:

1. How to implement rapid antigen testing using BD Veritor™
2. How to use the BD Veritor™
3. Suggested site flow for testing

Operational Process for using BD Veritor™

- Control Swabs
- Preparations
- Intake
- Specimen collection
- Testing the specimen
- Reading results
- Communicating results

Conducting Quality Control Swabs

- Quality control swabs should be tested by staff who will be operating the testing station.
- Quality control swabs should be tested:
  - with each new shipment of kit
  - with any new kit lot number
  - by all newly trained operators before they begin testing individuals
  - for sites performing more than 30 tests/day, perform quality control swabs at the beginning of the day before testing begins
  - for sites performing less than 30 tests/day, perform quality control swabs each time a new kit box is opened or at least weekly, whoever is more frequent
- The process for running a control swab is the same as testing specimens.

Testing Process & Staffing

- Can be done one at a time or batch testing
- Specific numbers and set up to be determined by each site
- The process flow below would accommodate approximately 20 swabs an hour

Registration

Registers patient and labels tubes.

Person A: 1 staff

Swabbing and prepping station

Collects swab from patient. Prepares swab according to instructions.

Person B: 1 health professional

Results station

Reads and records results.

Person C: 1 health professional

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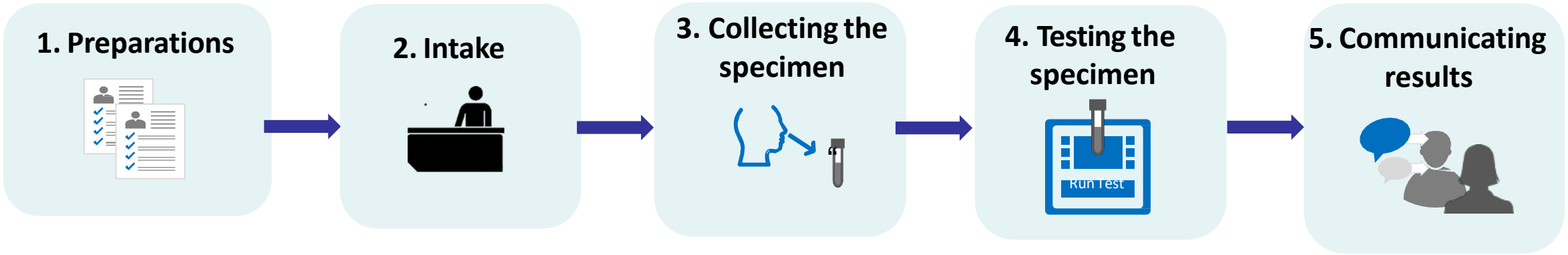
Operational Procedures

Rapid antigen screening clinic can be broken into 5 stages:



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1. Preparations

1. Confidentiality agreements signed by staff operating the rapid test clinic.
2. BD Veritor™ test kits should be ready for use and contain the following:
   - Extraction tubes, pre-filled with buffer fluid (325µl)
   - Test devices
   - Nasal swab
   - BD Veritor Plus Analyzer (plugged in or charged overnight)
3. Confirm test kits have not expired. Test kits should be at 15-30° C prior to use.
4. Determine how test tubes and cartridges will be labelled with at least two unique identifiers to avoid mix-ups.

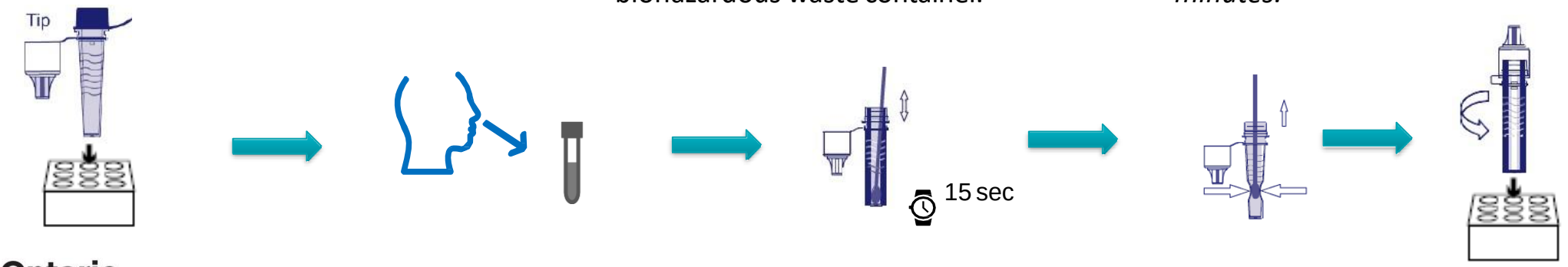
2. Intake

1. Inform participant of testing process.
2. Record the participant's name that will be tested and store the record in a safe, secure location (e.g., password protected Excel spreadsheet). This will form the basis of the "results tracker". A laptop is helpful for maintaining accurate/real-time records of intake and results.
3. Label a BD Veritor™ tube with two unique identifiers for tracking.
4. Direct participant to the rapid test station.

3. Specimen Collection and Processing

1. **Person A (can be non-health professional)** places pre-printed label with two unique identifiers on extraction tube.
2. **Person A** places a pre-filled extraction tube in the tube rack.
3. **Person B (health professional)** collects specimen **with dedicated rapid test swab** and places the **swab** in labelled extraction tube.
4. **Person B** plunges the swab up and down in the fluid for a minimum of 15 seconds, taking care not to splash contents out of the tube.
5. **Person B** removes the swab while squeezing the sides of the tube to extract the liquid from the swab. The swabs should be safely discarded in biohazardous waste container.
6. **Person B** press the attached tip firmly onto the extraction reagent tube containing the processed sample (threading or twisting is not required). They then mix thoroughly by swirling or flicking the bottom of the tube. The **extraction tube** is placed in a 2nd tube holder.
7. **Person B** changes gloves and performs hand hygiene after each swab.

Once the swab is placed in extraction tube, the sample should be read within 30 minutes.



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4. Testing the Specimen

1. **Person C (health professional)** opens a **test device** and places a pre-printed label on the device to correspond with the participant's name on **extraction tube** that will be tested.

2. Each **extraction tube** that will be tested should have a corresponding **test device**. **DO NOT** re-use test devices.

3. **Person C** takes **extraction tube** (with specimen in it) from the 2nd tube holder, inverts the extraction reagent tube and hold it vertically (approximately one inch above the sample well) and gently squeezes the ridged body of the tube, dispensing **three (3) drops** of the processed specimen **into the sample well**.

4. *For **batch testing**, repeat steps 1-3 for up to 10 specimens. Place each test device on a different section of the table (distanced apart from each other).*

5. Person C started a 15-minute timer.

6. Discard extraction tube with nozzle cap in the biohazard bin

7. During the 15 minutes, Person C powers on the analyzer by pressing the blue button. The **BD Veritor Plus Analyzer will complete a self-test before it is ready for use.**

8. After the self-test the display window shows **INSERT TEST DEVICE OR DOUBLE-CLICK BUTTON FOR WALK AWAY MODE. Insert the test device when the 15-minute assay development time is complete.** *For batch testing, repeat for all specimens.*

9. Record the result before removing the device.

NOTES:

- **Tip -**Testing station table should be cleaned and sectioned off prior to start of clinic and cleaned again at the end of the day.
- **DO NOT** move the test device until the test is complete.
- Clean up any spillage with appropriate disinfectant.
- **Change gloves and perform hand hygiene after handling each extraction tube**

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5. Communicating Results (1/2)

Negative Results

- Many organizations that are conducting frequent rapid antigen screening do not communicate negative results and follow a “no news is good news” approach. Reporting all negative results to staff being tested is best practice.
- Continue to follow public health measures for symptom screening, appropriate distancing, use of PPE and hand-washing

Preliminary Positive Results

- Follow all public health guidance for handling preliminary positive case
- Require that employee/resident receive confirmatory lab PCR test within 24 hours

5. Communicating Results (2/2)

Preliminary positive results roles & responsibilities:

At the Rapid Test Station	Rapid Testing Lead
Person C communicates the positive result to the **testing lead** in a private manner; typically, by telephone. **Person C** takes steps to maintain confidentiality of the results, i.e., results should not be communicated in a manner that exposes the identity of the participation to individuals other than staff who are part of the testing team.	• Participant is informed of preliminary positive result and a confirmatory PCR test is completed (or patient is sent to assessment centre). • Participant is asked to self-isolate until contacted by Public Health and provided further instructions.

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Questions

Please e-mail covid19testing@ontariohealth.ca with any questions

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