

FOR IMMEDIATE RELEASE
November 24, 2014

Faster lab results mean better patient care

VICTORIA – The first totally automated microbiology laboratory in a North American hospital will begin testing patients from across Island Health at Royal Jubilee Hospital on December 8th.

“B.C. is proud to be a front-runner with this laboratory automation system, which will provide faster, more efficient test results to help patients get the treatment they need quickly,” said Health Minister Terry Lake. “This is a perfect example of the work that is ongoing throughout B.C. to introduce innovations that make a big difference in the front-line patient care.”

Able to run twenty-four hours a day, seven days a week, the microbiology laboratory will produce faster results on the cause of patients’ infections, helping the care team provide the best treatment sooner.

“This new innovative technology shortens the time to get vital clinical information that helps providers make decisions about a patient’s care. The equipment’s standardized processes will eliminate errors and give us more reliable results,” said Dr. Brendan Carr, CEO of Island Health. “These improvements mean patients can get better faster and get home to their loved ones sooner.”

The microbiology laboratory at Royal Jubilee tests samples including urine, blood, stool, and tissue. Specimens are used to grow bacterial colonies to identify the cause of a patient’s infection and determine if the bacteria are resistant to any antibiotics.

“Microbiology is the last area of laboratory medicine to automate as it has always been a very manual process,” said Dr. Pamela Kibsey, Island Health’s medical director of infection control and medical lead of the microbiology laboratory at Royal Jubilee Hospital. “We are very excited that our patients will get to be the first in B.C. to benefit from the first real automation of microbiology.”

Once the lab identifies an organism and any antibiotic resistance, a patient can be put on the best type of antibiotic to cure the infection – or taken off an unneeded antibiotic. Appropriate antibiotic use reduces the chances of bacteria developing antibiotic resistance. Identifying the cause of infection also allows staff to apply the most appropriate infection precautions to prevent a patient from transmitting it to other patients.

“The quicker we can make a diagnosis, the better it is for the individual patient,” said Dr. John Galbraith, medical microbiologist. “And the sooner that appropriate precautions are in place, the better for other patients.”

“We are pleased to partner with Island Health to ensure Victoria has the most advanced facilities and equipment for the benefit of our residents,” said Denise Blackwell, Capital Regional District Hospital Board chair.

The laboratory system, manufactured by BD Kiestra, was installed at a cost of \$4.3 million, which was cost-shared with the Capital Regional Hospital District.

The microbiology laboratory at Royal Jubilee Hospital tests about 500 specimens a day from all across Island Health, with demand increasing every year. The lab automation will allow more tests to be done faster, without increasing staff, which helps address a looming shortage of laboratory technologists being faced across Canada.

The new laboratory equipment from the Netherlands was delivered and installed in late August, and staff training and testing has been taking place since September.

For more information, go to <https://vimeo.com/112413551>.

-30-

Backgrounder follows.

Media Inquiries

Sarah Plank

Media Relations Manager

Phone: 250.727.4275

Email: sarah.plank@viha.ca

BACKGROUND

Comparison of manual and automated microbiology laboratory processes:

In the old system, staff manually plant specimens onto plates (or petri dishes), put them into a machine that spreads the specimen out in a specific pattern and then walk batches of plates to the incubator. After the bacteria have had a chance to grow for 16 to 24 hours, technologists retrieve the plates and examine each one by hand.

With the new system, specimens are planted automatically and spread by specially designed magnetic beads across the plate, which is then sent along a conveyor belt into the incubator. When enough time has passed for the bacterial colony to grow, the machine takes digital photos, to be viewed on a monitor at any laboratory technologist's workstation. The images can be enlarged as much as necessary to identify the bacteria.

-30-