



SPREADING LAB-BASED SUCCESS at the Kitimat General Hospital

AIM STATEMENT

Improving patient flow by having 80% of 7:30 inpatient requisitions complete by 9:30am by having requisitions entered by 7:30am, collected by 8:30am, and results reported by 9:30am by June 2018.

BACKGROUND

The quality improvement project outlined within this report stems directly from a former QI process that was undertaken between April 2016 and May 2017 at Mills Memorial Hospital (MMH) in the Northwest (NW) health service delivery area of Northern Health. In early 2016, it was identified by NW Senior Leadership that up to date lab results required for discharge were often not available by the time physicians were conducting morning rounds thus delaying patient discharge. The goal of the MMH project was to assess the current state of AM blood work within that facility and identify potential facility-specific opportunities for improvement. As of early May 2017, the project had improved the average final reporting time from 0947hrs to 0831hrs at the MMH site. The improvements achieved at the MMH site initiated the NW Chief Operating Officer (COO) and the NW Medical Director to spread that projects learnings to three other NW facilities, with the goal to improve patient flow by supporting timely discharge of patients. The three NW facility sites identified for the spread were the Kitimat General Hospital (KGH), Bulkley Valley District Hospital (BVDH) in Smithers, and the Prince Rupert Regional Hospital (PRRH).

OBJECTIVE

Initial Northwest Regional Aim Statement:

To increase the amount of up to date lab results by 0800 hours available for physician rounding by 60% by March 30th, 2018.

Kitimat Aim Statement:

Have 80% of 7:30 inpatient requisitions complete by 9:30am by having requisitions entered by 7:30am, collected by 8:30am, and results reported by 9:30am by June 2018.

Prince Rupert Aim Statement:

To increase the amount of up to date lab results by 0800 hours available for physician rounding by 60% by March 30th, 2018.

CURRENT STATE

For each team, the current state the current state analysis consisted of the collection and analysis of baseline data and a process mapping kaizen event. At PRRH, the current average reporting time of results was 0924hrs for Complete Blood Counts (CBC) and 0919hrs for chemistry. Identified as a balancing measure, the current length of stay for acute patients within the facility was 4.64 days in 2017.

At KGH, for the collection period of late March to mid-April, 40% of all accessioned lab samples were meeting the reporting benchmark of having results published by 0930hrs. The team was over performing on their expected time of collection with an average current collection time of 0755hrs. However, the run chart indicates variability in the current collection time (Figure 1). The team was reporting results at a daily average of 0938hrs, just shy of their set target of 0930hrs. However, the run chart also indicates a high level of variability in final reporting time (Figure 1).

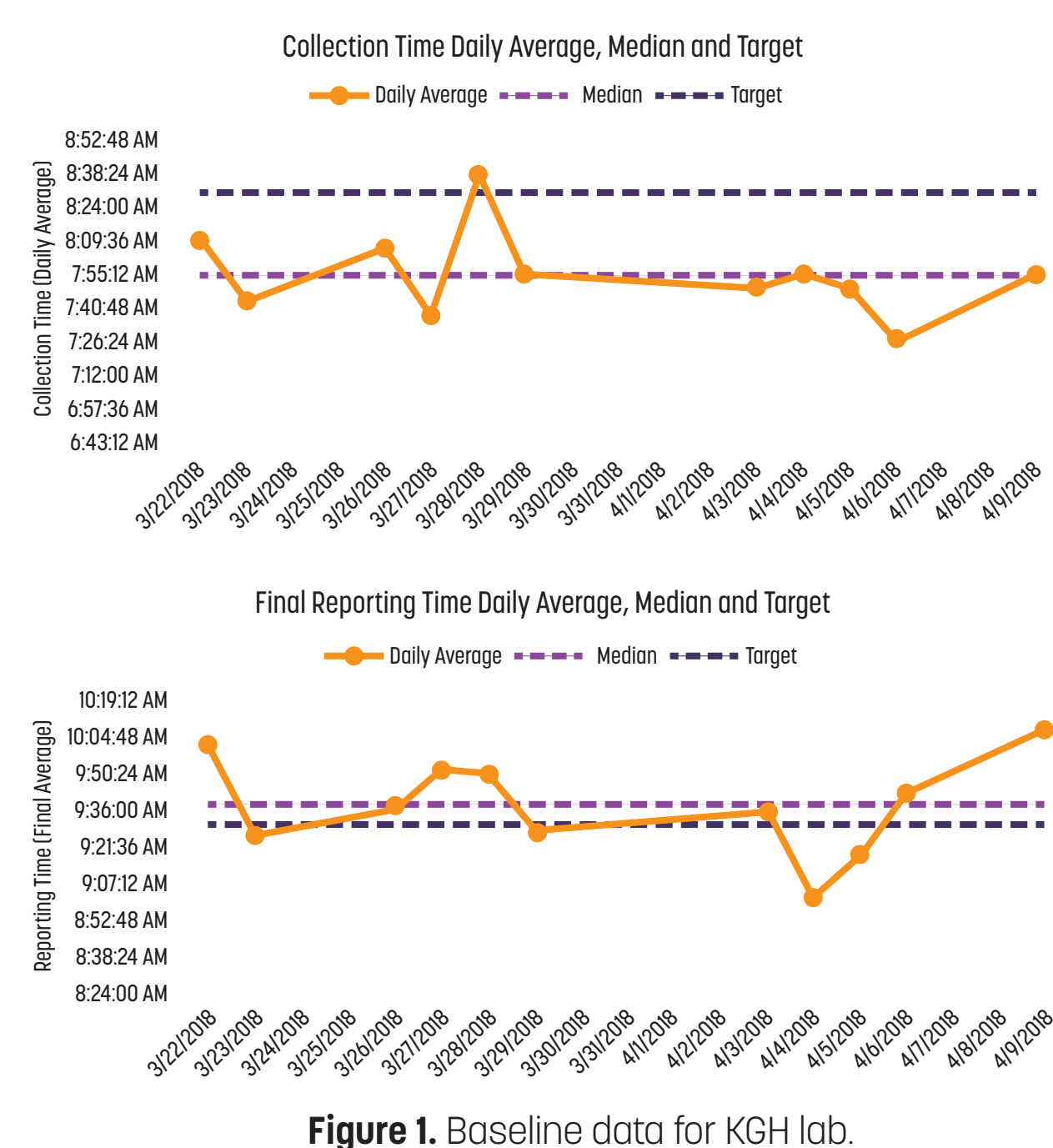


Figure 1. Baseline data for KGH lab.

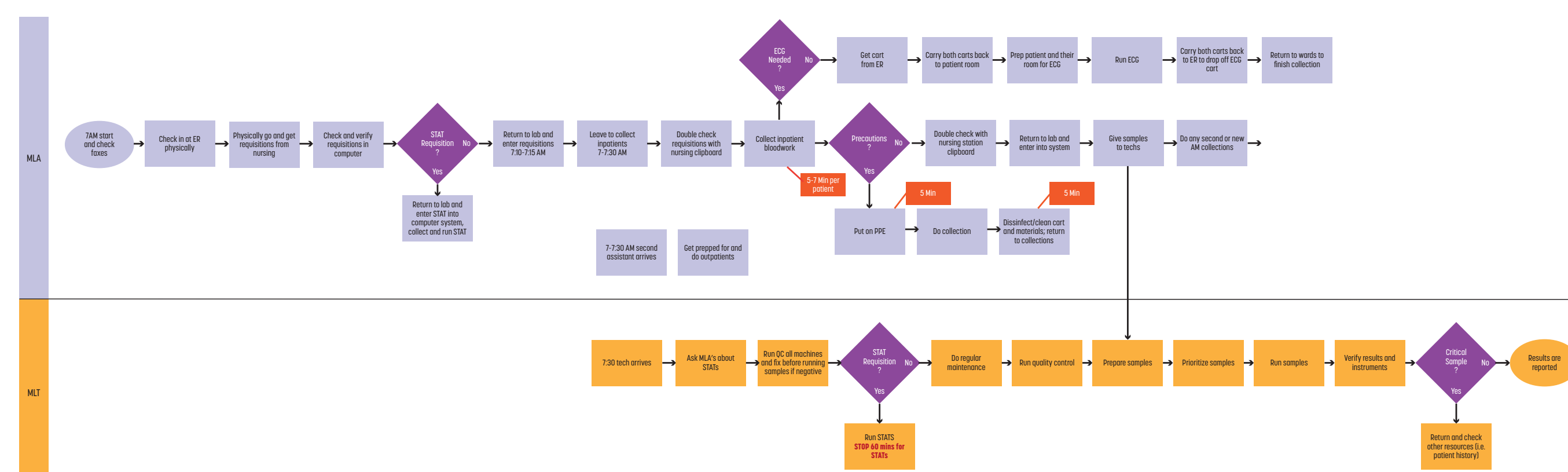


Figure 2. Current state map for KGH lab.

SOLUTION

After a current state process mapping exercise both the KGH Lab team and the PRRH team identified current pain points and opportunities for improvement (see Figure 3). Focus was put towards pain points & improvements that could be readily achieved and that were within the control of the teams.

To address these, an ideal future state map was developed by the PRRH lab improvement team. It was identified that initial improvement opportunities were clustered around areas of rework, duplication, and excess processing. Examples of the identified improvement opportunities at PRRH included:

- Inconsistent or incomplete requisitions
- Rework and duplication to address incomplete requisitions
- Unnecessary movement of requisitions and charts

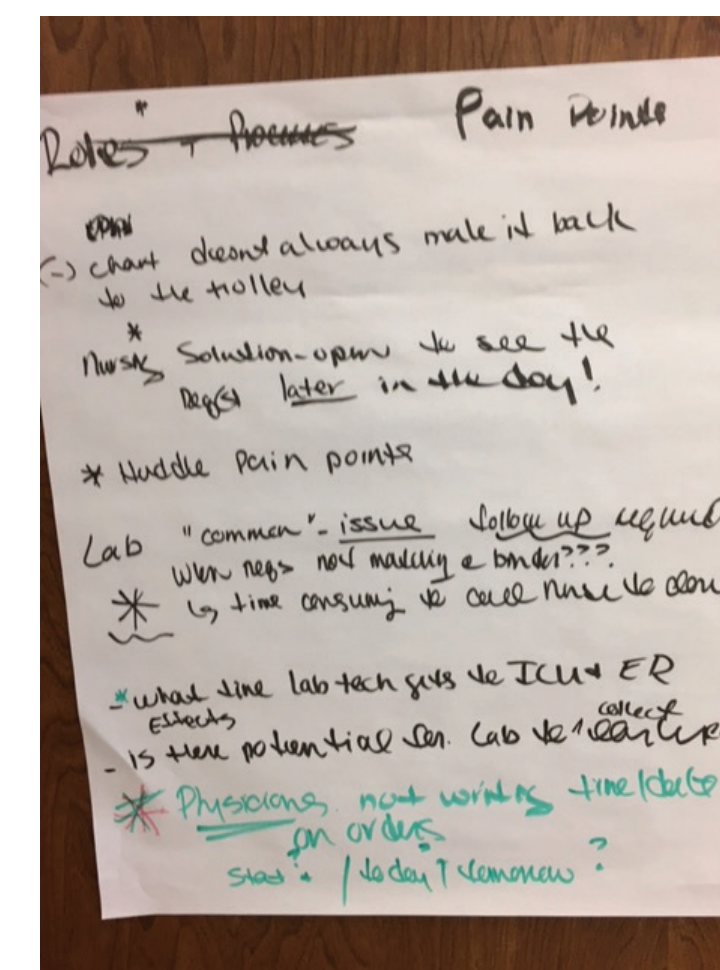


Figure 3. PRRH "Pain Points".

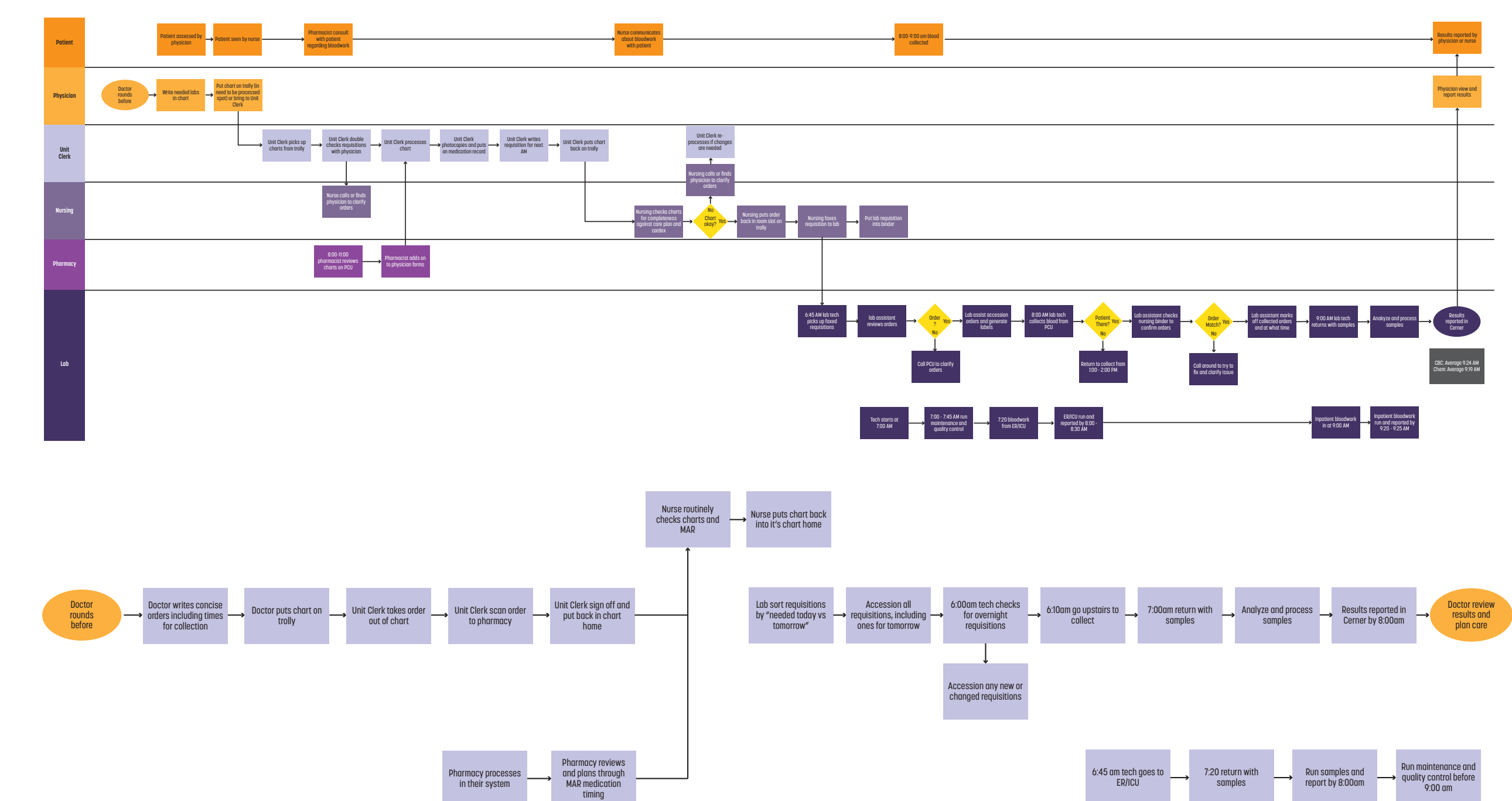


Figure 4. Current (top) and future (bottom) state maps for Prince Rupert Regional Hospital.

RESULTS

Each project team has completed a thorough baseline and current state analysis, engaging a dedicated site team and leadership support to undertake future improvements aimed at achieving the project aim statement. Currently, the teams are reviewing their identified opportunities for improvement and are preparing to undertake a process of prioritization.

One notable improvement opportunity identified by both teams was the current low utilization of physicians and staff accessing and using Powerchart, the internal electronic record system for retrieving and viewing laboratory results and queues. This was estimated to be a root cause of duplicate requisitions, unnecessary calls to the laboratory team for updates on requisition queue or result status, and physicians re-ordering active requests. Teams and physician partners are currently pursuing implementing additional Powerchart training.

NEXT STEPS/SUSTAINING THE GAINS

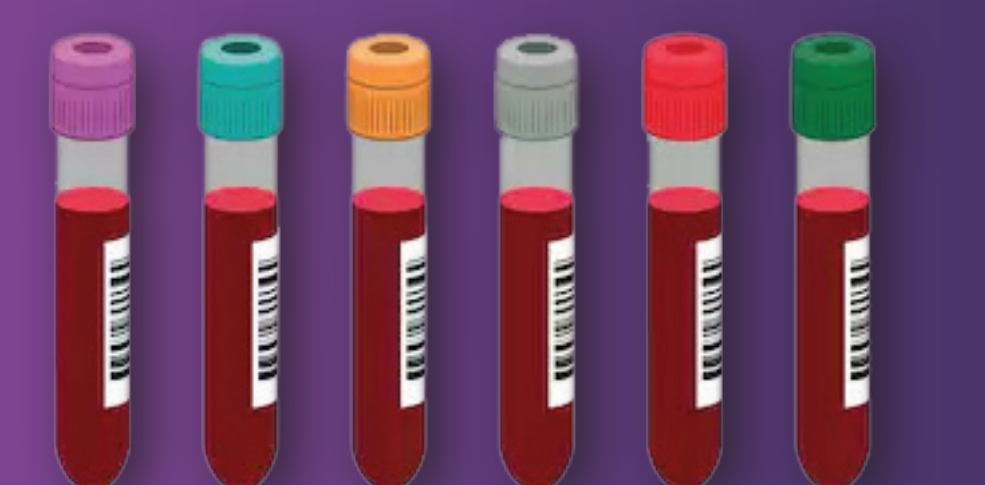
The KGH lab team is in the process of developing a form that the acute care nurses can use to ensure all Doctor Orders have been checked and all the lab orders have been filled out. This form was submitted to the NH Quality, Resource & Technology Department in October 2018 with an anticipated publish date of late January 2019. Following, a series of Kaizen events will occur with the acute care nurses and ideally include site physicians. It is planned that the KGH Clinical Nurse Educator & the Lab Manager will provide education on the recently completed form, commencing in February 2019. The improvement team has identified the need for physician engagement & input on this initiative in order to be successful. The KGH Practice Support Coach has recently been recruited to the improvement team.

The PRRH project is currently on hold due to leadership turnover and upcoming site Lab department Accreditation, scheduled to be complete by April 2019. The Improvement Team continues to see value in this project and once Accreditation with its accompanying time requirements are complete, the team plans to schedule a face to face meeting to revisit, revitalize and recommence the improvement initiative. Target date late April 2019 for initial meeting. Strong site leadership support exists. This site identified that lack of physician engagement was a challenge and is currently considering different ways that they can show the relevance and importance of this improvement work to the physicians.

PATIENT/CUSTOMER

Early reporting of AM laboratory results are an integral part of ensuring timely discharge of acute patients to allow for proper discharge or transition planning, improved patient flow, and reduced emergency department crowding.

During the development of their current state process map, the PRRH team identified a swim lane of the patients engagement and involvement in the process of AM blood work. The patients involvement can be seen in the top column of Figure 4.



TEAM MEMBERS

(KGH) Mark Hawkins, Pamela Dawkins, Peter Gill. Process mapping kaizen participants also included Ashlee Baer, Wendy Baker, Mary John, Krina Patel, Alberto Pineda, and Sandra Whittington.
(PRRH) Michelle Bartel, Alyssa Rimmer, Shannon Mann. Process mapping kaizen participants also included Adelaide Dipascale, Sara Phillips, Angela Szabo, Holly McAlister, and Michelle Pele.
(BVDH) Scott Martin, Robbie Dunbar, Sharon Dempsey, Dr. Vestvik, Dr. Blouw.

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