BC Surgical Patient Registry (SPR)

Communications Backgrounder

Updated September 2015
# Table of Contents

1.0 Introduction ............................................................................................................... 3

2.0 Purpose ....................................................................................................................... 3

3.0 Surgical Patient Registry (SPR) .............................................................................. 4

4.0 Diagnosis-Based Prioritization ............................................................................... 9

5.0 Reporting .................................................................................................................. 12

6.0 Patient Information and Privacy ............................................................................. 13

Appendix 1 – Wait Time Definitions ............................................................................. 14

Appendix 2 – SPR Data Mart Dashboard ...................................................................... 15

Appendix 3 – SPR Reports ........................................................................................... 16

Appendix 4 – SPR Report Builder ............................................................................... 17

Appendix 5 – Excel Access to Cubes .......................................................................... 18

Appendix 6 – SPR Patient Information Card................................................................. 19
1.0 Introduction

This document contains information about the BC Surgical Patient Registry (SPR). It was developed by the Provincial Health Services Authority (PHSA) SPR Central Office (SPR CO) staff in consultation with health authority (HA) and Ministry of Health (MOH) SPR representatives. The document is posted on the PHSA SPR website. The SPR CO is responsible for maintaining this document. It is updated regularly to reflect progress and changes in SPR implementation.

2.0 Purpose

This document provides background and standard key messaging about the SPR program to support HA and MOH SPR project and communication staff in providing consistent information to various stakeholder groups. It is intended as an internal document for HA and MoH staff.

The information is in a “Frequently Asked Question (FAQ)” format. These questions have been compiled over the years and come from surgeons, HA operating room staff, HA administration, MOH and other stakeholder groups.

Suggested additions or changes to this document are to be referred to the SPR CO email (sproffice@phsa.ca).
3.0 Surgical Patient Registry (SPR)

3.1 What is the BC Surgical Patient Registry (SPR)?

The SPR is a province-wide system that tracks patients waiting for surgery in BC. Patient information and data gathered from OR booking systems are entered into the web-based registry and used to evaluate and monitor surgical wait times across HAs.

The SPR is built on the experience and evidence of other waitlist initiatives, including the Western Canada Waitlist Project (WCWL), the Saskatchewan Surgical Care Network (SSCN), the Alberta Waitlist Registry and the Ontario Waitlist initiative, and work done in New Zealand, Australia and the UK.

3.2 Why was the Surgical Patient Registry initiated?

Managing waitlists and reliable reporting on those waitlists is of importance to patients, family physicians, surgeons, HAs, and MOH. In addition, until now, there has been no consistent approach for prioritizing patients on wait lists. There has also been limited ability to monitor a patient’s place on a wait list, or to compare surgical services across jurisdictions.

3.3 What is the purpose of the SPR?

The SPR provides clinically relevant, accurate and comprehensive information on patients waiting for surgery identified by surgeon, by procedure, by hospital, and by HA. Wait time data is also collected for performed surgical cases.

The initial focus of the SPR is to gather information on all surgical patients (both adult and paediatric). The definition of adult is an individual aged 17 years or older on the date of decision and paediatric is an individual under 17 years old on the date of decision.

The SPR is now fully operational. Surgeons now have a better idea of a patient’s respective level of priority for surgery following the implementation of Diagnosis Based Prioritization (December 2010). Priority for surgery is determined by the patient condition and diagnosis description selected from the provincial list of patient conditions and diagnosis descriptions, by the surgeon at the time when the patient and the surgeon agree to proceed with surgery.

HAs submit patient specific booking and post-operative information from their Operating Room (OR) booking systems directly to the SPR on a daily basis. This provides the most up to date information on patients booked for surgery and those who have had their surgery performed.
The more reliable data provided by the SPR will support better allocation of resources to meet the changing demands for surgery.

The ultimate goal is a surgical system based on patient needs, with a focus on transparency, consistency, fairness and evidence. The data captured by the system provides a basis for ongoing improvement towards this goal.

3.4 What committees are involved in the SPR?

SPR governance involves two committees:

1. **SPR Governance Group (GG)** is chaired by the MOH. This committee is responsible for identifying provincial issues relating to the SPR and developing province-wide standardized solutions; identifying opportunities for future improvements in the operation of the SPR; and escalating SPR strategic management items to the appropriate body (e.g. Executive Standing Committees, Integrated Primary, Acute and Community Care Committee (IPACCC), Provincial Surgical Executive Committee (PSEC)).

2. **Provincial Data Quality Group** is chaired by the SPR CO. They are responsible for providing guidance and direction regarding data quality issues for the SPR. Members include representatives from the HAs and the MOH.

3.5 How will the SPR improve public reporting of wait times and support better resource allocation?

A goal of the SPR is to enable surgeons to more objectively prioritize their patients for surgery, and to provide credible data to help surgeons and HAs manage patient flow and plan resource allocation.

The SPR utilizes a standard provincial procedure list, and a standard diagnosis-based prioritization list making it possible to accurately report wait times for the same procedure across hospitals and HAs. (Currently all HAs use different codes for surgical procedures.)

The SPR has a reporting portal open to surgeons, health authority administration, and the MOH accessible through the health authority systems at [https://spr.phsa.ca/spr](https://spr.phsa.ca/spr). The reporting portal is located under Reports>Advance Reporting and Analysis>SPR Data Mart.

In addition to access to SPR Data Mart options, SPR creates a snapshot of all data in the SPR for six (6) years from and including the end of the most current month and transfers this data to the MOH through secure linkage on the 9th of each month.
3.6 How will patients, surgeons, HAs and the MoH benefit from the SPR?

Patients will:

- have better information through their surgeons’ offices, and ultimately their family physicians, regarding the relative waiting time for their surgical procedure. The information from the SPR will also be made available on the MOH public website; http://www.health.gov.bc.ca/swt.
- be assessed with a higher degree of objectivity, and in the same way as other patients with similar conditions.

Surgeons will:

- be able to prioritize surgical patients using a standard list that is utilized by their peers;
- have the ability to query current and accurate waitlist data from the SPR for any of their patients;
- have access to real time waitlists;
- be able to see comparative (patient non-identifiable data) reports for patients waiting or for surgeries completed across their HA and the province;
- see the same information from the same source as their HA.

HAs will:

- have more accurate and timely data to manage surgical access and resources;
- have province-wide standard definitions for patient procedures which will allow HAs to compare surgical access and resource utilization.
- have access to aggregated, accurate, comprehensive and timely data to assist in monitoring performance, forecasting need, and reporting on wait time data.

MOH will:

- have access to aggregated, accurate, comprehensive and timely data to assist in monitoring performance, forecasting need, and reporting on wait time data.

3.7 Is there special equipment or software required to use the SPR?

No. The SPR is web-based and can be accessed from any secure surgeon office (using Citrix or VPN etc.), HA or MOH computer once a user has been approved and granted access.
3.8 Will training be required to use the registry? Who will provide training, and how can staff and surgeons access this training?

Each HA has designated a SPR administrator responsible for coordinating the delivery of training to OR booking staff, surgeons and surgeons' office staff. The SPR CO also provides training for reporting.

3.9 How many hospitals submit data to the SPR?

Currently 64 hospitals (100% of all hospitals which perform surgery in BC) submit data to the SPR. The last hospital to join was the BC Children’s Hospital (BCCH) in April 2011. Hospitals currently submit the booking information for each patient plus post-operative information once the procedure is performed.

3.10 How many procedures are submitted to the SPR in a year?

In 2014/15, a total of 364,832 surgical bookings were reported to the SPR. Of these surgical bookings, 307,755 surgeries were performed (239,323 scheduled and 68,523 unscheduled) and 57,077 bookings were cancelled.

3.11 How is the registry maintained so that it is timely and accurate?

1. OR Booking and Post-operative Information
   OR booking and post-operative information is entered into the SPR in one of the following methods:

   a) For the majority of hospitals the OR Booking and post operative information is sent daily, through an electronic process, from the hospitals OR booking system to the SPR. Patient data will be available for reporting in less than 48 hours.

   b) In a small number of hospitals the OR booking and post operative information will be entered manually into the SPR by the OR Booking staff within a pre-determined time frame of receipt of this information by the OR booking office. Patient data will be available for reporting in less than 24 hours.

2. Timelines of Data
   For electronic sites, SPR data will be available for reporting purposes between 24 to 48 hours from entry of patient to the OR booking system.

   For manual sites, data will be available in less than 24 hours from the time patient data is entered into the SPR system.
3. **Accuracy of Data**  
Reports are generated daily so that HA SPR staff can monitor and correct any errors that have been created. This daily upload of data and ongoing error management process ensures that the information in the SPR is as current and accurate as the data in each HA’s OR booking system.

3.12 **What is the SPR doing in terms of standardizing of SPR procedure codes?**

Over the last two years the SPR has re-classified unique HA surgical procedure codes using the nationally standardized system - Canadian Classification of Interventions (CCI). Each of the 14,000 procedure codes in BC now has a CCI code match where the procedure codes are now comparable across HAs.

The SPR accurately identifies the relationship between HA procedure code and provincial procedure codes used in the MOH’s public website. This opens the door for developing a single list of procedure codes for the Province to be used in all HA ORBSs which has the potential to make BC unique in Canada. This also allows for basing the provincial procedure codes to the Canadian CCI structure.

3.13 **How does the SPR ensure data quality in the HAs reported data?**

The SPR has two layers of data quality checks.

The first layer is the validation of data during the nightly HA batch upload process. The SPR ensures all required data elements are submitted through data fields. Missing mandatory fields will cause a rejected record. Other missing data will generate warnings for HAs to review their data.

The second layer of data quality is the MOH validity check when they import SPR data into their own holdings. As of June 2015, the error rate is approximately 74.7/1,000,000 (0.00747%).
4.0 Diagnosis-Based Prioritization

4.1 What is diagnosis-based prioritization?

In 2010, the MOH led a collaborative process to develop a diagnosis-based patient prioritization methodology replacing assessment tool data collection for patient prioritization. Diagnosis-based prioritization links a patient’s diagnosis and individual clinical condition to a specific wait time target.

In 2014 up to the fall of 2015, the MOH undertook a comprehensive review of the existing codes and descriptions (with the exception of cardiac surgery, pediatrics and emergency). This phase involved collecting input from individual surgeons and HA surgeon groups on suggested code changes. These changes were then implemented provincially on September 1, 2015.

The diagnosis-based prioritization tool is a detailed coding “dictionary” containing diagnosis descriptors developed for all specialty areas. These are linked to a corresponding pre-established priority category, which are also linked to a recommended maximum wait time target. The wait time targets are intended to be benchmarks or goals to strive towards.

The end product is a comprehensive listing of the diagnosis descriptions/patient conditions and their associated priority levels. Surgeons will continue to make the final decisions regarding who receives surgery and when it will be performed.

All elective surgeries booked in BC require the addition of a patient diagnosis/condition code for both adult and paediatric patients.

With development and implementation of this methodology, BC is now one of the leaders in Canada having an effective patient prioritization methodology based on objective patient need assessed by their surgeon.

4.2 How was the diagnosis-based prioritization tool developed?

Initially based on a model developed by VCHA, over 120 surgeons from across BC participated in creating the diagnosis-based prioritization tool. Surgeon engagement was secured though a comprehensive consultation process which involved the following:

- A broad-based membership for each reference group (all health authorities where appropriate and attention to sub-specialization);
- Identification of Reference Group Champions for each specialty to help establish communicate with their peers and facilitate discussion and agreement;
- Extensive inter-specialty validation to ensure overall consistency.
4.3 **New Codes for Patient Condition and Diagnosis Descriptions**

The patient condition and diagnosis description code is 6 characters. For people familiar with the PCATS (Paediatric Canadian Access Targets for Surgery) codes, which are 4 digits, there is an equivalent 6 character code as well. A PCATS code in BC has the same structure as the Adult codes. The SPR allows for submission of PCATS in either format. There are 7 priorities for paediatrics, and 5 for adults. When the 6 character diagnosis codes were developed, requirements from the health authorities were considered. These requirements include: specialties should be identifiable, codes can be rolled up across specialties, must allow for text descriptions be written. “Other” codes (similar PCATS with wait time targets) were developed to accommodate collection of information that is missing in the patient condition and diagnosis description lists.

4.4 **How are Health Authorities involved in the collection of data and the validation process?**

HAs provide access to the diagnosis/condition coding list for all surgeons, medical offices and staff within HA and in surgical facilities. HAs ensure that all OR Booking offices are provided with detailed procedures for accurate data entry. Codes are uploaded nightly from the OR booking system into the SPR. The priority level is associated with specific coding and is automatically generated by the SPR.

OR booking forms were updated in 2010 to accommodate diagnosis codes for all HAs.

4.5 **What will this mean for BC surgeons?**

BC surgeons and their offices will have access to the diagnosis/condition codes through their health authority. Surgeons select the code that corresponds with the appropriate diagnosis/patient condition, and write it on the OR booking form. The diagnosis information is uploaded to the SPR. The patient condition and diagnosis description code is the key to communicate patient priority across the system.

Surgeons are able to access easy-to-read reports on their own patients’ priority/wait time targets through the SPR. This data is intended to be a useful guide to aid surgeons in determining the urgency of the surgery and the patient's priority relative to other patients on their waitlist. Surgeons continue to make final decisions about their patients’ surgery and priority for booking.

4.6 **Addition of paediatric data collection to the SPR**

During the implementation of diagnosis prioritization methodology for adult patients, the Province adopted the implementation of National Paediatric Clinical Access Targets for Surgery (PCATS) codes for all paediatric patients in BC.
All elective surgeries booked in BC require the addition of a patient diagnosis/condition code for both adult and paediatric patients.

BC is currently the only province that collects PCATS for all paediatric patients in the province.

4.7 How does the SPR calculate waiting times?

The SPR tracks two key wait times:

- Date of decision for surgery, to the date the surgery is performed.
- Date of receipt of booking form in the OR booking office to date the surgery is performed.

Definition: Adult wait time is typically calculated from the booking form received date (BFRD) and paediatric wait time is calculated from the decision date (DD) to the date of surgery performed. (See Appendix 1 for detailed wait time definitions).

The SPR also has the capability to measure other wait times, such as the time from GP referral to surgeon consultation. This wait time is of key interest for many health authority groups, including surgeons. The MOH has had numerous discussions with the SPR and the HAs about mandating this wait time data collection field. At this time, however, it is not a requirement of the HAs. Many hospitals continue to collect this data for their own interests in monitoring.

4.8 How will the data from SPR be used?

The SPR data is intended to inform and support surgeon decision making by providing the surgeon with prioritization information to be used as part of the process for determining the urgency of the patient’s surgery.

4.9 Will the SPR data alter the patient/surgeon relationship?

Once a patient has consulted a surgeon, the surgeon and patient have a relationship that cannot be altered without the agreement of the surgeon and the patient.

4.10 Will others (e.g. HAs, MOH) use the patient priority rating to alter the scheduling of a surgeon’s patients for surgery?

The surgeon has responsibility for deciding whom to schedule and on whom to operate.
5.0 Reporting

5.1 How surgical data reported from the SPR?

Between 2009 and 2011, The SPR and PHSA’s Performance Measurement and Reporting (PM&R) developed SPR’s Data Mart portal. This portal enables standardized reporting for surgeon’s, HA Administration and the MOH. Reporting tools and reports are continuously being improved upon based on client feedback and changing needs.

The SPR Data Mart contains four different reporting options. The first two listed below are open to all SPR users and the last two are limited to Data Analysts. The SPR Data Mart portal is accessible through the HA system and is available at: https://bi.phsa.ca/sprdatamart

There are Four Categories of Reporting:

1. **SPR Data Mart Dashboards** – The dashboards provide provincial level non-identifiable summary data. Users are approved for access through their HA SPR representative. The dashboards provide the ability to drill down to the data within its current structure and users can design their own queries for the data. (A screenshot is provided as Appendix #2)

2. **SPR Reports** – The report portal provides canned reports with parameters for user selection. The reports are developed for a particular purpose. As reports may provide individual identifiable data, access restrictions are increased. (Appendix #3)

3. **Report Builder** – The report builder is a tool for developing custom based reports. This tool is only available to HA surgical system analysts. With this tool, users are able to develop reports and post them on the reporting portal for other’s use. (Appendix #4)

4. **Excel Access to Cubes** – This is one of the most flexible analytic tools for surgical data reporting. Users are able to use Microsoft Excel to query data and create reports. They are able to post these reports to the SPR Data Mart for others to use. (Appendix #5)

5.2 Has the SPR CO collected user feedback on the SPR Data Mart?

The SPR CO has implemented three customer satisfaction surveys (May 2011; March 2012; January 2015) to assess users satisfaction and experience with the SPR web pages and the SPR Data Mart.
6.0 Patient Information and Privacy

6.1. How is patient information protected within the SPR?

Personal, identifiable information (including a patient’s name, address, telephone number, personal health number) will be collected. The data are integral to waitlist registration and OR booking. A Privacy Impact Assessment (PIA), consistent with provincial legislation, has been developed and approved by all HAs and an ISA was signed by all HAs. SPR’s PIA was reviewed and updated in 2015. Policies are in place consistent with the PIA that will guide all decisions around access and use of the information. Information-sharing agreements consistent with the PIA will be created between the PHSA (data custodians) and any party wishing to access information from the SPR, such as the HAs.

Audit policies and regular audit reports within the SPR provide a mechanism for monitoring all access and use of SPR data to ensure it complies with privacy legislation, and the SPR and HA administrative policies.

6.2. Who has access to patient information in the SPR?

Surgeons (and their office staff) have access to their patients’ identifiable information.

Each health authority can access identifiable information only for those patients registered in their HA. The SPR representative must authorize access to patient identifiable data. HAs are able to access summary level, non-identifiable data by procedure and specialty for all HAs.

The MOH has access to patient identifiable and non-identifiable data that is required for reporting on surgical waitlists similar to what was provided to MOH through the MOH Surgical Wait List (SWL).

Please refer to Appendix 6 – SPR Patient Information Card- This is a document that is available to surgeons’ offices to give to patients if there are questions regarding the privacy of the patient’s information in the SPR.
Appendix 1 – Wait Time Definitions

**Wait Dates Defined**

*GP Referral Date* – the date the surgeon’s office receives either a fax/email/letter/call from a GP (or specialist) requesting a surgeon consult.

*1st Consult with Surgeon Date* – the date of the patient’s first visit to the surgeon.

*Decision for Surgery Date* – the date the surgeon and patient both agree to proceed with surgery; the patient is ready, willing and able to proceed.

*Booking Form Received Date* – the date the surgical booking package is received by the OR booking office at the hospital.

*Surgery Date* – the date the patient receives surgery.

**Wait Measures Defined**

*Wait 1* – Date the surgeon’s office receives notification (from GP or specialist) for surgeon consult to date of 1st surgeon consult.

*Others:*  
Wait Measure A – Date of 1st consult with surgeon to date of decision for surgery.  
Wait Measure B – Date of decision for surgery to date OR booking package is received by hospital.  
Wait Measure C – Date OR booking package is received by hospital to date the patient receives surgery (often referred to as Wait 2).  
Wait Measure D – Date of decision for surgery to date the patient receives surgery.

The SPR can provide reports on each of the wait times noted above.
Appendix 2 – SPR Data Mart Dashboard

The dashboards provide provincial level non-identifiable summary data. Users are approved for access through their HA SPR representative. The dashboards provide the ability to drill down to the data within its current structure and users can design their own queries for the data.

SPR Data Mart Dashboard URL:  https://bi.phsa.ca/SPRDataMart/default.aspx
Appendix 3 – SPR Reports

The SPR Data Mart report portal provides canned reports with parameters for user selection. The reports are developed for a particular purpose. As reports may provide individual identifiable data, access restrictions are increased.

SPR Data Mart Reports URL:  https://bi.phsa.ca/SPRDataMart/default.aspx
Appendix 4 – SPR Report Builder

The report builder is a tool for developing custom based reports. This tool is only available to HA surgical system analysts. With this tool, users are able to develop reports and post them on the reporting portal for other’s use.

Report Builder URL: https://bi.phsa.ca/SPRDataMart/Reports/Forms/updated.aspx
Appendix 5 – Excel Access to Cubes

The Excel Cube is one of the most flexible analytic tools for surgical data reporting. Users are able to use Microsoft Excel to query data and create reports. They are able to post these reports to the SPR Data Mart for others to use.

Users access by opening the following link in Excel 2007 or newer: https://bi.phsa.ca/SPRDataMart
Appendix 6 – SPR Patient Information Card