Fraser Northwest Division of Family Practice

Enhanced Recovery After Surgery (ERAS): Groundwork for Involving Family Physicians

Shared Care Project Summary Report

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Executive Summary

ERAS – Enhanced Recovery After Surgery – is an evidence based, outcome-driven set of pre-, intra- and post-operative protocols that optimize and significantly enhance a patient's recovery from surgery. Traditionally these protocols have been initiated in pre-admission clinics at surgical sites. However, several protocols - such as smoking cessation, anemia management, physical fitness and nutrition – are ineffectual unless initiated a minimum of 3-4 weeks prior to surgery. While GPs routinely discuss these topics with their patients as part of overall care, doing so as part of pre-surgical optimization has not been a typical part of family practice to date.

In September 2015, the provincial Shared Care Committee approved funds ($43,712) to support a project in the Fraser Northwest Division of Family Practice (FNW) to move the four abovementioned ERAS protocols upstream to Family Practitioners' offices. Co-led by Dr. Kendra Croitoru (FNW GP) and Dr. Richard Merchant (Anaesthesiologist at Royal Columbian Hospital - RCH), the project focused on notifying GPs if one of their patients was likely to require elective **colorectal surgery**[1]. The method of notification was a letter from either an RCH Gastroenterologist of General Surgeon, requesting that the GP contact the patient for a pre-surgical consult and directing the GP to ERAS information and resources developed for Pathways. The project team hosted member engagement events in October 2015 and November 2016, and a focus group in May 2015 to gain GP input on the process design and resources. The team sought and achieved support for the project from stakeholders at each stage in the process, including expedited IV iron therapy at RCH Medical Day Care for colorectal surgery patients.

Data on uptake were collected via a pre-optimization questionnaire completed by nurses at the RCH Pre-Admission Clinic. Colorectal surgery patients whose GP office is located in the Fraser Northwest area were asked if their GP had called them to come in for an appointment, which protocols were discussed, and whether or not they followed the GP's advice.

The sample size turned out to be very small as only a few Fraser Northwest GPs had patients scheduled for colorectal surgery during the project period (data were collected from Nov 15, 2016 through March 31, 2017). The final pool of was 14 patients, of whom 6 had some type of upstream ERAS optimization. This exceeded the project target of 25% uptake but the sample size was too small to be considered valid. However, this and other project indicators suggest willingness on the part of the GP community to adopt pre-optimization protocols. Fraser Health Authority and the Specialist Services Committee plan to expand the focus of ERAS protocols from colorectal surgery to many more types of surgical procedures. This expansion provides an excellent opportunity to increase GP familiarity with, and implementation of, upstream optimization protocols with their patients prior to surgery.

Patients also need to be educated about the protocols and encouraged to contact their GPs for a consult. Multiple communication channels are recommended – Specialist to GP, GP to patient, patient to GP, and so on – to reiterate messages and increase potential uptake. Improvements can be made to

[1] Elective colorectal surgery was chosen as the focus to match the surgical priority of the Specialist Services Committee's ERAS Collaborative at the time.

the GP notification process and the tracking tools (i.e. the pre-optimization questionnaire) to generate valid data. Key learnings from the project are:

Key learning #1: *The ERAS Collaborative's focus on protocols for colorectal surgery yielded robust sample sizes at surgical sites (i.e. potentially data on 200 patients at RCH alone). However, at an upstream, family practitioner level within the Fraser Northwest DoFP, the focus on colorectal surgery was simply too narrow to yield much data*.

Key learning #2: *Fraser Health's planned expansion of ERAS to all elective surgeries will be an opportunity to increase awareness and uptake of patient pre-surgery optimization by GPs. More GPs will have more patients scheduled for surgery, creating more opportunities for pre-optimization, data collection, and confirmation of enhanced post-operative recovery.*

Key learning #3: *The project's design had several points of vulnerability. In addition to notifying and asking GPs to call a patient in for a pre-surgery optimization, it may increase effectiveness if patients too are advised to book an appointment with their GP.*

Key learning #4: *The term "ERAS" is widely accepted as referring to protocols implemented at the surgical site. For upstream protocols implemented by Family Practitioners, a different term may be more meaningful (e.g. "optimization" or "pre-habilitation"). GP input would be needed to find the best terminology.*

Key learning #5: *Widespread adoption and implementation of upstream ERAS protocols (or pre-habilitation) will require more efforts to familiarize GPs with the vital role they can play, as the GP community is accustomed to the surgical site preparing patients for surgery. Younger GPs and new graduates may be a particularly receptive audience as they can integrate pre-habilitation as part of their customary practice from the outset.*

Key learning #6: *While some General Surgeons and Gastroenterologists fully embraced the process of notifying GPs of patients' upcoming colorectal surgery, others did not. Involving GPs in pre-operative care represents a shift in thinking for Specialists, and may require time to become common practice. Even so, relying on Specialists to notify GPs is likely to continue yielding mixed results. Consistency may only be possible through an automated notification process through Fraser Health.*

The project has generated valuable learnings and resources that are already being adapted in other areas. Several of the RCH General Surgeons and Gastroenterologists are continuing to notify GPs of a patient's upcoming colorectal surgery. Momentum has been established to build upon the foundation the project has established: specifically, work is continuing at both the Fraser Health Authority and the Specialist Services Committee level to augment and expand the upstream protocols for many more surgical procedures in many more areas.

1.0 WHAT THIS REPORT IS ABOUT AND WHY IT MATTERS

This is a summary report on the Fraser Northwest Division of Family Practice (FNW) **Shared Care** project titled: *Improving Post-Operative Patient Outcomes Through FP Engagement in Enhanced Recovery After Surgery (ERAS).*

The report marks the conclusion of the Shared Care-funded project period but the processes implemented are continuing and will likely be integrated into an expanded **Fraser Health Authority region-wide** ERAS initiative soon. The tools, resources and learnings from the FNW project will provide a foundation for this expanded activity. Moreover, other Divisions of Family Practice and Health Authorities can adapt and/or augment the materials and learnings for ERAS-related initiatives in their areas. Already FNW has already shared the resources and insights with the Campbell River Division of Family Practice, and the resources can be accessed by any **Pathways** user in BC.

Resources and key learnings from the Fraser Northwest Division *ERAS PROJECT* have already spread to other areas of BC

The Fraser Northwest Division ERAS project team hopes our report and experiences will animate more discussion about how to best support family practitioners in initiating pre-operative protocols with patients prior to elective surgery.

2.0 WHAT IS ERAS?

ERAS (Enhanced Recovery After Surgery) is an evidence-based, outcome-driven set of pre-, intra- and post-operative protocols that optimize and significantly enhance a patient's recovery from surgery. As described on the **Enhanced Recovery BC** website,

> Patients cared for with enhanced recovery protocols are:
> - Less likely to develop a post-operative complication
> - More likely to have a shorter length of stay
> - Less likely to be readmitted
> - More likely to have a shorter overall convalescence

ERAS originated in Europe following research by Henrik Kehlet of Denmark, and the protocols have been embraced by jurisdictions globally. In British Columbia, Doctors of BC's **Specialist Services Committee (SSC),** through the ERAS Provincial Collaborative, has implemented combined perioperative care improvements across all of BC's health regions. Royal Columbian Hospital (RCH) in New Westminster is one of 11 surgical sites involved in the collaborative. Figure 1 on p. 2 shows the range of ERAS protocols implemented at RCH.

Fig. 1. Fraser Health General Surgery ERAS Protocols

3.0 THE FNW SHARED CARE PROJECT - MOVING *ERAS* PROTOCOLS UPSTREAM IN THE PATIENT JOURNEY

The **SSC ERAS Collaborative's** initial focus was **elective colorectal surgery** and implementation of intra- and post-operative protocols at surgical sites. However, a patients' medical fitness for major elective surgery *prior to* their point of interaction with the surgical site has a significant impact on their post-operative course. The typical pre-surgery consultation with an anesthesiologist in a Pre-Admission Clinic a week or two before the scheduled surgery is too late for patients to effect change in their medical fitness. Thus, many patients arrive for surgery in sub-optimal condition, potentially resulting in increased length of hospital stay, post-operative complications, delayed recovery and/or a decline in overall health.

In the spring of 2015, Dr. Richard Merchant, RCH Anesthesiologist and member of the ERAS Collaborative, approached Dr. Kathleen Ross, Physician Lead for Fraser Northwest Division's Shared Care initiatives, with an idea to address this problem by moving the pre-surgery process significantly upstream to Family Practitioners' offices. Family physicians are uniquely positioned to identify at-risk surgical patients and to facilitate evidence-based, pre-operative interventions such as:

- Improving management of anemia
- Improving physical fitness
- Improving nutrition in the malnourished
- Smoking cessation
- While GPs routinely discuss these topics with their patients as part of overall care, doing so as part of pre-surgical optimization has not been a typical part of family practice to date.
- Ideally GPs would initiate one or more of these interventions with patients four or more weeks prior to surgery, but even three weeks prior can be helpful.

About 200 colorectal surgeries are performed annually at RCH on patients primarily from the Lower Mainland, but also from elsewhere in BC.

FNW DoFP Family Physician Dr. Kendra Croitoru was recruited to be the GP physician lead for a proposal submitted to Shared Care (July 2015) for engaging FNW family physicians in a pilot project to integrate

community-based primary care into the ERAS protocols. The project was approved in September 2015, with a focus on elective colorectal surgery as per the focus of the SSC ERAS Collaborative.

3.1 Doing the Groundwork – Phase One, Oct. 2015 – Sept. 2016

Phase One of the project commenced shortly after project approval and involved the activities, outcome measures and results described in the next three pages.

THE FNW ERAS PROJECT TEAM

- Dr Kendra Croitoru, Fraser Northwest Division Family Physician and Fraser Health ERAS Committee member (GP Lead)
- Dr. Richard Merchant, Royal Columbian Hospital (RCH) Anaesthesiologist and Fraser Health ERAS Committee member (Specialist Lead)
- Dr. Kathleen Ross, FNW Shared Care Advisory Committee Physician Lead
- Brenda Poulton, Nurse Practitioner with Fraser Health Surgical Services and member of the ERAS Collaborative
- Leslie Rodgers, FNW Shared Care Lead

Summary of Phase One Results

Outcome Measure	Activities	Results
GPs have agreed to pilot the project	• A member engagement event on two topics, ERAS and Advance Care Planning, was held Oct. 20, 2015 • The ERAS component involved: (i) a presentation from Drs. Croitoru and Merchant on the project proposal and the clinical evidence for the four ERAS protocols; and (ii) table discussions to gather GP input on project design • A sign-up sheet was circulated for GPs to indicate their willingness to be part of the pilot project	• Sixty people attended the event: 38 member physicians; 8 specialists (anaesthesiologists, surgeons, intensivists and respirologists); 2 residents and 12 guests and staff • 15 of a possible 25 community GPs at the event signed on to the pilot project • The table discussion results were built into the project design
The project team has held regular meetings to advance the project	• Regular in-person meetings supplemented by email exchanges and phone conversations	• 5 team meetings over the year • The team had numerous exchanges to collect information, make decisions and approve materials

(Continued on next page)

Outcome Measure	Activities	Results

GP and patient ERAS resources have been developed, tested and posted to Pathways	• GP and patient information needs identified at the Oct 20 engagement event
	• Multiple drafts of materials and resources
	• Materials tested in a GP focus group led by Dr. Croitoru in April 2016
	• Modified based on focus group results
		Materials posted to Pathways in Oct 2016, included:
		• Explanation of ERAS
		• FAQ
		• Tools
		  • Smoking Cessation: "Quit Now" Patient Handout and Mike Evans Stopping Smoking Video
		  • Anemia Resources: Anemia Management Algorithm and IV Iron Order Sheet
		  • Fitness Resource: Preparing for Surgery Fitness Education Patient Handout
		  • Nutrition Resources: Nutrition Screening Tool and High Protein High Calorie Diet Education
		  • A link to Enhanced Recovery BC website

A process is in place for General Surgeons and/ or Gastroenterologists to notify patient's GP of upcoming colorectal surgery	• Drs. Merchant and Croitoru met with General Surgeons and Gastroenterologists to encourage a process for notifying a patient's GP of the likelihood of colorectal surgery and asking them to call the patient in for pre-operative ERAS protocols • Notification letter template provided (based on GP input at the April 2016 focus group - GPs advised that the best way to be notified and asked to implement ERAS protocols was via a letter from the specialist)	• General agreement from Surgery and GI departments to implement the letter - individual uptake may have varied
GPs have access to expedited IV iron therapy for colorectal surgery patients	• Dr. Merchant and Brenda Poulton obtained agreement from the RCH Medical Day Care to expedite IV iron therapy in these cases • A specific order sheet was developed for this purpose	• Order sheet for expedited IV Iron posted on Pathways

Continued …

Outcome Measure	Activities	Results
A process is in place to track ERAS protocol implementation at the RCH Pre-Admission Clinic	• Questionnaire developed for PAC nurses to administer to patients undergoing elective colorectal surgery • Patients screened – if their GP's office outside of the Fraser Northwest geographic area, no further questions administered • PAC agreed to implement the questionnaire for a 4-month trial period Nov 15, 2016 through March 2017	• Questionnaires administered and data collected in Phase 2 of the project • PAC subsequently agreed to continue administering the questionnaire post-project (i.e. from May 2017 onward)
The appropriate billing code has been determined for a GP consultation re: ERAS protocols	• Dr. Ross confirmed with Doctors of BC that Billing Code 14066 can be used with the appropriate diagnostic code, but only if the GP addresses all preventive care issues at the visit	• Information re: billing code and caveats posted on Pathways
An evaluation framework and process map have been developed	• Evaluation framework developed and approved by the Fraser Northwest Board and Shared Care (see Appendix) • Process map completed (see p. 6)	• Both tools used to guide project and final report • Process map can be found on page 6
A project roll-out plan is in place	• The project team planned a roll-out event for November 2016 and subsequent communications	• Rollout event on Nov 1, 2016 attended by 18-member GPs; subsequent communication through FNW Fast Facts newsletter updates

Figure 2 on the next page illustrates the process flow developed for the project. Steps 1 through 8 were implemented. Step 9, Trend Analysis, is pending and subject to availability of sufficient data.

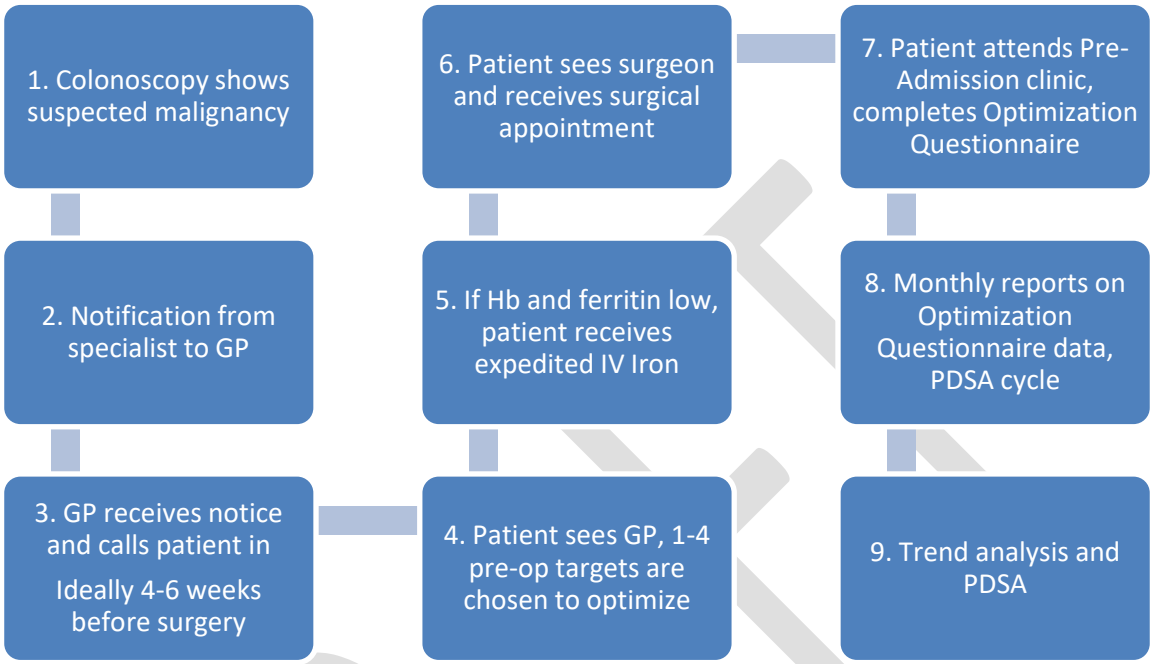

Fig. 2. Process Map for Fraser Northwest ERAS Pilot Project

3.2 Year Two: Implementation Phase (Nov. 2016 - June 2017)

With Steps 1 through 8 of the above process map in place, the team launched the project at a Nov. 1, 2016 member engagement event attended by 18 GPs and an RCH surgeon. The ERAS information on Pathways also went live on that date, accompanied by communication through the FNW Fast Facts e-newsletter. By mid-November, specialists began sending notification letters to GPs and the Pre-Admission Clinic began administering the optimization questionnaire to elective colorectal surgery patients.

Limited Data but Constructive Learnings

The data available to assess the impact of the project turned out to be very limited due to the small number of Fraser Northwest GPs with colorectal surgery patients for whom PAC Pre-Optimization questionnaires were completed. This small sample size precludes definitive conclusions and leads the project team to the first key learning:

Key learning #1: *The ERAS Collaborative's focus on protocols for colorectal surgery yielded robust sample sizes at surgical sites (i.e. potentially data on 200 patients at RCH alone). However, at an upstream, family practitioner level within the Fraser Northwest DoFP, the focus on colorectal surgery was simply too narrow to yield much data.*

Data Sources

Pre-optimization questionnaires

The project's main data source is the pre-optimization questionnaires completed by nurses at the Pre-Admission Clinic (PAC) during the initial trial period, Nov. 15, 2016 through March 31, 2017. Since RCH does not perform elective surgeries over the two-week Christmas break, and at least two weeks were needed for questionnaire administration to become part of the PAC routine, the trial period was effectively 3.5 months. Assuming an even distribution of elective colorectal surgeries over the course of the year, the greatest number of questionnaires PAC nurses might have completed during the trial period would have been about 50-55 (if questionnaires were administered to 100% of elective colorectal surgery patients). The actual number completed was 35 (theoretically a 65-75% completion rate). The first question asked of a patient was where their family doctor's office was located; if outside the Fraser Northwest area (our focus) no further questions were asked.

Total pre-optimizations questionnaires administered at PAC:	35
Removed from data pool as GP from outside FNW area	-12
Removed as GP was not a FNW Division member	- 6
Removed as GP incorrectly identified, or a locum	- 3
Final pool of FNW Division member GPs' patients	**14**

Table 1. Analysis of Optimization Questionnaires Administered by PAC Nov. 2016 – March 2017

Of the 14 patients of Fraser Northwest Division GPs, six had some type of upstream ERAS optimization as describe below:

- Smoking cessation
- Exercise
- Referral for IV Iron
- Nutrition
- One patient took the initiative to contact her GP's office

One of the initial goals of the project was to have GPs implementing upstream ERAS protocols in at least 25% of cases. The data indicate a 43% implementation rate (6 of 14 patients) based on the very small sample size.

GPs who did not call their patient in for a pre-operative consult gave one of three main reasons:

i. The GP was not informed of the surgery (this was identified as a project vulnerability – see p. 10)
ii. The GP did not believe the patient required pre-optimization (i.e. the patient was healthy overall and did not need additional tests or counseling on the protocols)
iii. The patient was in long-term hospitalization and under the care of a General Surgeon or other physician

Pathways Analytics

Pathways Analytics tallies the number of times a "page" on the Pathways web site is viewed.

Table 2 shows the number of views of each ERAS project-related page on Pathways over a 5.5 month period. The data indicate that a proportion of FNW GPs did seek out the posted ERAS information.

Pathways "Page"	# of Views
ERAS Guidelines (ERAS Home Page)	198
Anemia Management Algorithm	12
IV Iron Order Sheet	75
Exercise/Fitness Patient Handout	6
Nutrition Screening Tool	10
Improving Diet Patient Handout	9

Table 2. Pathways ERAS "Page Views" Nov. 2016 through April 30, 2017

GP Survey at June 22, 2017 Fraser Northwest Division Annual General Meeting

At the June 2017 FNW AGM, table displays of 10 FNW projects were set up where member GPs could learn from and interact with physicians and staff from the respective project teams. At the ERAS table, 14 questionnaires were collected, yielding the following data:

Question	Yes	No
• Were you aware of the benefits of Enhanced Recovery After Surgery protocols in improving patients' post-operative outcomes? *(e.g. smoking cessation, nutrition, anemia management & exercise)*	9	5
• Have you ever called a patient in to discuss any of these protocols prior to their elective surgery?	2	12
• Were you aware that FNW is collaborating with RCH Anaesthesia, Gastroenterology & General Surgery to encourage GPs to implement these protocols with patients prior to elective colorectal surgery?	7	7

Table 3. GP Feedback on ERAS Project from Jun 22, 2017 FNW Annual General Meeting

Recognizing that this is another small data set (n=14), the feedback – combined with the other available data – gives rise to some interesting hypotheses:

- GPs likely understand intuitively that the "upstream" ERAS protocols enhance a patient's post-operative recovery; however, it is also likely that few think about the role they as a family practitioner can play in preparing a patient for surgery. This role has traditionally been fulfilled by the surgical site (surgeon, anaesthesiologist, Pre-Admission Clinic) and has therefore been "out of sight/out of mind" for GPs if or until a patient visits the GP post-surgery.
- Raising awareness – always an issue given the myriad things GPs are asked to attend to – is a special challenge with the ERAS pilot project, given that most GPs will have only one or two, or even no patients undergoing colorectal surgery over the course of a year (again, out of sight, out of mind).

Key learning #2: *Fraser Health's planned expansion of ERAS to all elective surgeries will be an opportunity to increase awareness and uptake of patient pre-surgery optimization by GPs. More GPs will have more patients scheduled for surgery, creating more opportunities for pre-optimization, data collection, and confirmation of enhanced post-operative recovery.*

An additional, qualitative question was asked on the questionnaire administered at the FNW Annual General Meeting: *What might support you to initiate these pre-operative protocols with your patients?* Table 4 summarizes the comments and the project team's responses.

Comment	Project Team Response
Good idea!	Noted
Searching in Pathways and information today (at the ERAS table) was a great day to learn all this info	More awareness-raising and communication is needed
Awareness	As above
Being informed of surgery date as soon as it has been decided	Agreed this would be ideal, however doing so would require a significant process change at RCH – to be recommended as work proceeds at Fraser Health level on expanding ERAS to all elective surgeries
Feedback on how program is working/helping	Agreed – analysis of post-operative trend lines was planned as part of the project but was found to be impossible due to lack of data (only 7 patients underwent upstream pre-optimization; however, trend line analysis would be part of expansion of ERAS protocols to all elective surgery in Fraser Health
I discuss at their visit when they have been told (of upcoming surgery) or I need to do a pre-op physical	It may be more effective if the surgical site advises patients to make a pre-operative appointment with their GP
Getting to know how to access these services	An awareness issue that should begin to resolve as Fraser Health rolls out ERAS to additional surgery types
(I am) awaiting notification patients' surgery to try protocols	This physician is aware of the protocols and interested in implementing them when he has a patient scheduled for colorectal surgery
More time	Uncertain what this comment means

Table 4. GP Comments from Questionnaire at June 2017 FNW Annual General Meeting

Finally, in post-project interviews, the five Fraser Northwest GPs who called their patients in for a consult prior to surgery said they appreciated the faxed notification letter and how it clearly laid out the four protocols on which to focus.

Input Points and Vulnerabilities

The project process design shown in Fig. 2 (p.6), included several interdependent input points, each with potential vulnerabilities. Incomplete implementation at one point would affect uptake at the subsequent points (see Fig. 3).

Input Point	Vulnerabilities	Comments
Notification letter initiated by Specialist?	Not every surgeon and GI specialist is necessarily issuing the letter, or issuing it consistently	Follow-up indicates the RCH General Surgeons have adopted the notification letter, as well as some of the GIs. A better solution might be an automatic, RCH-generated notification, once ERAS is rolled out for all surgeries
Correct GP identified on chart? Correct contact information?	A patient's chart can have inaccurate or out of date information or a patient may not have a GP	Correct information, as well as patient attachment to a GP, is part of ongoing continuous improvement at RCH
GP office received notification?	An incorrect fax number or interrupted transmission may mean a GP office did not receive the notification letter	Keep GP office information up to date on Pathways
GP knows how and where to access ERAS information?	The notification letter is clear about how and where to access ERAS information on Pathways, but confusion is still possible	This should improve with increased spread of ERAS protocols to more surgeries
GP office called patient in for pre-surgical consult?	The GP may not have called the patient for pre-optimization	Uptake should improve with increased spread, and teaching information to younger GPs and new grads
Patient seen within 3-4 weeks of surgery?	Notification from the surgeon or GI specialist may have come too late for a patient to be seen within 3-4 weeks	Encourage Specialists to communicate the likelihood of patient needing surgery in both dictation and letter
Patient implemented recommended protocols?	If seen by his or her GP, the patient may not have implemented the protocols	Reiteration from all sources (GP, specialist, PAC) is needed
Patient questionnaire administered in PAC?	If questionnaire not administered, an opportunity to collect data is lost	Work with PAC nurses on buy-in, demonstrate appreciation of efforts and share results

Fig. 3: Input Points and Vulnerabilities to FNW ERAS Project

Key learning #3: *The project's design had several points of vulnerability. In addition to notifying and asking GPs to call a patient in for a pre-surgery optimization, it may increase effectiveness if patients too are advised to book an appointment with their GP.*

Key learning #4: *The term "ERAS" is widely accepted as referring to protocols implemented at the surgical site. For upstream protocols implemented by Family Practitioners, a different term may be more meaningful (e.g. "optimization" or "pre-habilitation"). GP input would be needed to find the best terminology.*

Key learning #5: *Widespread adoption and implementation of upstream ERAS protocols (or pre-habilitation) will require more efforts to familiarize GPs with the vital role they can play, as the GP community is accustomed to the surgical site preparing patients for surgery. Younger GPs and new graduates may be a particularly receptive audience as they can integrate pre-habilitation as part of their customary practice from the outset.*

Key learning #6: *While some General Surgeons and Gastroenterologists fully embraced the process of notifying GPs of patients' upcoming colorectal surgery, others did not. Involving GPs in pre-operative care represents a shift in thinking for Specialists, and may require time to become common practice. Even so, relying on Specialists to notify GPs is likely to continue yielding mixed results. Consistency may only be possible through an automated notification process through Fraser Health.*

Year Two Progress Report

The chart on the next two pages summarizes progress made over the course of the project toward achieving the Year Two outcome measures established as part of the evaluation framework.

Outcome Measure	Progress Toward Achievement	Next Steps/Recommendations

FNW GPs are aware of upstream ERAS protocols for patients undergoing colorectal surgery and know how to access resources	• Awareness is incomplete (i.e. varies from physician to physician); indicators include:
	• Pathways Page Views from Nov 2016 (project launch) through April 30, 2017:
	  • ERAS Guidelines (ERAS home page): 198
	  • Anemia Management Algorithm: 12
	  • IV Iron Order Sheet: 75
	  • Exercise/Fitness Patient Handout: 6
	  • Nutrition Screening Tool: 10
	  • Improving Diet Patient Handout: 9
	• 7 of 14 GP respondents at FNW AGM were aware of the Division's ERAS initiative
		Recommend that Fraser Health and Divisions co-develop a communication strategy to inform GPs across the health authority if the decision is made to include upstream ERAS protocols for all elective surgery

RCH General Surgeons and Gastroenterologists are routinely notifying GPs of patients' upcoming colorectal surgery	• The baseline of notification prior to the project was zero • The project team did not set a specific target for Specialist uptake of the notification process as it was unknown how responsive they would be • Liaison with Specialists confirms that some General Surgeons and Gastroenterologists are notifying GPs consistently, others are not	• Notification process is continuing until supplanted by a different process designed as part of broader ERAS rollout across Fraser Health • Assess whether it is more effective and efficient to ask patients to take the initiative to make an appointment with their GP instead of Surgeons/ Gastroenterologists notifying GPs

Outcome Measure	Progress Toward Achievement	Next Steps/Recommendations
GPs are implementing one or more of the ERAS protocols in at least 25% of cases	6 of 14 colorectal surgery patients of FNW GPs who had questionnaires administered at the RCH Pre-Admission Clinic discussed some form of upstream ERAS protocol with their GP – a 43% rate of uptake; however, the sample size is too small to be valid	PAC has resumed administering the questionnaire as of June 1, 2017. Dr. Richard Merchant will collect and track results.
Patients are seeing their GPs re: ERAS protocols at least 3-4 weeks prior to surgery		Results to be monitored as above
GPs are accessing IV iron therapy for colorectal surgery patients		As above
Trend lines for post-op colorectal surgery outcomes are beginning to show improvement	Neither sufficient data nor time to do a trend line analysis	
Providers and patients are satisfied with the ERAS protocols	Sample size is too small to assess	Design method for assessing patient and provider satisfaction if upstream ERAS protocols are expanded to include all elective surgery
Benefits and key learning from the project have spread to other Divisions and Health Authorities	Spread is underway with submission of this report and sharing of results with Shared Care, Specialist Services, and other Divisions	

4.0 So What? Now What?

Project Team Conclusions and Recommendations

So, what has this project accomplished? And what happens now? The FNW ERAS project team concludes the following:

- The project achieved all its Year One desired outcomes; however, assessment of Year Two outcomes was limited by the small number of patients of Fraser Northwest Division GPs who underwent colorectal surgery at RCH during the project period. This was the main constraint on generating valid data on post-surgery outcomes. The sample size was further limited by vulnerabilities in the process (i.e. notification to GP from surgeons and/or gastroenterologists of

a patient's upcoming surgery and implementation of the PAC questionnaire was not 100%;) however, these factors were subordinate to the main issue of a small sample size.

- The effectiveness of the ERAS protocols and the role of GPs in pre-surgical optimization has been clinically proven; thus, GPs should continue to be involved in committees and programs working to implement these protocols. GP voices need to be heard.

- Additional work is needed to familiarize GPs with their role in pre-optimization. Younger GPs and new graduates are a key audience as they can integrate this role into their practices from the outset.

- Communication from specialist to patient, specialist to GP, and GP to patient are all key points of connection in the process, as is the case with many projects and new protocols of care. The more buy-in and redundancy that can be built in (e.g. letter to GP, handout to patient, re-iteration of message) the better the chances of success in improving patients' post-operative outcomes. The importance of significant communication efforts cannot be overstated.

- There is a need for a more consistent GP notification process and for better tracking tools for optimization programs to generate valid data.

- There is a need to involve GPs beyond the Fraser Northwest area as an unexpectedly large proportion of RCH surgical patients are not from the immediate area. In the long-term it would be unfair to target only FNW patients as other patients arriving 'poorly prepared' would be disadvantaged.

- The availability of other iron infusion products - (this is on the horizon) – will facilitate access to infusion services as the therapy will be a single dose treatment.

- The project has generated valuable learnings and resources[2] that are already being adapted in other areas. Several of the RCH General Surgeons and Gastroenterologists are continuing to notify GPs of a patient's upcoming colorectal surgery. Momentum has been established to build upon the foundation the project has established: specifically, work is continuing at both the Fraser Health Authority and the Specialist Services Committee level to augment and expand the upstream protocols for many more surgical procedures in many more areas.

[2] The resources posted on Pathways, as described on page 4.

APPENDIX: Fraser Northwest Division ERAS Logic Model –SEPT 19, 2016

INPUTS	OUTPUTS		OUTCOMES	
	Activities	Participation	Year One – Development and Buy-in (Oct 2015-Sept 2016)	Year Two – Launch, PDSA and Evaluation (Oct 2016-Sept 2017)
ERAS Working Group FNW Shared Care Steering Committee FNW Board Shared Care/SSC Funding FNW GPs FNW Staff RCH Anaesthesia Dept RCH Surgery Dept RCH Gastroenterology Dept Pre Admission Clinic Staff MOAs Fraser Health Authority Data collection tools Literature	Host a member engagement event to explain ERAS to GPs and obtain input on process design and supports needed Create a list of GPs interested in piloting the project Develop GP & patient information for Pathways Test materials with GPs in a focus group Hold regular working group meetings to advance project Meet with Pre Admission Clinic staff, Surgeons and Gastroenterologists to co-develop process Create process map Develop evaluation framework	Area GPs, Anaesthesiologists, Surgeons and Gastroenterologists and Ortho SPs Pre Admission Clinic Staff Fraser Health MOAs Patients FNW Shared Care Committee and Board Provincial Shared Care Specialist Services Committee	GPs have agreed to pilot the project The project team has held regular meetings to advance the project GP and patient ERAS resources have been developed, tested and posted to Pathways A process is in place for General Surgeons and/or Gastroenterologists to notify patients' GPs of upcoming colorectal surgery GPs have access to expedited IV iron therapy for colorectal surgery patients A process is in place to track ERAS protocol implementation at the RCH Pre-Admission Clinic The appropriate billing code has been determined for a GP consultation re: ERAS protocols An evaluation framework has been developed A project roll-out plan is in place	Fraser Northwest GPs are aware of upstream ERAS protocols for patients undergoing colorectal surgery and know how to access resources RCH General Surgeons and Gastroenterologists are routinely notifying GPs of patients' upcoming colorectal surgery GPs are implementing one or more of the ERAS protocols in at least 25% of cases Patients are seeing their GPs re: ERAS protocols at least 3-4 weeks prior to surgery GPs are accessing IV iron therapy for colorectal surgery patients Trend lines for post-op colorectal surgery outcomes are beginning to show improvement Providers and patients are satisfied with the ERAS protocols Benefits and key learning from the project have spread to other Divisions and Health Authorities

ERAS Project Evaluation Framework –SEPTEMBER 19, 2016

Outcome (Year One)	Indicators	Collection Methods	Data Sources	Timing
GPs have agreed to pilot the project	• Sign-ups at October 2015 Member Engagement event	Sign-up sheets at discussion tables	Names and contact info on sign-up sheets	Oct 2015
The project team has held regular meetings to advance the project	• # of project team meetings • Outputs from meetings • Action items addressed	File review	- Meeting notes - To Do lists	Ongoing throughout project
GP and patient ERAS resources have been developed, tested and posted to Pathways	• Key input from GP focus group, Board and Shared Care Committee is reflected in resources • Resources are posted on Pathways	- File review - Pathways content review	- Meeting notes - Pathways	By Oct 2016
A process is in place for General Surgeons and/or GI Specialists to notify patients' GPs of upcoming colorectal surgery	• Agreement from Specialists to implement notification process	- Meeting notes and email trail	- Project team - Fraser Health - Surgery and GI Depts	By Oct 2016
GPs have access to expedited IV iron therapy for colorectal surgery patients	• Commitment from Medical Daycare to expedite appointments • Fax request form developed & posted to Pathways	- Meetings & discussions	- Brenda - Pathways	By Oct 2016
A process is in place to track ERAS protocol implementation at RCH Pre-Admission Clinic	• Questionnaire developed • Process mapped	- Chart audit - File review	- RCH PAC	By Oct 2016
Appropriate billing code has been determined for a GP consultation re: ERAS protocols	• Confirmation of billing code and parameters from Doctors of BC	- File review & email trail	- Files	By Oct 2016
An evaluation framework has been developed	• Draft and final frameworks approved by project team	- Meeting notes and email trail	Project manager	By Sept 2016
A project roll-out plan is in place	• Draft and final plan approved for PDSA	- Meeting notes and email trail	Project manager	By Sept 2016

Outcome (Year Two)	Indicators	Collection Methods	Data Sources	Timing
Fraser Northwest GPs are aware of upstream ERAS protocols for patients undergoing colorectal surgery & are accessing resources	• GPs can describe protocols • Pathways resources are being used	- Surveys - Interviews - Pathways analytics	- GPs - Pathways - MOAs	Dec 2016, Feb 2017 & Apr 2017
RCH General Surgeons and Gastroenterologists are routinely notifying GPs of patients' upcoming colorectal surgery	• Notification of surgery letters going from Surgeons and/or GI Specialists to GIs	- EMR analytics - Chart review	- Columbia GI - RCH Surgery Dept	Nov 2016, Jan 2017, March 2017
GPs are implementing one or more of the ERAS protocols in at least 25% of cases	• ERAS protocols being implemented	- Analysis of PAC Questionnaires - Surveys	- Pre-Admission Clinic - GP offices	Monthly to Apr 2017
Patients are seeing their GPs re: ERAS protocols at least 3-4 weeks prior to surgery	• Date patients report having seen their GPs is > 3 weeks before Pre –Admission Clinic	- Analysis of PAC Questionnaires	- Pre-Admission Clinic	Dec 2016, Feb 2017 & Apr 2017
GPs are accessing IV iron therapy for colorectal surgery patients	• # of expedited requests for IV iron	- File review - Interviews with Medical Daycare staff	- Medical Daycare - GPs	Dec 2016, Feb 2017 & Apr 2017
Providers and patients are satisfied with the ERAS protocols	• Stakeholder and pt. satisfaction	- Surveys - Interviews	- Surgeons, GI Specialists, GPs, Pts, PAC, Medical Daycare	Apr 2017
Benefits and key learning from the project have spread to other Divisions and Health Authorities	• # of GPs from other Divisions receiving notification of pt. surgery from RCH • # of "hits" from other Divisions on Pathways ERAS resources • # of pts of GPs from other Divisions receiving upstream ERAS protocols • # and type of "spread" interactions with other Divisions, Health Authorities and Shared Care	- Data analysis - Interviews	- EMR reports - Chart review - PAC Questionnaires - Pathways analytics	June 2017
Trend lines for post-op colorectal surgery outcomes are beginning to show improvement	• Decline in transfusions required for elective colorectal surgery • Decline in rate of post-op pneumonia • Reduced length of stay post-op • Reduced rate of readmission	- Comparison of NSQIP data from Sept 2016 baseline	- NSQIP data for elective colorectal surgery at RCH	April 2017