

**FORZANI &
MACPHAIL** | **COLON CANCER
SCREENING CENTRE**

**Continuous Quality Improvement Report
January 2012**

Quality of the Patient Experience

Contents

1. Introduction	5
2. CCSC Clinical Services	6
3. Wait Times	6
4. Characteristics of Those Completing the Colonoscopy Experience Questionnaire	7
5. Education, Counselling and Pre-Assessment Appointment	8
6. Contacting the Centre	11
7. The Day of Your Colonoscopy	12
8. Colonoscopy Sedation and Tolerance	14
9. Aftercare	15
10. The Day After Your Colonoscopy	16
11. Global Rating Scale Reporting	17
12. Looking Forward	19

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“Thank you to the donor families ~ thoughtful, generous and beautiful facility.”

“You have a wonderful facility, staffed with great people. Continue the good work.”

“I am so impressed with the facility. It is wonderful that we have this available to us in Calgary – This model should be copied elsewhere.”



1. Introduction

The doctors, nurses and administrative staff of the Forzani & MacPhail Colon Cancer Screening Centre (CCSC) are dedicated to providing high quality colon cancer screening services. A comprehensive continuous quality improvement (CQI) program is used to ensure that the services provided at the CCSC are of the highest quality and that clients have the best possible experience.

The CCSC's Quality Assurance Committee uses the UK Endoscopy Global Rating Scale (globalratingscale.com) as a framework to guide its quality improvement activities.

Several methods are used to measure and improve the quality of the services provided at the CCSC:

1. Biannual reporting to Canadian Global Rating Scale database
2. Client experience questionnaires
3. Measurement of colonoscopy process and outcomes quality indicators
4. Physician performance benchmarking and report cards
5. Adverse event monitoring and reporting
6. Tracking of wait times

The Colonoscopy Experience Questionnaire is a comprehensive survey that includes items assessing the quality of care provided at various steps of the colonoscopy experience, including the pre-assessment visit, the colonoscopy and post-colonoscopy care. Questionnaires were given to 1,000 individuals undergoing colonoscopy in 2011. The questionnaire was given out at discharge from the colonoscopy unit along with a business reply envelope. Clients completed the questionnaire at home and were asked not to provide any identifiable information; therefore, the results of individual questionnaires are anonymous. The Colonoscopy Experience Questionnaire allows clients to write additional comments about their experience to expand upon the areas they were questioned about or to address areas that were not covered by the questionnaire.

For the first time, the results of the questionnaires were supplemented by phone interviews with 16 clients. Those who raised specific complaints or concerns in the questionnaire were targeted for the interviews.

This document reports the results of the most recent Colonoscopy Experience Questionnaire and interviews. Where relevant, information from other CQI activities is provided to further explore or explain issues raised by clients' responses in the questionnaire.

CCSC Quality Assurance Committee:

Alaa Rostom, Medical Director

Darlene Pontifex, Clinical Operations Manager

Robert Hilsden, Director of Research

Catherine Dubé, Medical Lead, Alberta Colorectal Cancer Screening Program

2. CCSC Clinical Services

The Colon Cancer Screening Centre provides colon cancer screening-related colonoscopies to generally healthy, asymptomatic individuals age 74 or younger who meet one of the following criteria:

- Average risk for colorectal cancer, age 50 – 74.
- Family history of colorectal cancer.
- Personal history of colorectal cancer or polyps.
- Positive fecal occult blood test done for colorectal cancer screening.

The total number of procedures performed at the CCSC was 9,386 in 2010 and 11,317 in 2011.

3. Wait Times

The CCSC receives a large number of referrals each day. In 2011, the CCSC received 22,519 eligible referrals. The management of new referrals is the responsibility of a group of trained nurses and clerks who triage referrals and schedule appointments. Referrals are assigned a priority based on the presence of risk factors for colorectal cancer. Four priority categories are used: (1) urgent priority – positive fecal occult blood test, (2) urgent – personal history of colorectal cancer or polyps or strong family history of colorectal cancer, (3) other family history of colorectal cancer that does not meet criteria for urgent category and (4) routine – no risk factors for colorectal cancer. Available appointments are preferentially allocated to the three increased risk categories. Any remaining appointments are then offered to routine referrals.

Wait times for increased risk referrals have dropped dramatically over the past four years, whereas wait times for routine referrals remain long and are increasing. Currently, referrals triaged as urgent priority are usually phoned on the day the referral is received and offered a pre-assessment appointment the following day. Referrals triaged as moderate or urgent are scheduled to be seen within four weeks. As of January 2012, routine referrals received in the second half of 2009 were being booked into available colonoscopy spots.

Due to the long wait time for those at average risk of colorectal cancer, the CCSC recommends to referring physicians that these individuals complete an annual fecal occult blood test. In 2011, the Foothills Hospital Diagnostic Imaging Department began to provide CT colonography (virtual colonoscopy) for colorectal cancer screening. This service is provided in partnership with the CCSC and is only provided to individuals on the CCSC wait list who have been triaged as being at average risk. This ensures that available screening services are provided in an evidence-based and equitable manner.

4. Characteristics of Those Completing the Colonoscopy Experience Questionnaire

The following tables show the characteristics of the 476 individuals who completed the survey in 2011 and the 350 individuals who completed the questionnaire in 2010.

Gender	2010	2011
Male	52%	41%
Female	48%	59%

Age	2010	2011
Under 50 years	8%	9%
50 – 65 years	73%	68%
Over 65 years	19%	23%

First Colonoscopy	2010	2011
Yes	78%	78%
No	22%	22%

Family History of CRC	2010	2011
Yes	54%	43%
No	45%	57%

Why did you have this colonoscopy?	2010	2011
Routine exam (screening)	n/a	48%
Because I have a family history of colorectal cancer or polyps	n/a	30%
Because I had polyps or colorectal cancer in the past (surveillance)	n/a	6%
Because I had a positive fecal occult blood test (diagnostic)	n/a	4%
For another reason	n/a	10%
No response	n/a	2%

n/a: not asked

5. Education, Counselling and Pre-Assessment Appointment

All individuals undergoing colonoscopy at the Colon Cancer Screening Centre first receive comprehensive education and counselling about colon cancer, including their risk for colon cancer and options for screening. This is provided in various formats, including printed material, CCSC's website (colonscreeningcentre.ca), group education sessions and individual counselling by a nurse or doctor.

All individuals undergoing colonoscopy at the CCSC also complete a medical pre-assessment where their eligibility and fitness for colon cancer screening and colonoscopy is determined. This is done either over the phone (3%) or in person (97%).

The following results focus on the client experience with the education, counselling and pre-assessment services provided at the CCSC.

Education Pamphlet

The first contact that many clients have with the CCSC is when they are notified of their pre-assessment appointment. When they are notified by mail, an information brochure is sent that provides detailed information about colon cancer and screening options. For those who do not receive this brochure by mail, it is made available to them at their pre-assessment visit.

Did you receive any information about colon cancer and/or colon cancer screening from the Colon Cancer Screening Centre?	2010	2011
Yes, I received a pamphlet by mail prior to my appointment	50%	61%
Yes, I received a pamphlet at the time of my appointment	36%	29%
Yes, I received a pamphlet by mail and at my appointment	7%	4%
No	6%	5%
Don't remember	0.5%	1%

If you received a pamphlet or booklet, did it explain about colon cancer and your risk of colon cancer in a clear manner?			
	Yes	98%	99%
	No	2%	1%

If you received a pamphlet or booklet, did it explain about the different options for colon cancer screening in a clear manner?			
	Yes	97%	98%
	No	3%	2%

If you received a pamphlet or booklet, how useful did you find this material?			
	Very Useful	63%	68%
	Useful	37%	32%
	Not useful	0%	0%

Reception Staff and Waiting Area

Were you treated courteously and with respect by the reception staff?	2010	2011
Yes	100%	99%
No	0%	1%

Did the reception staff act in a professional manner?	2010	2011
Yes	n/a	99%
No	n/a	1%

Did you find the waiting area comfortable and pleasant?	2010	2011
Yes	98%	98%
No	2%	2%

“I was very impressed with the front desk staff who must deal with literally hundreds of people per day.”

Group Education Session

To provide consistent education in a efficient manner, the CCSC holds group education sessions. These large group sessions are held in the Pentax lecture theatre and are led by a nurse using a powerpoint presentation. The presentation addresses risk factors for colon cancer and screening options, including available screening tests, their strengths and weakness and their risk of complications. In addition, preparing for colonoscopy is reviewed. The following items addressed clients’ experience with the group education session.

Did you participate in a group learning session held in the lecture theatre?	2010	2011
Yes	75%	79%
No	25%	21%

How useful was the group learning session for learning about colon cancer?	2010	2011
Very useful	75%	62%
Useful	24%	33%
Not useful	1%	5%

How useful was the group learning session for learning about colon cancer screening?	2010	2011
Very useful	82%	72%
Useful	17%	26%
Not useful	1%	3%

How useful was the group learning session for learning about colonoscopy?	2010	2011
Very useful	83%	71%
Useful	16%	27%

Nurse/Physician Consultation

Most individuals undergoing colonoscopy at the CCSC undergo an in-person consultation with a nurse or physician. This consultation focuses on the client’s risk of colon cancer and the available screening options appropriate for them. In addition, the client’s medical fitness for undergoing colonoscopy is determined. The following items address clients’ experience with the one on one consultation.

Did you feel that you had enough time with the nurse or doctor?	2010	2011
Yes	98%	98%
No	2%	2%

Did the nurse or doctor indicate what screening tests were appropriate for you based on your risk of colorectal cancer (e.g. fecal occult blood test, colonoscopy)?		
Yes	91%	84%
No	9%	16%

Did the nurse or doctor discuss what colonoscopy involved?		
Yes	93%	94%
No	7%	6%

Based on what you learned at the CCSC or from any of the educational resources, please indicate your agreement with the following statements	Agree or Strongly Agree	
	2010	2011
I had enough information to prepare for my colonoscopy.	97%	98%
I had a good understanding of my risk of developing colon cancer.	94%	91%
I had a good understanding of the screening test options appropriate for me.	96%	96%
I had a good understand of what my colonoscopy would involve.	98%	98%
I had a good understanding of the sedation that would be used for the colonoscopy and of its effect.	93%	91%
I had a good understanding of what to expect during my colonoscopy.	93%	96%
I had a good understanding of the potential risks of my colonoscopy.	n/a	98%

“The process, material and staff was thorough, complete and sensitive to the nature of the procedure.”

“I never felt embarrassed or uncomfortable at any time and was completely informed at every stage of the procedure.”

“The group orientation was done well: if a person paid attention all the answers were there. Individual questions were answered and the group dynamic added to ease the trepidation.”

6. Contacting the Centre

Inadequate clerical staffing has been a challenge for many aspects of CCSC operations. Phone communications is an area that is readily apparent to clients and has generated a number of complaints. The CCSC has implemented a number of strategies to improve communications, including hiring additional clerical staff, adding phone numbers for specific services and the use of automated call answering and recorded menu options. Questions around ease of phone communication with the CCSC were added to the 2011 Patient Satisfaction Questionnaire.

Did you phone the Colon Cancer Screening Centre for any reason?		2011
	Yes	34%
	No	66%
What was the purpose of the phone call?		
	To confirm an appointment	17%
	To change an appointment	40%
	To get directions to the Colon Cancer Screening Center	4%
	To get further information about the bowel preparation	21%
	To get further information about the colonoscopy	1%
	To seek help with problems regarding the bowel preparation	3%
	Other	13%
If you phoned the Colon Cancer Screening Centre about a question or inquiry, did you have difficulty reaching a staff member?		
	Yes	25%
	No	75%
If you phoned the Colon Cancer Screening Centre about a question or inquiry, was it answered to you satisfaction?		
	Yes	94%
	No	6%

7. The Day of Your Colonoscopy

On the day of their colonoscopy, all clients first check in with the reception desk. They then are taken into the recovery room by a nurse where they are prepared for their colonoscopy. They are next taken to the endoscopy room for the procedure. Once the procedure is complete, they go back to the recovery room where they stay until they are ready for discharge. The following items address clients' experience on the day of colonoscopy.

Question	2010	2011
Were you treated courteously and with respect by the reception staff?		
Yes	99%	100%
No	1%	0%
Was your journey through the unit well co-ordinated?		
Yes	99%	100%
No	1%	0%
Did you feel adequately informed about what was happening to you and when?		
Yes	99%	99%
No	1%	1%
Was there an excessive delay in waiting for your test?		
Yes	6%	12%
No	96%	88%

“Nurses were just extraordinary – friendly, courteous, professional – gave the feeling that they could be relied upon to get me through the process.”

“The care and treatment I received from reception, nurses and doctor was outstanding. Keep up the excellent work. It is very much appreciated!”

“The day of my appointment – everything happened in a timely and organized fashion. There nurses were attentive and personable. The doctor was considerate and very thorough.”

“I found the staff, nurses, assistants and doctor were friendly, attentive and professional. If I were to grade them I would give them 100%”

In the Endoscopy Room

Do you feel that you had adequate time in the endoscopy room and that you and the doctor doing the test were not rushed?	2010	2011
Yes	96%	97%
No	4%	3%
Was the doctor doing the test courteous and considerate?		
Yes	99%	99%
No	1%	1%
Were the nurses assisting with the test courteous and considerate?		
Yes	100%	100%
No	0%	0%
Did you feel that your privacy was respected as best it could be?		
Yes	99%	100%
No	1%	0%

“My experience was phenomenal.”

“What an incredible Centre!”

“I was very impressed by everyone’s kindness and caring attitude and I felt in good hands.”

“I can’t think of any way you could improve your service.”

“I thought the entire process was extremely well done. The people that I interacted with were very friendly, informative, compassionate and professional. I really appreciated how I was treated as the whole process was a little scary and stressful.”

“The staff at the Centre are to be commended for their professionalism and excellent patient and bedside skills.”

“Honestly this was my best experience with the medical profession.”

“This was my first colonoscopy. When I arrived I was feeling a little bit anxious (due to the unknown). Instantly, when talking to the staff I felt relaxed and at ease. I found the nurses and doctor very approachable and willing to answer any questions, for this type of procedure. I left with my dignity intact.”

8. Colonoscopy Sedation and Tolerance

The majority of colonoscopies are done with conscious sedation. Usually a combination of a narcotic (fentanyl) and a sedative (midazolam) is used. Some clients choose to undergo colonoscopy without sedation, and this is usually well tolerated. The following items address clients' comfort during colonoscopy.

Do you think you received the right amount of sedation?	2010	2011
Yes	87%	83%
No, I would have tolerated the procedure better if I received more sedation	11%	9%
No, I think I would have tolerated the procedure just as well with less sedation	2%	2%
I had no sedation	n/a	6%

On the scale below, please mark your overall assessment of the level of discomfort you experienced during your colonoscopy.

No discomfort	41%	42%
Mild discomfort	35%	36%
Moderate discomfort	17%	18%
Severe discomfort	7%	4%

On the scale below, please mark if the colonoscopy experience was worse, better or as you had expected.

Worse than expected	10%	7%
As expected	34%	35%
Better than expected	56%	57%

Overall, how acceptable did you find your colonoscopy?

Procedure was acceptable and I would have it again if necessary	84%	86%
Procedure was acceptable, but uncomfortable. I would only have it again if essential	16%	13%
Procedure was totally unacceptable. I would not have the procedure again	0%	1%

"The Colyte prep was worse than the colonoscopy."

"This experience was way better than I thought. More care and less drug than I thought."

"The procedure was a little unpleasant."

"Almost like a morning at a spa especially with the great drugs."

"The Procedure while not totally pleasant was better than anticipated."

9. Aftercare


Prior to discharge, clients are provided with the results of their colonoscopy usually both verbally by the nurse or doctor and as a written report.

Were you given information on what reactions to expect after your procedure?	2010	2011
Yes	96%	96%
No	4%	4%

Have you been told the results of your test?	2010	2011
Yes	98%	95%
No	2%	5%

Were you told if you should have another colonoscopy in the future, and if so, when the colonoscopy should take place?	2010	2011
Yes	93%	90%
No	7%	10%

Did you receive a written copy of your test results?	2010	2011
Yes	n/a	97%
No	n/a	3%



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Colonoscopy for Colon Cancer Screening

Today's Date _____

Results

No polyps

Polyps _____

Other findings _____

Recommendations for Future Colon Cancer Screening

Repeat colonoscopy

- In 10 years * referral from family physician required
- In 5 years * referral from family physician required
- In 3 years * referral from family physician required
- In 1 year * CCSC will arrange
- Timing will depend on microscopic examination of polyps removed today.

Other Recommendations for screening _____

Development of New Bowel Symptoms

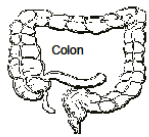
Although colonoscopy is very accurate, it is possible for polyps and even cancers to be missed. Therefore, it is important not to ignore new bowel symptoms (bleeding, change in bowel habits, abdominal pain). You should see your family doctor if you develop these or any other concerning symptoms.

GENERAL RECOMMENDATIONS FOR CANCER PREVENTION

1. Maintain a healthy life-style: eat a healthy diet, don't smoke and exercise regularly.
2. Eat 5 - 10 servings of vegetables and fruits daily
3. Keep dietary fat intake low (Google Canada Food Guide)
4. Eat more fibre-rich foods (25 - 35 grams a day)
5. Limit salt, alcohol and caffeine
6. Limit salt-cured, smoked, and nitrite-preserved foods
7. Stop smoking!
8. Exercise regularly!
9. Maintain a healthy body weight - avoid obesity
10. Consume adequate calcium (1000 mg per day if less than age 50, 1200 mg if over 50) and folate (400 micrograms) each day through food sources or supplements
11. Protect yourself from the sun

A FULL REPORT OF YOUR COLONOSCOPY WILL BE SENT TO YOUR FAMILY DOCTOR
* Any change in recommendations based on pathology review will be communicated to your family doctor

patient_colonoscopy_report_0c1010.docx



"The pictures and reference material given to me post the procedure were an excellent study material for personal follow-up."

"I appreciated receiving the hard copy of the test. This is the first time this has happened in Canada. Having lived overseas, we always received copies of all test, xrays, scans, etc."

10. The Day After Your Colonoscopy

In prior surveys, clients have requested more information on what to expect after their colonoscopy. This year we added three questions to determine how commonly individuals have significant symptoms after their colonoscopy and whether they missed any work due to these symptoms.

Did you experience any problems the day after your colonoscopy		2011
	None	67%
	Abdominal pain or cramps	20%
	Nausea	2%
	Vomiting	0%
	Blood in bowel motions	1%
	Dizziness	2%
	Felt as though you might pass out or faint	<1%
	Other	7%

If you felt pain or cramps, how severe were they?	
	Mild pain only 66%
	Brief episodes of moderate pain 24%
	Sustained periods of moderate pain 6%
	Brief episodes of severe pain 3%
	Sustained periods of severe pain 0%

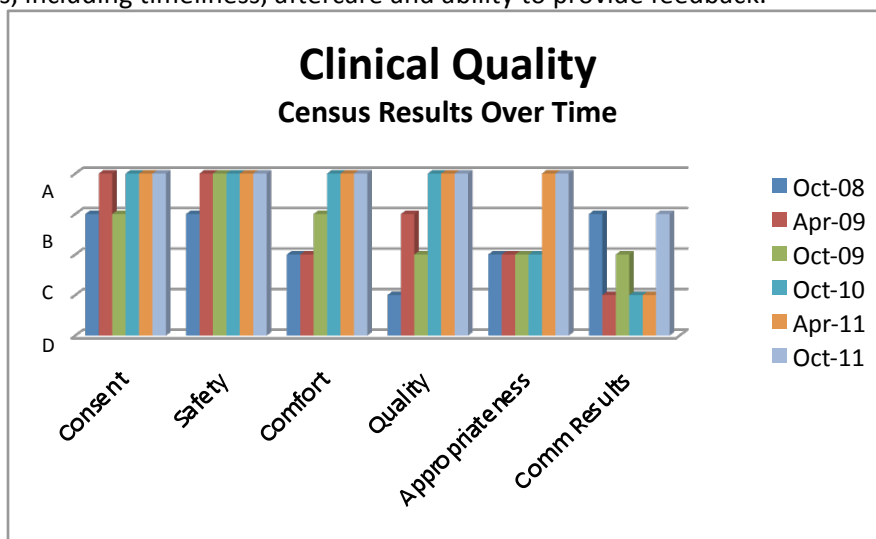
Were you able to return to work the day after your colonoscopy?	
	Yes or not scheduled to work 97%
	No, I took the day off because of how I felt after my colonoscopy 3%

“Cramps and abdominal pain persisted for about 5 days, significant enough to prevent sleep.”

11. Global Rating Scale Reporting

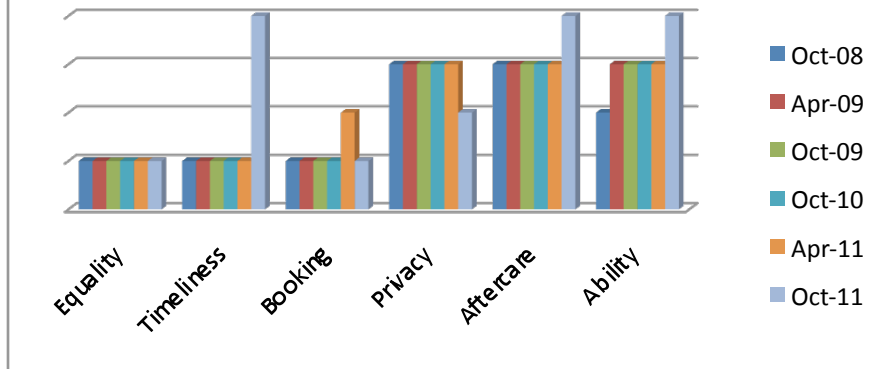
The Global Rating Scale (GRS) divides the patient experience into two dimensions: clinical quality and quality of the patient experience. The clinical quality domain includes six items: appropriateness, information/consent, safety, comfort, quality of the procedure and timely results. The quality of the patient experience also includes six items: equality, timeliness, choice, privacy and dignity, aftercare and ability to provide feedback. For each item, criteria indicate what is required for an endoscopy unit to achieve a rating from D (basic service) to A (excellent service with fully establish quality assurance processes).

The CCSC has reported to the Canadian GRS database six times from October 2008 to October 2011. The CCSC has achieved A level ratings on the items for consent, comfort, safety, quality and appropriateness. In the past, the lowest ratings have been for three items in the quality of the patient experience: equality, timeliness and booking. The CCSC received a low rating for equality because it did not have a demographic/language profile of the local population, nor did it have written information available in languages other than English. The CCSC did not achieve the minimum standard for timeliness in the GRS: "Waits are <8 weeks for urgent procedures and <52 weeks for routines." This was an example of where consistent inter-country definitions are lacking. It is unlikely that in the UK that "routine" refers to average risk screening colonoscopy, as that service is not provided by the NHS. The CCSC's low rating on bookings also likely reflects wording that is specific to the UK. A revised Canadian version of the GRS was introduced in 2011. The CCSC now achieves A level ratings in eight of the twelve domains, including timeliness, aftercare and ability to provide feedback.



Quality of the Patient Experience

Census Results Over Time



12. Looking Forward

The Forzani & MacPhail Colon Cancer Screening Centre incorporates a comprehensive quality monitoring and improvement program as part of its ongoing operations. These data have now been collected for four years and not only guide improvements in clinical operations and care delivery, but also support extensive ongoing research which highlights the CCSC's leadership in the area of quality assurance. This leadership has been recognized locally and nationally and is used as an example for other local and national endoscopy units.

Since the last report, Alberta Health Services has approved phase I of a population-based colorectal cancer screening program. The initial phase involved immediate colonoscopy volume increases across the province, which saw annual volumes double at CCSC from about 10,000 to close to 20,000 procedures per year. This has been welcome news to our management team, and patients, particularly those individuals who remain on long wait lists for screening.

This report summarizes data collected to December 2011. Over the first four years of operations, over 33,000 colonoscopies have been performed. The CCSC clearly has had a significant clinical impact. During the monitoring period approximately, 40% of patients have had a polyp removed, and a cancer was identified in close to one in 250 colonoscopies. The operations at CCSC have resulted in the documented move of approximately 40% of screening related procedures, and nearly all of FOBT positive cases from the acute care hospitals to CCSC. This move has allowed gastroenterologists and surgeons to utilize the spots freed up in the hospital endoscopy units to improve endoscopy access for symptomatic patients. Furthermore, the CCSC management team continues to work with GI central triage to continue to move more patients to CCSC, such as those patients who historically have had their post-polypectomy surveillance at the acute care sites.

Safety at CCSC remains paramount. Serious colonoscopy complications continue to occur at rates which are well below those reported in the literature. Patient questionnaires continue to indicate that patients remain highly satisfied with the CCSC staff, operations, and outcomes. The CCSC has also made significant gains in areas of satisfaction with our individual and group educational presentations. This suggests that the CCSC does a great job from the point of the initial patient pre-assessment to the subsequent colonoscopy and follow-up.

On the operations side, the CCSC continues to be challenged by a high referral volume (100-150/day), and an accumulated waiting list of over 30,000 patients (mostly average risk). The doubling of our procedural volumes significantly enhances our ability to meet the referral and waitlist demands of our zone. The CCSC has made significant gains in wait times for urgent and moderately urgent referrals, but average risk referrals continue to be a challenge. The increased volumes have also challenged the CCSC with contacting and booking over 200 patients per day for pre-assessments and for colonoscopy procedures. Additionally, the CCSC faces a growing number of reminder and results follow up calls. In the coming year our operational challenge will be to meet these demands, while maintaining recognized quality indicators such as providing patients with flexible bookings, and maintaining our excellent patient experience at the centre. Appropriately integrated and innovative information technology solutions such as, integrated patient management, navigation and results systems, automated phone reminder systems, and flexible clerical work roles and schedule times are all being looked at for improved efficiency.

The opening of CCSC has not only resulted in expanded endoscopy capacity, but has allowed recruitment of specialist physicians to the Calgary zone. With the expanded endoscopy capacity offered, by the new provincial screening program, further opportunities are opened up for additional recruitment both for CCSC and for the acute sites.

In summary, these quality data confirm high quality clinical operations at the CCSC from the point of first patient contact. They reflect an excellent quality program at a unique outpatient screening centre. The challenge for the coming year will be for the CCSC to continued streamline the referral management and tracking processes and the patient contact and booking processes, to continue to search for innovative and efficient electronic patient management and scheduling systems, and to demonstrate improved quality measures around patient referral and scheduling.

The CCSC looks forward to close collaboration with the Alberta Colorectal Cancer Screening Program in implementing the Program's screening pathways, outcomes, and quality assurance programs to the betterment of the health of Albertans in our zone and overall in our province

Alaa Rostom, MD FRCPC
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