



# Objectives

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- To provide a general overview of quality improvement and key steps for success
- To provide an example of a quality improvement project using the CPAC Rectal Cancer Project

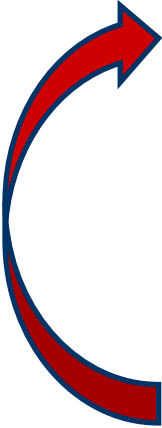


# Quality Improvement

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- Method of continuously examining processes and making them more effective
- 4 main principles
  - Strong focus on customer/client/stakeholder
  - Continuous
  - Team Work
  - Focus on use of data

# Quality Improvement Models

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- Define “best practices”
  - Measure outcomes
  - Identify gaps in care
  - Implement strategies to improve clinical practice



# Key Steps For Success

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- Identify problem or gap in care
- Make a good plan
- Pick a great team
- Patient Engagement
- Sustainability
- Funding
- Flexibility



# Identify Problem

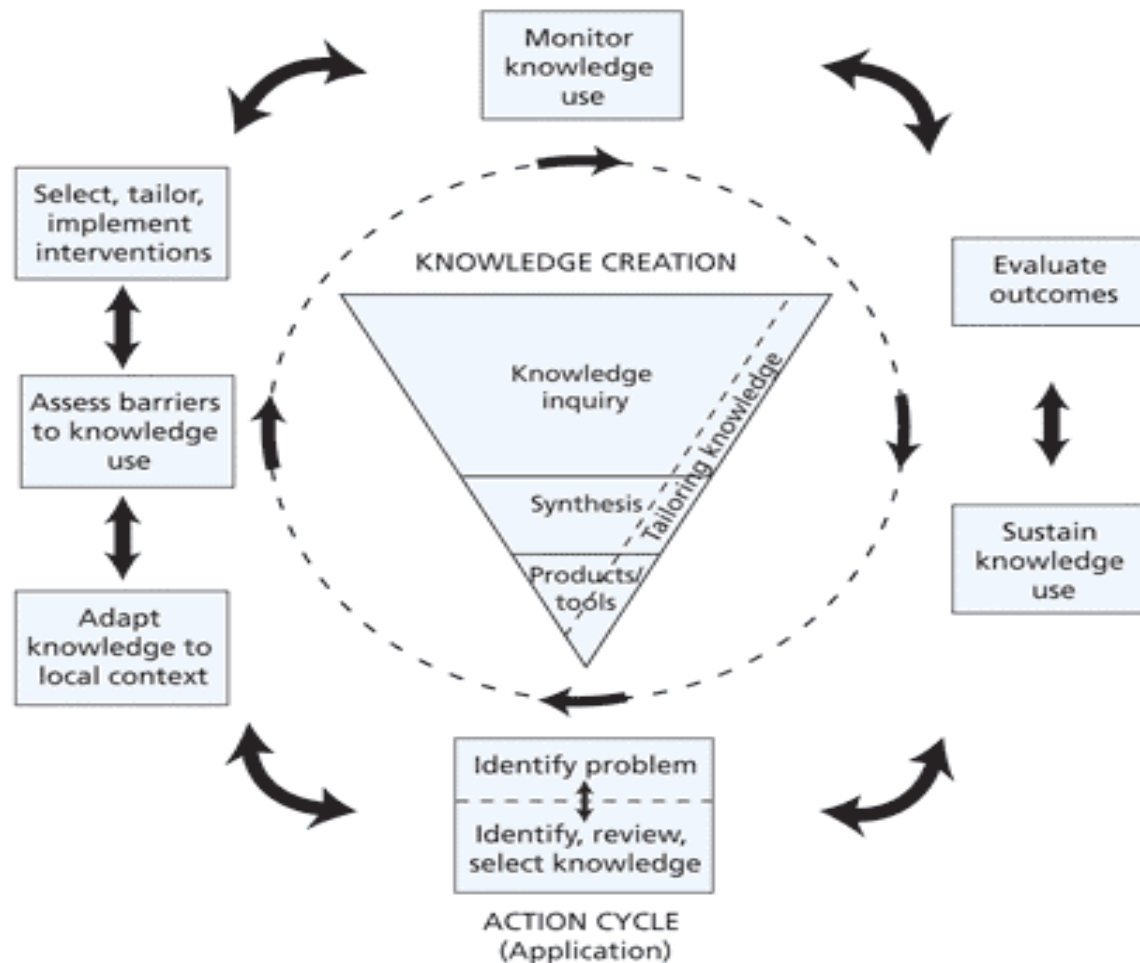
- Needs assessment
  - Is it really a problem?
- Identify key stakeholders
  - Involve the BEGINNING (“integrated KT”)
  - Get “buy in”
  - Bottom up vs top down
  - Multidisciplinary



# Make a Good Plan

- What intervention are you going to implement?
- How will you measure improvement?
- How will you define success?
- What strategies will help improve performance?
- What is the communication plan?
- Will any of this work after completion of the study?
  - How will it be maintained after the study?
  - Is it sustainable?

# Implementation Plan





# Changing Physician Behaviour

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- Changes of 10% are considered SUCCESSFUL!
- Most effective strategies
  - Communities of Practice
  - Opinion Leaders
  - Audit and Feedback



# COMMUNITY OF PRACTICE

- Groups of people who share a concern, a set of problems or a passion for a topic and who deepen their knowledge and expertise in this area by interacting on an ongoing basis
- Different knowledge sets and opinions who work together to set priorities and implement change
- Integrate different perspectives; important for transitions of care
- Promotes team building and team work

# OPINION LEADERS

- Act as role models
- Able to influence other individuals' attitudes and behaviours informally
- Status earned and maintained by individual's technical competence, social accessibility and conformity to system's norms
- Important project team members

# AUDIT AND FEEDBACK

- Any summary of clinical performance over a specified period of time given in a written, electronic or verbal format
- Encourages individuals' to modify their practice based on feedback
- Most effective when baseline measures are low
- Feedback is delivered more intensely
- Best when it is feedback is based on local data



# PATIENT ENGAGEMENT

- Active patient participation in all aspects of research
- HIGH QUALITY CARE does not necessarily translate into an EXCELLENT PATIENT EXPERIENCE
- Patients are the experts on the patient experience
- Opportunity to learn from our patients to help other patients



# Sustainability

- Quality improvements that are not sustained are a waste of time and resources
- Sustainability not well studied in the literature
- Needs to be addressed early in the project and ideally built into the initial study
- Best to assess both during the study and post hoc

# Pre-requisites for Sustainability

- Adequate, ongoing resources
- Clear responsibility and capacity for maintenance
- Intervention will not overburden the system in maintenance requirements
- Intervention fits the implementing culture and variations of the patient population

# Funding

- Necessary

# Flexibility

- Quality improvement projects are not RCTs
- Need to be flexible!
- Need to reassess and change the plan throughout the course of the study based on feedback
- Need to let each centre decide how to implement locally and help to support
- Important for sustainability



# CPAC Rectal Cancer Project



Calgary  
Halifax  
Montreal  
Quebec City  
Toronto  
Vancouver  
Winnipeg



# CPAC Rectal Cancer Project (2014-2017)

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- Quality improvement project
- Funded by Canadian Partnership Against Cancer (CPAC); \$903K
- 8 centres across Canada
- Build multidisciplinary community of practice (COP) to share best practices
  - Reduce unwarranted variation
  - Identify gaps in care
  - Implement strategies to close gaps



# Objectives - CPAC Rectal Cancer Project

To develop a multidisciplinary, pan Canadian Community Of Practice to improve the overall quality of rectal cancer care:

1. Implement quality initiatives:
  - Preoperative staging with MRI
  - Multidisciplinary Cancer Conference (MCC)
  - High quality radiotherapy and surgical care
  - High quality pathologic assessment
2. Select and measure process indicators
3. Identify gaps in care
4. Implement strategies to close existing gaps

# END PRODUCTS

- A multidisciplinary model to improve quality of care for rectal cancer
  - participating centres will be able to take lead to disseminate model in respective provinces
- Development of a well coordinated COP
  - Continue to work together on projects including grant capture and trials



# Variation in quality initiatives across participating hospital sites

	HOSPITAL							
	1	2	3	4	5	6	7	8
Quirke protocol	N	N	?	N	Y	Y	N	N
CAP checklist	?	Y	Y	Y	Y	Y	N	Y
Synoptic OR report	Y	Y	N	Y	N	N	Y	Y
Rectal Cancer MCC	N	N	Y	N	Y	N	N	N
Routine use of MRI	Y	Y	Y	Y	Y	Y	Y	Y
MRI protocol	N	N	N	N	Y	Y	N	N
MRI synoptic report	N	N	N	N	Y	Y	N	N

# Site Leads

Location	Surgery Site Leads	Pathology Site Leads	Radiology Site Leads	Radiation Oncology Site Leads	Medical Oncology Site Leads
Vancouver, BC	<b>Carl Brown</b> St. Paul's Hospital	<b>Doug Filipenko</b> St. Paul's Hospital	<b>Patrick Vos</b> St. Paul's Hospital	<b>John Hay</b> BC Cancer Agency	TBA
Calgary, AB	<b>Tony MacLean</b> Foothills Medical Centre	<b>Vincent Falck</b> Foothills Medical Centre	<b>Deepak Bhayana</b> Foothills Medical Centre	<b>Corinne Doll</b> Tom Baker Cancer Centre	<b>Patricia Tang</b> Foothills Medical Centre
Winnipeg, MB	<b>David Hochman</b> St. Boniface	<b>Jose Gomez</b> St. Boniface	<b>Iain Kirkpatrick</b> St. Boniface	<b>Shahida Ahmed</b> CancerCare Manitoba	TBA
Toronto, ON	<b>Erin Kennedy</b> Mount Sinai Hospital <b>Robin McLeod</b> Cancer Care Ontario	<b>Richard Kirsch</b> Mount Sinai Hospital	<b>Kartik Jhaveri</b> University Health Network <b>Seng Thipphavong</b> University Health Network	<b>Charles Cho</b> Southlake Regional Health Centre	<b>Monika Krzyzanowska</b> Princess Margaret Cancer Centre
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Quebec City, QUE	<b>Sébastien Drolet</b> Hôpital St-François D'Assise	<b>Martine Perigny</b> CHUQ-Hotel-Dieu de Quebec	<b>Stanislas Morin</b> CHUQ-St-Francois d'Assise	<b>Andre-Guy Martin</b> CHUQ-Hotel-Dieu de Quebec	TBA
Halifax, NS	<b>Lara Williams</b> Queen Elizabeth II Health Sciences Centre	<b>Heidi Sapp</b> Queen Elizabeth II Health Sciences Centre	<b>Sharon Clarke</b> Queen Elizabeth II Health Sciences Centre	<b>Nikhilesh Patil</b> Nova Scotia Cancer Centre	<b>Bruce Colwell</b> Queen Elizabeth II Health Sciences Centre

Year 1

Year 2

Year 3

### National Workshop

- Consensus on quality initiatives (structures and processes of care)
- Select outcomes to measure
- Identify areas for knowledge translation

### AGREE WITH CONCEPT



### Planning and Implementation Phase

- Finalize structures and processes to be measured
- Identify areas of need for knowledge translation activities at both COP level and institutional level
- Begin implementation of finalized structures and processes
- Conduct knowledge translation activities as recommended by group
- Study website and database development
- Hire coordinators at each centre

### FOCUS ON DETAILS



### Audit and Feedback Phase

- Measure selected outcomes every 3 months and generate a report (total 7 reports)
- Identify gaps and work towards closing gaps
- Continue knowledge translation activities as recommended by the group

### FIX THE PROBLEM





# Selection of Process Indicators

- Review of pre-workshop survey
  - Suggested process indicators were rated scale of 1-5 based on clinical importance
- National Workshop
  - Attended by 35 Site and Project Leads; representation from all 8 centres
- Discussion of each specific item by specialty
  - Pre-meeting survey results
  - Best available evidence
  - Expert opinion
- Final vote to include/exclude each specific item
  - Anonymous; all specialties





# Selection of Process Indicators

- Results of the final vote reviewed by Investigative Team and Project Leads
- Process indicators for which  $\geq 90\%$  of workshop participants voted to include were kept
- Final vote results and final process indicators selected were distributed to meeting participants for final feedback

# Selection of Process Indicators

- 58 process indicators selected
  - Radiology (11)
  - MCC (15)
  - Radiation Oncology (13)
  - Surgery (11)
  - Pathology (8)

# Suggested Tools for Data Capture of Process Indicators

- Selected tools to facilitate data capture of process indicators
- Use existing tools successfully implemented at one or more of participating centres
- Synoptic MRI report (Ontario)
- Synoptic MCC report (Montreal)
- Synoptic OR report (BC)
- Rad Onc Peer review checklist (Ontario)
- College American Pathologists (CAP) check list (US)

# CPAC Process Indicators

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- Each centre to determine the best way to implement quality initiatives locally
- Site leads responsible for a project launch
- Report formats modified as needed
- All process indicators collected from the patient chart
- Research coordinator at each centre to collect process indicators
- Process indicators reported every 3 months to provide audit and feedback to each site



# Project Details

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- Data collection started April 1, 2015
- All primary Stage I to III rectal cancer patients undergoing surgery at a CPAC centre
- Study website with web accessible database
- Audit and feedback every 3 months
  - Report #1 – April to June 2015
  - Report #2 – July to Sept 2015

# Audit and Feedback Results

Indicator	Overall #1	Overall #2	1	2	3	4	5	6	7	8
# recruited, n	73	70	9	6	-	10	2	11	21	11
MRI, %	80	81	44	83	-	100	50	91	91	73
MRI Synoptic Report, %	48	42	0	40	-	80	0	40	26	86
Presentation at MCC, %	40	50	0	0	-	100	50	73	76	0
MCC Report, %	62	89	-	-	-	70	100	88	100	-
Rad Onc Peer Review, %	21	32	0	0	-	33	0	100	0	100

# Audit and Feedback Results

	Overall #1	Overall #2	1	2	3	4	5	6	7	8
# recruited, n	73	70	9	6	-	10	2	11	21	11
Synoptic OR Report	49	39	33	33	-	50	0	18	48	46
Restorative surgery, %	73	51	11	67	-	50	50	46	43	100
Laparoscopic, %	56	39	56	17	-	0	0	91	43	18
Restorative with pre-op stoma marking, %	79	64	0	25	-	80	0	40	100	64
Non-restorative with pre-op stoma marking, %	20	35	50	0	-	80	100	33	8	-
Non-restorative surgery and rationale for APR	50	24	38	50	-	80	0	0	0	-
Length of stay, median	6	7	6	7.5	-	10	8.5	3	4.5	9

# Audit and Feedback Results

	Overall #1	Overall #2	1	2	3	4	5	6	7	8
# recruited, n	73	70	9	6	-	10	2	11	21	11
Synoptic Path Report	79	96	88	100	-	100	100	91	100	100
Quirke method	74	76	38	83	-	78	100	55	100	100
Quality of TME	68	93	75	83	-	89	100	100	100	100
TME Complete	76	71	100	100	-	63	50	27	100	73
CRM Assessed	75	87	75	50	-	100	100	100	75	100
CRM, median (mm)	5	6	4	1	-	6	22	7	10	5
Positive CRM	8	8	33	33	-	0	0	0	0	9
Nodes retrieved, median	18	18	16	20	-	25	13	18	23	15
EMVI Present	10	17	14	0	-	22	50	30	13	10



# KT Initiatives

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- Radiation Oncology
  - Significant variation in contouring
  - Planning KT initiative to review current contouring guidelines and assess variation in contouring across centres
  - Webinar to discuss results, review current guidelines and develop Canadian guideline and develop strategies to minimize variation



# PATIENT ENGAGEMENT

Meaningful involvement of patients caregivers, clinicians and other health care stakeholders throughout the research process

# Mapping the Current & Ideal Rectal Cancer Experience







ORANGE TABLE

**A** LACK OF KNOWLEDGE OF WHAT TO DO IN THE FUTURE  
- NOTHING TO DO ABOUT IT  
- ALL THINGS  
- NO PLAN FOR THE FUTURE  
- NO KNOWLEDGE OF WHAT TO DO

**B** INTEGRATED  
- NEEDS TO BE IN A  
- NEEDS TO BE "SAFE" / RELIABLE  
- ALL PHASES  
- RELIABLE AND INTEGRATION  
- BE ABLE TO DO IT

**C** ...

**D** INTEGRATED ETHICS RE  
- GATE SITE LOCATION  
- INTEGRATION / SUSTAINING  
- INTEGRATION / SUSTAINING  
- INTEGRATION / SUSTAINING

**E** SPANISHED  
- side channel /  
- reliable / reliable  
- side channel /  
- reliable / reliable  
- side channel /  
- reliable / reliable

Prioritizing Experiences

# CPAC Game of Feud

What makes an ideal patient experience?

What information do patients and their families need?

What's important to patients and their families?

How can we improve the patient experience?

For rectal cancer care, what are the top 10 key moments that would create an ideal rectal cancer patient experience?

1

High quality pre and post-operation support (home care nurse, stoma nurse, "buddy").

Establishing a single go-to person for the coordination of care who can answer or redirect questions.

Shorter wait times between diagnosis and treatment plan.

A message of hope when communicating the treatment plan (radiation, chemo, and surgery).

Clear explanation of diagnosis and treatment plan in an empathetic way, with the appropriate amount of information provided.

Transparent and consistent communication by and within the healthcare team of the patient's health record and status between phases.

8

A live or on-call hotline with someone experienced specifically in rectal cancer when concerns arise.

Education on how to be an empowered patient and prepare for physician meetings.



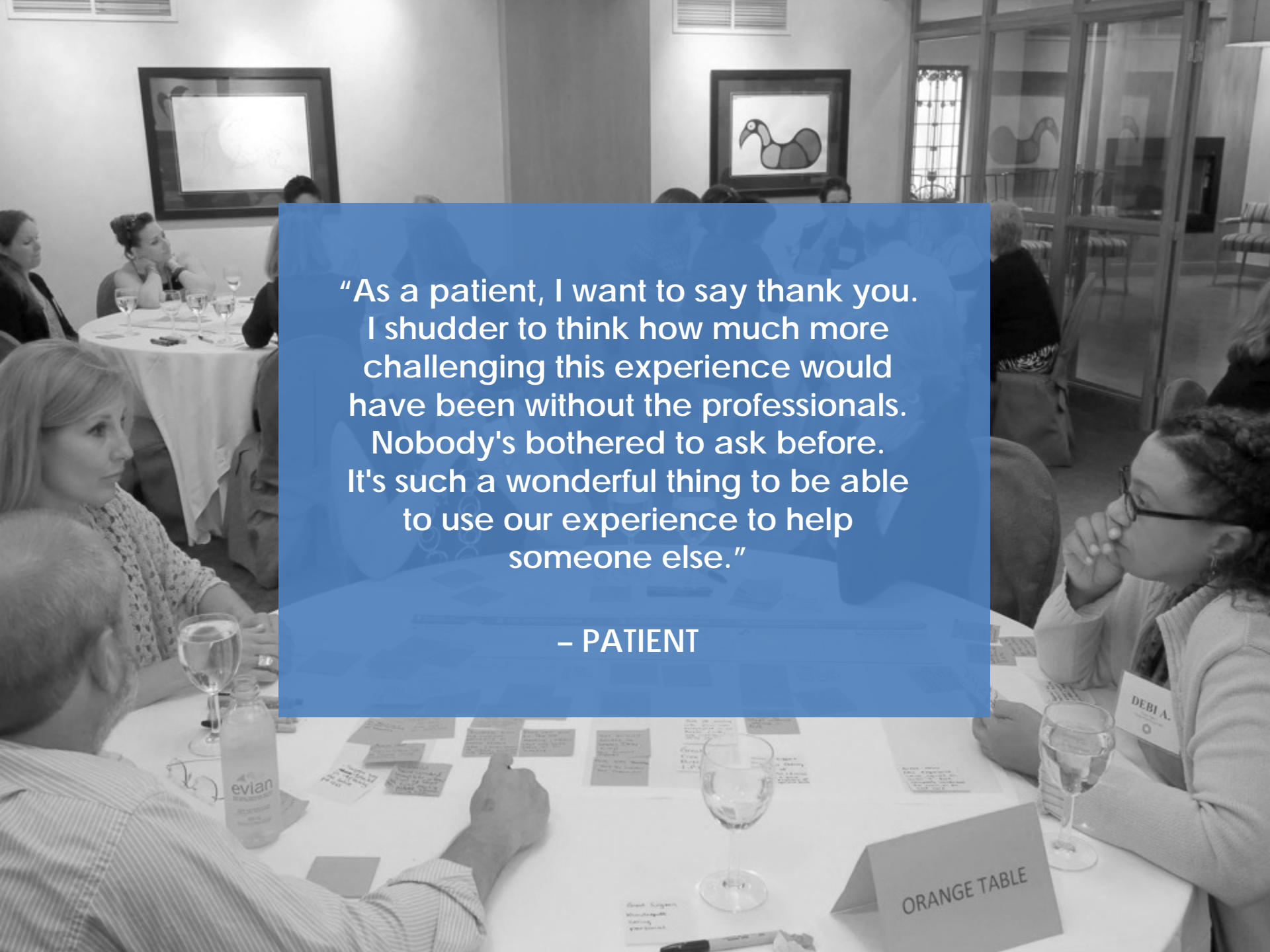
# “TOP TEN” ITEMS FOR THE IDEAL EXPERIENCE

1. Information portal – overview of journey/what to do
2. High quality pre and post op support (stoma nurse)
3. Establishing single “go to person” for coordination of care
4. Shorter wait times between diagnosis and treatment plan
5. A message of hope when communicating treatment plan
6. Clear and empathetic explanation of diagnosis and treatment
7. Transparent and consistent communication of the patient’s health care record and status between phases
8. A live or on-call hot line with someone experienced specifically in rectal cancer when concerns arise
9. Transparency that the health care team is working off a central agreed upon treatment plan
10. Education on how to be an empowered patient and prepare for physician meetings



Feedback Topic	Average Score (/7)
The goals and objectives of the meeting were clear	6.8
The workshop was well organized	6.9
Time allocated for the workshop was appropriate	6.1
Breakout activities were well prepared and encouraged collaboration	6.9
I had adequate opportunity to express my thoughts relative to the topics discussed	6.8
I felt heard and able to contribute	6.9
The meeting stimulated participation and interaction among patients and nurses	6.8
The facilitators were effective in engaging participants	6.8
I had fun and would like to participate again	6.8
I would recommend this type of workshop in the future	6.9

Total Feedback Forms: 28



“As a patient, I want to say thank you. I shudder to think how much more challenging this experience would have been without the professionals. Nobody's bothered to ask before. It's such a wonderful thing to be able to use our experience to help someone else.”

– PATIENT



# Sustainability

- Continued use of core elements and persistent gains in performance after funding is withdrawn
- In person meeting April 2016 to develop plan
  - review report results
  - what to measure
  - how to measure
  - when to measure
- Qualitative interviews with 32 site leads to identify facilitator and barriers to sustainability
- Continued access to database

# Flexibility

- Expanded on patient engagement and sustainability aspects of the study
- Additional patient meeting with Enterostomal Therapy Nurses
- Additional in person Site Lead meeting to discuss sustainability and next steps



# Key Steps to Success

- Project was important to physicians
- Pick a great team!
  - Involve from the BEGINNING (“integrated KT”)
  - Get “buy in”
  - Bottom up vs top down
  - Multidisciplinary
- Funding
- Flexibility
- Communication (newsletters, teleconferences)

# Relevance

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- Multidisciplinary pan Canadian COP
  - participating centres to disseminate model in respective provinces
  - continue to work together on projects including grant capture and trials (*QuickSilver*)
- May be used as model for other disease sites:
  - Breast (RUBY)
- Patient Engagement
- Sustainability

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# THANK YOU

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[www.rcacprojects.ca](http://www.rcacprojects.ca)

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# KT Initiatives

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- Pathology
  - Venous invasion; encourage use of routine elastin staining
  - Provide audit and feedback to each centre about VI detection rates
- Radiology
  - On line MRI Training Set developed by Dr Gina Brown
  - Receive Gina Brown's report to compare your results and access to Gina Brown for questions via an internet chat room
  - Focus on distance of MRF, EMVI, low rectal cancer, anterior peritoneal reflection

# INFRASTRUCTURE AND COMMUNICATION

## CPAC Rectal Cancer Project: Communication Infrastructure

