# ORIGINAL ARTICLE



# Continuity clinics in oncology training programs in Canada

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#### **ABSTRACT**

## Purpose

Continuity clinics (ccs) give trainees an opportunity for longitudinal follow-up of a patient cohort. Trainees can function in a semi-autonomous manner and prepare for independent practice. Data about such clinics in Canada are limited. Our objective was to assess the utility of ccs in Canadian oncology training programs.

#### Methods

Surveys were developed by the authors for

- medical and radiation oncology program directors (PDS) and trainees, to assess the utility of ccs in Canadian oncology training programs.
- oncology patients, to assess their attitudes toward ccs.

The PDS were contacted by e-mail, using the Web site of the Canadian Resident Matching Service; the trainees were contacted by e-mail through the PDS and their administrative assistants. Surveys were distributed electronically using SurveyMonkey. Patients were approached by staff oncologists during follow-up visits at The Ottawa Hospital Cancer Centre.

## Results

Completed surveys were received from 33% of trainees and 63% of PDs contacted; patient surveys were completed by 95 patients.

Participation in a CC was reported by 47% of responding PDS and 37% of responding trainees. Among respondents, 80% rated the CCS as "important" or "very important" to training. The biggest challenge identified by trainees and PDS was lack of clinic space. Most PDS (57%) and trainees (59%) felt that the staff oncologist should review the patient only if the trainee has concerns, but only 37% of

patients shared that view (p = 0.0002). However, many patients expressed the desire to participate in trainee education.

#### **Conclusions**

Continuity clinics are considered beneficial by PDS and trainees. Patients desire more trainee supervision than the trainees themselves and the PDS do, a factor that should be considered when implementing a CC.

#### **KEY WORDS**

Continuity clinics, medical education, residency training, oncology

## 1. INTRODUCTION

Standard resident training involves episodic care of patients, with little long-term feedback about the effects of clinical decisions. Longitudinal ambulatory care rotations—also known as "continuity clinics" (CCS)—allow for longitudinal follow-up by trainees of the same patient cohort and the chance to make multiple clinical decisions at various points in the same patient's care. Furthermore, CCS give trainees the opportunity to function in a semi-autonomous manner, developing patient—physician relationships and an understanding of the complexities of managing chronic disease<sup>1</sup>. Although CCS have been evaluated in family medicine, pediatrics, and internal medicine, there is a paucity of literature about CCS in Canada and specifically in the subspecialty of oncology.

One of the earliest descriptions of a CC in medicine comes from a maternity CC in which senior medical students followed a pregnant patient throughout pregnancy and delivery. The students reported an increased understanding of patient—physician relationships, and they appreciated the opportunity to assume responsibility<sup>2</sup>. In the field of pediatrics, CCS are valued by trainees because they find such clinics exciting and feel that patients receive better

care. In addition, attending physicians feel that such clinics make it easier to evaluate the strengths and weaknesses of trainees<sup>3</sup>. Moreover, a large multi-site survey of pediatric residents involved in a variety of ccs showed that two thirds of residents were satisfied with the experience and believed that it prepared them for their future career<sup>4</sup>.

Continuity clinics have many potential advantages for resident and fellow training. They provide trainees with graded responsibilities in the management of clinical cases and the development of organizational skills and patient—physician relationships. Building on those skills in residency may help to smooth the transition into clinical practice. Initiating and operating a cc has obstacles and challenges, including physician commitment, clinic space, staffing, and patient anxiety. As a result, it is imperative that all key stakeholders involved in such a clinic be assessed before construction begins.

Our objective was to evaluate, by a means of surveys, the attitudes of Canadian oncology trainees, program directors (PDS), and patients toward a CC as part of residency training.

## 2. METHODS

A literature search failed to identify any validated surveys characterizing CCS. To assess the utility of CCS in oncology training programs in Canada, we therefore developed surveys for PDS and trainees. Similarly, to assess patient attitudes towards CCS, we developed surveys for oncology patients (Appendix A). The study was approved by the Research Ethics Board of The Ottawa Hospital. All surveys were developed in English and translated into French by a professional translator at The Ottawa Hospital.

Canadian medical and radiation oncology residency training PDS were identified through the Web site of the Canadian Resident Matching Service (http://www.carms.ca). Surveys were sent by e-mail to all PDS directly and to trainees via the PDS or their administrative assistants. Messages contained a secure link to the survey at the SurveyMonkey Web site (http://www.surveymonkey.com).

Selected patients receiving follow-up at The Ottawa Hospital Cancer Centre were approached by their staff oncologist to participate in the survey. Informed consent was required. To obtain a broad range of viewpoints, patients with the most common cancers (lung, breast, genitourinary, and gastrointestinal) were approached. The staff oncologist also completed a demographics sheet for each patient (Appendix B).

## 2.1 Statistical Analysis

Summary statistics were calculated for each survey question. Several identical questions were asked to PDS, trainees, and patients, and those responses were compared between groups. In pairwise analysis between

the groups, proportions were compared using the chi-square test and the resulting *p* values are reported.

## 3. RESULTS

## 3.1 Survey Response and Patient Demographics

Surveys were returned by 33% of trainees (69 of 207) and by 63% of PDS (17 of 27).

Surveys were completed by 95 patients [59% female; median age: 64 years (range: 34–92 years); 45% with breast cancer; 23% with prostate cancer]. Table I sets out the full demographics of the patients.

# 3.2 Frequency of CCs in Oncology Programs

Of responding PDS, 47% reported having a CC (7 in medical oncology, 1 in radiation oncology), and 60% did not require the staff oncologist to be present in the exam room. Most CCS were held weekly (87%) for a half day (87%). Other variations in CC set-up included monthly and full-day clinics. Of the PDS having CCS, all believed the CC to be valuable and recommended its implementation to other training programs.

Of trainee respondents, 36% reported taking part in a cc (25 of 69). Of those who took part, 80% rated them as "important" or "very important" to their training (20 of 25). Trainees reported feeling comfortable taking part in these clinics at PGY (post-graduate year) levels above 3 (56 of 69).

## 3.3 Challenges and Benefits

The main challenge identified by trainees and PDS was a lack of clinic space (56% vs. 100%). Benefits included the ability to learn how to manage complex

TABLE I Demographics of the responding patients

Variable	Value
Age (years)	
Mean	64
Range	34–92
Sex [n (%)]	
Men	39 (41)
Women	56 (59)
Tumour site $[n (\%)]$	
Breast	43 (45)
Genitourinary	30 (32)
Gastrointestinal	6 (6)
Lung	16 (17)
Disease status $[n (\%)]$	
No evidence of disease	68 (72)
Local recurrence	4 (4)
Distant metastasis	23 (24)

cases, improved time management skills, graded responsibility, and development of long-lasting relationships with patients (Table II).

Of responding PDS and trainees not participating in CCS, the main challenge anticipated by PDS was a lack of clinic space (100%), and by trainees, the potential concern that patients might have about the level of trainee competence (91%). The main anticipated benefit identified by both groups of respondents (Table III) was graded responsibility for trainees (100%).

# 3.4 Level of Supervision

Most PDs and trainees felt that the staff oncologist should review the patient with the trainee only when the trainee raises concerns (57% vs. 59%), but only 37% of patients shared that view (p = 0.0002). Conversely, 63% of patients felt that the staff oncologist should review the patient with the trainee at every visit, either inside (27%) or outside (36%) the exam room (Figure 1).

# 3.5 Patient Participation

Of patient respondents, 48% (46 of 95) responded that they would feel comfortable having a trainee conduct the initial consult, and 66% (63 of 95) stated they

TABLE II Challenges and benefits of continuity clinics identified by participants

Variable	Participant type		
	Program director	Trainee	
Respondents (n)	8	25	
Challenges $[n (\%)]$			
Lack of available space to hold continuity clinic	8 (100)	14 (56)	
Patient concerns with level of trainee competence	0	7 (28)	
Staffing resources (for example, nursing, administrative, clerical)	2 (25)	5 (20)	
Trainee concerns with increased level of responsibility	0	11 (44)	
Benefits $[n (\%)]$			
Graded responsibility for trainee	8 (100)	18 (72)	
Improved organizational skills or time management for trainee	6 (75)	19 (76)	
Improved ability for trainee to manage complex patients	4 (50)	20 (80)	
Development of lasting physician–patient relationships for trainee	6 (75)	17 (68)	

would feel comfortable with a trainee making treatment recommendations. The main concerns about CCs highlighted by patients included the potential for discontinuity of care as residents rotate through the clinic, a lack of experience on the part of the trainee, and a lack of competence for clinical decision-making. Patients stated that potential benefits include the possibility that trainees may have more time to spend with patients and that CCs may decrease overall wait times. Furthermore, many patients indicated a desire to participate in trainee education.

#### 4. DISCUSSION

A properly constructed CC would appear to be the ideal venue for trainees to acquire the skills necessary for a successful transition to independent practice while the safety net of consultant oversight is maintained. With the greater sense of responsibility that comes with independence, trainees might improve their skills as communicators, managers, professionals, and collaborators. Although the principles that support trainee CCs appear to be self-evident, the attitudes of stakeholders and the logistics determine practical implementation. Our study suggests that PDS, trainees, and patients consider CCs to be important and valuable. However, there is a discrepancy with respect to the level of supervision desired.

TABLE III Anticipated challenges and benefits of continuity clinics identified by non-participants

Variable	Participant t	Participant type			
	Program director	Trainee			
Respondents (n)	9	44			
Challenges [n (%)]					
Lack of available space to hold continuity clinic	9 (100)	34 (77)			
Patient concerns with level of trainee competence	4 (44)	40 (91)			
Staffing resources (for example, nursing, administrative, clerical)	7 (78)	23 (52)			
Trainee concerns with increased level of responsibility	3 (33)	18 (41)			
Benefits $[n (\%)]$					
Graded responsibility for trainee	9 (100)	41 (93)			
Improved organizational skills or time management for trainee	9 (100)	36 (82)			
Improved ability for trainee to manage complex patients	4 (44)	39 (89)			
Development of lasting physician–patient relationships for trainee	7 (78)	36 (82)			

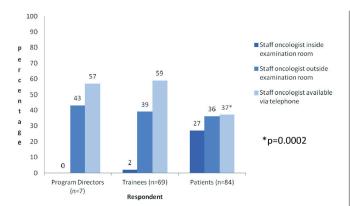


FIGURE 1 Desirable level of supervision in continuity clinic by respondent type.

In the field of oncology, the only published information about CCs comes from a survey conducted by the American Society of Hematology of PDs in hematology and oncology subspecialty programs. Of their PD respondents, 38% preferred a CC that continues for the entire duration of subspecialty training, and 34% suggested a minimum of 6 months' training in the CC<sup>5</sup>.

In Canada, standards for the accreditation of subspecialty programs are set by the Royal College of Physicians and Surgeons of Canada (RCPSC); in the United States, accreditation requirements are set by the Accreditation Council for Graduate Medical Education (ACGME). The ACGME clearly states that fellows in hematology and oncology "must have a continuity ambulatory clinic experience a half day each week". The RCPSC does not mandate such an experience for trainees in medical or radiation oncology.

There is much heterogeneity in the organization and function of ccs currently in practice in North America. Some training programs have specific 1- or 2-month rotations designated for ccs; others have a specific day or several days throughout a several-year period. The level of supervision also varies widely, from staff physicians physically seeing each patient in the examination room, to staff physicians being available by telephone to discuss cases. Because of these variations, ACGME's Internal Medicine Residency Review Committee developed a series of requirements that were implemented in July 2009<sup>7</sup>. The mandated 130 half-day sessions are to be spread out to cover a 30-month training period, and faculty supervisors are expected to develop a longitudinal mentoring relationship with their trainees<sup>8</sup>. However, the specific details of the sessions are not provided.

Although the RCPSC does not mandate that senior trainees in oncology participate in a CC, it does require that training programs provide graduated responsibilities for trainees. Furthermore, in 1996 the RCPSC adopted a framework for medical education called the Canmed framework of essential physician competencies<sup>9</sup>. The framework focuses on seven

roles deemed essential for medical education and practice: medical expert (central role), communicator, collaborator, health advocate, manager, scholar, and professional. Today, those competencies have been incorporated into the Royal College's accreditation standards and objectives of training. A CC offers the ideal forum to promote graduated responsibility and sharpen Canmed competencies.

Although program directors and trainees believe ccs to be important to training, most Canadian oncology training programs have not implemented such clinics for reasons including the challenges associated with clinic space and staffing. Previously identified challenges in pediatrics ccs include low priority, inadequate protected time, and inadequate resources<sup>10</sup>. Another challenge is the reassignment of patients to a new trainee when the previous trainee has completed residency. A study investigating the effect on families of pediatric resident departure in a cc revealed that patients want to be involved in the reassignment process, and despite their disappointment with the transition, most families prefer staying in the cc<sup>11</sup>. Another challenge involves maintaining stability between the patient and the trainee with successive visits. A pediatrics training program study revealed that 40% of trainees saw patients only once and 60% saw them fewer than 3 times<sup>12</sup>.

Our responding patients highlighted their discomfort with the potential lack of experience, knowledge, and competence of trainees as challenges to the CC. That discomfort is likely the primary contributing reason that patients desire more supervision from staff than the PDS and the trainees themselves do. Nevertheless, most patients stated that they would feel comfortable having a trainee conduct the initial consultation, and approximately half stated that they would feel comfortable having treatment recommendations explained by a trainee. Many patients also expressed their desire to contribute to trainee education.

Our study is the first to gather information from multiple stakeholders involved in a cc (PDS, trainees, and patients). Furthermore, it is the first to describe the utility and nature of ccs in Canadian oncology training programs. One limitation of our study is the small sample size. In addition, the sampling of patients at only one cancer centre limits the generalizability of the patient survey results.

#### 5. CONCLUSIONS

Of responding Canadian oncology training programs, fewer than 50% participate in CCs. In programs that currently have CCs, most participants (trainees and PDS) consider them to be beneficial. Programs considering implementing CCs will have to overcome the challenges of lack of clinic space and the desire of patients for more supervision from the staff oncologist than is anticipated by trainees and PDS.

#### 6. CONFLICT OF INTEREST DISCLOSURES

The authors have no financial conflicts to disclose.

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# APPENDIX A - SURVEYS

TABLE A.I	Program	director	survey
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Dear Progra	m Directors.
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We are conducting a survey of radiation oncology and medical oncology programs across Canada in an attempt to characterize the use of and attitudes towards continuity clinics (aka longitudinal clinics) in residency training.

This survey should take less than 5 minutes to complete. Your participation is greatly

	-	initiates to complete. Your	participation is greatly appr	ecialed.			
Radiati	ely, er Croke ion Oncology resident sity of Ottawa			Michael Vickers Medical Oncology fellow University of Ottawa			
1.	For which residency train Radiation Oncology	ning program are you currer Medical Oncology	ntly the program director?				
2.	How long have you been 1–5 Years	the program director of you 6–10 Years	ur current program? 11–15 Years	>15 Years			
3.	How many residents are	currently in your program?					
4.	In your prior residency to	raining (in radiation oncology No	or medical oncology), did	you take part in a co	ntinuity clinic (as a traine	e)?	
5.	If Yes, did you find it us Yes	eful? No	N/A				
6.	Yes If you answered No to the	No ne above question, skip to que above question, continue	nestion #17.				
7.	How long has your cont 1–5 Years	inuity clinic been in effect? 6–10 Years	11–15 Years	>15 Years			
8.	At what PGY level do re PGY-1	esidents take part? PGY-2	PGY-3	PGY-4	PGY-5		
9.	How often are these clin Weekly	ics conducted? Biweekly	Monthly	Other, please	specify:		
10.	What are the clinic hour Half day	s? Full day	Other, please spec	rify:			
11.	<ul><li>a) Staff present in ex</li><li>b) Staff present in ex</li></ul>	t consultation, what is the leval amination room for initial coamination room for initial conference in examination room for initial ify:	onsultation and staff leads donsultation, but resident lea	liscussion of diagno	*		
12.	<ul><li>a) Staff reviews and</li><li>b) Staff reviews ever</li></ul>		nation room) ide examination room)	dents?			

## TABLE A.I Continued

13.		• .	what is the availability of the ce during full clinic hours	e supervising staff?		
	a) b)	Staff present in building (	-			
	c)	Staff available via telepho	• .			
	d)	Other, please specify:	one for consultation only			
	u)	Other, please specify.				
14.	Wh		untered (circle all that apply)	)?		
	a)	Clinic space				
	b)		, nursing availability etc.)			
	c)	Patient concerns with resi	•			
	d)	Resident concerns with le	evel of responsibility			
	e)	Other (please specify):				
15.	Wh	at successes have you exper	ienced (if any)?			
	a)	Graded responsibility for	. 27			
	b)	Improved time/organizati	onal management for residen	ıt		
	c)	Improved management of	f complex patients for resider	nt		
	d)	Development of lasting p	atient-physician relationships	s for resident		
	e)	Other (please specify):				
16.	Woi Yes		nuity clinic to other programs No	thinking of implementing	g one?	
17.	Do	you think a continuity clinic				
		1	2	3	4	5
		Not beneficial		Neutral		Very beneficial
18.	Wh	at challenges would you ant	icipate with implementing ar	nd running a continuity cli	nic?	
	a)	Clinic space				
	b)	Staffing issues (physician	, nursing availability etc.)			
	c)	Patient concerns with resi	dent competence			
	d)	Resident concerns with le	evel of responsibility			
	e)	Other (please specify):				
19.	Wh	at notential benefits would y	ou anticipate in implementir	ng a continuity clinic (if ar	nv)?	
-/.	a)	Graded responsibility	ou univerpasse in impression	is a community commo (ii an	-5/)-	
	b)	Time/organizational mana	agement			
	c)	Management of complex	-			
	d)	-	atient-physician relationships	S		
	e)	Other (please specify):	r J = 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1			
		u 1 3)				
			Thank you for you	ur participation!		

TABLE	A.II	Trainee	survey	V

<b>D</b>	T			
Dear	R e	CIA	en	ıtc.

We are conducting a survey of radiation oncology and medical oncology programs across Canada in an attempt to characterize the use of, and attitudes towards, continuity clinics (aka longitudinal clinics) in residency training.

A resident continuity clinic is clinic in which the resident assumes the role of the primary oncologist and evaluates patients at the time of initial diagnosis, explains and initiates treatments, and is the primary contact if there are patient concerns. The resident works in close

colla	borati	on with a sta	ff oncologist	who oversees	the clinic.	-	-	concerns. The resident works in	1 clos
This	surve	y should take	e less than 5	minutes to com	plete. Your partic	cipation is greatly	y appreciated.		
	erely,								
	fer C				Michael Vic				
Radiation Oncology resident University of Ottawa					cology fellow				
Oniversity of Ottawa			University o	1 Ollawa					
1.	Wha	What is your current level of train		training?					
	PGY	Y-1	PGY-2	PGY-3	PGY-4	PGY-5	PGY-6	PGY-7	
2.				are you currentl	-				
	Rad	liation Oncol	ogy	Medical O	ncology				
3.	In y	our previous	training (i.e.	excluding radi	ation oncology, 1	nedical oncology	y), have you ev	er taken part in a continuity cli	nic?
	Yes		No	N/A					
4.	If Y	es, did you fi	nd it useful?						
	Yes		No	N/A					
5.	At v	At what PGY level would you feel comfortable participating in a continuity clinic?							
	PGY	Y-1	PGY-2	PGY-3	PGY-4	PGY-5			
6.	Dur	-	-		_	-		riate for a continuity clinic?	
	a)	Staff prese	nt in examin	ation room for	initial consultation	on and staff leads	s discussion of	diagnosis/treatment plan	
	b)	Staff prese	nt in examin	ation room for	initial consultation	on, but resident le	eads discussion	of diagnosis/treatment plan	
	c)	Staff not p	resent in exa	mination room	for initial consul	tation			
	d)	Other, plea	se specify: _						
7.	Dur	ing patient fo	ollow-up visi	ts, what level o	f staff supervisio	n do you think is	s appropriate fo	r a continuity clinic?	
	a)	Staff revie	ws and sees	every patient w	ith resident (in ex	xamination room	1)		
	b)	Staff revie	ws every pat	ient with reside	nt (outside exam	ination room)			
	c)	Staff revie	ws patient if	resident raises	concerns				
	d)	Staff does	not review a	ny patients					
	e)	Other, plea	se specify: _						
8.	Dur	ing patient fo	ollow-up visi	ts, what is a rea	sonable level of	availability of th	e supervising s	taff for a continuity clinic?	
	a)		_	pace during full		-		-	
	b)	Staff prese	nt in buildin	g (not in clinic	space)				
	c)	Staff availa	able via telep	hone for consu	ltation only				
	d)	Other, plea	se specify: _						

9.	Doe	s your residency program currently	y have a continuity clinic?	
	Yes	No	,	
	If yo	ou answered No to the above quest	tion, skip to question #14.	
	If yo	ou answered Yes to the above ques	stion, continue with question #10.	
0		to a constant to the constant of		
0.	How	important is having a continuity of 1 2	clinic to your residency training (please circle)?  3  4	5
	N	ot important	Neutral	Very important
1.	Wha	t challenges have you encountered Clinic space	d from your participation in a continuity clinic (circl	e all that apply)?
	b)	Staffing issues (physician, nursir	ng availability etc.)	
	c)	Patient concerns with resident co	ompetence	
	d)	Resident concerns with level of	responsibility	
	e)	Other (please specify):		
2.	Wha	t benefits have you experienced fr	rom your participation in a continuity clinic (circle a	ll that apply)?
	a)	Graded responsibility		
	b)	Time/organizational management	at	
	c)	Management of complex patient	ts	
	d)	Development of lasting patient-p	physician relationships	
	e)	Other (please specify):		
3.			linic to other programs thinking of implementing one	e?
	Yes	No		
4.	Do y	ou think a continuity clinic would	d be beneficial to your training?	
	Yes	No		
	3371	A shallower as the second dust.	with implementing a continuity clinic (circle all tha	t apply)?
5.	Wha	-		
5.	a)	Clinic space		
5.	a) b)	Clinic space Staffing issues (physician, nursing		
5.	<ul><li>a)</li><li>b)</li><li>c)</li></ul>	Clinic space Staffing issues (physician, nursin Patient concerns with resident co	ompetence	
5.	<ul><li>a)</li><li>b)</li><li>c)</li><li>d)</li></ul>	Clinic space Staffing issues (physician, nursin Patient concerns with resident co Resident concerns with level of the	ompetence responsibility	
5.	<ul><li>a)</li><li>b)</li><li>c)</li></ul>	Clinic space Staffing issues (physician, nursin Patient concerns with resident co Resident concerns with level of the	ompetence	
	<ul><li>a)</li><li>b)</li><li>c)</li><li>d)</li><li>e)</li></ul>	Clinic space Staffing issues (physician, nursin Patient concerns with resident concerns with level of a Other (please specify):	ompetence responsibility	
	a) b) c) d) e)	Clinic space Staffing issues (physician, nursin Patient concerns with resident concerns with level of a Other (please specify):  tt potential benefits would you anti-	ompetence responsibility	
	a) b) c) d) e) Wha a)	Clinic space Staffing issues (physician, nursir Patient concerns with resident co Resident concerns with level of t Other (please specify):  t potential benefits would you anti Graded responsibility	ompetence responsibility  ticipate in implementing a continuity clinic (circle all nt	
5.	a) b) c) d) e) Wha a) b)	Clinic space Staffing issues (physician, nursir Patient concerns with resident co Resident concerns with level of t Other (please specify):  t potential benefits would you anti Graded responsibility Time/organizational management	ompetence responsibility  cicipate in implementing a continuity clinic (circle all nt	

#### TABLE A.III Patient survey, medical oncology

Dear Patient,

The Medical Oncology Training Program at The Ottawa Hospital Regional Cancer Centre is a training program that has successfully trained many cancer specialists over the past 30 years.

Residents are physicians who have completed medical school and are doing further specialized training before becoming staff physicians. As part of the continuing process of improvement, we are looking for better ways of teaching our residents increasing levels of responsibility as they approach independent practice. One method we are considering is the implementation of a resident's clinic—in which a resident assumes many functions and responsibilities of a practicing specialist.

As we are at the very beginning of this undertaking, we have yet to make decisions on the specific nature of such a clinic.

As you, the patients, are the primary stakeholders in cancer care, we are looking for your input on how such a clinic should be run. We are looking for your opinion on a range of different issues, such as what you feel to be the appropriate level and nature of interaction between you, the resident, and your oncologist.

This survey will take less than 5 minutes to complete and your answers will be kept anonymous. Your participation in this survey is completely voluntary and your decision to participate, one way or the other, will not affect the nature and quality of your care.

Furthermore, please note that, by participating in this survey you are in no way obliged or expected to take part in a Residents' clinic, should one be created in the future. This survey is purely for information gathering.

Participation in this survey means that consent is implied. All surveys will be kept for 15 years and are subject to be audited by the Ottawa Hospital Research Ethics Board and the Ottawa Hospital Research Institute. For any questions regarding participant rights as a research participant please contact the Chairman of the Ottawa Hospital Research Ethics Board at 313–798–5555 ext. 14902.

Sincerely,

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Training Program

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- 1. What level of resident supervision by a staff medical oncologist would you be content with in a Resident Continuity Clinic (please circle answer)?
  - a) Staff medical oncologist present in examination room.
  - b) Staff medical oncologist present in Resident Continuity Clinic (but not present in examination room)
  - c) Staff medical oncologist not in clinic, but available in cancer centre
  - d) Staff medical oncologist not in cancer centre, but available by telephone
- 2. What level of resident interaction with the staff medical oncologist do you consider appropriate for a Resident Continuity Clinic (please circle answer)?
  - a) Staff medical oncologist reviews and sees every patient with resident (in examination room)
  - b) Staff medical oncologist reviews every patient with resident (outside examination room)
  - c) Staff medical oncologist reviews/sees patient only if resident raises concern about patient's condition/therapy
  - d) Staff medical oncologist does not review/see any patients
- I would feel comfortable having my initial appointment conducted by a senior medical oncology resident (please circle).
   Yes
- 4. I would feel comfortable having my treatment recommendations explained to me by a senior medical oncology resident (please circle).

Yes No

 While receiving treatment, I would feel comfortable having my follow up visits conducted by a senior medical oncology resident (please circle).

Yes No

TABLE	A.III Continued				
6.	While not receiving treatment, I resident (please circle).	would feel comfortable	having my follow-	-up visits condu	acted by a senior medical oncology
	Yes	No			
7.	I would feel comfortable contacti Yes	ng a senior medical on No	cology resident via	telephone to d	iscuss urgent issues (please circle).
8.	I would feel comfortable having a senior medical oncology resident follow-up the results of diagnostic imaging tests (CT scans, MRI, X-rays, etc.) and blood work (please circle).				
	Yes	No			
9.	I have a family physician whom Yes	I see regularly (more the	nan once per year) (	please circle).	
10.	What benefits do you foresee in b	peing a patient in a Res	ident Continuity C	linic (if any)? P	lease specify:
11.	What challenges do you foresee in being a patient in a Resident Continuity Clinic (if any)? Please specify:				? Please specify:
12.	I would feel comfortable being re oncologist (please circle answer)		senior medical onco	ology resident r	ather than my staff medical
	1	2	3	4	5
	Uncomfortable		Neutral		Very comfortable
		Thank you for	your participation	!	

#### TABLE A.IV Patient survey, radiation oncology

#### Dear Patient,

The Radiation Oncology Training Program at The Ottawa Hospital Regional Cancer Centre is a training program that has successfully trained many cancer specialists over the past 30 years.

Residents are physicians who have completed medical school and are doing further specialized training before becoming staff physicians. As part of the continuing process of improvement, we are looking for better ways of teaching our residents increasing levels of responsibility as they approach independent practice. One method we are considering is the implementation of a resident's clinic- in which a resident assumes many functions and responsibilities of a practicing specialist.

As we are at the very beginning of this undertaking, we have yet to make decisions on the specific nature of such a clinic.

As you, the patients, are the primary stakeholders in cancer care, we are looking for your input on how such a clinic should be run. We are looking for your opinion on a range of different issues, such as what you feel to be the appropriate level and nature of interaction between you, the resident, and your oncologist.

This survey will take less than 5 minutes to complete and your answers will be kept anonymous. Your participation in this survey is completely voluntary and your decision to participate, one way or the other, will not affect the nature and quality of your care.

Furthermore, please note that, by participating in this survey you are in no way obliged or expected to take part in a Residents' clinic, should one be created in the future. This survey is purely for information gathering.

Participation in this survey means that consent is implied. All surveys will be kept for 15 years and are subject to be audited by the Ottawa Hospital Research Ethics Board and the Ottawa Hospital Research Institute. For any questions regarding participant rights as a research participant please contact the Chairman of the Ottawa Hospital Research Ethics Board at 313–798–5555 ext. 14902.

Sincerely,

Principal Investigator
Dr. Choan E MD FRCPC
Program Director,
Radiation Oncology Training Program
ce@toh.on.ca

- 1. At what level of training would you consider appropriate for residents to assess and follow patients in a continuity clinic (please circle answer)?
  - a) 1st year radiation oncology resident (1 year after completing medical school)
  - b) 2nd year radiation oncology resident (2 years after graduating from medical school)
  - c) 3rd year radiation oncology resident (3 years after graduating from medical school)
  - d) 4th year radiation oncology resident (4 years after graduating from medical school)
  - e) 5th year radiation oncology resident, final year of training (5 years after graduating from medical school)
- 2. What level of resident supervision by a staff radiation oncologist would you be content with in a Resident Continuity Clinic (please circle answer)?
  - a) Staff radiation oncologist present in examination room
  - b) Staff radiation oncologist present in Resident Continuity Clinic (but not present in examination room)
  - c) Staff radiation oncologist not in clinic, but available in cancer centre
  - d) Staff radiation oncologist not in cancer centre, but available by telephone
- 3. What level of resident interaction with the staff radiation oncologist do you consider appropriate for a Resident Continuity Clinic (please circle answer)?
  - a) Staff radiation oncologist reviews and sees every patient with resident (in examination room)
  - b) Staff radiation oncologist reviews every patient with resident (outside examination room)
  - c) Staff radiation oncologist reviews/sees patient only if resident raises concern about patient's condition/therapy
  - d) Staff radiation oncologist does not review/see any patients
- I would feel comfortable having my initial appointment conducted by a radiation oncology resident (please circle).
   Yes

TABLE	A.iv Continueu								
5.	I would feel comfortable having m Yes	y treatment recommo	endations explained	to me by a radi	ation oncology resident (please circle).				
6. While receiving treatment, I would feel comfortable having my follow up visits conducted by a radiation oncology reside (please circle).									
	Yes	No							
7.	While not receiving treatment, I would feel comfortable having my follow-up visits conducted by a radiation oncology resident (please circle).								
	Yes	No							
8.	I would feel comfortable contactin	-	gy resident via teleph	none to discuss	urgent issues (please circle).				
	Yes	No							
<ol> <li>I would feel comfortable having a radiation oncology resident follow-up the results of diagnostic imaging tests (X-rays, etc.) and blood work (please circle).</li> </ol>									
	Yes	No							
10.	I have a family physician whom I s	see regularly (more t No	han once per year) (p	please circle).					
11.	What benefits do you foresee in being a patient in a Resident Continuity Clinic (if any)? Please specify:								
12.	What challenges do you foresee in being a patient in a Resident Continuity Clinic (if any)? Please specify:								
13.	I would feel comfortable being regularly assessed by a radiation oncology resident rather than my staff radiation oncologist (please circle answer):								
	1	2	3	4	5				
	Uncomfortable		Neutral		Very comfortable				
		Thank you	for your participation	n!					

# **APPENDIX B - PATIENT DEMOGRAPHICS**

Staff physician to complete (please attach to patient's completed survey)

1.	What is the patient's age?					
2.	What is the patient's so Male	ex (please circle)?	Female			
3.	What is the patient's to Primary site	umour type?	Histology			
4.	What was the patient's tumour stage at initial presentation (please circle)?					
	Stage I	Stage II	Stage III	Stage IV		
5.	What is the patient's current disease status (please circle)?  No evaluable disease Local recurrence Distant recurrence (NED)					
6.	. Is the patient currently receiving chemotherapy (please circle)?					
	Yes	No				
7.	Is the patient currently receiving hormonal therapy (please circle)? Yes No					
8.	Is the patient currently receiving radiation therapy (please circle)?					
	Yes	No	<b>*</b>			
9.	What year was the patient originally diagnosed with their cancer?					
	Thank you for your participation!					