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The Live Voice Answer initiative: Supporting oncology patients beyond the clinic

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ABSTRACT

In 2016, a Live Voice Answer symptom management and distress telephone line was developed at a large regional cancer centre in Toronto. Prior to the initiation of Live Voice Answer, the previous telephone practice involved patients leaving a voicemail message for a nurse without a definitive return call time. An interprofessional team, including patient partners, sought to address this drawback and ensure all patients living with cancer have access to a nurse in real time (live voice) when they called the centre. After piloting the feasibility of real time telephone access, the Live Voice Answer initiative expanded beyond the pilot to meet the needs of all patients and families. Overall, the Live Voice Answer initiative has led to marked improvements in patient satisfaction compared to the pre-pilot state and timeliness of telephone access for patients and their families. This article describes the Live Voice Answer initiative, process improvements, and evaluation results.

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INTRODUCTION AND BACKGROUND

Telephone access to specialized oncology nurses is essential in today's current landscape of healthcare, as the care of patients with cancer continues to transition from inpatient arenas to outpatient settings (Hickey & Newton, 2008; Towle, 2009). For many years, patients experiencing cancer symptoms and treatment side effects have had access to supportive care from ambulatory oncology nurses by telephone (Wilson & Hubert, 2002). There are two recognized models for telephone service delivery; a primary nurse model and a centralized telephone triage nursing model (Stacey et al., 2007). A primary nurse model is described in the literature as a model in which an assigned nurse responds to outpatient telephone calls while simultaneously attending to routine in-clinic nursing responsibilities (Stacey et al., 2007). The centralized telephone triage nursing model is characterized by a designated nurse managing all incoming calls for a specified period of time (Stacey et al., 2007).

In 2012, the Odette Cancer Centre moved from a primary nursing model to a disease site-specific team-based nursing model, characterized by grouping nurses into teams based on disease sites. For instance, a group of nurses with expertise in breast cancer was assigned to the Breast disease site, whereas a group of nurses with expertise in gastrointestinal malignancies was assigned to the Gastrointestinal (GI) disease site. As part of the model change, each disease site-specific team was assigned a nursing site telephone line that was a voicemail box. For patients to access the nurses by telephone in this team-based nursing model, patients would call the Odette Cancer Centre main reception telephone number or their specific nursing site line. When a patient called the Odette Cancer Centre main reception, their call would be transferred to another department depending on the reason for the call (e.g., Booking Department for making an appointment). When calling their nursing team directly with a health-related concern, patients would leave a voicemail message on their designated nursing site line. Although every effort was made to return patients' call within the same business day, that existing model did not provide patients with a definitive time for the return call. This type of model has been associated with frustration for patients and families, because of delayed response times and subsequently having to use emergency department services in other settings (Lazo & Kirsch, 2017).

To explore perspectives about telephone access, one focus group interview was held with patients and family members from the Odette Cancer Centre. The participants were asked to share their experiences with leaving a voicemail message on their designated nursing site line, in addition to calling to book and change appointments. The focus group uncovered challenges and distressing moments with the state of telephone practice. For example, a common theme was the voicemail system being described as a 'black hole'. The individuals who called did not feel confident their concerns would be heard and/or addressed after leaving voicemail messages. The results from the focus group interview supported a need for change and provided impetus for developing the Live Voice Answer initiative.

Another key catalyst for the start of Live Voice Answer was the results of audits conducted on the Odette nursing telephone logs. The audit results showed nurses were managing a substantial number of patient phone calls concerning appointments (e.g., booking, confirming, changing times). The audit findings revealed that 45% of messages left on the nursing site lines were

related to appointments with only 20% of the calls being related to symptom management.

The Live Voice Answer initiative addressed these concerns by centralizing the telephone system and providing a clear point of contact with a "live" voice. Patients calling into their nursing site line are now connected directly with someone and can speak with that individual to address their questions regarding their health or appointment. With this new system, the concerns of patients and families are no longer "sitting" in the voicemail "black hole", but rather, they are addressed in real time. This article describes the development of this telephone initiative, its early implementation and evaluation.

PURPOSE

The purpose of this multi-phased quality improvement initiative was to create a seamless, person–centred, telephone experience for patients and families that provided clear points of contact, navigation, and support. The Live Voice Answer initiative was led by a team comprised of Registered Nurses (RNs) and Unit Coordinators (UCs; clerical staff) all dedicated to answering calls in person (i.e., live), responding to distressing concerns from patients and families in a timely manner, and establishing a more efficient and effective resolution of calls. This quality improvement initiative was designed to accomplish the following:

1. improve patient and family satisfaction when calling into the Odette Cancer Centre.
2. decrease the number of appointment-related calls to nursing while increasing the number of health-related calls to nursing that focused on symptom management, education, counseling and/or navigation.
3. ensuring timely access for patients and families to both nursing and clerical staff.

METHOD

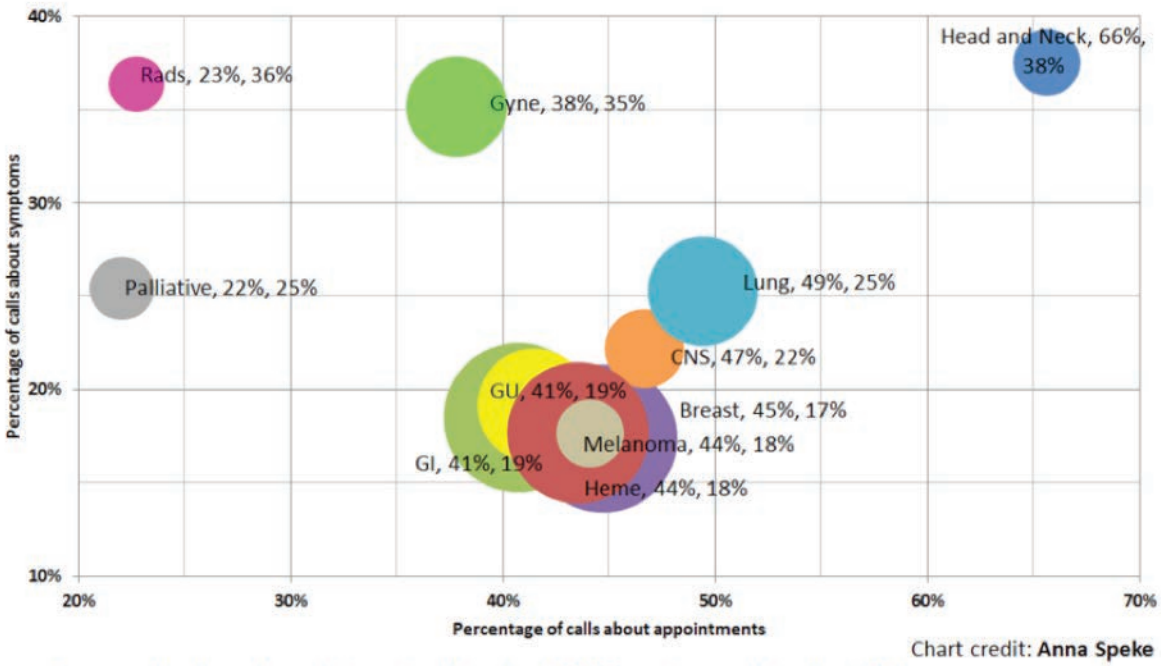
Prior to developing the new system, steps were taken to understand the experiences of patients, family members, and nursing staff regarding telephone practices, by completing logbook audits and holding a focus group interview.

Telephone Log Record Data Collection

To gain a better understanding of the reasons for incoming patient calls directed to the nursing site lines, an audit of Nursing Telephone Logbooks was completed. The Nursing Telephone Log records were collected during a one-week period from September 21, 2015, to September 25, 2015, from each nursing site team. These records are routinely completed by nursing staff when responding to patient calls and the reason for the call is recorded. For the audit, similar reasons for the calls were grouped, and the call frequencies for each group calculated. Overall, the data illustrated that a large volume of appointment-related calls were being left on the nursing site lines. Across all nursing sites, appointment calls represented 45% of calls (Figure 1). This is a significant proportion considering this is work that could be completed appropriately by the clerical staff. The telephone log record data collection served as a key catalyst for the inception of the Live Voice Answer initiative.

Figure 1

Nursing Telephone Log Record Data



Focus Group Interview

To understand perspectives of patients and family members regarding telephone practice at the Cancer Centre, one focus group interview was held in 2016 with the six members of the Odette Cancer Centre Patient and Family Advisors and Patient and Family Council Group. During the session, the participants were asked to share their experience in calling the nursing site lines and calling to book and change appointments.

The participants uncovered challenges with the state of telephone practice, such as the voicemail being described as a 'black hole', the calling system being complex and disjointed, and the feeling of being "bounced around" to various departments (Table 1). Many of the participants expressed a need for a clear point of contact when calling the centre, while others simply wanted a better customer service experience. Another common theme which emerged from the focus group interview was the sense of emotional distress associated with calling the voicemail system. One participant stated that a critical component in alleviating undue emotional distress or anxiety was the provision of timely information and response. Other participants stressed the importance of providing emotional support and understanding their situation as central components of an optimal telephone service experience. Overall, patient and family testimony highlighted the profound impact of that existing voicemail system (Table 2).

The focus group participants were also asked to share what their ideal telephone system would include. Based on the responses, five major themes emerged, which included the following: live voice answer (i.e., a person answers the call in real time), proactive follow-up, centralization, continuity, and customer service (Table 1). The theme of having a 'live voice' answer the call was the central idea expressed most often about how the telephone system should operate in responding to patient calls; it would mitigate the distress associated with trying to contact a nurse and provide a timely response for any concern (Table 1).

INTERVENTION

To develop and prepare for the launch of Live Voice Answer, an interprofessional team was established to lead the initiative. This team, known as the Live Voice Answer Steering Committee, consisted of leadership from the nursing department and the clerical department, a project manager, patient and family advisors, and frontline champions from both nursing and clerical staff. The Live Voice Answer Steering Committee held regular meetings to explore the existing system and processes, develop a full implementation plan, create the education program for staff training, and develop the education print material for patients and families. The Steering Committee was key in planning and implementing the initial pilot, which included seeking staff volunteers. A project manager was dedicated to this initiative and was critical to the launch, maintenance, and evaluation of the initiative. The committee meetings also served as a forum to make decisions based on patient and staff feedback.

This quality improvement initiative used a multi-phased approach to transition from the existing voicemail practice model to a live voice answer model (Figure 2). Deming's Plan-Do-Study-Act Cycle (2019) was used as the theoretical framework to guide the iterations and rapid cycle improvements of this continuous quality improvement initiative.

The Live Voice Answer initiative was rolled out over a span of four years with two disease sites (Gynecology, Lung) as the initial pilot. Once the initial pilot had been sustained successfully for over a year, the initiative expanded to four additional disease sites (i.e., Melanoma, Head & Neck, Genitourinary, Central Nervous System). The rationale behind expanding to the Melanoma and Head & Neck disease sites was because the nurses who had expertise in the Gynecology and Lung disease sites also had expertise in the Melanoma and Head & Neck disease sites respectively. They also had had experience with the pilot launch. Over the next three years, the initiative was implemented in three additional larger disease sites, ones that had the largest call volumes owing to the larger patient population (i.e., Gastrointestinal, Hematology, and Breast).

Prior to each roll-out to each disease site, a training session was held for the nurses assigned to that disease site. The clerical staff members (team) were trained separately during the roll-out to the pilot disease sites. As new clerical staff members were added to the clerical team, individual training sessions were held for that clerical staff member.

Table 1

Themes from Patient & Family Shared Ideals for a Revised Telephone System

Focus group results	**Patient/family words**	
Experiences of calling the team nursing telephone line	Frustrated Bounced around Complex Confused	Helpless Voicemail 'black hole' Disjointed Anxious
Themes	**Patient Comments**	
Live Voice Answer	"Human contact is always the best thing" "Hearing someone's voice is a stress reliever"	
Proactive Follow up	"Reaching the patient before they reach their lowest point"	
Centralization	"One clear phone number" "Calls coordinated"	
Continuity	"Transfer of notes if need to be transferred" "Everyone knows your case and valued as a person"	
Customer Service	"Introductions" "Realistic deadlines as to when you can call back" "Apologize for delays"	

Table 2

Examples from Patient and Family Advisory Council Focus Group Interview Transcripts

Patient	Comments
1.	• **Be seen as an individual in the context of my full life** – know who I am and what's important to me, help me schedule my time here to give me the best possibility of living the rest of my life • scheduling appts for during school time so I can be with my son after school • clustering appts so I'm here as little time as possible • streamline processes to shorten time here (e.g., Herceptin pilot to eliminate delays for blood work; velcade injections, etc.) • understand how cancer is affecting my life
2.	**I need to be "known" for who I am** • "when I call I want the nurse to understand that when I call it's because it matters" • streamline pool of nurses so I have ongoing relationship, am known—I want to make one call on a question, not six ("sometimes it feels like calling Rogers when I call the Centre—I have to put aside a whole afternoon to be upset about it")—instead of a pool of six, couldn't it be a pool of two or three • I need my nurse/physician to understand that I need answers to my questions • I need my providers to understand what's important to me in my real life • don't tell me to do a prep I don't have to do because I have an ileostomy • Odette should apply customer service principles—"know your client"
3.	**Coordinate across the Centre and with other healthcare providers** • help my pharmacist and GP understand • ensure that other specialists understand the impact of my cancer • it's great when providers go out of their way to connect the dots (see me in emerge, make connection to other aspects of my care, etc.) **Create more tranquil environment** • tranquil environment, more engaged activities in the waiting areas
4.	**I need to be an empowered, respected partner with choices** • I need to be empowered to make choices about providers—second opinion, switch docs or nurses if mine not working • the doctor is an expert on oncology, I'm an expert in living in my body • acknowledge that the person in front of you is getting sicker and sicker, respect their time and energy • my time is respected—appts confirmed when I actually schedule them; if unavoidable wait time, explain, acknowledge
5.	**Information and timely response are a critical part of alleviating anxiety** • give me as much information as possible and let me make choices; answer all of my questions – real partner in care • understand that there is so much anxiety and fear and disruptions in the process and uncertainty makes it worse • there should be a clear point of contact from the beginning—patient advocate and navigator • more education/navigation support for new patients • the pre-oncology experience was a scheduling nightmare—it felt like a lot of wasted time • I need access to support services like drug-benefit programs
6.	**Emotional support is critical** • ask me how I'm doing emotionally—patient and caregiver/family • offer emotional supports, help me find the resources—"no one asked me if I needed emotional support" • "Sometimes I do my symptom screening and it's not clear that anyone is paying attention to my emotional experience"—my aftercare was bumpy **Patient navigation and advocacy critical** • it would be ideal to have a contact point for the "abyss" time when you haven't got a diagnosis yet • I need to know how to navigate this complex environment, how to have my questions answered between appointments

EVALUATION

Throughout the phases of this initiative and prior to the actual launch, patient and family satisfaction was measured through surveys conducted over the phone on the same day patients and families called into the Live Voice Answer line. The surveys were conducted during a separate call made by the project manager from the Live Voice Answer Steering Committee, or a student hired to work on various projects at the Odette Cancer Centre. As part of the survey (see Table 3), patients and families were asked to rate their overall satisfaction with calling into the Live Voice Answer line to reach an RN for health concerns or a UC for appointment concerns. The questions used in the survey were derived from a corporate theory embedded in person-centred care values (Sunnybrook Health Sciences Centre, 2016). Likert scale questions were used to obtain the overall patient satisfaction score by averaging the responses. The target set for patient satisfaction was 4.7 out of 5.

Figure 2

Live Voice Answer Implementation Timelines

Table 3

Live Voice Answer Patient Satisfaction Survey Questions

1. Please briefly tell me why you called the cancer centre today?					
2. Who were you trying to contact? (Doctor, nurse, etc.)					
Thinking about your recent telephone experience here at the Odette Cancer Centre…					
3. When you spoke to staff over the phone, did they introduce themselves?			Don't remember	Yes	No
4. Did staff ask what was most important to you?			Don't remember	Yes	No
5. Did staff act on what was important to you?			Don't remember	Yes	No
The next few questions involve a scale from 1 to 5; where 5 means that you're Very Satisfied, 1 means that you're Very Dissatisfied, and 3 means Neutral					
6. If you left a voicemail, were you satisfied with the time it took for someone to return your call?	1 – Very Dissatisfied	2 – Dissatisfied	3 – Neutral	4 – Satisfied	5 – Very Satisfied
7. Were you satisfied with how easy it was for you to reach the person you needed at Odette?	1 – Very Dissatisfied	2 – Dissatisfied	3 – Neutral	4 – Satisfied	5 – Very Satisfied
8. Were you satisfied with your overall experience calling into the Live Voice Answer line today?	1 – Very Dissatisfied	2 – Dissatisfied	3 – Neutral	4 – Satisfied	5 – Very Satisfied
If patient answers with neutral or less (1–3) for any Likert questions					
9. Is there anything else that you would like to share about your telephone experience today or in the past?					

RESULTS

Prior to the start of Phase A (pilot phase), pre-pilot patient satisfaction surveys were conducted. A total of 61 patients were surveyed. Overall, the scores for satisfaction with the RN and UC were 3.23 and 3.26 respectively, out of 5, indicating a relatively neutral experience with our telephone system prior to the launch of Live Voice Answer. Throughout the phases of Live Voice Answer, patient satisfaction survey collection continued with the survey sample size ranging from 18 to 91 patients for each phase. The patient satisfaction scores showed a rise during Phase A compared to the pre-launch scores and were maintained at this high level throughout each subsequent implementation phase (Figure 3).

There was impact on patient satisfaction when clerical staff were not able to respond to the new call volume they received. The impact was observed when the UC patient satisfaction scores fell to 4.45 and 4.30 out of 5 in Phases D and E respectively. The clerical staffing complement for the appointment desk was eventually increased toward the end of Phase E and sustained for Phase F with corresponding increases in satisfaction scores.

The Live Voice Answer initiative has also impacted the call volume to the nursing site lines. In consideration of the large volume of voicemail messages about appointments left on the nursing site lines previously, the Live Voice Answer initiative engaged clerical staff during Phase B and onward with the goal of having the appointment calls move from nursing to clerical. As a direct result of our clerical collaboration, Live Voice Answer reduced the number of appointment related calls directed to nursing. The volume difference in appointment-related calls to nursing between the pre-pilot and Phase B was a 32% reduction for the Lung team and a 52% reduction for the Gynecology team (Table 4). This differential has increased the capacity on the nursing site lines and allowed for nurses to engage in more proactive telephone work with patients and families.

The Live Voice Answer initiative also demonstrated an improvement in timely access to care. As noted previously, prior to Live Voice Answer, patients would leave a voicemail message on their designated nursing site line voicemail with no definitive time for a return call. With Live Voice Answer, greater than 80% of calls are answered in real time within minutes. This is possible because Live Voice Answer utilizes the Avaya call centre software, which allows for a call queuing system. The Avaya software allows for callers to wait in a queue until the nurse is available to take the next call. This feature has allowed more calls to be answered in real time thus improving the overall access to timely care (Figure 4).

Figure 3

Patient Satisfaction Survey Results

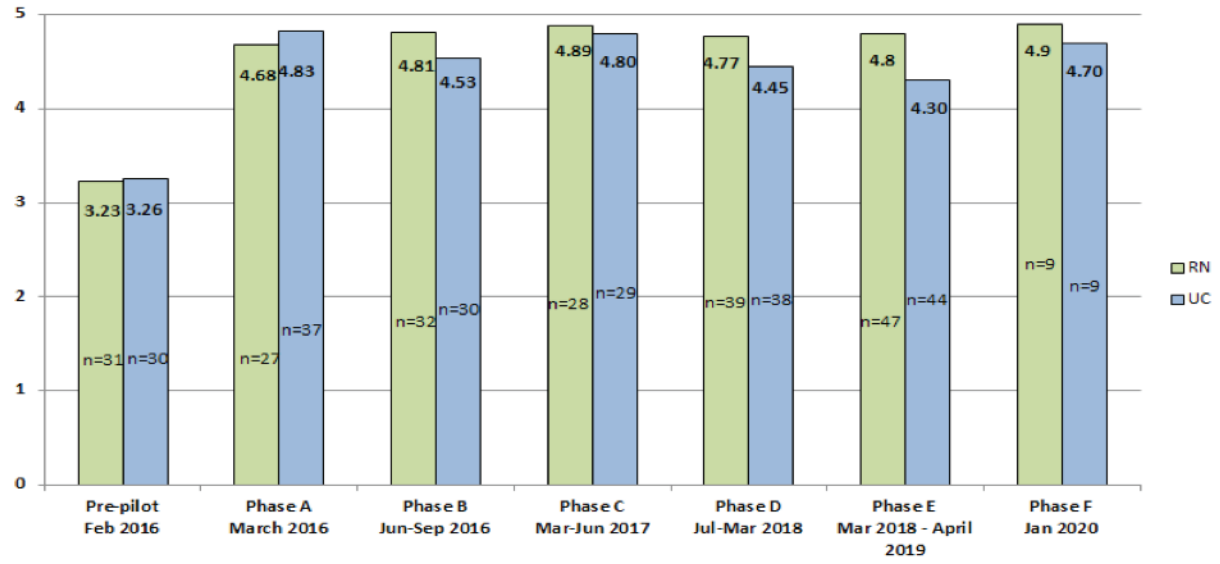


Table 4

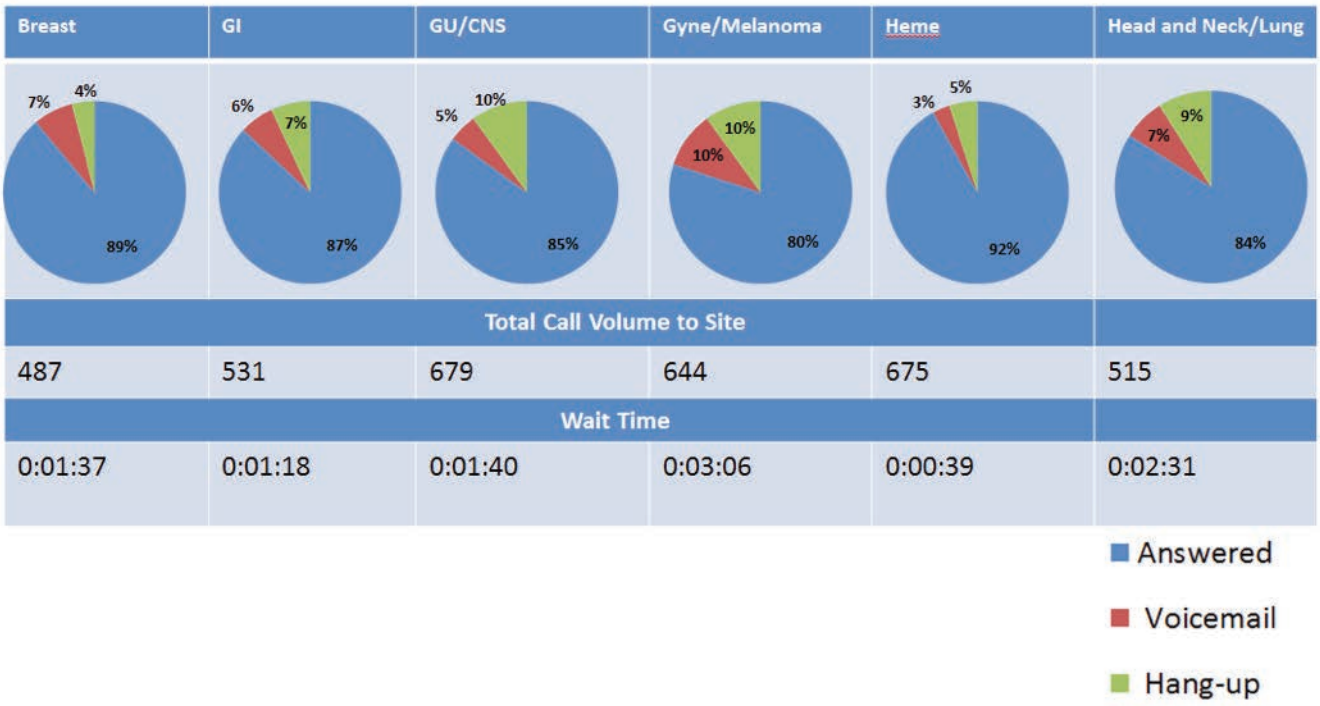
Pre-pilot to Phase B Volume Difference

Call Volume	Lung Site Line	Gynaecology Site Line
Pre-pilot VM Volume	126	243
During Pilot VM Volume (Phase B)	86	116
Volume Difference (Percentage Difference)	40 (32%)	127 (52%)

VM: Voicemail

Figure 4

Avaya Software Data



DISCUSSION

Many ambulatory oncology settings provide patients with telephone access to healthcare professionals for the purpose of assessing, triaging, and managing symptoms related to cancer and treatment side effects (Stacey et al., 2016). Patients and families calling in distress want timely answers from a healthcare setting, when it comes to their health (Lazo & Kirsch, 2017). Real time telephone access is of particular importance to improving patient satisfaction, decreasing emergency department visits, and increasing overall quality of care (Rutenberg et al., 2012). The shift in practice from voicemail telephone practice to Live Voice Answer was a necessary change in our cancer centre to improve access to care for patients, to improve patient satisfaction, and to optimize the role of the nurse in oncology telephone practice.

The iterative approach to the implementation of Live Voice Answer across the Odette Cancer Centre has had significant impact on how patients and families experience care through telephone support. The seamless service of Live Voice Answer has increased access to specialized oncology nurses and their support of patients in managing their cancer treatment side effects and navigating the care system. The collaboration between oncology nurses and clerical staff trained in managing appointments has offset the appointment calls to nursing thus allowing nursing to practice to full scope with a focus on providing symptom management, education, counselling and navigation on the phone.

Looking back to 2012, the nursing practice model change from a primary nursing model to a disease site-specific team-based model provided a structure to make changes to our telephone practice model. The team-based model allowed for a designated group of nurses to be assigned to managing the voicemail boxes for the specific team in which they worked and had expertise. With this model, introducing an initiative like Live Voice Answer was more feasible as the resource required to manage calls in real time was already present.

Lessons Learned and Next Steps

Although the impact on patient care is remarkable, the launch of the Live Voice Answer initiative was not without challenges. The launch required coordination between the corporate information services team and Bell Telecommunications as an external service provider. The coordination was not always seamless and, as a result, timelines had to be adjusted, contributing to delays for implementing phases. Another challenge was the availability of clerical support to manage the appointment line. As more disease sites were added to the Live Voice Answer practice, the staffing allocation for the clerical appointment line had remained the same as it was in the earlier phases. With more sites moving to the Live Voice Answer model, there was a clear need to increase the clerical staffing complement in anticipation of a higher volume of appointment calls being offset from the nursing lines.

The ongoing support from the Cancer centre senior leadership team was vitally important. Frequent reports and progress updates were shared

with the senior leadership team and, given the evidence of success, Live Voice Answer was prioritized as a key initiative. This was pivotal in securing the resources required for the various phases and software supports. Furthermore, the initiative was marketed as a centre-wide practice change, which helped to mobilize and sustain the initiative. The support and endorsement of senior leadership is a critical condition required for a successful change in practice.

The next steps for the Live Voice Answer initiative will be to implement it in the specialty disease sites that still practice under the previous voicemail model. Additionally, with the shift in practice to Live Voice Answer, policies and procedures will need to be developed to reflect the current standard of practice and performance expectations.

Summary

This quality improvement initiative showed us that patients and families express a high level of satisfaction when access to telephone support is optimized with seamless, timely access to care by the right provider. The success of the Live Voice Answer initiative could serve as an impetus for other centres to move in the direction of providing telephone support in real time. The implementation requires an assessment of existing care delivery using multiple data points (e.g., auditing existing practices, feedback from patients and families who use a service). Once gaps in service have been identified, reviewing what can be done with available resources is a necessary step. Adhering to the principles of continuous quality improvement is helpful when implementing an initiative that not only impacts the nursing discipline, but an entire ambulatory centre.

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