

# Patients' perspective of telephone visits during the COVID-19 pandemic

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## Abstract

**Introduction:** With the cessation of non-urgent clinical office visits due to the coronavirus, there has been a rapid shift to telephone and other virtual visits in outpatient practice. We conducted a survey to evaluate patients' perspective of telephone visits during the COVID-19 pandemic.

**Methods:** Patients receiving a scheduled telephone call as a virtual visit from urologists at our clinic were asked to participate in a three-minute, self-administered, online questionnaire. After verbal permission was obtained, the survey was emailed to each participant. The outcomes evaluated were telephone visit satisfaction and preference for type of appointment. Non-parametric tests were used to analyze the results. The study was approved by the Sunnybrook Research Ethics Board.

**Results:** A total of 102 participants were included; 96% of participants assessed the telephone visit as a positive experience in every survey question, while 45% expressed no preference. In those who expressed a preference, this was evenly divided between in-office visits and phone visits ( $p=0.0614$ ). Participants who lived more than 75 km from the hospital were less likely to prefer an in-office visit compared to those residing locally ( $U=433$ ,  $p=0.006$ ; odds ratio 0.29, 95% confidence interval 0.106–0.779,  $p=0.0142$ ).

**Conclusions:** In this survey, most participants assessed the telephone visit positively. Almost half had no preference and a similar proportion expressed a preference for in-office and telephone visits. Patients who resided farther from the hospital were more likely to prefer the telephone visit. This is the first study that we know of to assess patients' preferences regarding remote encounters in urology.

## Introduction

The World Health Organization (WHO) declared COVID-19 a global pandemic on March 11, 2020 and recommended, "rapid, robust, and rigorous containment of the COVID-19 outbreak through physical distancing and hospital preparedness, coordination and health sector planning."<sup>1</sup> As part of the preparedness to limit spread of COVID-19, Canadian physicians closed their offices to the public for non-urgent care. To facilitate healthcare access for patients in Ontario, the Ontario Ministry of Health released a temporary list of Ontario Health Insurance Plan (OHIP) fee codes that cover assessments of/or counselling to insured persons by telephone or video.<sup>2</sup> In the U.S., telephone and video visits have been rapidly integrated into urology practice.<sup>3-7</sup> Similarly, in Northern Italy, patients with non-urgent conditions were consulted via telephone as a way of maintaining care during the pandemic.<sup>6</sup>

The telephone visit, as an alternative to in the in-person visit, has been evaluated in general practice. In a systematic review of two systematic reviews and one randomized controlled trial, Downes et al concluded that there is a lack of high-level evidence for the benefit of telephone consultations in a general practice (GP) setting; however, they may be an alternative to face-to-face consultations in certain settings.<sup>8</sup> In a mixed-methods case study Atherton et al sought to assess under what conditions, for which patients, and in what ways the telephone, email, or internet video visits may offer benefit to patients and practitioners in general practice as compared to the in-person visit.<sup>9</sup> The authors found that email and internet video communication with patients were associated with provider resistance and were not being practiced widely in the U.K. The telephone visit was the only alternative to the in-person visit in common use. Patients appreciated the efficiency and convenience of the telephone visit, but for certain conditions preferred an in-person visit.

With the cessation of in-office visits, telephone visits have served as a replacement. We could find no publications

about the perception of telephone visits by urology patients. Hence we conducted a patient survey using a short questionnaire<sup>10</sup> to evaluate the patient's perspective of the telephone visit during the COVID-19 pandemic.

## Methods

At the onset of physical distancing and hospital preparedness recommendations, telephone visits were offered in our urology clinic by five urologists with expertise in general urology and subspecialties of functional urology and uro-oncology. Patients received a telephone call from their physician at a scheduled time. Patients included were those scheduled in every outpatient clinic from April 20 to May 9, 2020 (consecutively). At the end of the telephone visit, each patient was asked if he/she would be willing to participate in a three-minute questionnaire regarding his/her experience with the telephone visit. Once verbal permission was obtained, a copy of the consent form and link to the online survey (Appendix; available at [cuaj.ca](http://cuaj.ca)) were emailed to each participant within 48 hours of the visit. The online survey consisted of 13 questions. The first question served as consent. The following four questions captured demographics. The remaining eight questions focused on the patient's perspective of the telephone visit and were obtained from a short questionnaire, The Short Questionnaire for Out-of-Hours Care.<sup>10</sup> This questionnaire was developed for patients receiving care through the telephone at a primary care center and included demographic details, questions about the type of service received, whether the patient received the type of service they wanted, questions about satisfaction, and an open question inviting general comments.<sup>11</sup> Participant survey data were collected with

SurveyMonkey®. No personal or identifying information was solicited in the online survey, thus ensuring participant anonymity. The study was approved by the Sunnybrook Health Sciences Centre Research Ethics Board.

The measured outcomes were the level of patient satisfaction with the telephone visit and their preference for the in-person visit vs. the telephone visit based on five-point Likert-type scales. Variables assessed to predict patient satisfaction and visit preference included age, gender, proximity to the hospital (within the Greater Toronto Area [GTA] or outside of the GTA, i.e., a 75 km radius), and the type of appointment (first visit, routine followup, followup for test results, or procedure counselling). All variable data were reported by the patient in the survey answers.

Descriptive statistics were used to analyze patient demographic information. Non-parametric tests were used to analyze the effect of individual demographic variables on our ordinal Likert-type scale outcomes (Mann-Whitney U-test and Kruskal-Wallis test). Multivariate ordered logistic regression analysis was used to assess the combined influence of interval and categorical variables on our ordinal Likert-type scale outcomes. Statistical significance was defined as  $p < 0.05$ . Data analysis was completed using IBM® SPSS software.

## Results

Sixty-eight percent of patients who were emailed the link completed the survey with a 100% response rate for consent, type of visit, demographics, and preference questions 1–5 and 7 (Fig. 1); there was a 96% response rate for satisfaction question 6 (Fig. 2) and 74% for the optional narrative comments (question 8).

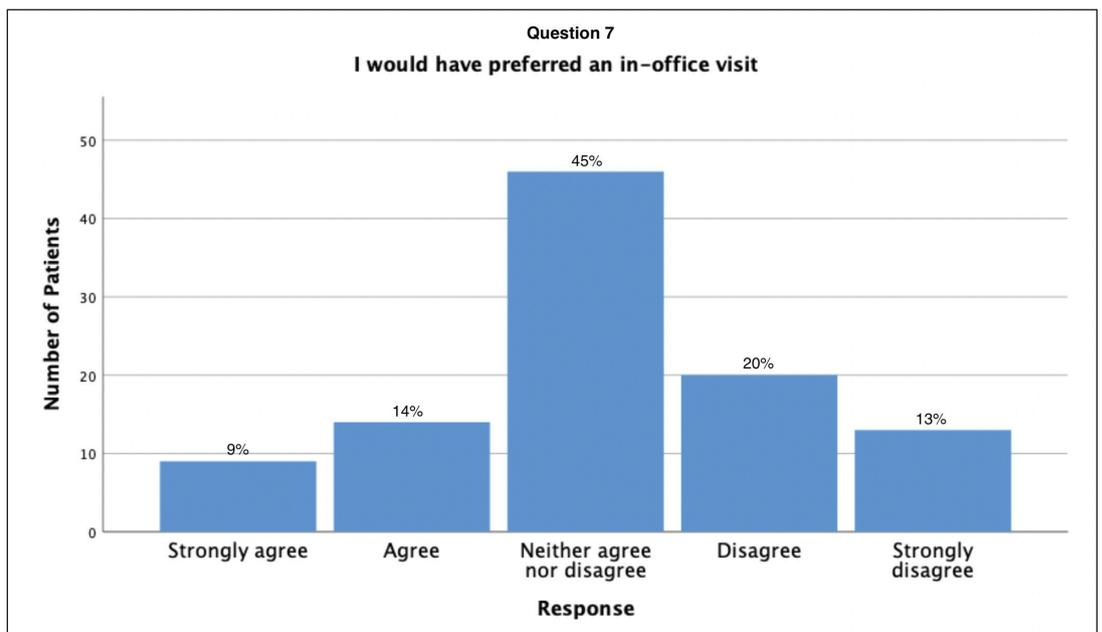


Fig. 1. Preference question.

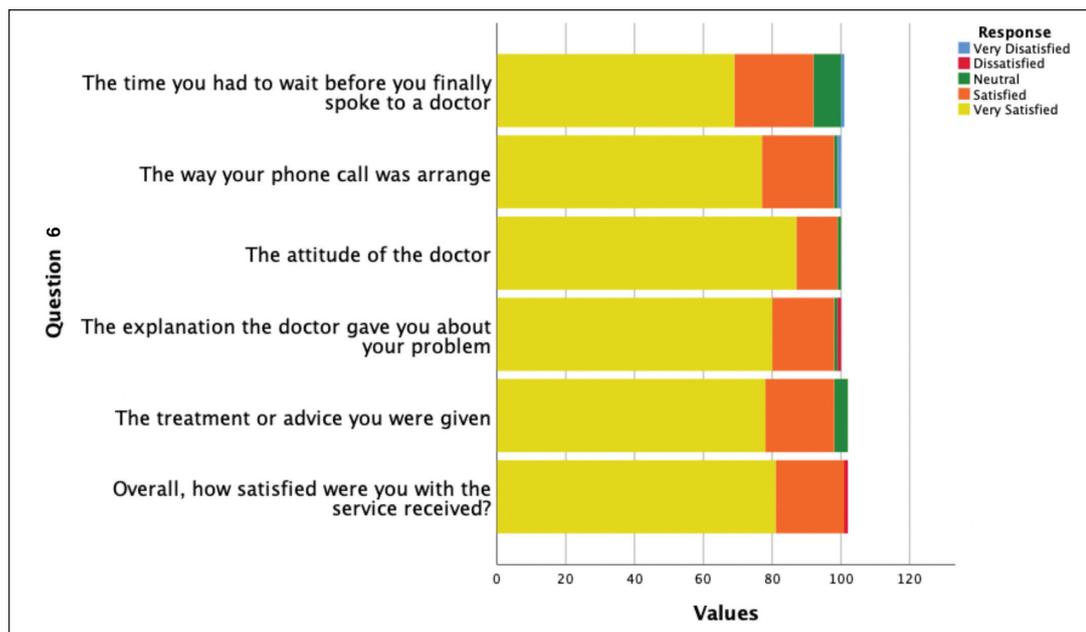


Fig. 2. Satisfaction questions.

### Demographics

One-hundred and two participants were included in the study (Table 1). Sixty-four percent were male. The median age of the participants was 65 (interquartile range [IQR] 55–71). The type of visit was “routine followup” for 53% of the participants. Eighty-three percent lived within the GTA and 17% lived outside of the GTA.

**Table 1. Demographic characteristics of study participants**

Demographic variable	Patient cohort n=102
Age	
Mean (SD)	62.2 (14.2)
Median (IQR)	65.5 (55–71)
Gender, n (%)	
Male	66 (64.7)
Female	36 (35.3)
Proximity to hospital	
Within GTA, n (%)	84 (82.3)
Outside of the GTA, n (%)	18 (17.6)
Type of visit	
First visit, n (%)	19 (18.6)
Routine followup, n (%)	54 (52.9)
Followup test results, n (%)	10 (9.8)
To discuss a procedure, intervention or surgery, n (%)	14 (13.7)
Other, n (%)	5 (4.9)

GTA: greater Toronto area; IQR: interquartile range; SD: standard deviation.

### Participant responses regarding telephone visit experience

Most participants (96%) viewed the telephone visit positively, as shown in Fig. 1. In Fig. 2, the results from question 7 are depicted. There was no significant difference between those who expressed a preference for one type of visit over another (in-office [21%] vs. telephone [34%],  $p=0.0614$ ).

### Relationships between demographic variables and preference for in-office visit

There were no statistically significant differences for age, gender, and type of visit on preference for the in-office visit (Table 2). On multivariable regression, participants who lived outside of the GTA were less likely to prefer an in-office visit to those residing locally ( $U=433$ ,  $p=0.006$ ; odds ratio [OR] 0.29], 95% confidence interval [CI] 0.106–0.779),  $p=0.0142$ ) (Table 3).

### Participant comments

Qualitative assessment of the 75 participants who provided narrative comments revealed that the majority were in favor of telephone visits (~75%) (Table 4). The remaining provided neutral or negative comments. Two participants suggested face-to-face interaction using Zoom or other technology or online video methods for future visits. Some participants noted limitations of the telephone visit, including inability to see imaging results with the doctor, provide a sample, or undergo a procedure. Many participants cited advantages including no travel time, parking cost, or wait time at the hospital.

**Table 2. Demographic characteristics in relation to results for question 7, "I would have preferred an in-office visit"**

		Overall N (%)	Strongly agree, %	Agree, %	Neither agree nor disagree, %	Disagree %	Strongly disagree, %	p
Age	19-40	9 (8.8)	11.1	22.2	22.2	33.3	11.1	0.65*
	41-60	30 (29.4)	3.3	10.0	50.0	16.7	20.0	
	61-80	58 (56.8)	12.1	15.5	44.8	17.2	10.3	
	>80	5 (4.9)	0.0	0.0	60.0	40.0	0.0	
Gender	Male	66 (64.7)	6.1	18.2	45.5	21.2	9.1	0.47**
	Female	36 (35.3)	13.9	5.6	44.4	16.7	19.4	
Proximity to hospital	GTA	85 (83.3)	9.4	15.3	48.2	16.5	10.6	0.006**
	Outside GTA	17 (16.7)	5.9	5.9	29.4	35.3	23.5	
Type of visit	First visit	19 (18.6)	21.1	10.5	42.1	15.8	10.5	0.37*
	Routine followup	54 (52.9)	3.7	14.8	44.4	20.4	16.7	
	Followup results	11 (10.7)	10.0	0.0	80.0	10.0	0.0	
	Discuss procedure	13 (12.7)	7.1	21.4	35.7	21.4	14.3	
	Other	5 (4.9)	20.0	20.0	20.0	40.0	0.0	

\*Chi-squared test; \*\*Mann Whitney U-test. GTA: greater Toronto area.

## Discussion

In this study, patients' perspectives of the telephone visit during the COVID-19 pandemic were sought with a self-administered online questionnaire. We found that regardless of age, gender, proximity to the hospital, and type of visit, the telephone visit was positively assessed with respect to patient satisfaction. This was further exemplified by positive narrative comments. Many of the participants cited advantages including no travel time, parking cost, or wait time at the hospital.

Although the majority of participants assessed the telephone visit as a positive experience, 45% did not have any preference for either the telephone visit or an in-person visit,

and similar proportions favored one over the other (Fig. 2). This is consistent with the findings by Atherton et al, who found that participants in general practice appreciated the efficiency and convenience of the telephone visit, but for certain conditions preferred an in-person visit.<sup>9</sup> We analyzed the data to identify predictors for those patients who preferred a telephone vs. an in-office visit and found that participants who lived outside of the GTA were less likely to prefer an in-office visit as compared to those who lived within the GTA. Although we did not quantify the narrative comments,

**Table 3. Unadjusted and adjusted ordered logistic regression models of the impact of patient demographics on preference for in-office visits**

Predictor	Unadjusted OR (95% CI)	p	Adjusted OR (95% CI)	p
Age	0.99 (0.97-1.02)	0.72	0.99 (0.97-1.02)	0.64
Gender (reference=female)	0.75 (0.36-1.59)	0.45	0.76 (0.34-1.71)	0.51
Proximity to hospital (reference= outside of GTA)	0.32 (0.12-0.83)	0.02	0.29 (0.11-0.78)	0.01
Type of visit – First visit	0.97 (0.16-5.91)	0.97	1.13 (0.18-7.21)	0.90
Type of visit – Routine followup	2.02 (0.37-10.88)	0.42	2.62 (0.47-14.78)	0.28
Type of visit – Followup for results	1.12 (0.16-8.04)	0.91	1.79 (0.23-13.81)	0.58
Type of visit – Discuss a procedure (Reference=other)	1.53 (0.23-9.94)	0.66	1.66 (0.25-11.20)	0.60

CI: confidence interval; GTA: greater Toronto area; OR: odds ratio.

**Table 4. Examples of comments**

Participant comments	Examples
Positive	<p>"It was a great experience! Since this was a first visit, and it was essentially just a consult with some advice for monitoring (i.e., not an intense appointment, no prescriptions, etc.), it was very easy and very convenient to do over the phone. I think it would be a great idea to continue the option of phone appointments when appropriate."</p> <p>"As I had had a previous first visit with Dr. X and he/she had prescribed certain actions, this was a second consultation. This was a followup to see if the actions were of benefit and to work forward. The discussion on the telephone was extremely informative and was a great alternative to: 1) driving all the way from my place to the hospital; 2) paying \$25 for parking. The information was what I would have gotten in person."</p>
Neutral	<p>"I was not having any problems; it was just one of my twice yearly followups. I think the phone call was fine for that. But if I was having a problem or was in discomfort, I would rather do it in person."</p>
Negative	<p>"I had been waiting six months for an appointment. I received a phone call instead. If the coronavirus pandemic was the reason for the phone call, it would have been nice to know."</p>

which were provided by almost three-quarters of the patients, most of them were supportive and gave us good insight into the patients' perspectives. There were definite cost advantages to a telephone visit, including no parking or travel cost. There were time savings, including travel time and wait time. Participants indicated that there are circumstances when an in-person office visit is needed or preferable, such as the first visit, seeing and reviewing imaging, providing a sample, or undergoing a procedure. Participants also indicated that the telephone visit is appropriate when no physical exam is required or when the visit is for routine followup.

There are limitations to this study. Firstly, this study was conducted through email so there is an inherent selection bias; patients without a computer and internet access could not be included in the study. Secondly, this study was conducted in a single site with a quaternary care referral base and, therefore, cases may have higher complexity. Results, therefore, may not be representative of the entire population. Furthermore, there is no long-term followup to assess the clinical outcomes of the telephone interaction. The survey sampled only patients and not physicians, and we did not evaluate other virtual visit methods, such as internet video.

It is unclear if the telephone visit will be funded after the COVID-19 pandemic. The use of virtual care during the pandemic has likely increased substantially and the telephone visit appears to have applicability to most types of visits. Our study suggests that the telephone visit is an excellent alternative to an in-person visit for routine followup and when a physical exam is not required, although the patients rated it highly for all types of clinic visits. Furthermore, many patients identified associated cost savings. It is possible that if telephone and virtual visits remain prevalent post-COVID, the cost savings to patients may result in revenue loss for hospitals and other medical facilities that depend on high-volume out-patient traffic. As an example, in 2018–2019, there were 619 856 ambulatory clinic visits to Sunnybrook Hospital,<sup>12</sup> which generated part of the \$165 168 000 in ancillary revenue from hospital pharmacies and leasing revenue from parking and gift shops.<sup>13</sup> Loss of this revenue will require considerable institutional adjustment.

## Conclusions

In this survey, participants assessed the telephone visit positively during the COVID-19 pandemic. Almost half had no preference and similar proportions preferred in-office vs. a telephone visit. However, patients who live more than 75 km from the hospital were more likely to prefer a telephone

visit. This is the first study that we know of to assess patients' response to non-office encounters in urology. Future studies are warranted to delineate the role of telephone visits in urology in the post-COVID-19 era.

**Competing interests:** Dr. Herschorn has been an advisory board member for and has received payment from Astellas, Boston Scientific, and Pfizer; has received speaker honoraria from Astellas; and has participated in clinical trials supported by Astellas, Allergan, and Purdue. The remaining authors report no competing personal or financial interests related to this work.

This paper has been peer-reviewed

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