



## Research Article

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# Telephone Consultation in Otolaryngology During Covid-19; Patient Outcomes and Satisfaction

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## Abstract

**Objective:** Due to coronavirus, a significant proportion of clinics are undertaken as telephone consultations. It is important to ascertain if this new way of working results in care that is acceptable to the patients and addresses their ongoing clinical needs.

**Methods:** One hundred patient satisfaction surveys were completed following otolaryngology telephone consultations. These were used to compare patient satisfaction during the first wave of the COVID-19 pandemic and during a period after initial lockdown restrictions were eased.

**Results:** Patient surveys reported a high level of satisfaction for telephone consultations in both the pandemic and post-pandemic periods with an average survey score of 4.7 and 4.6 out of 5 respectively. A reduction in activity occurred during the first wave of the pandemic with 721 telephone consultations undertaken compared to 1732 consultations post-lockdown.

**Conclusion:** Telephone consultations continue to be an effective way to progress patient care that is acceptable to patients.

**Keywords:** Telemedicine; Otolaryngology; Outpatient; COVID-19

## Summary Statements

- The use of telephone consultations in otolaryngology clinics during and after the pandemic has progressed patient care
- Patients continue to show a high level of satisfaction for the care they receive during telephone consultations
- Telephone clinics do not replace face to face consultations but are a useful adjunct in certain patient groups
- Telephone clinics have limitations. ENT clinics are procedural heavy with many patients requiring otoscopy or naso-laryngoscopy during their examination. Careful triaging of referrals is required.
- Telephone clinics save patients over two hours on average in travel and time waiting times versus a face to face appointment
- In the future, the ability to attach electronic otoscopy images to referrals may increase the pool of patients who can be treated remotely with telephone appointments

## Introduction

The coronavirus pandemic has impacted on the way that healthcare services are delivered across the United Kingdom.

Ear, nose and throat (ENT) as a specialty has been significantly adversely affected due to its aerosol-generating procedures that

can increase disease transmission [1]. In an effort to reduce the spread of COVID-19, ENT services have had to change the way they function. This has included cessation of elective surgery, a reduction in the number of face-to-face consultations and the introduction of telephone consultations.

Telephone consultations are not a novel innovation. A systematic review in 2013 showed that despite the lack of good quality comparative evidence, most data suggests that surgical patients are happy to receive routine follow-up in the form of telephone consultations [2]. A number of services had implemented an effective telephone consultation, these included post-operative review for cataract surgery [3], dermatology clinics [4], and the communication of biopsy results [5]. In otolaryngology, studies have shown telemedicine can be suitable for diagnosis of middle ear, inner ear and sinonasal pathology as well as follow up after uncomplicated nasal surgery but less effective at laryngeal or external ear pathology [6-9]. A review of head and neck telephone consultations during the pandemic found that patients were largely satisfied with the service, and would use remote consultations again [10, 11].

However, despite the easing of social distancing restrictions as the first, second and third waves of the pandemic passed, several ENT clinics continue to run via virtual consultations. Patient's initial acceptance of changes to services, including telephone clinics may be waning as coronavirus continues to impact daily living almost two years later. The study aim was to evaluate remote consultations in the general ENT clinic and compare patient satisfaction more than one year after their introduction. Furthermore, we wanted to assess whether telephone consultations during the first wave of the pandemic led to adequate progression of patient care in terms of consultation outcomes.

## Method

Permission was obtained from the hospital audit department to undertake this project and formal ethical approval was not required. Both adult and paediatric patients having an ENT telephone consultation were included.

### Patient satisfaction surveys

A validated patient satisfaction survey was utilised from previously published research (Appendix 1) [12, 13]. Two cohorts of fifty patients who underwent telephone consultations in June

2020 and September 2021 were invited to participate. Patients were randomly selected from a list of all telephone consultations during this period. The survey was conducted over the telephone, with verbal consent. If a patient declined to participate or did not answer after two attempts of calling a new patient was randomly selected. For paediatric patients, the parent attending the appointment was asked to complete the survey.

### Patient outcomes

Electronic records were used to establish the number of telephone consultations conducted over a 3-month period from April to June 2020 at Blinded for review. Whether the patient was a new referral or a follow-up, and the outcome for each of these consultations was recorded. This was compared to the patients seen over a 3-month period prior to the coronavirus pandemic and the wide adoption of telephone consultations (October to December 2019).

### Statistical analysis

The non-parametric Mann-Whitney U test was used to compare the answers of patients satisfaction surveys between June 2020 and August-September 2021.

The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) guidelines for reporting observational studies were followed [14]. The data that support the findings of this study are available from the corresponding author upon reasonable request.

## Results

### Patient satisfaction

82% of patients who completed the survey in 2020, agreed that it was easier to get the care they needed using telephone consultations (Table 1). This compares to 74% in 2021 who 'strongly agreed' or 'agreed'. All 50 patients in 2020 and 49 in 2021 found the telephone consultant easy to use. When asked to rate various aspects of the telephone consultation out of 5 (with 5 being excellent) the average score across all aspects was 4.7 in 2020 and 4.6 in 2021. 43 (86%) patients in 2020 and 44 (88%) in 2021 said they would use a telephone consultation again. When asked how much time they had saved by using a telephone consultation, compared to a face-to-face consultation at the hospital, the mean time was 125.4 minutes and 140.1 minutes in 2020 and 2021 respectively.

**Table 1:** Results of survey patient satisfaction survey from June 2020 and August-September 2021. A = agree, D = disagree, N = neither agree or disagree, SA = strongly agree, SD = strongly disagree.

Statement	2020 Response (n=50)					2021 Response (n=50)				
	SA	A	N	D	SD	SA	A	N	D	SD
A telephone consultation made it easier for me to get care when and where I needed it	25	16	4	5	0	22	15	7	3	3
The telephone consultation was easy to use	31	19	0	0	0	31	18	0	1	0
Aspect of Consultation	Excellent	Good	Fair	Poor	Very Poor	Excellent	Good	Fair	Poor	Very Poor
Explanation the care provider gave you of your problem or condition	33	14	2	1	0	31	13	5	0	1

Concern the care provider showed for your question or worries	38	9	3	0	0	36	7	5	0	2
Care provider efforts to include you in decisions about your treatment	34	11	5	0	0	32	11	5	0	2
Information the care provider gave you about medications (if any)	19	5	4	0	0	13	4	1	1	0
Instructions the care provider gave you about your care	35	11	3	1	0	37	7	3	2	1
Degree to which care provider talked to you using words you could understand	44	5	1	0	0	42	7	1	0	0
Amount of time the care provider spent with you	41	6	2	1	0	37	11	2	0	0
Your confidence in this care provider	38	9	2	1	0	40	8	2	0	0

**Table 2:** Outcomes of appointments in October-December 2019 and April-June 2020. New, Follow-up and Total.

Outcome	Oct-Dec 2019 n (%)			Apr-Jun 2020 n (%)		
	New	Follow-up	Total	New	Follow-up	Total
Discharge	294 (33.7)	187 (21.8)	481 (27.8)	37 (16.2)	130 (26.4)	167 (23.1)
Open appointment	2 (0.2)	4 (0.5)	6 (0.3)	30 (13.2)	66 (13.4)	96 (13.3)
Referred to another consultant's clinic	11 (1.2)	13 (1.5)	24 (1.4)	1 (0.4)	5 (1.0)	6 (0.8)
Referred to another department	64 (7.3)	16 (1.9)	80 (4.6)	12 (5.3)	25 (5.1)	37 (5.1)
Added to follow up pending list	149 (17.1)	357 (41.6)	506 (29.2)	50 (21.9)	150 (30.4)	200 (27.7)
Awaiting Reports	179 (20.5)	47 (5.5)	226 (13.0)	19 (8.3)	11 (2.2)	30 (4.2)
Follow up appointment	72 (8.2)	122 (14.2)	194 (11.2)	66 (28.9)	84 (17.0)	150 (20.8)
Self-discharge	0	0	0	1 (0.4)	0	1 (0.1)
Pre-Op Assessment	1 (0.1)	25 (2.9)	26 (1.5)	1 (0.4)	6 (1.2)	7 (1.0)
Add to Daycase waiting list	82 (9.4)	80 (9.3)	162 (9.4)	6 (2.6)	16 (3.2)	22 (3.1)
Add to Inpatient waiting list	13 (1.5)	4 (0.5)	17 (1.0)	2 (0.9)	0	2 (0.3)
Referred to Other hospital	3 (0.3)	2 (0.2)	5 (0.3)	2 (0.9)	0	2 (0.3)
Patient not seen	1 (0.1)	0	1 (0.1)	0	0	0
Admit direct	0	1 (0.1)	1 (0.1)	1 (0.4)	0	1 (0.1)
Did not wait	1 (0.1)	1 (0.1)	2 (0.1)	0	0	0
Referred to specialist nurse	1 (0.1)	0	1 (0.1)	0	0	0
Total	873 (100)	859 (100)	1732 (100)	228 (100)	493 (100)	721 (100)

## Outpatient clinics

A total of 721 patients underwent a telephone consultation during April-June 2020 (Table 2). 228 were new (31.6%), 493 (68.4%) were follow-ups. This is compared to 1732 patients seen from October-December 2019, with 873 (50.4%) of whom were new referrals, and 859 (49.6%) were follow-ups. Of the patients seen in April-June 2020, 167 (23.2%) were discharged, compared to 481 (27.8%) patients discharged in October-December 2019.

Statistical analysis When comparing patient survey answers from June 2020 to August-September 2021, Mann-Whitney U did not show any significant difference between the two patient satisfaction surveys in any domain.

## Discussion

Physical distancing has been critical to limiting the spread of COVID-19 and ensuring patient safety. Many departments including

ENT have had to rely on remote methods of delivering care. However, despite the unprecedented challenges, patient services for routine otolaryngology conditions have continued.

This study has demonstrated a high rate of patient satisfaction with telephone clinics throughout the pandemic and after lockdown restrictions ended. Telephone clinics have previously been shown to be effective at stratifying patients based on risk when face to face appointments have been limited [15, 16]. They are also an effective tool for following up patients post-operatively [15, 17]. There are numerous studies that have shown high patient satisfaction towards telephone clinics during the lockdown period [18-20]. However, there is little evidence of patient satisfaction towards telephone clinics after lockdown restrictions have ended. This study highlights patients were overall satisfied with the continued use of telephone appointments in the general ENT clinic. This is evident with the average score from the satisfaction survey only reducing

from 4.7 to 4.6 from June 2020 to August-September 2021. The mean time saved by having a telephone clinic was 125 and 140 minutes for June 2020 and September-August 2021 respectively. This time saved as well as not having to take a day off work were cited as the two many benefits of a telephone over a face to face appointment by patients.

Previous research has described a “pandemic paradox” [21, 22]. The outpouring of support from the media and the public for healthcare workers was unprecedented. Patients felt grateful to have any contact with a doctor. However, once routine care restarted and hospitals reinstated normal services, patient’s frustration soon resurfaced. With a huge backlog of patients and record outpatient clinic waiting times, there is obvious dissatisfaction with certain services. However, our research has shown with the correct patient population, telephone clinics can be a permanent and well received change.

Although fewer than half the number of patients were seen during the period between April and June 2020 when compared to October-December 2019, clinicians were still able to discharge a similar proportion (23.1% vs 27.8%). There was, however, a reduction in the proportion of new patients being discharged following a telephone consultation compared to a face to face appointment (16.2% vs 33.7%). Other studies have shown similar discharge rates from telephone ENT clinics (17-26%) during the pandemic [18, 22, 23]. The reduction in discharging patients may be in part due in part to the reduction in clinician’s confidence in diagnosing over the phone, without the ability to examine them.

Telephone clinics have certain limitations. ENT clinics are procedural heavy with many patients requiring otoscopy or nasolaryngoscopy during their examination, with simple interventions like ear microsuctioning and nasal cautery commonly performed. As these are not possible, careful triaging of referrals to ensure the correct patients are given telephone clinics. In our practice, all new referrals are triaged at a consultant level in order to assess suitability for telephone consultation. This is of importance as, for example, an untriaged urgent laryngology referral being booked as a telephone consultation would not permit endoscopic examination and therefore not necessarily be of value.

Thorough history taking and identification of concerning symptoms is vital. The ability to attach electronic otoscopy images to referrals may increase the pool of patients who can be treated remotely with telephone appointments. One recent study showed relatively inexpensive video otoscopes and digital endoscopes can facilitate remote otolaryngology examinations with 91% of clinicians deeming the images to be of adequate quality [24].

While telephone consultations do not replace face to face assessments, as an adjunctive tool, they can provide a vital and useful step in patient care. For those patients who require a face to face appointment following a telephone consultation, it can be ascertained whether the face to face appointment is urgent or routine. Other clinicians may prefer an initial face to face consultation before reverting to telephone appointments as they feel more confident when it comes to future decision making. It is

clear from positive feedback that telephone clinics have a future in otolaryngology.

## Conclusion

The use of telephone consultations in otolaryngology clinics has progressed patient care. Patients continue to show a high level of satisfaction with the care they received via a telephone consultation. It is important to be aware that telephone consultations do not replace face-to-face appointments but have been shown to be a useful adjunctive tool and are deemed acceptable by patients as part of their clinical treatment.

## Appendix 1-Telephone Survey

Hello, my name is [insert name], I’m one of the ENT team at Blinded for review.

I understand that you recently had a telephone consultation with our department. We are keen to obtain patient feedback on how this went.

It will involve answering some questions over the phone which will take about 5 minutes. You don’t have to take part, and if you choose not to it will not influence your care but we would value your feedback.

Would you like to take part?

For the next questions please answer ‘Strongly Agree’ ‘Agree’ ‘Not sure’ ‘Disagree’ or ‘Strongly Disagree’

1. A telephone consultation made it easier for me to get care when and where I needed it.
2. The telephone consultation was easy to use

For the next questions please rate the various aspects of your care on the following scale: ‘Excellent’ ‘Good’ ‘Fair’ ‘Poor’ or ‘Very poor’

3. Explanation the care provider gave you of your problem or condition
4. Concern the care provider showed for your question or worries
5. Care provider efforts to include you in decisions about your treatment
6. Information the care provider gave you about medications (if any)
7. Instructions the care provider gave you about your care
8. Degree to which care provider talked to you using words you could understand
9. Amount of time the care provider spent with you
10. Your confidence in this care provider

For the next set of questions please answer ‘Yes’ ‘No’ or ‘Not sure’

11. I would use a telephone consultation again.
12. Overall, were you satisfied with your consultation?
13. Have you ever had a telephone consultation before?

And the final question:

14. How much time do you think a telephone consultation has saved you (including travel time, wait time, visit time)?

That is the end of my questions, do you have any comments you would like to add or questions for me?

### Acknowledgement

None.

### Conflict of Interest

None declared.

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