

Background

- The COVID-19 pandemic has led to an increase in telemedicine in otolaryngology.
- There have been several studies examining the reimbursement associated with this. One study examining Medicare Physician/Supplier Procedure Summary data found that the amount of services and reimbursement for telemedicine increased 52,989% and 73,147%, respectively, from 2019 to 2020.¹⁻²
- The purpose of this study is to examine how reimbursement and patient cost for telehealth services compares to in-person services in the post pandemic time in the otolaryngology department of a single academic institution.

Methods

- A retrospective study
- Multi-subspecialty, otolaryngology department in a single academic institution from 2020-2021
- Encounters were recorded as either audio-only, video, or in-person
- Encounters were labelled as either new or established
- Data collected
 - Total charged amount
 - Adjusted amount (defined amount after accounting for contract amount with various payors)
 - Insurance amount covered
 - Level of Evaluation and management (E/M) 1-5
 - Patient expense

Results

- 42,596 audio-only, video, and in-person encounters were included of both new and established patients
- 347 audio-only, 633 video, and 41,373 in-person encounters.
 - Of these the audio-only encounters, 7 were new and 340 were established patients
 - Of the video encounters, 94 were new and 539 were established patients
 - Of the in-person encounters 18,634 were new and 22,639 were established patients

Results

Encounter Type	Sum of Insurance Payment (\$)	Insurance Payment Amount per Visit	% of Charged Amount (%)
New			
Audio	411	59	39
Video	8,780	93	58
In Person	1,379,323	74	45
Established			
Audio	14,480	43	33
Video	26,782	50	46
In Person	1,188,841	52	44

Table 1: Sum of insurance payments, insurance payments per visit, and percentage of total charged amount as insurance payment for new and established patients

Encounter Type	Sums of Patient Payments (\$)	Patient Payment Per Visit	% of Charged Amount (%)
Audio	156	22	15
Video	792	9	5
In Person	402,613	21	13
Established			
Audio	4,148	12	9
Video	6,133	11	10
In Person	348,454	15	13

Table 2: Sums of patient payments, patient payments per visit, and percentage of total charge amount as patient payment for new and established patients

Encounter Type	Adjusted Amount (\$)	Adjusted Amount per Visit (\$)	% of Charged Amount (%)
Audio	487	70	46
Video	4,659	50	31
In Person	1,018,889	54	34
Established			
Audio	21,126	62	48
Video	21,806	40	37
In Person	1,041,909	46	38

Table 3: Sum of adjusted amount, adjusted amount per visit, and percentage of total charged amount as adjusted amount for new and established patients

Encounter Type	Total Charged Amount (\$)	Total Charged Amount Per Visit (\$)
Audio	1,054	151
Video	15,218	162
In Person	3,032,547	163
Established		
Audio	44,045	130
Video	58,690	109
In Person	2,713,575	119

Table 4: Total charged amount and total charged amount per visit for new and old patients

Discussion

- There was uncertainty both during and immediately after the COVID pandemic concerning the role of virtual medicine moving forward
- With in person visits costing similar amounts to both audio and video visits for patients an insurance, there may be a shift towards this practice model (results not significant among groups p=0.986)
- Certain aspects of in person visits might be lost
 - Less rapport
 - Limited physical exam
 - Requires patient access to internet or phone services
- Limitations
 - Single academic institution with certain contracted amounts with payors may not be generalizable
 - Data collected during the pandemic, so there may be policy and payor changes that affect these results

Conclusion

- Reimbursement and patient cost from audio-only and video visits are comparable with in-person visits
- Virtual care will likely have a role post pandemic in ENT

Citations

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