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CLINICAL RESEARCH

Telephone Consultations by Medical Scheme Patients Consulting General Medical Practitioners, South Africa

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ABSTRACT

BACKGROUND

The COVID-19 climate has seen a shift in the manner that patients seek care. Lockdown measures and COVID-19 regulations and the fear of contracting the virus at a health care facility has also changed health seeing behaviour among patients. The COVID-19 climate has seen a significant increase in the utilisation of virtual platforms to consult with providers.

OBJECTIVES

The primary objective of this study was to conduct the descriptive analysis of telephonic consultations by members of medical schemes who consulted general medical practitioners.

METHODS

The study entailed a descriptive analysis of medical schemes' claims data for the 2020 review period. The inclusion criteria were all NAPPI codes associated with a telephonic consultation consulting general medical practitioners. The ICD-10 code primary diagnosis was used to describe the diagnosis. The study mainly focused on outpatient patients with service dates between March 2020 and December 2020.

RESULTS

The analysis covered claims data from a total of 12 medical schemes. The schemes analysed accounted for 1,6 million lives. The total number of telephonic consultations was 17 237. The mean (SD) claimed amount for telephone consultation for a general medical practice consult was R282 (SD = 20) this was slightly lower than the scheme tariff of R287 (SD = 19). The study found that most telephonic consults were for Acute bronchitis, unspecified; Acute upper respiratory; Emergency use of U07.1 (confirmed diagnosis); Emergency use of U07.2 (suspected diagnosis); Follow-up examination; Special screening.

CONCLUSION

The study found evidence of patients utilising telephonic consultations for general medical practitioner services. The effect of COVID-19 in this respect was seen in the three main primary diagnoses that were associated with the consult, acute upper respiratory, Emergency use of U07.1 (confirmed diagnosis) and Emergency use of U07.2 (suspected diagnosis). Even though the average telephonic consult was claimed at just under R300, few general medical practitioners claimed between R400 and R500. These similarities between follow-up telephone consults and diagnosis and the outlier effect reveal a need for the development of guidelines and these to potentially cover potential consult guidelines perspective to also advise other medical schemes who yet to fund these types of consultation.

KEYWORDS

Telephonic consultation; General medical practitioners; Medical schemes; South Africa

1. INTRODUCTION

The COVID-19 epidemic has adversely affected health systems globally. The utilization of technology and other innovative channels' link up with patients has evolved drastically over the past 12 months. Lockdown regulations and the fear of contracting the virus at a health care facility has also changed health seeing behavior among patients. There has been a plateau in teleconsultations since the end of the lockdown in France (on May 11, 2020), but the amount remains higher than before, stabilizing at 1,50,000 per week [1]. Temporary disruptions in routine and non-emergency medical care access and delivery have been observed in the US and worldwide during COVID-19 [2]. The authors estimated that 40.9% of US adults have avoided medical care during the pandemic because of concerns about COVID-19, including 12.0% who avoided urgent or emergency care and 31.5% who avoided routine care. A study comparing health facility visits from 15 March, 2020 to 31 May, 2020 with in-person visits during the same period in 2019, the results showed a reduction of 52% and 47% in the combined number of emergency department visits and hospital admissions was observed compared to in-person visits ($p < 0.01$) [3]. The study also found that, of 120 patients surveyed, 95% were satisfied/very satisfied with the telephone visits.

Virtual Consultations during Emergencies

According to authors such as Martos-Pérez et al. [3] and Downes et al. [4] telephone consultations could ease up the overburdened healthcare system [3-5]. A study by Bokolo found that telemedicine and virtual software were capable of decreasing emergency room visits, safeguarding healthcare resources, and lessening the spread of COVID-19 by remotely treating patients during and after the COVID-19 pandemic [6]. Accordingly, outpatient in-person visits can be converted to telephone visits [3].

Arguments against Virtual Consultations

Furthermore, there were challenges and obstacles cited in the use of virtual consultations. McGrail, Ahuja and Leaver, conducted a systematic review on the view against the use of the telephone for virtual consultations [7]. The author concluded that, while telephone contact for acute illness may allow minor problems to be dealt with without a face-to-face visit (and sometimes with apparent cost savings), it may miss rare but serious conditions and/or may lead to higher rates of face-to-face visits on subsequent days-perhaps because even when patients have been adequately assessed, they may be inadequately reassured [7]. Another study by Car et al. [8] showed that

remote consultations were perceived as being less "Information-rich" than face-to-face consultations, and technical issues were common [8]. Furthermore, there was no credible evidence to guide clinicians on when to use phone or video consultations.

The utilization of technology and other innovative channels used to link up with patients has evolved dramatically over the past 10-years, however, this has been accelerated eminently during COVID-19 [6,9]. Lockdown regulations and the fear of contracting the virus at a health care facility has also changed health seeing behavior amongst patients. The use of virtual platforms such as telephones for consultations has also been well received by physicians, who have used them widely and they have been highly rated by patients [9]. A survey conducted in 2020 of 120 patients surveyed showed that 95% were satisfied/very satisfied with the telephone visits [3]. The study also surveyed 26 physicians and found that 84.6% of them considered telephone visits were useful to prioritize patients.

Virtual Consultation- General Practitioners

Virtual consultations (also called telemedicine consultations) have been in place for decades with many healthcare systems advocating a digital-first approach, even before the COVID-19 pandemic [7,10]. The COVID-19 has however further accelerated the use of remote consultations by telephone and video link [11,12]. At the start of the pandemic, many health professionals including General Practitioners (GPs), specialists and others turned to video consultations to reduce patient flow in their practices and facilities as a risk measure to limit infectious exposures [8].

The General Practitioner (GP) data for England shows a rapid increase in telephone consultations relative to face-to-face consultations [11]. The authors found that the number of telephone consultations increased from more than 850 thousand to more than 2 million per week between 2 March and 18 May 2020, while the number of video consultations was higher in March than in April or May when it was around 10,000 per week (Richardson et al., 2020). Richardson et al. [11], a large proportion of teleconsultations (96 percent) in France found) were billed by private practitioners, with GPs billing 80 percent of all teleconsultations, followed by psychologists (6 percent), pediatricians (2 percent), gynecologists (1.3 percent), dermatologists (1.1 percent), and endocrinologists (1.1 percent) (1.1 percent). In the Netherlands, teleconsultations are expanding, with 72 percent of GPs surveyed said they had begun using video consultations with patients in 2020.

Funding of Telephone Consultations - Medical Schemes

Update and use of technology have also been evident in medical schemes, where some medical schemes continue to fund these, however not all medical schemes 2 fund telephone consultations related to COVID-19 [5,9]. Medscheme affiliated or contracted schemes provide some evidence of schemes that do fund telephone consultation with effect in 2020. According to their newsletter publication, the administrator, in partnership with their affiliate solution providers has developed a digital platform to facilitate virtual consultations [13]. The table below depicts various rates for various schemes. The fees range between R281 and R437 (Table 1).

Table 1: Telephone consultation fees - Medscheme affiliated schemes tariff rates.

Scheme Name	2020 Tariff Rates
AECI	R287.00
Barloworld	R283.40
Bonitas	R281.60
Fedhealth	R281.50
Horizon	R293.70
Hosmed	R325.40
MBMed	R282.70
Medshield	R436.60
Nedgroup	R287.00
Parmed	R279.80
Polmed	R268.80
SABC	R282.00
Sasolmed	R281.60

Legislative Requirements

There are legislative restrictions on the use of virtual consultations [9]. Some of these have made the implementation of virtual consultation, in low-income countries difficult. Some of these present challenges to pertinent data security and privacy requirements [8]. However, there are a growing number of countries that have developed protocols and guidelines for adopting video consultations. These developments and improvements have taken a leapfrog jump in countries like the UK and the US. Clinicians in many developed countries are now permitted by regulators to use non-medical, popular video call applications (apps) such as Skype, WhatsApp, and FaceTime in addition to medical ones [8].

Objectives

The primary objective of this study was to conduct a descriptive analysis of telephonic general medical practitioner consultations by members of medical schemes.

2. METHODS

The study entailed a descriptive analysis of medical schemes' claims data for the 2020 review period. The inclusion criteria were all NAPPI codes associated with a telephonic consultation consulting general medical practitioners. The ICD-10 code primary diagnosis was used to describe the diagnosis. The study mainly focused on outpatient patients with service dates between March and December 2020. A laboratory-confirmed (RT - PCR assay) COVID-19 was used to identify the COVID-19 case as per the World Health Organization [14,15] guidelines and definition. Inclusion criteria for COVID-19 admissions were patients that had a laboratory-confirmed (RT - PCR assay) COVID-19. An emergency ICD-10 code of 'U07.1 COVID-19, virus identified is assigned to a diagnosis of COVID-19, confirmed by laboratory testing. An emergency ICD-10 code of 'U07.2 COVID-19, virus not identified is assigned to a clinical or epidemiological diagnosis of COVID-19, where laboratory confirmation is inconclusive or not available. Both U07.1 and U07.2 may be used for mortality coding (cause of death).

3. RESULTS

The analysis covered claims data from a total of 12 medical schemes. The schemes analyzed accounted for 1.6 million lives. The total number of telephonic consultations was 17 237. The mean (SD) claimed amount for telephone consultation for a general medical practice consult was R282 (SD = 20) this was slightly lower than the scheme tariff of R287 (SD = 19) (Table 2).

Table 2: Summary statistics: Claimed amount *vs.* Scheme tariff amount - general medical practice telephone consultations.

	Mean (SD)	Median (IQR)
Claimed Amount per Telephone Consultation	R282.7 (20.9)	R282 (R279 - R285)
Scheme Tariff Amount	R286.7 (19.2)	R283 (R282 - R289)

Figure 1 below depicts the proportion of consultations per month. The results depicted a peak in the proportion of consultations in July and December with July accounting for 33 percent and 22 percent of consultations in July and December, respectively. This phenomenon was consistent with COVID-19 infection rates at a national level in South Africa.

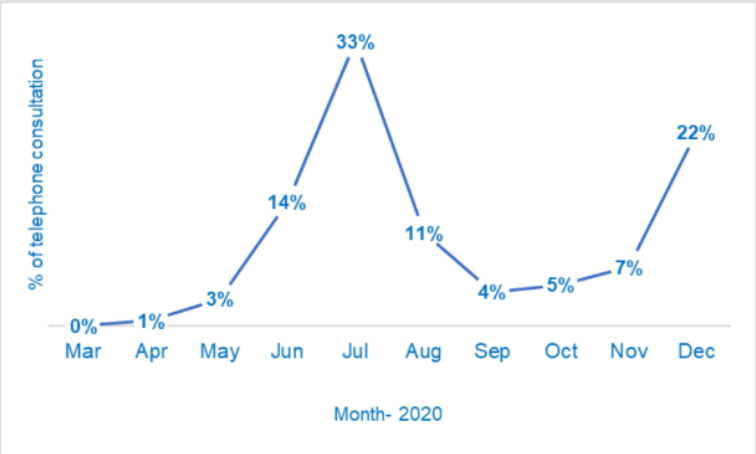

Figure 1: Total number of telephone consultations per month to general medical practitioners.

The study found that most telephonic consults were for Acute bronchitis, unspecified; Acute upper respiratory; Emergency use of U07.1 (confirmed diagnosis); Emergency use of U07.2 (suspected diagnosis); Follow-up examination; Special screening. Table 3 below further depicts that average consults for an acute respiratory consult were higher at R298 (SD = 103), however, there was variability in this regard. The average claim amount for a COVID-19 confirmed diagnosis was lower than the suspected diagnosis at R284 (SD = 27) and R288 (SD = 83) respectively.

Table 3: Summary statistics: Claimed amount per ICD-10 Primary ICD-10 Code Description - general medical practice telephone consultations.

ICD-10 Primary ICD-10 Code Description	N	Mean	Std Dev
Acute Bronchitis, Unspecified	28	R284	R11
Acute Upper Respiratory	75	R298	R103
Emergency Use of U07.1 (Confirmed Diagnosis)	968	R284	R27
Emergency Use of U07.2 (Suspected Diagnosis)	1,192	R288	R83
Follow-up Examination	30	R280	R16
Special Screening Exam	40	R283	R9

Figure 2 below depicts a Box and Whisker plot of the average claim amount for the general medical practitioner telephonic consultations. The findings depict that the most prevalent telephone consults were mainly for general medical practice; specialist family medicine depicting outliers. The average claim amount per telephonic consults for other specialist telephonic consults for Independent Practice Specialist Obstetrics and Gynecology was higher than R400. Their results also showed some evidence of telephone consultation for non-consulting specialists such as Urologists and Pediatrics Independent Practice Specialist though the volumes were not as significantly high.

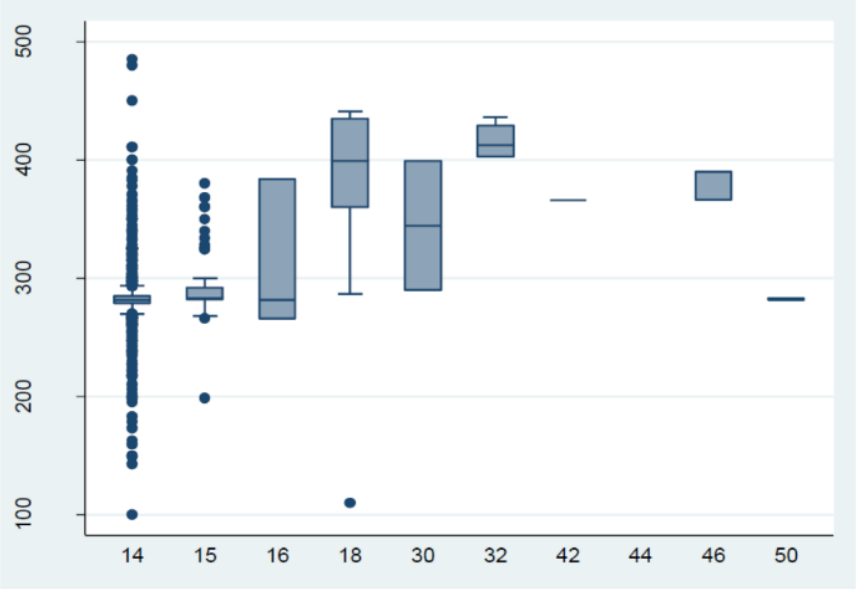

Figure 2: Box and Whisker plot - telephonic consultations (claimed amount) by discipline. (14 = General Medical Practice; 15 = Specialist Family Medicine; 16 = Independent Practice Specialist Obstetrics and Gynecology; 18 = Independent Practice Specialist Medicine; 30 = Otorhinolaryngology; 32 = Pediatrics Independent Practice Specialist; 42 = Surgery Independent Practice Specialist; 44 = Cardio Thoracic Surgery; 46 = Urology; 50 = Group practices).

4. DISCUSSION

The objective of this paper was to explore and assess telephone consultations among members of medical schemes in South Africa. This study found that telephone consultations mainly utilized general medical practice services with an average claimed amount of less than R300 per telephone consultation. These averages claimed amount in this study was within ER Consulting estimates of between R270 and R330. The claim estimate for a virtual consultation in this study was within a similar range as on the available evidence such as Medscheme rates that ranged between R281 and R437 [13]. The study also found the use of telephone consults amongst specialist's services, and these had an average claimed amount higher than R400 reflecting the specialist level of care by these specialists. A study conducted in France found that accounted for a large proportion of teleconsultations (96 percent) [11].

This study also explored the average claim amount per general medical practice telephone consultation on six different diagnoses. The study found similarities among these average claims per telephone consultation which also included follow-up examination and special screening exam. A notable feature of the findings was that the average claim amount for an acute upper respiratory telephone consult was higher than COVID-19 confirmed diagnosis or COVID-19 suspected primary diagnosis consultation. There are currently no pricing guidelines across various specialists and practitioner telephone consultations. According to Hammersley et al. [16], remote consultations are perceived as being less "information-rich" than face-to-face consultations, and technical issues were common [16]. A study by Hobbs et al, found that telephone consultations were usually shorter than face-to-face consultations (mean duration 5.4 minutes compared with 9.22 minutes [17]. A study by Hewitt, Gafaranga and McKinstry found no underlying contrasts between the communicative practices used in face-to-face and telephone consultations [18]. Further research is projected to further investigate the varying reimbursement rates for various specialists' groups and other disciplines, relative to a face-to-face consultation. Future research should also seek to develop guidelines on the use of telephonic consultations and value that could be derived by members.

5. CONCLUSION

The study found evidence of patients utilizing telephonic consultations for general medical practitioner services. The effect of COVID-19 in this respect was seen in the three main primary diagnoses that were associated with the consult, Acute upper respiratory, Emergency use of U07.1 (confirmed diagnosis) and Emergency use of U07.2 (suspected diagnosis). Even though the average telephonic consult was claimed at just under R300, few general medical practitioners claimed between R400 and R500. This similarity between follow-up telephone consults and diagnosis and the outlier effect reveals a need for further guidelines and these to potentially cover potential consult guidelines perspective to also advise other medical schemes who yet to fund these types of consultation. There Is an urgent need to develop guidance and ethical principle on virtual consultation such as telephone consultation and these should ensure that there is a value add for patients.

6. CONFLICT OF INTEREST

The authors have declared that no conflict of interest exists.

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