



Clinical Audit on Referral of Patients from Penang International Dental College for Physician Opinion for Dental Extraction

Abin Varghese, Tina Varghese, Philip Pradeep*, Yew Tze Hao, Dhurgaashini Arsaythamby and Koh Hui Zhi

Private Practitioner, Department of Conservative Dentistry and Endodontics, India

*Corresponding Author: Philip Pradeep, Private Practitioner, Department of Conservative Dentistry and Endodontics, India.

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Abstract

Background: All dentists, whether general dentists or specialists have both legal and ethical responsibilities towards their patients and are obligated to refer patients for seeking a specialist's opinion, depending on the conditions which have been assessed and diagnosed, to carry out their planned treatments. Penang International Dental College (PIDC) has been practicing the current method of communicating to the patient's physician through referral letters for seeking their opinion regarding fitness of the patients who are medically compromised with systemic disorders, to undergo dental extraction under local anesthesia.

Aim: The aim of this study is to find out the percentage of patients returning to PIDC for extraction after consulting their physician when being referred.

Methodology: The study was conducted by collecting secondary data from case records that were identified through the previously sent referral letter copy book from PIDC polyclinic from the year 2018 to 2019.

Result: 79 patients were referred to their physician in the stipulated time frame. Only 10 (12.66%) patients who were referred got treated at PIDC. Among all the patients who got treated, 7 (17.95%) patients were treated in 2019 and only 3 (7.50%) patients treated in the year 2018.

Conclusion: This study showed low percentage of patients returning back to PIDC for extraction after consulting their physician when being referred. Feedback from the physicians showed that most of the patients being referred were fit for extraction. Common errors found in the referral letter were in the department column, time column, referral number column, results of investigation column, treatment column in the referral letter form.

Keywords: *Clinical Audit; Referral Letter; Dental Extraction*

Introduction

The profession of dentistry has both benevolent and protective aspects with regards to duty of care to patients, to always try to do the best for the patient and to fulfill the principle of non-maleficence - "to do no harm". Under this principle, the dentist's primary obligation includes keeping knowledge and skill current, knowing one's limitation and referring to specialist or other professionals when necessary [1]. All dentists, whether general dentists or specialists have both legal and ethical responsibilities to their patients and refer them for seeking a specialist's opinion depending on the conditions which have been assessed and diagnosed, to carry out their planned treatments. PIDC has been practicing the current

method of communicating with the patient's physician through referral letters for seeking their opinion regarding fitness of the patients who are medically compromised with systemic disorders, to undergo dental extraction under local anesthesia. This is to ensure implementation of adequate relevant precautionary measures that are essential to evade the occurrence of adverse medical emergencies, which otherwise would compromise the quality of treatment rendered [2,3].

Materials and Methods

This is a retrospective type of study. A clinical audit was carried out on patients' case sheets at Penang International Dental College. The study population includes all case sheets of patients referred

for dental extraction between the years 2018 to 2019. The sample size for this study was 79. The inclusion criteria for this study were those case sheets of patients who fall under ASA class III physical status i.e. patients with severe systemic diseases. Only adult patient case sheets would be reviewed. The exclusion criteria were case sheets of pediatric patients (age below 14 years), and case sheets which were unable to be retrieved.

Data was collected from case sheets that were identified through previously sent referral letter copy book from PIDC polyclinic from the year 2018 to 2019. The evaluation of written referral letter was conducted at the same time. The percentage of patients who were returning for dental extraction was calculated as per the data retrieved from case records. Those patients who returned after obtaining the physician’s opinion and got treatment were considered as compliant. The numerical data was assimilated and tabulated in percentage form.

Results

The total number of patients being referred to their physician was 79. From these 79 patients, 40 patients were referred in year 2018 and 39 patients for the year of 2019. Even though the number of patients were 79 but only 10 (12.66%) patients who referred and got treated in the PIDC. Among all the patients who got treated, 7 (17.95%) patients were treated in 2019 and only 3 (7.50%) patients treated in the year 2018. Overall, more patients were treated for the year 2019. Clinical audit was carried out on referral letter copy book to identify common errors being made in the book. The data collected from year 2016 to 2019 showed that the most common errors were made in the department (66.97%), result of investigation (44.77%), reference number (42.98%), time (34.02%), diagnosis (18.43%), and treatment (5.07%).

Years	No of Patients Referred	No of Patients who Referred and Got Treated	Percentage (%)
2018 (115)	40	3	7.50
2019 (93)	39	7	17.95
Total	79	10	12.66

Table 1: Number of patients referred and got treated in the year 2018 and 2019.

Figure 1 showing total of 40 patients were referred in the year 2018 and only 3 out of 40 patients who got treated. Total of 39 patients were referred in the year 2019 and only 7 out of 39 patients who got treated in the PIDC.

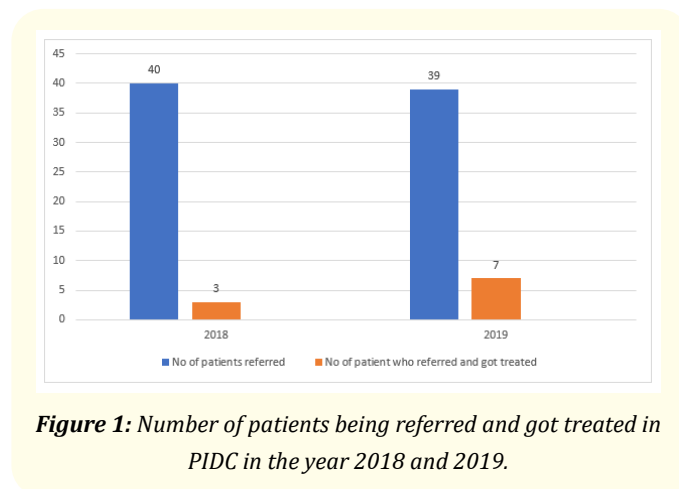


Figure 1: Number of patients being referred and got treated in PIDC in the year 2018 and 2019.

Figure 2 shows the percentage of patients who referred and got treated in the year 2018 and 2019. Total of patients referred and got treated for the year 2018 and 2019 were 10 (12.66%). Year 2019 showing highest number of patients referred and got treated were 7 (17.95%) and followed by 3 (7.50%) for the year 2018.

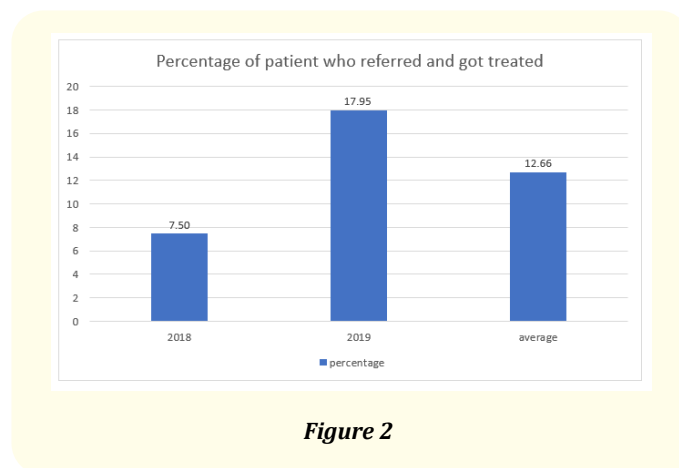


Figure 2

Common errors made in the referral letter form were identified. The errors made were further divided into wrong statement and blank column. The columns in the referral letter form which were left empty was termed as blank column and the columns which were inappropriately filled was termed as wrong statement.

Total errors made in the department column including the blank and wrong statement was 221 (66.97%) showing the highest percentage among all the others. On the other hand, results of investigation column was in the second highest rank of 150 (44.77%). Reference number column showing the third highest percentage which was 144(42.98%) followed by the time column showing of 114 (34.02%) total errors made. The diagnosis column showing 45 (13.43%) whereby the errors made in treatment column was 17 (5.07%). Columns of year, purpose of referral, age, signature, history, identification card and date shared almost same percentage of errors ranging from 0.03-0.09%.

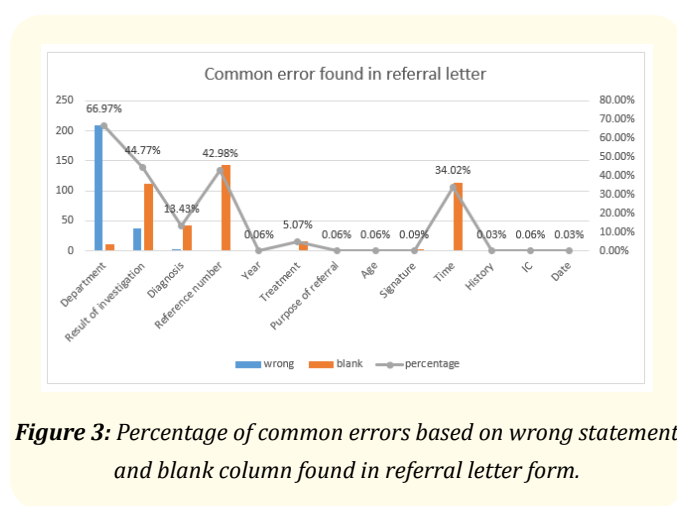


Figure 3: Percentage of common errors based on wrong statement and blank column found in referral letter form.

According to our study, out of 335 referral letters, only 114 were written without error. This study was in line with the study conducted by Mikael Bjorkeborn which showed that many errors was found in the referral letter received between 2014 and 2015 at both Halmstad Hospital and Växjö Hospital [9-13]. We believed that some sort of knowledge of writing referral letters should be taught to the students, and modification of referral letter format can be made where necessary. A study conducted by R.P.J.C. Ramanayake in the year 2013 concluded that skills of writing referral letters have to be emphasized among general practitioners and specialists, as it helps in better understanding and ease of communication. The study done by W.J. van der Kam., *et al.* revealed that electronic communication between the GP and community pharmacist results in a better agreement between them with respect to current medication of the patient than paper-based communication [4]. Since PIDC is using paper-based communication of referral method, it would be an advantage if electronic communication were to be used.

However, the results may be varying due to incomplete data collection. The covid-19 pandemic affected educational systems worldwide, leading to closure of schools, colleges, and universities. Malaysia Government had temporarily close educational institutions in the attempt to combat the spread of Covid-19. This in turn, caused delay and difficulties in data collection for our study in PIDC [14,15].

Discussion

The total number of patients returning for extraction after consulting their physicians when being referred were almost equal for the year 2018 and 2019. Even though the number of patients being referred for obtaining physician’s opinion prior to extraction was equal, the number of patients being referred and treated was significantly higher in the year 2019 compared to the year 2018 [5,6].

A very low percentage of patients returned back to PIDC for extraction after consulting with their physicians. The feedback from the physicians showed that most of the patients being referred were fit for extraction. This study was in line with the study conducted by Richard., *et al.* (2009), where less percentage of patients chose to seek continuing care after their referral to the physician [7]. Clinical audit conducted by Maria Jesus Pacheco-Veergara., *et al.* suggested that those patients who got referred and treated were reviewed based on review referral, procedure and complication patterns [8].

Conclusion

This study showed low percentage of patients returning back to PIDC for extraction after consulting their respective physicians. This shows patient’s compliance is less towards tooth extraction treatment in PIDC. Feedback from Physicians showed that most of the patients being referred were fit for extraction. Common errors found the in the referral letter were in the department column, time column, referral number column, results of investigation column, treatment column in the referral letter form.

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