

## Knowledge, Attitude, And Practices Of Dental Professionals Regarding Management Of Medically Compromised Patients During Dental Extractions

Research Article

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### Abstract

**Objectives:** The current study aims at assessing the knowledge, attitude and practice of dental professionals regarding management of medically compromised patients during dental extractions.

**Methods:** A self-administered close ended questionnaire of 15 questions was made and was distributed among the dental professionals including BDS and MDS from the different specialties. The data extracted was tabulated, statistically analysed and results were obtained. Results were calculated on the basis of frequency and percentage.

**Results:** The survey was distributed online amongst the dental professionals through survey administration software. 258 dental professionals responded to the questionnaire. 93.5 % of participants were aware about the need of specialized treatment plan for medically compromised patients undergoing extraction. 73.9% of the participants showed positive attitude towards the need of physicians' opinion before the extraction procedures in medically compromised patients. 97.8 % of participants were willing to take special consideration during treatment planning in medically compromised patients undergoing extractions procedures in their practice.

**Conclusion:** It can be concluded from the study that majority of dental professionals in the present study have a good knowledge regarding treatment planning of medically compromised individuals prior to the dental extractions in dental clinics but were lacking confidence in handling some of the medical emergencies and were lacking in the actual practice of the same. Hence, in order to improve quality of patient care, more continuing dental education programs should be conducted to update the practitioners on the management of medically compromised patients and should be encouraged to practice the same in day-to-day practice.

**Keywords:** Knowledge; Attitude; Practices; Dental Professionals; Medically Compromised Patients; Dental Extractions.

### Introduction

The incidence of medically compromised patients getting treated in dental practice is increasing [1]. With this increasing number, the number of medically compromised patients availing dental treatment is also increasing by two-fold everyday [2]. The management of such patients becomes of crucial importance as these patients demand special attention and care to counter the compromised health status [3]. It is the responsibility of the practitioner

in such a case to not just treat the patient with utmost care and caution but also to initially pre plan the course of treatment in a proper manner. Such a treatment plan can be beneficial to both the practitioner and the patient in best achieving results in terms of treatment comfort, better recovery and also at evading untoward incidents during or after the decided treatment [4].

Dental extraction or exodontia is one such dental treatment that requires proper treatment planning before the advent of the treat-

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**Received:** July 30, 2021

**Accepted:** August 11, 2021

**Published:** September 03, 2021

**Citation:** Ashutosh Deshpande, Hemavathy OR, M.P. Santhosh Kumar. Knowledge, Attitude, And Practices Of Dental Professionals Regarding Management Of Medically Compromised Patients During Dental Extractions. *Int J Dentistry Oral Sci.* 2021;8(9):4190-4194. doi: <http://dx.doi.org/10.19070/2377-8075-21000854>

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ment [5]. The dental extraction procedure being an invasive minor surgical procedure can have its impact on the overall status of the medically compromised patient. Factors such as other medical conditions existing, duration since when the patient has the condition, medications and other patient factors can play a major influence on the treatment plan [6]. A good understanding of the patient's condition is hence very crucial in such a case. This may be well understood by proper detailed case sheet recording, investigations and other multidisciplinary approaches. Beside chair side treatment planning aspects such as pre medication, cessation of any existing medications like blood thinners; the availability of emergency medications in office during the procedure also must be planned [7]. Many dental practitioners are either unaware of the consequences of not charting such a detailed dental treatment plan or in many other cases it is just ignored out of negligence. The current study aims at assessing the knowledge, attitude and

practice of dental professionals regarding management of medically compromised patients during dental extractions.

## Materials and Methods

A self-administered close ended questionnaire of 15 questions was administered to the participants. It consisted of 5 questions each of knowledge, attitude and practice domains respectively. Initially a pilot study of the questionnaire was done by distributing it to 5 participants to check the comprehensibility of the questionnaire. It was then distributed among the dental professionals including BDS and MDS from different specialties. A total of 258 dental professionals responded to the questionnaire. The data extracted was tabulated, framed as pie charts and statistically analysed and results were obtained. Results were calculated on the basis of frequency and percentage.

### Questionnaire for Knowledge, Attitude, And Practices of Dental Professionals Regarding Management of Medically Compromised Patients during Dental Extractions:

#### Knowledge Domain

1. Do you think medically compromised patients need specialized treatment planning for dental extractions?
  - 1) Yes
  - 2) No
2. Is there a necessity for specialized treatment planning even for non-extraction procedures?
  - 1) Yes
  - 2) No
3. Are you aware of PARS (Patient At Risk Assessment Score)?
  - 1) Yes
  - 2) No
4. Are there any protocols of premedication for medically compromised patients prior to the extraction procedures?
  - 1) Yes
  - 2) No
5. Do you think general physicians' opinion in medically compromised patients prior to the extraction plays an important role?
  - 1) Yes
  - 2) No

#### Attitude Domain

1. How important is the treatment planning pre-extraction in medically compromised patients?
  - 1) Very Important
  - 2) Important
  - 3) Not sure
  - 4) Not necessary
2. Both extractions and non-invasive dental procedures require equal amounts of treatment planning.
  - 1) Strongly agree
  - 2) Agree
  - 3) Not sure
  - 4) Not required
3. Evaluation of risk factors/ risk assessment is necessary pre-extraction in medically compromised patients.
  - 1) Strongly agree
  - 2) Agree
  - 3) Not sure
4. Do you think the postoperative outcome of the patient depends on the patient's medical status post extraction?
  - 1) Strongly agree
  - 2) Agree
  - 3) Not sure
  - 4) Not really

5. How important is the general physician's opinion in medically compromised patients prior to extraction?
- 1) Very important
  - 2) Important
  - 3) Not sure
  - 4) No need of physician's opinion

#### Practice Domain

1. Do you take detailed medical history of each patient before treatment planning?
  - 1) Always
  - 2) Never
  - 3) Sometimes
2. Do you wish to take special considerations in treatment planning of medically compromised patients undergoing extractions in your practice?
  - 1) Yes
  - 2) No
  - 3) Sometimes
3. Do you use PARS scores for evaluation of patients?
  - 1) Always
  - 2) Never
  - 3) Sometimes
4. Do you follow up the patient to evaluate the post-operative outcome after the extraction procedure?
  - 1) Always
  - 2) Never
  - 3) Sometimes
5. Do you take general physicians' opinion in medically compromised patients prior to the extraction?
  - 1) Always
  - 2) Never
  - 3) Sometimes.

## Results

A total of 258 responses to the questionnaire were received. The Kolmogorov-Smirnov test revealed a non-normal distribution of the data. The gender distribution showed (60.4%) female respondents and 39.6% of male respondents. 76.1% participants were BDS doctors and undergraduate students and 23.9% participants were MDS and post graduate students from different specialties (Fig1). 93.5 % of participants were aware about the need of specialized treatment plan for medically compromised patients undergoing extraction (Fig2). 73.9% of the participants showed positive attitude towards the need of physicians' opinion before the extraction procedures in medically compromised patients (Fig3), while 76.1 % prefer to get the general physician's opinion before the procedure (Fig4). 97.8 % of participants were willing to take special consideration during treatment planning in medically compromised patients undergoing extractions procedures in their practice (Fig 5).

## Discussion

The occurrence of life-threatening complications in dental practice is less; however, there is an increase in the number of medically compromised patients [8, 9]. The commonly encountered medically compromised conditions are diabetes, asthma, heart diseases, epilepsy, etc. [10]. To avoid the complications during the extraction procedures, the treatment should be planned according to the underlying medically compromised condition [11]. This survey study was carried among the 258 dental practitioners

including MDS post graduates from different specialties and the BDS professionals including the interns.

The results showed that out of total participants 97.8 % participants have the knowledge about specialized treatment plan for the extraction procedures in medically compromised patients, whereas 93.5% practitioners had knowledge regarding importance of general physician's opinion and 6.5% did not have the knowledge about the physician's opinion. However, the attitude towards the physicians' opinion for medically compromised patients is somewhat different. Among all, 73.9% participants strongly agreed to the need of physician's opinion and the 21% participants thought that the opinion is relatively important. Remaining participants were not sure about the need of physicians' opinion.

In actual practice, 97.8 % of participants actually followed the specialized treatment plan for the medically compromised patients which show little discrepancy. On the other hand, the knowledge and the practice regarding the physician's opinion shows more discrepancy. Not much discrepancy was observed in the attitude of the participants and the actual practice.

In an article by Srivastava et al, they concluded that professionals need to regularly update about novel anticoagulants, and should strictly comply with the established practice guidelines, thus improving the quality, safety, and value of dental health care [12]. The similar survey by Ravindran Chinnaswami et al., revealed that dentists are knowledgeable about management of patients on oral anti-thrombotic medications. However, they tend to overestimate the bleeding risk, thus being cautious in their treatment approach [13]. In their study, they also suggested that continuing

### Knowledge Domain

Figure 1. Pie Chart depicting distribution of the study population based on professional qualification.

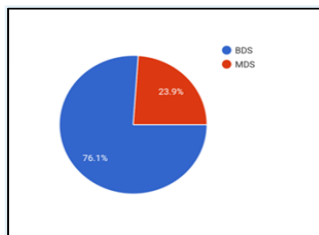
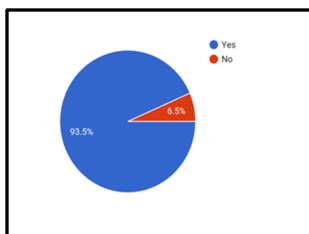
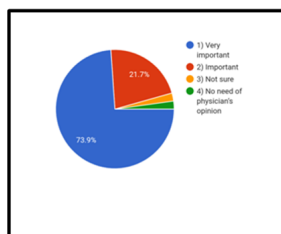


Figure 2. Pie Chart depicting knowledge regarding need for a specialized treatment plan.



### Attitude Domain

Figure 3. Pie Chart depicting attitude regarding need for a general physician's opinion for treatment planning.



### Practice Domain

Figure 4. Pie Chart depicting practice of obtaining a physician's opinion.

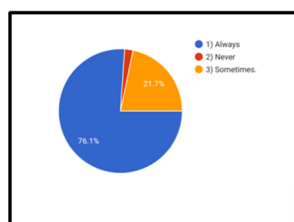
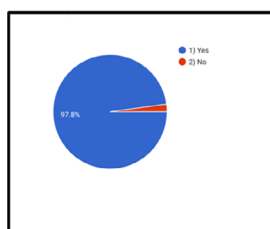


Figure 5. Chart depicting practice of special considerations for the compromised patients.



dental education programs and further training on management of such medically complex patients will be beneficial in order to provide optimum dental care to people taking oral antithrombotic medication [13]. Thus, in general, in spite of having knowledge about the need for specialized treatment plan for medically compromised patients, many people do not follow the same in their practice.

With a rich case bank established in our institution over the last decade, we have been able to conduct research and publish extensively in the KAP survey domain [14-23]. A drawback of this study consists of limited population being studied and inclusion of a smaller sample size. Future scope of the study is that a larger sample from diverse population must be assessed over a longer period of time for planning and implementing protocols for the

successful management of medically compromised patients during dental extractions.

### Conclusion

It can be concluded from the study that majority of dental professionals in the present study have a good knowledge regarding treatment planning of medically compromised individuals prior to the dental extractions in dental clinics but were lacking in the actual practice of the same. Hence, in order to improve quality of patient care, more continuing dental education programs should be conducted to update the practitioners on the management of medically compromised patients and should be encouraged to practice the same in day-to-day practice.

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