



## Importance of Dental Records in COVID-19 Era

<sup>1</sup>Dr. Jaishri S. Pagare, <sup>2</sup>Dr. Rashida Akolawala  
MDS, <sup>1</sup>Professor and HOD, <sup>2</sup>Post Graduate Student,  
Department of Oral Medicine and Radiology

**\*Corresponding Author:**

**Dr. Jaishri S. Pagare**

MDS, Professor and HOD, Department of Oral Medicine and Radiology

Type of Publication: Original Research Paper

Conflicts of Interest: Nil

### Abstract

Dental records may be defined as all the documents related to subjective and objective information about the patient. It includes past medical and dental history of illness, clinical examination, diagnosis, treatment, and prognosis. It can also include a patient's radiograph, photographs, digital impressions, etc. Maintaining dental records has become a necessity in the current ongoing situation of the COVID-19 pandemic. This article discusses the significance of good dental records and their maintenance in digital format so that it helps in providing quality dental treatment without compromising COVID-19 guidelines.

**Keywords:** Electronic dental records, interdisciplinary dentistry, patient record, record keeping

### Introduction

The COVID-19 disease has had a lot of negative impact on general dental practice. Since it spreads by aerosol, droplet, fomite, and contact transmission, face-to-face communication between a dentist and patient has reduced a lot. Dentists are most susceptible to getting infected with the coronavirus since any form of dental treatment involves close inspection, examination, diagnostic and therapeutic procedures involving the orofacial region. Therefore, dental care was limited to emergencies.

A dental record consists of all the patient's related information, right from the patient's name, age, gender, and clinical information like signs, symptoms, history of present illness, past medical and dental history, radiographs, photographs, and consent to treatment. It acts as a source of reference to which future treatment plans and outcomes can be made. [1]

The present situation of the COVID-19 pandemic has highlighted the importance of maintaining a comprehensive and complete dental record of a patient. Since virtual consultations have become the norm, extracting any valuable information from

already available digital records of any patient helps in swift examinations, treatment planning, as well as hassle-free communication. Also, dental records may help in epidemiological studies concerned with the attitudes of dentists and patients after the emergence of COVID-19 and/or any such studies.

### Dental Record

A dental record is an official and legal document that comprises the following content:

1. Patient's details like name, age, gender, address, and contact information. This is useful for future references and the transfer of information from one system to another. Multiple contact numbers should be saved for further correspondence.
3. Medical and dental history consists of any ongoing medical treatment or any systemic diseases like cardiac or bleeding disorders, as well as the name and contact number of the patient's physician. The presence of any comorbidity increases mortality rates in COVID-19 patients, so one can give an emergency drug for acute dental pain and

postpone the treatment that has aerosol production.

4. Clinical examination, which should be as accurate as possible. It provides information regarding your current dental status. It should include teeth present and/or absent, information about all the surfaces of teeth, caries, root pieces, periodontal status, any dental anomalies, the presence of impacted teeth, etc.
5. Various investigations like intraoral periapical radiographs, panoramic radiographs, anteroposterior, lateral projections, temporomandibular projections, computed tomography, cone beam computed tomography, casts, photographs, laboratory investigation reports, consultancy and referral reports, written notes, and drug prescriptions.
6. Disease diagnosis, progression, treatment notes, and prognosis[4]

Dental records should also include history of any sort of abuse as well as the patient's signed informed consent. Appropriate correspondence and/or dismissal letters can be added to the dental record. It shouldn't include financial information about the patient and the dentist's personal opinions, biases, or criticisms. [6]

Another important aspect of dental records is confidentiality. In no way should a dentist disclose a patient's information. There are various circumstances when this rule is not followed, and they include,

1. Sharing of pertinent information with other healthcare professionals, either for consultations or treatment.
2. On request by the police or court, i.e., for medico-legal cases.
3. Where information is required by a third-party company or any legal advice or insurance company,
4. For research or peer review purposes (the patient's name should not be revealed).[9]

### **Covid-19 And Electronic Dental Records**

In today's digital era, all professions are benefiting from software technologies. Why should dentistry be left behind? In recent years, there has been an

increase in the adoption of current-generation technologies in dental offices. Electronic Dental Records (EDRs) and various software must be utilised for maintaining dental records since there is an emergence of new technologies and computers in dental offices. [5]

Quite a few laboratory tests and radiographs are repeated in the traditional method of record keeping because they were misplaced. Percentage of treatment done is not documented. In addition, doctors and other healthcare workers lose time doing paperwork, which may contain inaccurate or incomplete data or go missing. All these problems can be overcome by the digitalization of patients' data. [7]

An electronic or computer-generated dental record has various benefits, such as

1. Ease of handling, transfer, and feasibility of rapid communication.
2. Electronic dental records are valuable in forensic cases related to identification. Computer software made for dental comparison is useful in comparing ante-mortem and post-mortem dental records in disasters and mass casualties. [2]
3. The digital form of a radiograph and a photograph can be compared and superimposed using available software.
4. Often, dental treatment requires a multi-disciplinary approach involving more than one branch of dentistry. Digitally maintaining dental records results in hassle-free communication between a team of dentists, which saves time and ensures complete and comprehensive treatment can be provided. [3]
5. Increased accuracy and efficiency of healthcare providers so that patients get the best possible dental care.
6. Usually, there is a back-up of data, so a patient's information can be retrieved in case of emergencies.
7. Electronic dental records require less space since it is a paperless procedure.
8. Electronic dental records are making clinical data immediately available to researchers for studies.

The major problem with COVID-19 is the decrease in face-to-face interaction between dentists and

patients. Electronic dental records assist in online consultations and follow-up. There is no physical contact, which reduces the risk of transmission of the coronavirus. As previously stated, providing comprehensive dental care is a collaborative effort involving specialists from various branches of dentistry. For example, there was a rise in patients suffering from mucormycosis, and usually these patients presented with comorbidities like diabetes mellitus. Such patients required proper diagnosis by an oral medicine dentist, a radiologist to determine the extent of bony involvement, an ENT specialist, an oral surgeon for surgery, and a prosthodontist for rehabilitation. An electronically maintained record of a patient's information would definitely provide easy communication and rapid transfer of the patient's data, which overall increases the chances of providing better healthcare.

### The Challenges Of Electronic Dental Records

1. Not everyone is accustomed to using computers and various software, so training of all healthcare workers is required.
2. There can be a loss of data if a proper backup is not maintained.
3. Basic facilities like electricity and an internet connection are required, without which an electronic dental record cannot be maintained.
4. The consensus from most dental researchers and practitioners is that adoption of IT software in dentistry has been reported to be slower. [8]

### Conclusion

Whatever the case may be, keeping a comprehensive and accurate dental record should be mandatory in dental practice. Although the process may be lengthy and cumbersome, it will ensure swift and easy communication between doctors and patients. The initial step may be difficult, but the subsequent procedure will become effortless. Electronic dental records will make sure that patients get treatment that is par excellence with minimum physical contact,

ensuring minimum risk during the COVID-19 pandemic.

### References

1. Charangowda BK. Dental records: An overview. *Journal of forensic dental sciences*. 2010 Jan;2(1):5.
2. Shanbhag VK. Significance of dental records in personal identification in forensic sciences. *Journal of Forensic Science and Medicine*. 2016 Jan 1;2(1):39..
3. Sawhney S, Kundabala M, Shetty N, Thomas M. Patient record and communication in interdisciplinary dentistry. *Journal of Interdisciplinary Dentistry*. 2014 May 1;4(2):62..
4. Devadiga A. What's the deal with dental records for practicing dentists? Importance in general and forensic dentistry. *Journal of forensic dental sciences*. 2014 Jan;6(1):9..
5. Chhabra KG, Mulla SH, Deolia SG, Chhabra C, Singh J, Marwaha BS. Dental informatics in India: time to embrace the change. *Journal of clinical and diagnostic research: JCDR*. 2016 Mar;10(3):ZE12..
6. Lawney M. For the record: Understanding patient recordkeeping. *New York State Dental Journal*. 1998 May 1;64(5):34..
7. Heid DW, Chasteen J, Forrey AW. The electronic oral health record. *J Contemp Dent Pract*. 2002 Feb 15;3(1):43-54.
8. Schleyer TK. Dental informatics: A work in progress. *Advances in dental research*. 2003 Dec;17(1):9-15..
9. Garbin CA, Garbin AJ, Saliba NA, Lima DC, Macedo AP. Analysis of the ethical aspects of professional confidentiality in dental practice. *Journal of Applied Oral Science*. 2008;16:75-80