FEATURE ARTICLE

CLINICAL DOCUMENTATION OF DENTAL CARE IN AN ERA OF ELECTRONIC HEALTH RECORD USE

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ABSTRACTS

Background
Although complete and accurate clinical records do not guarantee the provision of excellent dental care, they do provide an opportunity to evaluate the quality of care provided. However, a lack of universally accepted documentation standards, incomplete record-keeping practices, and unfriendly electronic health care record (EHR) user interfaces are factors that have allowed for persistent poor dental patient record keeping.

Methods
Using 2 different methods—a validated survey, and a 2-round Delphi process—involving 2 appropriately different sets of participants, we explored what a dental clinical record should contain and the frequency of update of each clinical entry.

Results
For both the closed-ended survey questions and the open-ended Delphi process questions, respondents had a significant degree of agreement on the "clinical entry" components of an adequate clinical record. There was, however, variance on how frequently each of those clinical entries should be updated.

Summary
Dental providers agree that complete and accurate record keeping is essential and that items such as histories, examination findings, diagnosis, radiographs, treatment plans, consents, and clinic notes should be documented. There, however, does not seem to be universal agreement how frequently such items should be recorded.

Clinical Implications
As the dental profession moves towards prevalent use of electronic health care records, the issue of standardization and interoperability becomes ever more pressing. Settling issues of standardization, including record documentation, must begin with guideline-creating dental professional bodies, who need to clearly define and disseminate what these standards should be and everyday dentists who will ultimately ensure that these standards are met and kept.

INTRODUCTION

Accurate and complete clinical dental records have the potential to serve a variety of important purposes; they allow for effective communication between health care providers, enable quality of care assessments, provide a database for dental research, aid in the defense of malpractice claims, assist forensic identification of victims and, of course, optimize the safety and effectiveness of patient care.[1-4] However, these admirable goals for patient records may be thwarted by significant issues: a lack of universally accepted documentation standards, incomplete or inaccurate record-keeping practices, unfriendly electronic health care record (EHR) user interfaces, and a lack of easy and consistent access to patient records. Research consistently shows that these problems are pervasive, ongoing, and occur in many patient care fields.[5-10]

Although there are some published guidelines for content, quality, and accessibility of dental records, most notably by the American Dental Association[11-14] and the American Association of Pediatric Dentistry in 2012,[15] it is not at all clear that most dentists and dental institutions are aware of or have adopted these guidelines in everyday practice. And although there might be a general understanding about the components of an "ideal" record (examination findings, diagnoses and risk assessments, treatment and prevention plans, treatment notes, patient communications including informed consent and dissent, dental laboratory communications, pharmacy communications, provider identification, patient information, medical and dental histories, radiographs, medical laboratory results, communications with specialists and physicians, waivers and authorizations, photographs, and study models), there is no clear guidance about how information ought to be represented and how often this information ought to be updated.

Regardless of any true consensus on the ideal content of a "good" dental record, patient care is clearly not served if practitioners and allied health professionals do a suboptimal job of documenting and maintaining records. Studies conducted in Australia, the United Kingdom and Scandinavian countries show clinical dental record-keeping practices that fall well below basic standards.[16-20] For example, in one study, completed medical histories were present in only 44.6% of the patient charts, and periodontal screening had been recorded in only 20.7%.[21] Here in the United States, very little attention has been paid to the topic.[22] The solitary article we found investigating the adequacy of clinical dental records revealed several documentation flaws in those records. Patient clinical information was reported to be absent anywhere from 9.4% to 87.1% of the time.[23]

In a preliminary work in which we looked at clinical dental records at one US dental school, our observations were consistent with the conclusions of these other studies; fundamental clinic entries that either impact directly on quality of care provided or serve as a surrogate for measuring quality of dental care (eg, the patient's dental diagnosis) were missing from many records. Although complete and accurate clinical records (or "good records" for short) do not guarantee the provision of excellent dental care, they do provide an opportunity to evaluate quality of care, which incomplete and/or inaccurate records (poor records) do not allow.[24]

Although there is little question that good record keeping is a fundamental professional obligation of the dentist and, in most states, it is a legal obligation as well, these obligations seem to lack the power to persuade practitioners to be more meticulous and consistent in this area of their practice. This study seeks to (1) understand what is important to include, what is not important to include, and how frequently each entry should be updated and (2) investigate practitioner attitudes toward record keeping and consider reasons that might undermine these obvious obligations in practice.

MATERIAL AND METHODS

An institutional review board approval was obtained from our Institution's Human Research Protection Program.

This work is based on 2 studies involving 2 appropriately different groups of dentists. The first group included dentists with extensive clinical and teaching experience from around the country who have a special interest and expertise in clinical dental records. Participants in this group were invited to participate in a 2-round Delphi process[25] that is commonly used to obtain consensus among experts in a field. They provided feedback on what a typical dental clinical record should contain and the frequency of update of each clinical entry. The second group included faculty dentists and dental students at an academic dental institution and also dentists from a medium-sized private group dental practice (PDP) not affiliated with the school. The participants in this group gave us insight into practitioner attitudes toward record keeping, and the reasons that dental clinical record keeping are not often completely and/or accurately executed.

First group

The first group of dentists was invited to participate in a 2-round Delphi method study. The Delphi method is a structured communication technique or method, originally developed as a systematic, interactive forecasting method that relies on a panel of experts.[26] The experts answer questionnaires in 2 or more rounds. After each round, the researcher provides an anonymized summary of the experts' responses from the previous round and the