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The importance of using diagnostic codes

To the Editor:

We are a group of academic dentists who have developed a comprehensive dental diagnostic terminology and codes and implemented them. Our work has been catalyzed by the Consortium for Oral Health-Related Informatics (COHRI), a collaboration of >20 dental academic centers.1 The primary objective of COHRI is to share data for research and quality improvement purposes. One of the work products of this group was to create dental diagnostic terminology and codes.² These terms and codes incorporated all of the existing dental diagnostic concepts, including the oral health concepts encompassed by the International Classification of Diseases (ICD,) 9th and 10th editions. In addition, the diagnostic terms and codes were further developed to allow for finer granularity of diagnoses, a limitation of the ICD system. These diagnostic terms and codes were developed through a consensus process within COHRI and now include 13 major classifications of disease and 1,321 terms and codes. These diagnostic terms and codes will continue to evolve with the profession, as we have instituted a biannual update process. We are currently funded by the National Institute of Dental and Craniofacial Research to enhance and implement diagnostic terminology and codes in an electronic health record. One objective of our grant is to increase the utilization of diagnostic terms and codes by lowering the barrier to documenting diagnoses in a standardized fashion. As part of our effort, we are in the process of creating a validated mapping of diagnostic terminology to the currently accepted dental procedure codes, thereby reinforcing the link between diagnosis and treatment.

We agree with Dr Miller's description that as part of dental education, the student has to learn to make a diagnosis before making the treatment plan, just as the dental practitioner needs to determine a diagnosis and then make a treatment plan.³ These are core values of why we implemented the diagnostic terminology and codes within a treatment plan module in the electronic health record (Axium; Exan Corp., Vancouver, Canada). The treatment plan module guides the student and practitioner through the steps of collecting data, identification of problems, determination of one or more diagnoses and then the construction of different options for a treatment plan.

Dr Miller mentioned several benefits to the standardized documentation of dental diagnoses, i.e., the use of a common language and standard criteria, the requirement of evidence for use of diagnostic codes, the ability to track relationships between diagnoses and treatment, and qualitative and quantitative outcome measures that contribute to improvements in public health. We agree wholeheartedly with Dr Miller's observations and would like to add that standardized diagnostic terms also enhance patient communication and the sharing of data across practices.³

Attempts at standardizing diagnostic codes in the past⁴⁻⁶ have not gained traction owing in part to fragmentation of efforts to create coding systems as well as the absence of meaningful incentives, as pointed out by Dr Miller. Through COHRI, it has been possible to ensure widespread acceptance of a common diagnostic terminology.

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REFERENCES

- Stark PC, Kalenderian E, White JM, Walji M, Stewart DCL, Kimmes N, et al. Consortium for Oral Health–Related Informatics: improving dental research, education, and treatment. J Dent Educ 2010;74:1051-65.
- Kalenderian E, Ramoni RL, White JM, Schoonheim-Klein M, Stark PC, Kimmes NS, et al. The development of a dental diagnostic terminology. J Dent Educ 2011;75:68-76.
- Miller CS. Where are the diagnostic codes in dentistry? Oral Surg Oral Med Oral Pathol Oral Radiol Endod 2011;2:131-2.
- Leake JL, Main, Sabbah W. A system of diagnostic codes for dental health care. J Public Health Dent 1999;59:162-70.
- 5. Gregg TA, Boyd DH. A computer software package to facilitate

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clinical audit of outpatient paediatric dentistry. Int J Paediatr Dent 1996:6:45-51

Orlowsky R. Dental diagnostic codes. Winston-Salem (NC): Winston-Salem Dental Plan.

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The importance of using diagnostic codes - reply

In reply:

Thank you for reinforcing the importance of the need for a diagnostic coding system in dentistry and providing direction for this important task. Clearly, your interests in creating a validated mapping of the diagnostic codes and linking them to the dental procedure codes is worthy from both a practical and research point of view. Also, we should be pleased that the National Institute of Dental and Craniofacial Research has invested in this effort, because this information will be critical for the development of the electronic health record, proper communication among entities involved with patient care, and data mining.

As mentioned in your letter, the task of creating a coding system has been attempted by others but has not

gained traction owing to fragmentation and meaningful incentives. However, I would also encourage you to consider that even greater traction could be gained by involving dental professionals in the fields of Oral Diagnosis and Oral Medicine in the development, integration, and implementation phases. These experts can offer a diagnostic perspective that merits consideration. Also, although I cannot speak for the other dental specialities, I would surmise that each dental speciality would be willing to provide valuable input regarding dental terminology and diagnostic codes during these phases. At present, it is not clear how adoption of diagnostic coding might be viewed by the American Dental Association or the dental insurance industry; however, by involving dental speciality organizations and potentially emerging specialities I could expect a more beneficial outcome. Making the coding readily available and categorically simple also will aid in its success.

> Craig S. Miller, DMD, MS Editor, Oral Medicine Section

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