



## Issue

Questionable accuracy of self-reported health history in older adults in dental settings—understanding why this is common in older adults and how this affects the delivery of oral healthcare.

## Literature Review

The primary method for obtaining medical history is through direct patient and/or caregiver report.<sup>1</sup>

Inaccuracies in reporting of medical history has been associated to factors like patient age, inadequate patient education, errors in understanding as well as interpretation of medical results, low health literacy, lack of mental recall ability, experience of stigma, lack of trust in dentists, assumption that medical diagnosis may not have dental implications, length of time since diagnosis, omissions due to human error while entering the health history into the electronic record, etc.<sup>1,2</sup>

After a Medical Appointment in Older Adults<sup>3</sup>

## Factors Affecting Ability of Mental Recall of Health History Could Be

Patient related <sup>4,5</sup>	Information related <sup>4</sup>	Communication related <sup>4,5</sup>
Ageing	Modality of medical information delivery	Provider-patient relationship
Health literacy and education status	Medical appointment time	Communication style of provider
Anxiety levels	Number of instructions or amount of information given	Types of counseling strategies used

Some studies have reported gaps in medical information regarding conditions like diabetes, hypertension, some uncommon cardiovascular conditions and Sjogren's Syndrome in the dental records when compared to medical records of patients. It was remarked that up to 29% of patients did not report their hypertensive condition to the dentist, while 15% omitted to report that they were diabetic to the dentist.<sup>4</sup> Although patients may report major health events like stroke, myocardial infarction and coronary artery disease but may omit other conditions like cardiomyopathy, atrial fibrillation, and carotid artery syndrome.<sup>4,7</sup>

Medication related discrepancies in dental records have been studied where significant inaccuracies in medications in the dental settings were noted.<sup>8,9,10</sup>

In a pharmacist led intervention in dental settings, it was found that 77% of the subjects had one or more discrepancies in medications listed in dental records. Of the discrepancies 65% medications were not documented, which was a concern since these had negative oral side-effects ranging from bleeding to xerostomia.<sup>8</sup> This was found to be similar in another study where the dental records had significant omissions with medications when compared to medical records of the patients.<sup>9</sup> Some of the medication omissions were analgesics/opioids, antihypertensives, statins, proton pump inhibitors and anxiolytics.<sup>10</sup> Lastly, apart from patient misreports/omissions, some other reasons leading to medication discrepancies in records could also be due to failure to record medication changes by a provider and/or transcription errors.<sup>11</sup>

Ageing is often accompanied by chronic health conditions, comorbidity/multimorbidity and polypharmacy. Due to reduced functional reserves, management of multiple health conditions, altered pharmacokinetics and pharmacodynamics—the older adult patient is at a higher risk for precipitation of health crises as well as adverse drug reactions and interactions.

Gaps or inaccuracies in medical information provided to dental professionals may sometimes also lead to life-threatening adverse events and accidents in the dental chair.

## Mitigation Strategies

## Interprofessional Communication:

One of the commonest ways to obtain accurate health history and medications is by reaching out to the healthcare team of the patient. This could be through the medical providers, pharmacists and other members of the team.

An interesting article that revolves around this topic was about a retrospective study, which was initiated to assess the reasons and outcomes with medical consultations that were made by dental clinicians to medical providers. The topmost reason for seeking medical consultations was to request additional medical information that patient could not provide. In addition, the information requested included laboratory reports, recommendations and/or medical clearance and current medical status of the patient. Evaluating the outcomes, it was noted in the study that there was a substantial difference in the information requested by the dental provider vs the information shared by the medical provider. There had to be repeated attempts made for medical consultations in 45% of the cases, the turnaround time for completion was longer than 30 days in 13.8% cases and in about 20% cases the medical information requested was not provided in the responses. Thus, there is a need for setting up appropriate systems or processes which can help dental providers to communicate with the medical providers in a timely manner so the information exchange can take place smoothly and efficiently.<sup>12</sup>

## References

- Day GS, Long A, Morris JC. Assessing the Reliability of Reported Medical History in Older Adults. *J Alzheimers Dis*. 2020;78(2):643-652.
- Adibi S, Li M, Salazar N, et al. Medical and Dental Electronic Health Record Reporting Discrepancies in Integrated Patient Care. *JDR Clin Trans Res*. 2020;5(3):278-283.
- McGuire LC, Morahan A, Coddling R, Smyer M. Older Adults' Memory for Medical Information: Influence of Elderspeak and Note Taking. *International Journal of Rehabilitation and Health*. 2000; 5(2):117-128.
- Richard C, Glaser E, Lussier MT. Communication and patient participation influencing patient recall of treatment discussions. *Health Expect*. 2017;20(4):760-770.
- Selic P, Svab I, Repolusk M, Gucuk NK. What factors affect patients' recall of general practitioners' advice? *BMC Fam Pract*. 2011;12:141.
- U S, Rajappan AS, Felix Gomez GG, Schreyer T, Mendonca EA, Thyvalikakath TP. How Do Dental Clinicians Obtain Up-To-Date Patient Medical Histories? Modeling Strengths, Drawbacks, and Proposals for Improvements. *Front Digit Health*. 2022;4:847080.

## Unification of Records:

The physical and virtual integration of an organization's Electronic Health Record (EHR) can be executed as<sup>6,12,13</sup>.

Ad hoc implementation	Fully integrated Electronic Dental Records (EDR) with Electronic Medical Records (EMR)
Broad Implementation	EHR supports interoperability within the proprietary clinical information system E.g.: The Wisdom module in EPIC
Universal Implementation	EHR supports interoperability across different clinical information systems E.g.: Health Information Exchange (HIE) at regional levels. <sup>7,8,13</sup>

- EDR-EMR integrations can help with information sharing in large Health Care Organizations (HCOs), academic institutions and Federally Qualified Health Centers (FQHCs).
- Local community and vendor supported HIEs can allow providers in dental offices to access medical records for their patients from participating HCOs.

In a 2022 CareQuest survey, when the medical and dental providers were asked a question about storage and sharing of patient health information, providers recommended about the need for a single EHR system, 100% of dental providers and 75% medical providers reported that they would like to have the ability to view their patient's medical and dental information respectively.<sup>14</sup>

The unification of records does not eliminate medical consultations but could be pivotal in reducing the number of medical consultations, improving the quality of feedback to the consult questions.

## Conclusions

In order to consistently deliver safe dental care especially in older adults, it is important to obtain accurate patient health records. Although self-reporting is considered a norm, it is recommended that effective patient communication and active inter-professional communication should be established at a provider level. A more critical need is for efforts to integrate medical and dental records. This can improve efficiency and safety across different oral healthcare delivery systems and help with medical-dental integration.

- U S, Williams KS, Medam JK, Patel JS, Gonzalez T, Thyvalikakath TP. Retrospective Study of the Reasons and Time Involved for Dental Providers' Medical Consults. *Front Digit Health*. 2022;4:839318.
- Choi HJ, Stewart AL, Tu C. Medication discrepancies in the dental record and impact of pharmacist led intervention. *Int Dent J*. 2017;67(5):318-325.
- Tenuta LMA, Canady C, Eber RM, Johnson L. Agreement in Medications Reported in Medical and Dental Electronic Health Records. *JDR Clin Trans Res*. 2022;7(2):189-193.
- Aberkane P, Pappas MT, Garcia M, Dine F, Fentao M, et al. Discrepancy in medications reported by elderly patients in the dental office and in their electronic medical records: A pilot study. *Spec Care Dentist*. 2024;44(4):1162-1170.
- Johnson KL, Franco J, Harris-Vuey LA. A Survey of Dental Patient Attitudes on the Likelihood and Perceived Importance of Disclosing Daily Medications. *J Dent Educ*. 2018;82(8):839-847.
- Simon L. Overcoming Historical Separation between Oral and General Health Care: Interprofessional Collaboration for Promoting Health Equity. *AMA J Ethics*. 2016;18(9):941-945.
- Shimpi N, Buchanan E, Acharya A. How Medical Dental EHR Integration Can Improve Diabetes Care. *AMA J Ethics*. 2022;24(1):E199-E205.
- https://www.carequest.org/resource-library/medical-and-dental-integration-needed-improved-patient-health-records-8/. Accessed 9/12/2024.