Embracing a Culture of Safety in Dentistry

The 1999 landmark report *To Err is Human: Building a Safer Health System* thrust patient safety into the national spotlight. Since the report's release, the medical profession has responded with an array of initiatives designed to improve safety, resulting in significant progress.

Some leading experts, however, feel that the dental profession has not kept pace with medicine in addressing patient safety. For example, Jessica Meeske, vice chair of the American Dental Association (ADA) Council on Advocacy for Access and Prevention (CAAP), has stated that evidence-based safety checklists and protocols are not readily available or regularly used by dentists. In addition, Paul Casamassimo, CAAP member and chief policy officer of the American Academy of Pediatric Dentistry (AAPD), has noted that many dentists have a false sense of comfort when it comes to patient safety.

Reasons for the lag in dental response to patient safety include the lack of a widely used national, nonpunitive reporting database and insufficient patient safety training in dental schools and continuing education offerings.

Lack of progress in patient safety in the dental profession, however, does not absolve the dentist of responsibility if a patient is harmed; litigation is still a risk. Dentists need to promote patient safety in their own practice settings and support national efforts for avoiding harm.

National efforts

Fall 2019 brought signs of increasing interest in dental patient safety. The ADA weighed in at a national meeting in September 2019 when the House of Delegates passed Resolution 78H-2019, which calls for various safety initiatives such as curriculum development (see *ADA action*). In November 2019, participants gathered for the symposium "Hidden Threats and Safe Practices: Steps to Creating a Safe Dental Home," presented by the AAPD. The symposium included practical tools for improving safety not only for patients, but also for dental team members.

To contribute on the national level, dentists may want to consider reporting patient safety events to the Dental Patient Safety Foundation. Events that can be reported include near misses and incidents that reached the patient, whether or not harm occurred. Reporting is voluntary, and data collected by the foundation, which is listed as a patient safety organization by the US Department of Health and Human Services, are confidential. Aggregate data are analyzed to develop and disseminate strategies for reducing risks associated with healthcare delivery. Dentists can download reports at the foundation's website.

Dentists can also track overall trends in patient safety with regular literature searches. For example, a 2015 study by Obadan and colleagues analyzed patient safety case reports to identify types of harm; the most common was delayed and unnecessary treatment or disease progression after misdiagnosis. A 2016 study by Maramaldi and colleagues identified the most common types of adverse events as wrong site, wrong procedure, hard tissue damage, and soft tissue injury. The same study identified the most common causes of adverse events as rule-based errors, skill-based active errors, and knowledge-based active errors.

Finally, dentists can contact the school where they graduated to advocate for more patient safety education in the curriculum.

Local initiatives

On the local level, dentists can focus on patient safety by analyzing their current efforts. One tool they can use for this analysis is the Medical Office Survey on Patient Safety Culture, developed by the Agency for Healthcare Research and Quality (AHRQ). The self-assessment tool addresses several areas: patient safety and quality issues, information exchange with other settings, working in the medical office, communication and follow-up, owner/managing partner/leadership support, and overall ratings. Most of the questions ask the frequency with which issues occurred in the past 12 months.

Basic steps to improve safety include staff education, effective informed consent, and compliance with regulations and standards developed by local and national entities. For example, dentists should follow recommendations from the CDC related to infection prevention practices in dental settings.

In addition, dentists should ensure they are compliant with best practices and recommendations from national associations. For instance, the AAPD Policy on Safety lists 19 recommendations for achieving patient safety. The dentist could compare current practice against the recommendations, making changes as needed (see *Patient safety actions*).

Dentists should track their activities related to patient safety and patient data. For example, staff education related to safety should be documented. Rates of adverse effects by procedure are helpful to identify areas for improvement; it may also be useful to analyze the data by patient age and number of comorbidities. Dentists may choose to use the dental adverse event type classification, developed by Kalenderian and colleagues, to ensure consistency in reporting.

Build a culture

Actions taken to improve patient safety need to occur in tandem with building, and fostering, a culture of safety.

One vital aspect of a culture of safety is just culture, which has its roots in the aviation industry and has been embraced by healthcare. Just culture shifts the focus from blaming individuals to learning from mistakes. Encouraging people to speak up helps everyone learn from near misses and errors. Staff need to feel comfortable with saying something if they see practices that could harm patients, even if the person engaging in the behavior is someone in a more powerful position.

Of course, staff still need to be held accountable for their actions if they choose to ignore protocols but avoiding a focus on blame helps identify overall system issues. For example, a person who reports a near miss related to medication administration may trigger an analysis that concludes the label on the vial is too small.

Another vital aspect of a culture of safety is effective communication among team members. AHRQ's TeamSTEPPS is a free program designed to improve patient safety by developing teams that communicate well and effectively resolve conflict. Materials can be downloaded here. AHRQ offers dental-specific videos for use in the training.

A culture of safety requires ongoing continuing improvement work. A useful tool for this work is failure modes and effects analysis (FMEA). FMEA helps identify safety issues before they occur by examining steps in the process and considering failure modes (what could go wrong), failure causes (why would the failure happen), and failure effects (what would be the consequences of each failure). Dentists can assemble a team to apply FMEA to key points of care, such as administering sedation.

If an error occurs

The response when a patient is harmed varies according to the degree of the injury, but some basic principles apply.

Be honest. Do not try to hide from the patient what caused the harm. He or she will likely appreciate honesty.

Document. Document the circumstances, treatment, and follow-up related to the harm.

Notify the insurer. Dentists should notify their insurers about errors.

Conduct an analysis. A root cause analysis (RCA) should be done to determine why the harm occurred and to identify how it can be prevented in the future. An RCA identifies active errors (errors occurring at the point of interface between humans and a complex system) and latent errors (the hidden problems within healthcare systems that contribute to adverse events). An RCA may also be helpful for near misses.

ADA ACTION

Resolution 78H-2019, approved by the ADA House of Delegates, calls for a 3-year framework of action for the ADA Council on Advocacy for Access and Prevention:

- development of a curriculum in patient safety and adoption into education
- dissemination of information on patient safety through a variety of in-person, print, web, and social media information vehicles on a regular basis
- inclusion of patient safety considerations in practice guidelines and in standards
- development of community-based initiatives for error reporting and analysis
- collaboration with other dental and healthcare professional associations and disciplines in a national summit on dentistry's role in patient safety

The resolution also included an annual report of progress to the House of Delegates.

Source: American Dental Association. ADA council tasked with fostering prioritization of safety in dentistry. ADA News. 2019. www.ada.org/en/publications/ada-news/2019-archive/december/ada-council-tasked-with-fostering-prioritization-of-safety-in-dentistry#.

Not just patients

Although patient safety is the focus of this article, dentists should remember that safety initiatives should also address their own safety, as well as safety of team members. Ongoing education, checklists, and reporting are all components of staff safety.

Be proactive

Dentists want patients to receive the best care to ensure the best possible outcomes. By taking a proactive approach to patient safety and addressing safety issues promptly, dentists can meet their goals for quality patient care and help avoid possible legal action.

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PATIENT SAFETY ACTIONS

Below are some examples of patient safety initiatives dentists may want to consider.

- Develop a culture of safety that includes just culture.

- Conduct a time out before an invasive procedure so the dental team can confirm the patient, procedure, and tooth or surgical site.

- Minimize exposure to radiation and nitrous oxide.

- Protect the patient's eyes during the procedure.

- Keep the patient's dental record up to date, particularly medications and allergies.

- Ensure that procedures for cleaning, disinfecting, and sterilizing instruments are being followed.

- Minimize risk of sedation and anesthesia through efforts such as a preprocedure assessment for risks and having emergency equipment readily available.

- Put policies and procedures in place, education staff about them, and revise them on a regular basis. Procedures should include those related to how to respond to an emergency.

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Dental Expressions® – From the CNA Claim Files
Wrong Tooth Treatment

As presented in volume 35, issue 1 of the NSDP newsletter, "never events" are largely preventable adverse outcomes: this includes irreversible procedures in dentistry, such as wrong tooth treatment. Consistent with the patient safety focus of this newsletter issue, *Dental Expressions* presents a claim scenario involving wrong tooth treatment.

All procedural healthcare interventions have inherent risks and benefits, including the risk of completing the correct treatment on the wrong site or body part. These patient safety incidents continue to be a source professional liability claims in dentistry for extractions, root canal therapy and other dental procedures.

CLAIM CASE STUDY

Practitioner: General dentist

Claimant: 55 year-old male patient

Risk management topics: Patient assessment and diagnosis; recordkeeping; communication; referrals; patient safety protocols

Facts:

The patient presented with missing posterior teeth in all quadrants, including premolars extracted as a child as part of orthodontic treatment. Both lower first molars and upper first molar #14 appeared to be missing.

The dentist restored a lower left molar and recorded the treatment as a crown for tooth #19, although it appears to have been #18 instead. The dentist later referred the patient to an oral and maxillofacial surgeon for extraction of several periodontally involved teeth: #1, 2, 16, 17, and 32. Prior to the surgery appointment, the patient developed pain from erupted tooth #32 and scheduled and appointment with the general dentist.

The dentist extracted tooth #32 without complications and completed a second referral form for the remaining extractions. This time the teeth identified for extraction were #1, 2, 15, and 18. At the extraction consultation visit, the patient presented the oral surgeon with the with the more recent referral form. Two weeks later, the oral surgeon administered IV sedation and extracted four teeth

as planned: teeth #1 and 2, in addition to the next to last molar in the upper left and lower left. After extractions and post-operative visit, the surgeon sent a treatment report to referring dentist and the patient scheduled his next visit for ongoing dental care.

Upon examining the patient, the general dentist realized that an error had occurred: he reviewed chart notes and referral information and then contacted the oral surgeon to discuss the situation.

Key Allegations:

Improper referral; wrong tooth extraction; negligence/malpractice

Alleged Injury/Damages:

Loss of two posterior teeth; replacement and restoration expenses; pain and suffering

Analysis:

Poor communication eventually led to a wrong tooth treatment error, but the adverse outcome started to take shape much earlier with patient assessment and restorative care.

Determining the proper tooth number can be challenging, especially in cases with prior extractions, subsequent tooth movement and/or unusual tooth morphology. As in this case, using only tooth numbers in referrals may lead to miscommunication and errors. The general dentist's erroneous identification of the tooth restored with a crown as #19 began the cascade, leading to the adverse outcome.

Intraorally, it might be easy for any dentist to make this error: we are human and humans make mistakes. This is why building a "system" to help the dentist and the dental team stop and think...to re-confirm irreversible treatment procedures before acting...is so important to preventing near misses and errors.

In analyzing the error after-the-fact, the pretreatment panoramic radiograph shows anatomical features, tooth morphology and other clues that would lead a prudent dentist to identify the crowned tooth as a mandibular second molar and not tooth #19. Though no restoration had been placed, a similar error on the second referral form involved the maxillary molars on the same side of the mouth.

The general dentist believed he had provided an unambiguous referral communication by circling specific tooth numbers. However, recall that the first referral form correctly identified teeth #16 and 17 for extraction. Unfortunately, the oral surgeon did not receive the first referral: the patient was put in charge of this part of the referral process. Interestingly, the general dentist was consistent with tooth numbering: when the patient experience pain on the lower right, the dentist recorded extraction of tooth #31 rather than tooth #32.

The oral and maxillofacial surgeon also has an independent professional duty to assess the patient and determine the appropriateness of the requested treatment. This duty includes verifying the correct teeth before performing any extractions. Although the surgeon asserted that he spoke with the referring dentist on the day of extractions, this was unconfirmed and not recorded in the patient record at either dental office.

To effectively manage the risk of wrong tooth treatment, consider implementation of protocols to help prevent such errors. A "time-out" policy, based upon the Joint Commission's Universal Protocol for preventing wrong site surgery is recommended. Dental-focused policies, along with an irreversible procedure/surgery checklist are important prevention methods to consider. A patient safety-focused dental team is also a key part of preventing all adverse events.

With a referral as in this claim scenario:

- Never rely solely on the patient for referral communications or medical consultation requests.

- A written referral form is always recommended: a form was supplied in this case, but that was not sufficient to prevent an error. The dentist could have easily cleared up any confusion on the tooth numbers by also writing "Please extract the most posterior tooth in the upper left and lower left" on the referral form, or by indicating the tooth on a copy of the current film or digital radiograph.

- Referral forms should always include patient identification, important medical/dental history, diagnosis and all pertinent test results or other diagnostic information.

Outcome:

Costs associated with this claim were in the low six-figures. The patient moved to another dental office to complete periodontal and restorative treatment.

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