

## Clinical Dental Risk Management: The Needs and Challenges

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### Abstract

Clinical risk management has always been a concern in dental practice. Ensuring patients receive safe and qualified dental care services is of importance to achieve the desired outcomes.

The purpose of this narrative review is to capture the needs and challenges of clinical dental risk management to minimize the risk of adverse incidents in dental practices. The review demonstrates the deficiency in knowledge and awareness of situations that places the patients to be at risk among dental practitioners.

There is a need for a system to identify, mitigate, and prevent circumstances that increase the likelihood and consequence of risks and harm to patients in dental practices. Deployment of clinical dental risk management is of great importance to both dental practitioners and patients. It puts a great emphasis on best practices in addition to promote patient safety and avoid legal liability.

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### Introduction

Dental practices provide services and care to populations who tend to have more dental needs and thus have higher potentials for risk. Most risks are preventable and identifying the potential areas of risk can protect dental practitioners and their patients.<sup>1</sup> Dentists need to actively uphold patient safety in all services. They handle potentially dangerous pharmaceuticals, conduct increasingly aggressive dental procedures, and deal with potentially harmful technical instruments. As the instruments contact with the blood, potential sources for disease transmission may arise from fluids of patients.<sup>2</sup>

### Review

Clinical risk is one type of risk in dental practices. Such clinical risk usually involves patients' complaints about the dental care, especially clinical treatment. To manage the clinical risk, health service facilities need to ensure the quality and safety of healthcare services; they can identify situations, challenges,

and potentials of harmful risks, as well as take actions to prevent or control the risks. Clinical risk management can be described as a four-step process: risk identification, risk frequency and severity assessment, risk elimination, and determination of risk cost.<sup>3,4,5</sup>

Awareness of potential medical errors should be embedded in dental healthcare professionals by proactively choosing the best strategies to prevent or minimize the potential risk. Liability matters concerning dental practice and patient safety are deemed as strategies to control the risk.<sup>6,7</sup> All healthcare professionals should be responsible for their patients, personally accountable to prevent harm, as well as able to detect areas prone to errors, appropriately respond to patient's and co-worker's concerns, and maintain a safe clinical working environment for their health.<sup>8,9,10</sup>

Practice management undeniably can be integrated with risk management techniques to decrease exposures to risks and build better patients' understanding, awareness, and compliance with dental treatment.<sup>11</sup>

Risk management of dental practice can be run with accurate and complete healthcare records, appropriate time and action to ask for seniors' help, and participation in meetings on risk management and patient safety. Other than that, it can be accomplished with respectful response to complaints of patients and their

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families after an adverse event or for service errors.<sup>12,13</sup>

## Discussion

### Gaps and Problems

Medical errors challenge the public health. To uncover and avoid a recurrent cause of errors and a viable solution, such errors need to be identified. By recognizing the problematic events that have occurred, learning from them, and working towards preventing them, healthcare professional can improve patient safety. Apart from standardized care, the process of quality assurance can be implemented by legally having standard work practices and management procedures to minimize legal risks.<sup>14, 15,16</sup>

Risk management aims to prevent all accidental damages as well as claims in general in addition to payment for excessive insurance premiums. The main objective of risk management is to promote quality care.<sup>10</sup> Risk management is the process of identifying, assessing, judging, mitigating, and anticipating risks, as well as monitoring and reviewing the progress of problem solution. Risk is considered affecting clinical care. Hence, risk control may succeed to grab optimal treatment outcomes and patient satisfaction. Risk management is under implementation as it can manage exposures to risk and potential impacts of the risk.<sup>3,17,18</sup>

Three components of risk management include communication, documentation, and informed consent. At the first appointment, dentists must show good impression to patients as they will value services based on mutual trust and respect. Both dentists and patients could have talked orally or in writing.<sup>7,21,22</sup> Additionally, dental risk management has been increasing over the years and has concentrated on how to succeed treatment records and early notification of treatment to patients. Two basic areas of risk management are record archiving and informed consent. Most dental clinics can improve on both aspects to make patients more aware of dental care and easy to disapprove an unfounded allegation of negligence.<sup>7,19,20</sup>

### The Needs for Clinical Risk Management

Dental care is fundamentally private, and there are many reasons why dental practitioner must become more active in dealing with quality and safety. Patients are barely aware of treatment follow-ups for many adverse events.

Clinical risk management is required to handle potentially dangerous pharmaceuticals, while dental procedures, especially implantology and dental surgery, are increasingly aggressive. Not to mention, dentists deal with technical instruments (ionizing radiation, lasers, etc.) which may be harmful and potentially become sources of disease transmission.<sup>9, 23,24</sup>

Dental professionals routinely perform procedures and administer medications that affect patient's health and safety. As a dental healthcare professional, you are responsible for being aware of the risk of medical errors and learn strategies to minimize them. Medical errors may occur at any point in treatment, including preventive care.<sup>13,25,26</sup>

### Challenges of Clinical Risk Management

Dental practice can be improved through risk management on patient care and risk exposure. Collaborative dental practice will demonstrate teamwork to improve patient acceptance of dental care and impart material and non-material benefits. as risk management activities are easily adapted to dental practice.<sup>27</sup>

As clinicians, dentists need to plan treatment and show professionalism (providing information about dental treatment to patients), care for patient autonomy (being respectful to patients' expectations), and scientific credence. Furthermore, clinical self-deprecation essentially aligns with being able to perform and deliver what is being proposed. Moreover, having the scientific rationale for treatment options is an asset for dentists to cater risk management.<sup>28</sup>

Risk management consists of four essential strategies, which are risk avoidance, reduction, transfer, and acceptance. Risk avoidance is knowing which practices expose the dental practice to significant legal risks and then avoid them.<sup>29</sup> Risk reduction lowers risks by adhering to best practices such as universal or general precautions, informed consent and others. Risk transfer is related to transferring some risks from selected patients to a dental specialist. Risk acceptance is when a dental practice decides to proceed with a high-risk patient or procedure.<sup>5,30</sup>

Some challenges in risk management processes include lack of leadership commitment and miniscule efforts to proactively identify and prioritize risks. Moreover, other challenges also might occur due to some other factors related to

the processes of risk management, adequacy of expertise in risk treatment/mitigation, acceptance of changes in the process/system, and monitoring systems.<sup>31,32</sup>

## Conclusions

Deployment of clinical dental risk management is of great importance to both dental practitioners and patients. It puts a great emphasis on best practices in addition to promote patient safety and avoid legal liability.

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## Declaration of Interest

The authors report no conflict of interest.

## References

1. Operations Manual for Health Center Oral Health Programs Chapter 4: Risk Management. National Network for Oral Health Access. 2011:78.
2. Ahmad I. Risk management in clinical practice Part 5: Ethical considerations for dental enhancement procedures. *British dental journal*. 2010 Sep;209(5):207-14.
3. D'Cruz L. Risk Management in Clinical Practice Part 1: Introduction. *Br Dent J* 2010;209(1):19-23.
4. Bressman JK. Risk Management for the '90s. *Journal of the American Dental Association* 1993;124(3):63-67.
5. Buczko M. Four Risk Management Strategies Every Dentist Needs. 2020.
6. Linda J. Hay, J.D. Risk Management: The Top 10 Mistakes Dentists Make. Identifying Risks Can Prevent Malpractice Lawsuits. 2006.
7. Melissa Moore Sanchez, CIC. Risk Management: Addressing Current Issues in The Dental Practice. 2011.
8. Cook C, Finch T, Sharma S, Girling M, Rapley T, Vernazza CR. Developing oral health risk assessment as routine practice during early stages of clinical careers: *Eur J Dent Educ* 2020;24(1):169-176.
9. Perea-Pérez B, Santiago-Sáez A, García-Marín F, Labajo-González E, Villa-Vigil A. Patient Safety in Dentistry: Dental Care Risk Management Plan. *Med Oral Patol Oral Cir Bucal* 2011;16(6): e805-9.
10. Admiraal WJ. Gestion du risque en dentisterie (Risk management in dentistry). *Rev Belge Med Dent* 1993;48(1):66-70.
11. Eroglu O, Algan-Kaya H, Coskun F. A potentially fatal complication that may occur during dental treatment: Foreign body aspiration. *Pan Afr Med J* 2015; 20(1).
12. Dym H. Risk Management Techniques for The General Dentist and Specialist. *Dent Clin North Am* 2008;52(3):563-77.
13. Brocklehurst, P., Ashley, J. & Tickle, M. Patient Assessment in General Dental Practice – Risk Assessment or Clinical Monitoring. *Br Dent J* 2011;210(8):351-4.
14. Josh, G. The Academy of Dental Learning and OSHA Training, LLC. Risk Management: Prevention of Medical Errors in the Dental Practice. 2020.
15. Graskemper JP. A New Perspective on Dental Malpractice: Practice Enhancement Through Risk Management. *Journal of the American Dental Association* 2002;133(6):752-757.
16. Rodziewicz TL, Houseman B, Hipskind JE. Medical Error Reduction and Prevention. 2021 Jan 4. In: StatPearls. Treasure Island (FL); StatPearls Publishing; 2021.
17. Eubanks S. The Dental Assistant's Role in Risk Management: Patient records. *Dent Assist J* 1992;61(2):18-21.
18. World Health Organization. Patient Safety Curriculum Guide. Topic 6: Understanding and Managing Clinical Risk. 2018.
19. Palmer RM. Risk management in clinical practice: Part 9 Dental implants. *Br Dent Journal* 2010; 209(10):499-506.
20. Pollack BR. Risk management in the dental office. *Dental Clinics of North America* 1985;29(3):557-580.
21. Westall, J., Dickinson, C. Compliance with occupational exposure risk management procedures in a dental school setting. *Br Dent J* 2017;222:859–863.
22. Weinstein P. Motivational. Interviewing Concepts and the relationship to risk management and patient counseling. *Journal of the California Dental Association* 2011;39(10):742-745.
23. Cannavale A, Santoni M, Passariello R, Arbarello P. Risk management in radiology. *Radiol Manage* 2013;35(5):14-9.
24. Holmes SM, Udey DK. Risk management in oral and maxillofacial surgery. *Oral Maxillofac Surg Clin North Am* 2008;20(1):119-26.
25. Perea-Pérez B, Santiago-Sáez A, García-Marín F, Labajo-González E, Villa-Vigil A. Patient Safety in Dentistry: Dental Care Risk Management Plan. *Med Oral Patol Oral Cir Bucal* 2011;16(6):805-9.
26. Pollack BR. Risk Management in The Dental Office. *Dental Clinics of North America* 1985;29(3):557-580.
27. Simon RI, Shuman DW. Therapeutic Risk Management of Clinical-Legal Dilemmas: Should It be a Core Competency?. *J Am Acad Psychiatry Law* 2009;37(2):155-61.
28. Verdonshot EH, Plasschaert AJ, Grol R, Truin GJ. Op weg naar een kwaliteitssysteem in de tandheelkundige zorgverlening (Towards A System of Quality Care in Dentistry in The Netherlands). *Ned Tijdschr Tandheelkd* 1995;102(9):344-8.
29. Padmanabhan V, Rehman M, Osama R, Anas R. Molar Incisor Hypomineralization Prevalence in Arab Children in UAE and its Association with Risk Factors-A Cross Sectional Study. *Journal of International Dental and Medical Research* 2021;14(3): 1100-06.
30. Aleksejuniene J, Rimkevicius A, Puriene A, Rasteniene R. Social and Clinical Risk Determinants of Oral Lichen Planus—a Case Control Study. *Journal of International Dental and Medical Research* 2020;13(2):601-7.
31. Morris AJ, Roche SA, Bentham P, Wright J. A dental risk management protocol for electroconvulsive therapy. *The journal of ECT* 2002;18(2):84-9.
32. Dunne M, Brown JL. Risk Management in Dentistry. *Current Opinion in Dentistry* 1991;1(5):668-671.