

Evaluation of the Accuracy of Initial Management of Acute Traumatic Dental Injuries in Adherence to International Guidelines of Patients Presenting to the Department of Restorative Dentistry, Faculty of Dental Sciences, University of Peradeniya

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Traumatic dental injuries (TDIs) require prompt and appropriate initial management to prevent complications. The International Association of Dental Traumatology (IADT) guidelines provide standardized recommendations for handling such cases. However, adherence to these guidelines varies, potentially impacting patient outcomes. This study aimed to assess the level of adherence to IADT 2020 guidelines in the initial management of acute traumatic dental injuries presented at the Trauma Clinic, Faculty of Dental Sciences, University of Peradeniya from March 2024 to March 2025. A retrospective analysis was conducted on dental trauma cases. Patient records were reviewed, and data were systematically categorized based on injury types, initial management, and adherence to IADT guidelines. Some cases had multiple injuries. The management status was classified as correctly, partially or incorrectly managed based on guideline adherence. Among the 31 cases that fit the inclusion criteria, only 12 (38.7%) were correctly managed, while 6 (19.3%) were partially, and 13 (42%) were incorrectly managed. The injuries included avulsion (5), subluxation (6), complicated crown fractures (13), uncomplicated crown fractures (9), extrusion (4), concussion (2), intrusion (2), lateral luxation (3), crown-root fracture (1), uncomplicated crown-root fracture (1), and root fracture (1). Avulsion cases showed complete adherence (100%), while the highest rates of incorrect management were observed in lateral luxation (100%), uncomplicated crown fractures (67%) and complicated crown fractures (46%). The majority of cases were initially managed in primary care, by private practitioners, or in tertiary care. However, some individuals did not seek any initial treatment. The findings highlight a significant gap in adherence to international guidelines for dental trauma management among dental healthcare practitioners, lack of adequate training, and restricted access to appropriate materials for emergency management. Enhancing education, structured training, and resource accessibility among dental healthcare practitioners can significantly improve the gap and enhance the accuracy of the initial management, thereby leading to better patient outcomes.

Keywords: Initial management, acute traumatic dental injuries, IADT guidelines, guideline adherence