

Introduction

- Medical errors have been identified as a common cause of preventable adverse health outcomes and mortality. It also leads to increased cost of care, long-term disabilities, poor quality of life for patients, and high payouts for the providers.
- The art of diagnosis in dentistry lies at the heart of effective patient care. However, the path to accurate diagnoses is often laden with complexities, and errors may arise from various factors, including the intricacy of dental conditions, limited data, time constraints, and cognitive biases.
- There are three types of diagnostic errors: delayed, misdiagnosis, and missed diagnosis.
- National Practitioner Data Bank (NPDB) data suggests that diagnostic claims in dental practices resulted in greater than 6.4% of claims that resulted in payment. Still, they contributed over 13.6 % of the payment over the last 30 years.
- This poster presents an insightful analysis of the diagnostic dilemma, drawing on extensive research and real-world case studies and encouraging discussions, knowledge sharing, and interprofessional collaboration among dental and medical practitioners, educators, and researchers

Methodology

- A Literature review of public bibliographic databases, namely PubMed, Web of Science, and Embase, spanning from January 1, 2000, to December 31, 2021 was conducted to identify case reports on diagnostic errors in Dentistry.
- Dental conditions were categorized using International Classification of Disease (ICD)10 diagnosis codes and most common dental conditions with errors were identified.
- Data was extracted about causes, management strategies and recommendations for prevention of most common identified diagnostic errors

Three Most Common Dental Conditions & Causes

The three most common dental conditions

Head and neck neoplasms

Bacterial, viral, and fungal infections

Cysts of oral cavity

Most Common Causes

Missing to ask key relevant questions regarding a detailed patient history

Failure to weigh the signs and symptoms during the physical exam

Anchoring towards formulating of final diagnosis instead of stepwise comprehensive provisional diagnosis

Technical errors and untimely ordering of appropriate testing like imaging and biological tests

Conclusion

- Diagnostic errors can lead to unnecessary treatments, delayed interventions, and compromised patient outcomes. As highlighted in this poster, understanding the factors contributing to diagnostic errors and implementing preventive strategies are paramount.
- By remaining vigilant in clinical assessments and fostering interdisciplinary collaboration, dental professionals can enhance diagnostic accuracy, uphold patient safety, and elevate the quality of dental care provided.

Head and Neck Neoplasm

- Most common conditions with diagnostic errors are adenoid cystic carcinoma, ameloblastoma, squamous cell carcinoma
- Common presenting symptoms and signs are facial pain, enlargement of lymph nodes, nasal obstruction or congestion, numbness, non-healing lesions.

Recommendations:

- During the assessment - Develop differential diagnosis to include the consideration of rare conditions
- In-depth clinical examination with prescription of tests including radiographs, biopsy, FNAC, scans, and follow-up whenever in slight doubt as needed.

Bacterial, viral, fungal and other infections

- Most common conditions with diagnostic errors are osteomyelitis, candidiasis
- Common presenting symptoms and signs are altered taste sensation, difficulty swallowing, pain, burning sensation, swelling, sores or blisters, creamy white lesions.

Recommendations:

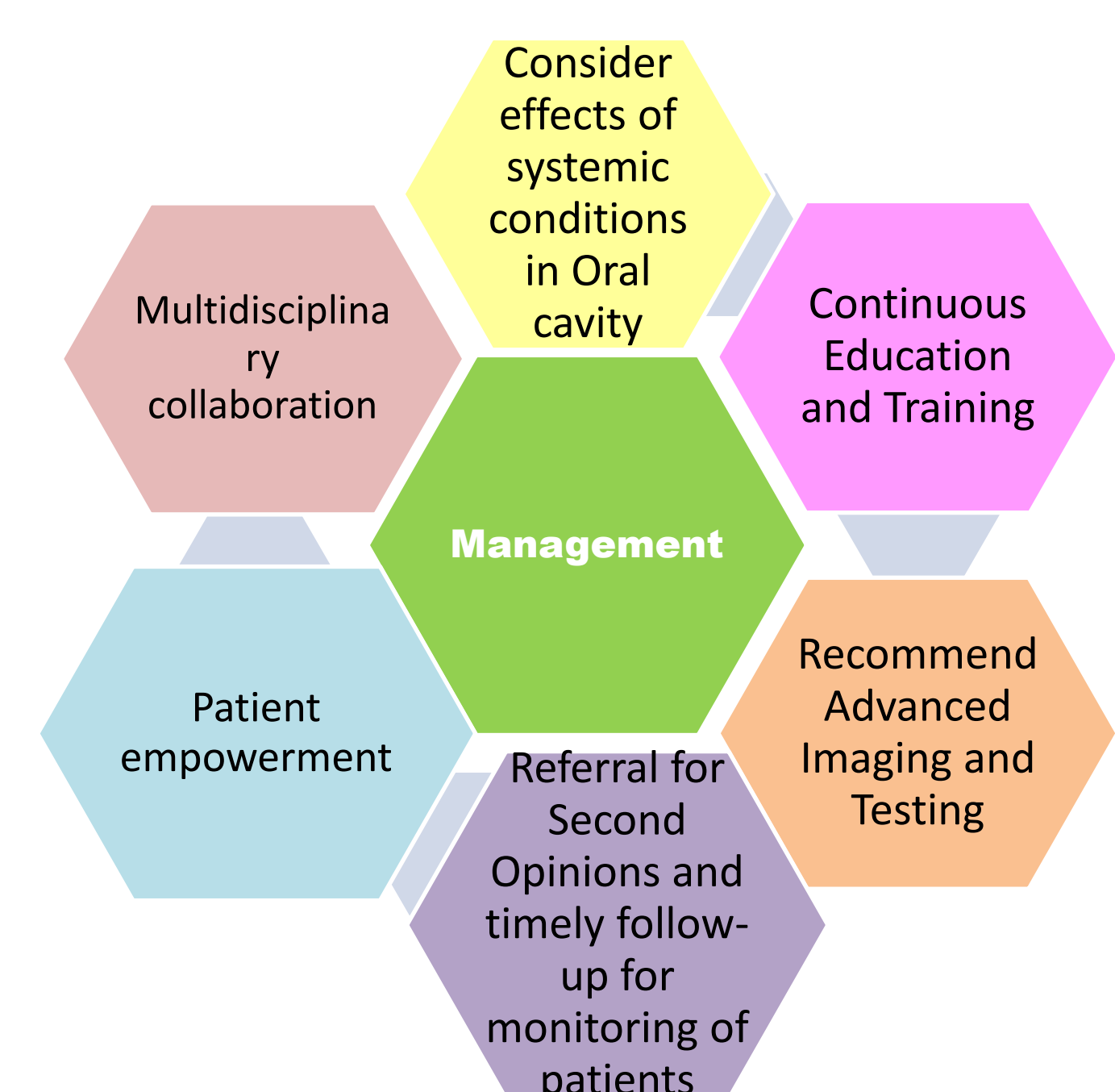
- Incorporating Comprehensive Medical Histories and Understanding the Significance of Oral Manifestations in Infections
- Develop complete list of differential diagnosis to include the infectious conditions
- In-depth clinical examination, appropriate tests including, blood work, biopsy, prompt referral and follow-up as needed.

Cysts Of Oral Cavity

- Most common conditions with diagnostic errors are odontogenic cyst, nasopalatine duct cyst
- Common presenting symptoms and signs are painless swelling, oral mucosa color changes, tooth displacement, pressure sensation, numbness.

Recommendations:

- Develop differential diagnosis to include the rare cystic conditions
- In-depth clinical examination with prescription of tests including, imaging studies such as radiographs, cone beam computed tomography (CBCT), FNAC, histopathological examination, and follow-up as needed.



References

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