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# Enhancing oral health for patients on chronic medications at Al-Kaaban health center

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# Abstract

The project's primary goal was to enhance dental and oral health services for patients on chronic medications, which are known to cause adverse effects on oral health. The initiative required to establish a referral system that would guarantee that 100% of these patients underwent comprehensive oral health screening assessments by the dentist within a six-month timeframe.

Family physicians were responsible for referring patients who were taking medications for chronic conditions such as diabetes, hypertension, asthma, and epilepsy to the dental clinic for evaluations. Identified oral health issues, including gingival hyperplasia and gingivitis, were managed through direct treatment, consultations with physicians for potential medication modifications, or referrals to specialized clinics when necessary. Among the 40 patients assessed, 10% exhibited oral health problems, which included one instance of phenytoin-induced gingival hyperplasia and four cases of diabetes-related gingivitis.

This collaborative effort facilitated the early identification and management of oral health complications, reduced the risk of further complications, and improved patient outcomes. Important insights gained from this initiative included the significance of interdisciplinary collaboration, the necessity of early intervention, and the importance of patient education. To ensure the sustainability of the program, recommendations include the establishment of a permanent referral system, training family physicians to recognize the oral side effects of medications and conducting regular audits of the program. This quality improvement initiative underscores the potential benefits of integrating dental care into the management of chronic diseases to enhance patient care across various healthcare systems.

**Keywords:** Oral health; Chronic medication side effects; Early intervention; Referral system; Multidisciplinary collaboration

# 1. Introduction

Al-Kaaban health center, is part of the primary health care corporation (PHCC), located in a rural area in the northern region of Qatar, primarily serving a largely composed of single male workers. A dentist at the facility recognized a significant deficiency in the management of oral health among patients prescribed chronic medications, which frequently produce side effects detrimental to oral health. In response, the dentist proposed an improvement idea to the family physician aimed at enhancing dental and oral health care for these patients.

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## 1.1. Objective

Within a six-month timeframe, implement an internal referral system at Al-Kaaban health center to ensure that 100% of patients on chronic medications (such as those for diabetes, hypertension, asthma, or epilepsy) are referred by family physicians to the dental clinic for comprehensive oral health evaluations.

## 1.2. Improvement Idea

1.Referral Process: Family physicians will refer patients on chronic medications to the dental clinic for oral health evaluations.

2. Evaluation and Intervention: The dentist will examine patients for oral health complications potentially linked to their medications (e.g., gingivitis, gingival hyperplasia, xerostomia, gum bleeding).

If medication-related side effects are identified:

- The dentist will consult with the family physician regarding possible modifications or alternatives to the medication, if applicable.
- If alterations to the medication are not feasible, the dentist will administer suitable treatment.
- Cases of significant severity requiring specialized intervention will be referred to a specialized dental clinic.

#### 1.3. Implementation

Duration: Six months.

Target population: patients on chronic medications for conditions such as diabetes, hypertension, asthma, and epilepsy.

## 2. Results

Total Patients Reviewed: 40.

Oral health issues detected: 4 cases (10%).

#### 2.1. Common findings included

- Gingival hyperplasia was observed in one patient taking the anti-seizure medication phenytoin.
- Gingivitis was identified in four patients with poorly controlled diabetes.

## 2.2. Actions Taken

- Treatment provided for the cases of gingivitis were managed in the clinic.
- Patients requiring specialized care were referred to a specialized dental clinic.

#### 2.3. Outcomes and Lessons Learned

- The referral process was successful in identifying and addressing oral health issues associated with chronic medications.
- Close collaboration between the dentist and the family physician played a vital role in customizing patient care plans.
- Early detection and intervention helped minimize complications and enhanced overall patient outcomes.

#### 2.4. Recommendations for sustainability and expansion

- Establish a permanent referral system for patients on chronic medications.
- Provide training for family physicians on the oral side effects of some common chronic medications to improve early detection.
- Educate patients about the importance of oral health, especially for those with chronic diseases.
- Conduct regular audits to monitor and enhance the program's effectiveness.

## 3. Conclusion

This quality improvement initiative demonstrated the importance of interdisciplinary collaboration in managing the side effects of chronic disease medications. The program successfully improved the oral health of patients, highlighting the need for its continued implementation and potential expansion to other health centers.

## **Compliance with ethical standards**

Disclosure of conflict of interest

No conflict of interest to be disclosed.

#### References

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