

INTRODUCTION

Chronic diseases affect numerous lifespans from children to elderly adults. The top 5 chronic diseases at Howard University have led us to compile the dental public health concerns associated with these chronic diseases. Most population in the US are living with many chronic conditions. Dental management and oversight must be altered and expanded to successfully treat this cohort. Chronic diseases alter segments of dental treatment, and due to these illnesses patients may experience prolonged bleeding, poor healing, increased infection rates.

DENTAL MANAGEMENT

- Many chronic diseases alter anesthesia processes for certain dental procedures. Dental considerations for treatment of chronic disease patients are listed below;
 - Patients with severe chronic diseases are usually provided local anesthetic as the preferred method because it does not lower the oxygenation of blood (Seitz, et al, 2019; Smith et al. 1987).
 - Before general anesthesia is induced in a patient with chronic diseases proper hemoglobin levels should be obtained. This should be accomplished 10 to 15 days before the operation. For children with sickle disease, optimum hemoglobin levels obtained after blood transfusions (Smith et al. 1987).

ORAL MANIFESTATIONS

- Increased salivation
- Burning mouth
- Bacterial infections
- Taste dysfunction
- Plaque
- Neuro-sensory oral disorders
- Dysgeusia

MEDICAL CONSULTATIONS

- It is recommended that dental health professionals treating chronic disease patients consult with medical professionals prior to extensive dental procedures.
- Medical consult should reveal the complete health status of a patient and lab values should be included as well. These complete health status reports should include information delineating which organ systems are affected
- Medical consults are not only advantageous towards ensuring successful and efficient dental procedures they are also beneficial towards ensuring and protecting the patient's overall well-being

RECOMMENDATIONS

- It is recommended that Howard University College of Dentistry students work closely with Faculty and staff to obtain detailed information regarding the patient's medications & medical history of the patients
- Some acute situations require consults with the patient's hematologist, cardiologist, internist and other specialist
- It is important to go the extra mile in ensuring patient safety

DENTAL MANAGEMENT

Certain dental conditions are associated with medical disorders. The importance of dental/medical team collaboration can afford the patient quality care and minimize complications.

Dental treatment complications can affect different body systems including but not limited to cardiovascular disturbances, stroke, TMJ problems, endocrine system alterations, infections and episodes of severe pain

ORAL MANIFESTATIONS

- Periodontal Disease
- Dental Caries
- Periapical Abscesses
- Periodontal Inflammation
- Alveolar bone loss
- Stain
- Oral Lesions

COMMON FINDINGS

Many adults aged 45 years or older may have moderate or severe periodontitis, a disease linked to chronic diseases such as diabetes, adverse pregnancy outcomes, atherosclerotic cardiovascular disease, rheumatoid arthritis, Alzheimer's disease, chronic obstructive pulmonary diseases, nonalcoholic fatty liver disease, and others. Periodontal disease was most frequently correlated with chronic systemic diseases (Hannon, CJ., Ricks, TL, Espinoza, L, Weintraub, JA, Addressing Oral Health Inequities: Preventing Chronic Disease, vol 18, 2021, 18:E27:1-5)

MEDICAL CONSULTATIONS

Medical consultations minimize post treatment complications when precise information regarding the patient's health status is communicated from the physician prior to a dental procedure to initiate appropriate planning and execution.

Medical consultations also assist in early prevention of complications prior to the start of dental procedures. Possible complications during or following a dental procedure include but are not limited to:

- Serious infections, dental caries, allergic reactions, increased risk of periodontal disease, slow healing, prolonged bleeding, extensive loss of teeth etc.

CONCLUSION

- Disadvantaged patients may not know of existing chronic diseases
- Some poor patients visit a physician every 5 years
- Dental students & Dentists are on the front line to diagnose many chronic diseases based on oral symptoms in children & adults
- Infections can exacerbate chronic conditions such as diabetes, hypertension and other cardiac issues
- Environmental factors such as cigarette smoke, lack of housing, very hot or cold temperatures, unsanitary conditions