

General Session



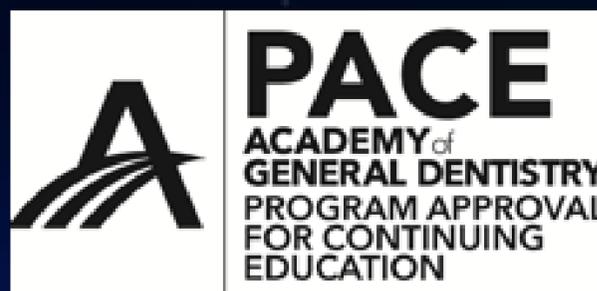
Time For Change: Managing Dental Disease With Chronic Care Management Techniques

Alyssa Aberle, MBA, RDH, CDIPC, MAADH





Endeavor Business Media is an ADA CERP-recognized provider. ADA CERP is a service of the American Dental Association to assist dental professionals in identifying quality providers of continuing dental education. ADA CERP does not approve or endorse individual courses or instructors, nor does it imply acceptance of credit hours by boards of dentistry. Endeavor's recognition of term extends from 05/1/2022 – 6/30/2025.



Endeavor Business Media
Nationally Approved PACE Program Provider for FAGD/MAGD credit.
Approval does not imply acceptance by
any regulatory authority or AGD endorsement.
11/1/2022 to 10/31/2024.
Provider ID# 320452



Endeavor Business Media is an American Academy of Dental Hygiene (AADH) approved provider, from January 1, 2022-December 31, 2023.

Provider Disclosure: Endeavor Business Media's Dental Division does not have a leadership or financial/commercial interest in any products or services discussed or shared in any of the educational activities presented at RDH Under One Roof Extended 2023.

Provider/CE Planning Members Disclosure: Craig Dickson, VP & Group Publishing Director, has no relevant financial interest which may create a conflict of interest related to RDH Under One Roof. Laura Winfield, Conference Manager, has no relevant financial interest which may create a conflict of interest related to RDH Under One Roof.

Provider Contact Information: Laura Winfield, Conference Manager, lwinfield@endeavorb2b.com or direct at 918-831-9869.

CAUTION! Completing a single continuing education activity DOES NOT provide enough information to give the participant the feeling that they are an expert on the topic presented. It is a combination of many educational activities and clinical experiences that allows the participant to develop skills and expertise.



Presenter Disclosures: Alyssa Aberle, MBA, RDH, CDIPC, MAADH, discloses that they do not have a leadership or financial relationship to disclose related to this continuing dental education activity.

Image Authenticity: Images used in this presentation have not been altered from their original state. Images that have been altered for education purposes will be fully explained and disclosed to the audience during the presentation.





Time for Change:

**Managing Dental Disease with
Chronic Care Management
Techniques**

Alyssa Aberle MBA RDH



Course Objectives

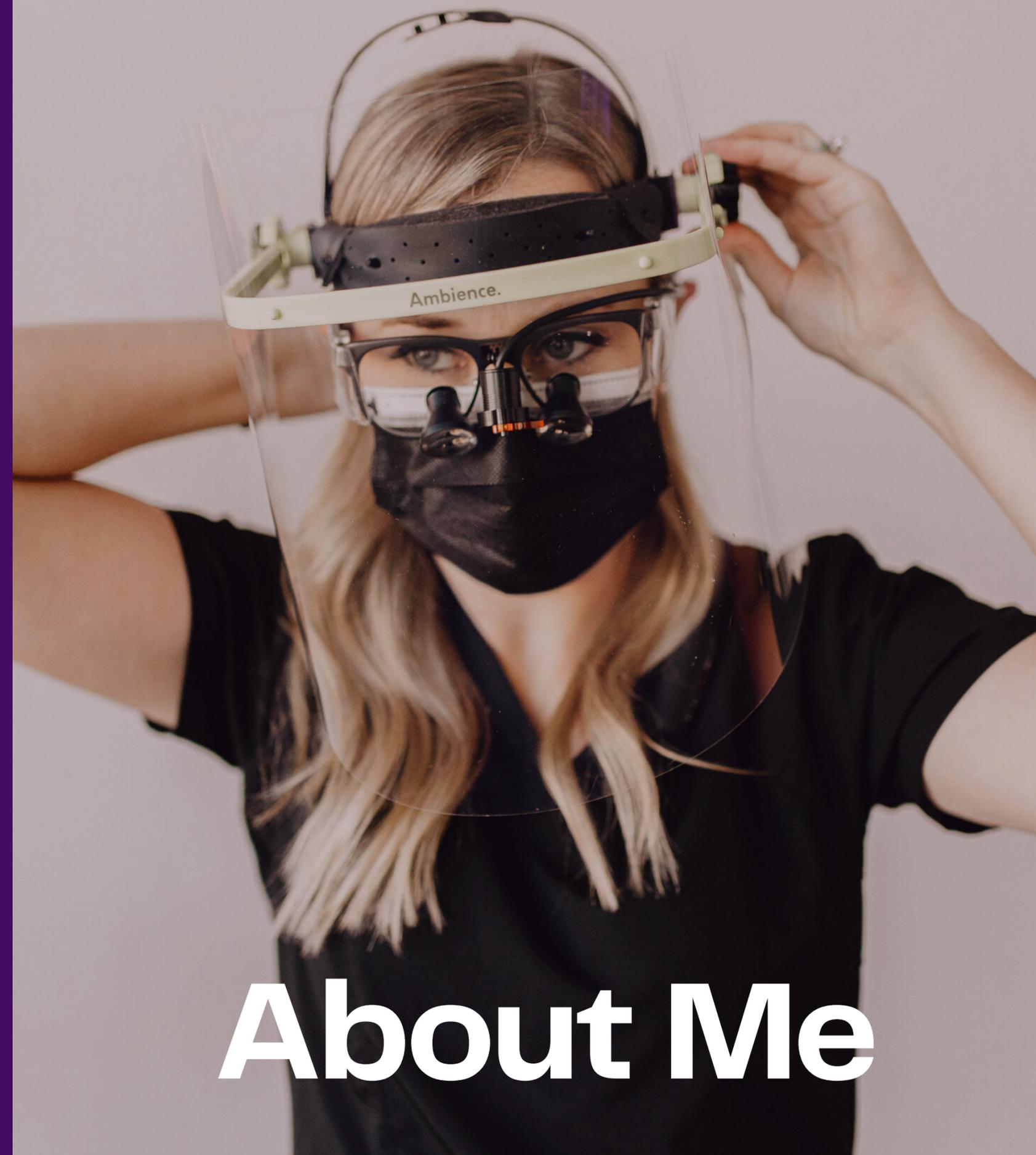
- 01** Explore ways that medical providers approach chronic care management for their patients.

- 02** Identify ways that dental professionals can integrate chronic care management techniques into practice for better outcomes for our patients.

- 03** Discuss changes that need to take place in the dental industry at large to enable dental professionals to provide chronic care management within the dental office.

Alyssa Aberle MBA RDH

- RDH since 2009
- Proud ADHA Member
- 11 years at FQHCs
- Involved with the CO-MDI (Colorado Medical Dental Integration) Project
- Part of integrated RDH/RN team that did chronic care management calls during COVID-19 pandemic



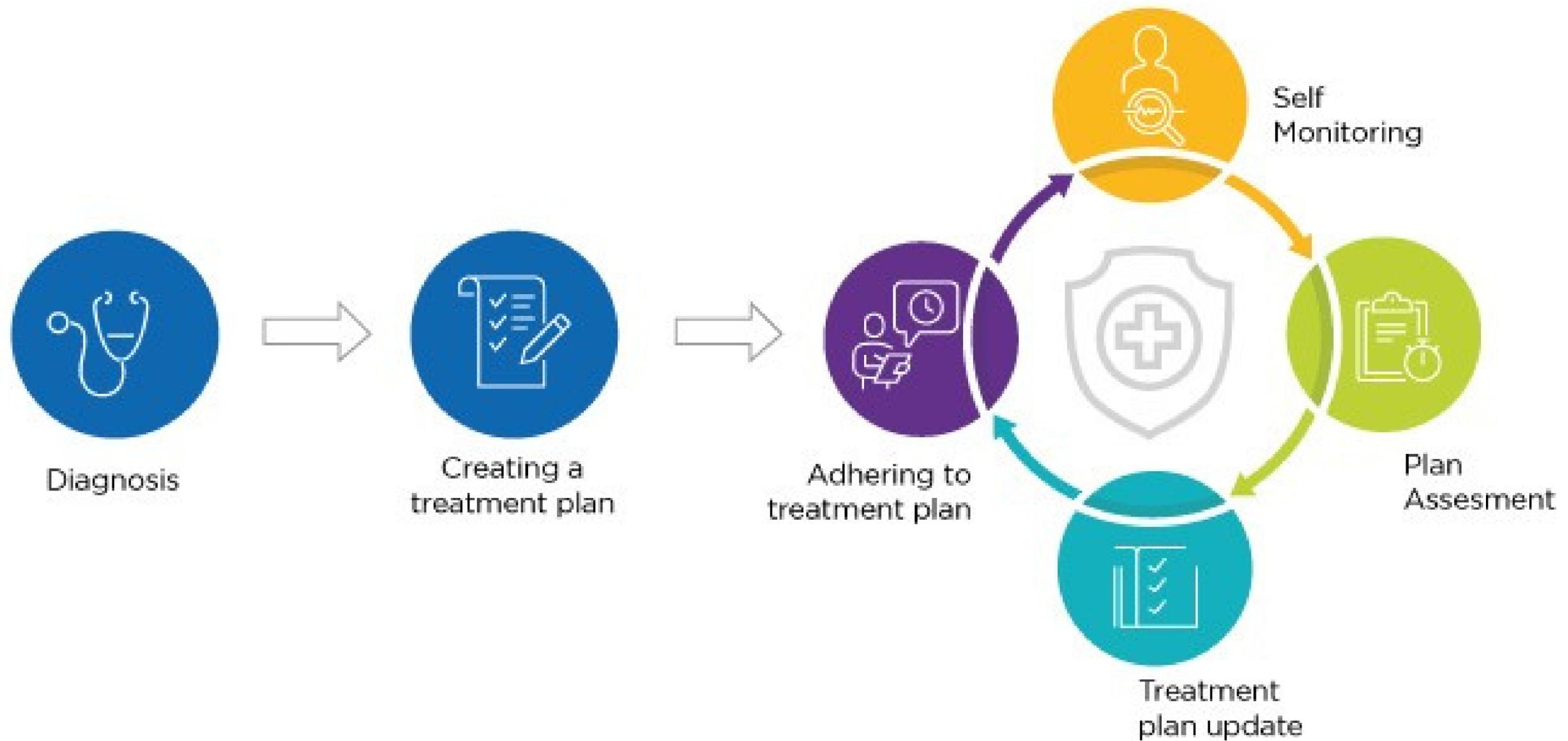
About Me



ACCORDING TO A STUDY
PUBLISHED BY THE AMERICAN
COLLEGE OF RHEUMATOLOGY,

approximately 86%
of U.S. healthcare
costs are
attributable to
chronic illness

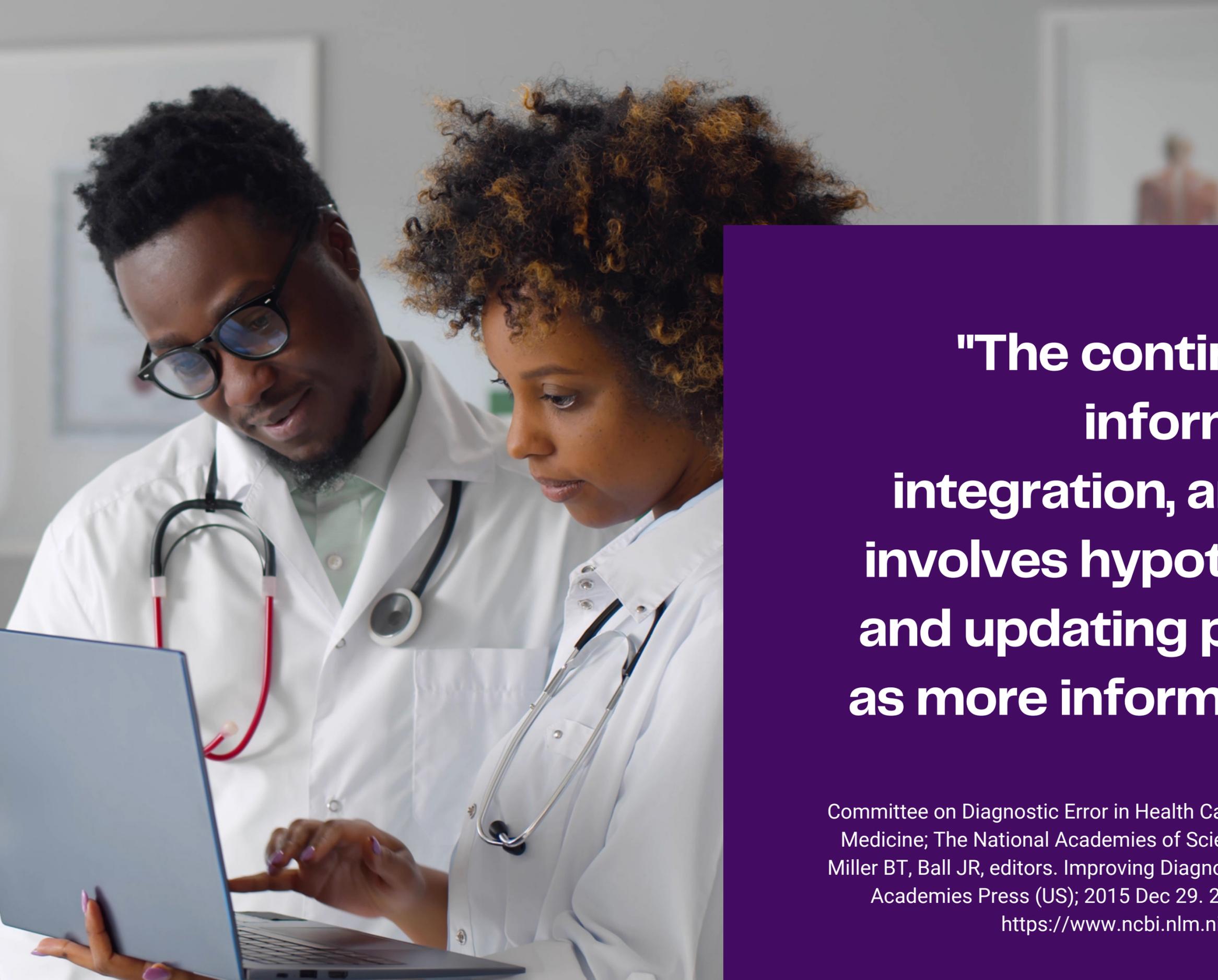
Medical Chronic Disease Management Approach



MAKING A DIAGNOSIS



- **Performing a clinical history and interview**
- **Physical exam**
- **Performing diagnostic testing**



"The continuous process of information gathering, integration, and interpretation involves hypothesis generation and updating prior probabilities as more information is learned."

Committee on Diagnostic Error in Health Care; Board on Health Care Services; Institute of Medicine; The National Academies of Sciences, Engineering, and Medicine; Balogh EP, Miller BT, Ball JR, editors. Improving Diagnosis in Health Care. Washington (DC): National Academies Press (US); 2015 Dec 29. 2, The Diagnostic Process. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK338593/>



- **Tests, labs, and/or measurements**
- **Lifestyle changes**
- **Medications**
- **Surgical or procedural interventions**

In general, providers should seek evidence-based approaches that improve the clinical outcomes and quality of life of patients with diabetes.

American Diabetes Association; 1. Strategies for Improving Care. Diabetes Care 1 January 2016; 39 (Supplement_1): S6–S12. <https://doi.org/10.2337/dc16-S004>





- **Ongoing education**
- **Routine visits**
- **Periodic labs and tests**
- **Interdisciplinary team approach**
- **Updates to diagnosis**

Chronic Care Management Eligibility

01

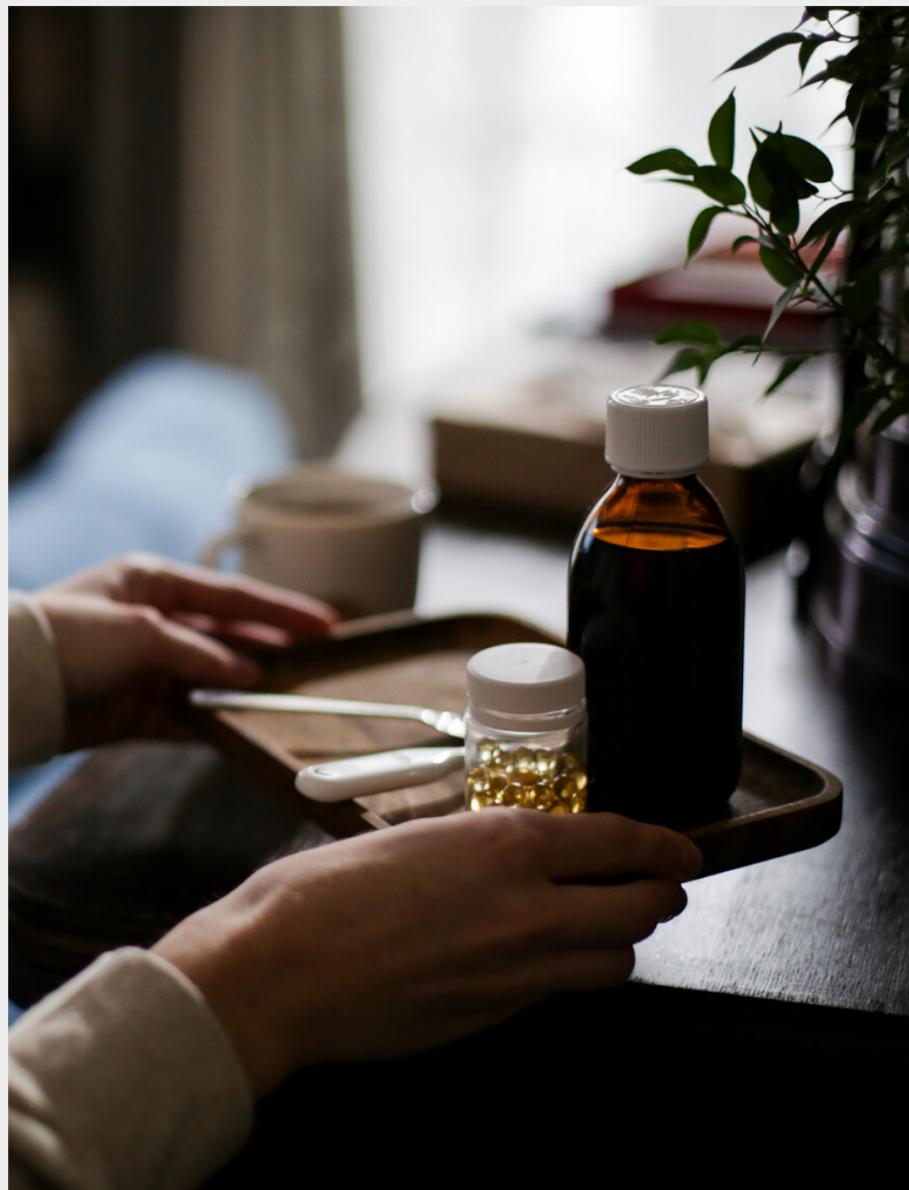
Enrolled in Medicare

02

2 or more chronic conditions
expected to last at least 12 months

03

Allow eligible practitioners to bill at
least 20 minutes or more of care
coordination services per month



**THE CENTERS FOR MEDICARE AND
MEDICAID SERVICES (CMS) ESTIMATES
THAT APPROXIMATELY**

**one in four adults,
including 70% of
Medicare beneficiaries,
have two or more
chronic conditions**

Chronic Conditions

Used by Medicare to determine eligibility in the Chronic Care Management program

Alcohol Abuse

Alzheimer's Disease
and Related Dementia

Arthritis
(Osteoarthritis and Rheumatoid)

Asthma

Atrial Fibrillation

Autism Spectrum Disorders

Cancer
(Breast, Colorectal, Lung, and Prostate)

Chronic Kidney Disease

Chronic Obstructive Pulmonary Disease

Depression

Diabetes

Drug Abuse/ Substance Abuse

Heart Failure

Hepatitis (Chronic Viral B & C)

HIV/AIDS

Hyperlipidemia (High Cholesterol)

Hypertension (High Blood Pressure)

Ischemic Heart Disease

Osteoporosis

Schizophrenia and Other Psychotic
Disorders

Stroke



Program Details

**Annual Wellness Visits with
PCP**

+ monthly follow-up visits

**Monthly Chronic Care
Management (CCM)
(usually with RN team)**

**+ additional visits/calls
based on goal progress and
patient needs**

Focus on 2 goals

- 3 month timeline for goals**
- SMART goal format**

Medical Billing for Chronic Care Management

Based on Medicare fee schedule for
chronic care management program.

99201
Office Visit for Chronic
Disease

\$43.89

99490
Non-complex chronic care
management
20+ minutes per month

\$64.02

99487
Complex care
management
60+ minutes per month

\$94.55

99489
Complex care
management add-on
additional 30 minutes

\$94.55

For a medical provider to receive reimbursement for medical services, ICD-10-CM codes are required to be submitted to the payer.

While CPT® codes depict the services provided to the patient, ICD-10-CM codes depict the patient's diagnoses that justify the services rendered as medically necessary.



Diabetic Complications

E10.22/E11.22 Diabetes, Renal Complication

PLUS
Select
code from
Diabetic
Renal
Manifestation
Codes

N04.X	Nephrotic Syndrome	
N08	Nephritis/Nephropathy	
	CKD Stage I-V and ESRD	Add Z99.2 if on dialysis
N18.1	CKD, Stage I (GFR > 90)	} Refer to KDIGO Guidelines
N18.2	CKD, Stage II (GFR 60-89)	
N18.3	CKD, Stage III (GFR 30-59)	
N18.4	CKD, Stage IV (GFR 15-29)	
N18.5	CKD, Stage V (GFR 14 or less)	
N18.6	ESRD	
N18.9	CKD, Unspecified	

Diabetes, Circulatory/Vascular Complication

E10.51	Diabetic PVD Type 1
E11.51	Diabetic PVD Type 2
E10.69	Diabetic Impotence Type 1
E11.69	Diabetic Impotence Type 2
N52.1	Impotence
E10.62X	Diabetic Ulcer
E10.52	Type 1 Diabetic Gangrene
E11.52	Type 2 Diabetic Gangrene

Diabetes, Neurological Complication

E10.43	Type 1 Diabetic Peripheral Autonomic Neuropathy
E11.43	Type 2 Diabetic Peripheral Autonomic Neuropathy
E10.42	Type 1 Diabetic with Polyneuropathy
E11.42	Type 2 Diabetic with Polyneuropathy
E10.43	Type 1 Diabetes with Gastroparesis
E11.43	Type 2 Diabetes with Gastroparesis

Diabetes, with other Spec. Complications

E10.69	Type 1 Diabetes Mellitus with other specified complications
E11.69	Type 2 Diabetes Mellitus with other specified complications *Use additional code to identify complication

Type 1 Diabetes with Hypoglycemia

E10.64X	Type 1 Diabetes with Hypoglycemia
E11.64 X	Type 2 Diabetes with Hypoglycemia

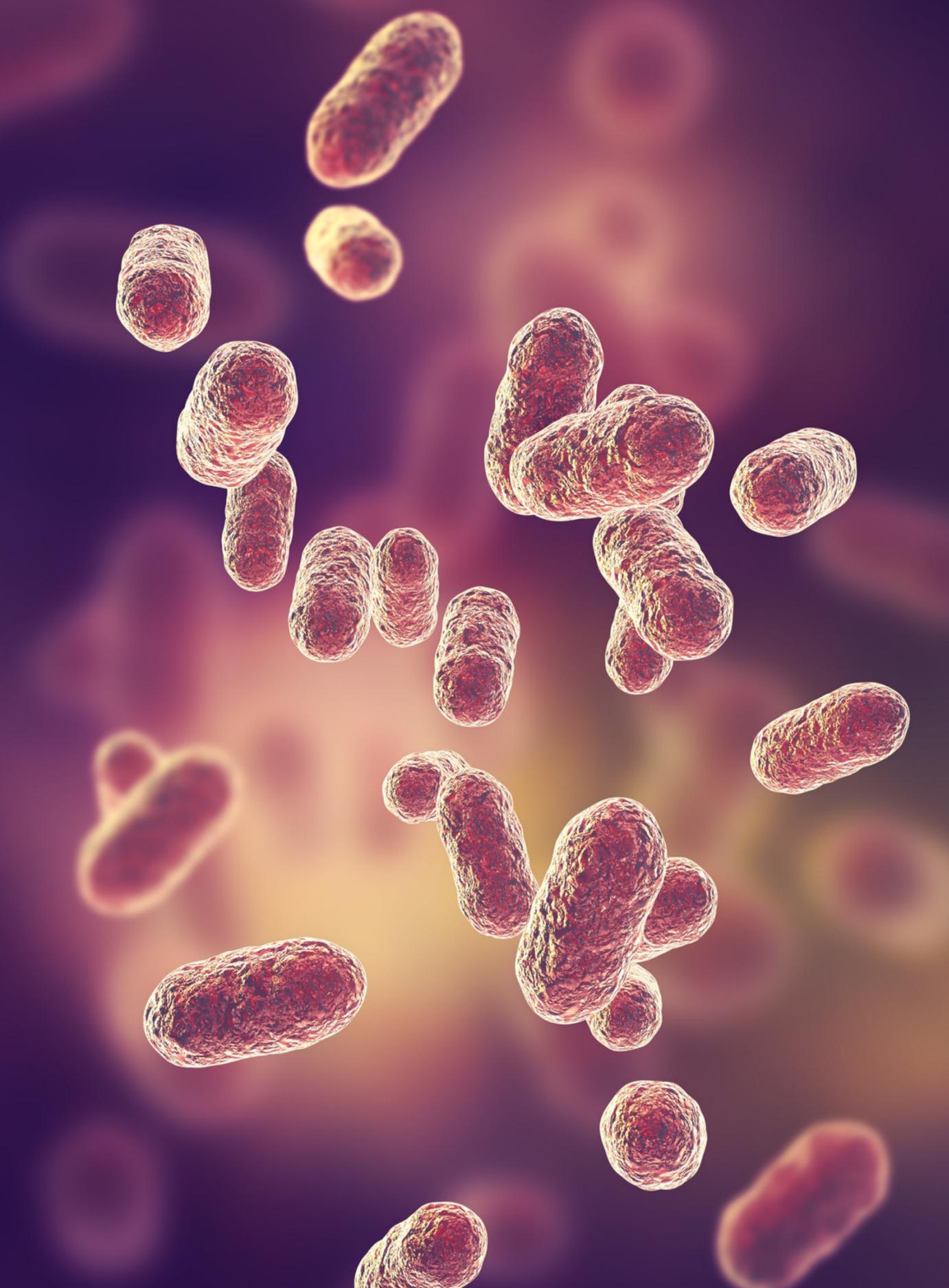
Diabetes, Ophthalmic Complication

E10.3XXX	Type 1 Diabetic Nonproliferative Retinopathy	E11.3XXX	Type 2 Diabetic Nonproliferative Retinopathy
E10.35XX	Type 1 Diabetes Mellitus with Proliferative Retinopathy	E11.35XX	Type 2 Diabetes Mellitus with Proliferative Retinopathy
E10.3XXX	Type 1 Diabetes with Ophthalmic Complications	E11.3XXX	Type 2 Diabetes with Ophthalmic Complications * 6th digit denotes with or without Macular Edema
E10.39	Type 1 Diabetes with other Diabetic ophthalmic complication	E11.39	Type 2 Diabetes with other Diabetic ophthalmic complication *Use additional code H40-H42 for Diabetic Glaucoma * Use additional code H43.1XX for Vitreous Hemorrhage
E10.36	Type 1 Diabetes with Diabetic Cataract	E11.36	Type 2 Diabetes with Diabetic Cataract

Please Note:
A 7th digit
has been
added to
designate
laterality.

**2 MIN
BREAK**

**So how does this
impact our
approach to oral
health?**



"The most prevalent oral diseases – caries and periodontal diseases – are two of the most common diseases of humankind. They are responsible for a burden of disease, impacting quality of life and leading to years of disability."

Do we follow this same model?

Should we?





"Dentistry, with historic roots in a surgical tradition, commonly approaches dental caries as an acute surgical problem requiring restoration and rehabilitation rather than as a chronic disease process requiring individually tailored management of etiologic factors."

Edelstein BL, Ng MW. Chronic Disease Management Strategies of Early Childhood Caries: Support from the Medical and Dental Literature. *Pediatr Dent*. 2015 May-Jun;37(3):281-7. PMID: 26063557.



- **Performing a clinical history and interview**
- **Physical exam**
- **Performing diagnostic testing**

Clinical History & Interview

- **Thorough health history**
- **Caries Risk Assessment (CRA) and Periodontal Risk Assessment (PRA)**
- **Home health habits assessment using motivational interviewing techniques**

Risk Assessments

ADA American Dental Association®
America's leading advocate for oral health

Caries Risk Assessment Form (Age >6)

Patient Name: _____

Birth Date: _____ Date: _____

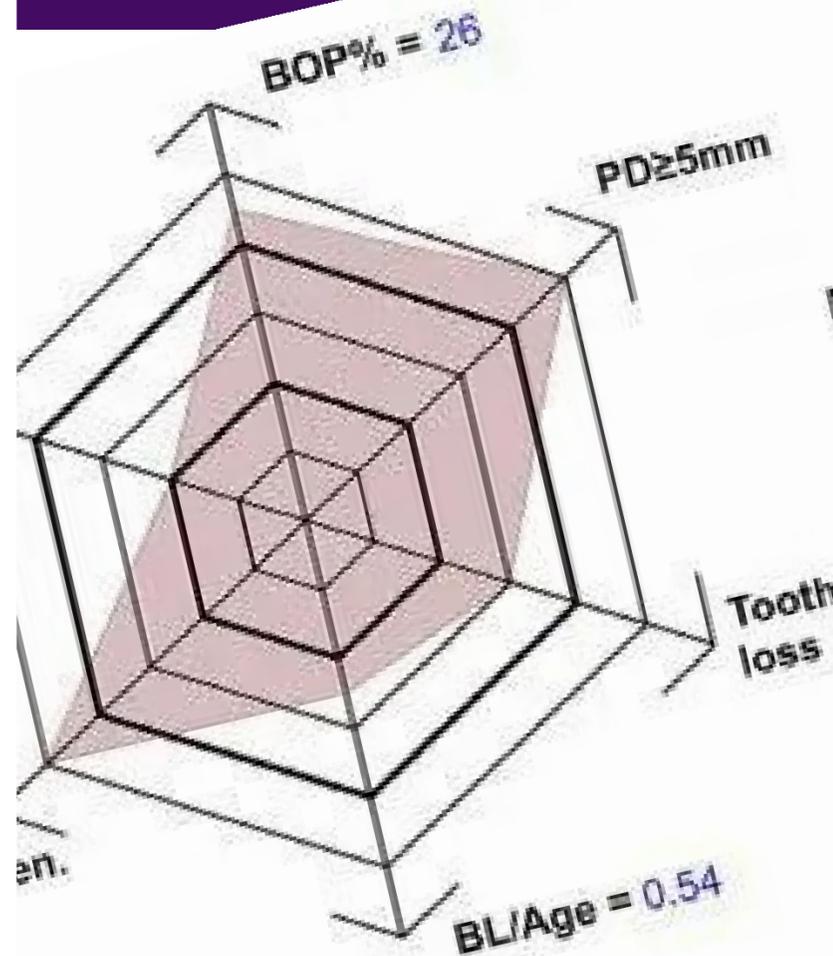
Age: _____ Initials: _____

		Low Risk	Moderate Risk	High Risk
Contributing Conditions		Check or Circle the conditions that apply		
I.	Fluoride Exposure (through drinking water, supplements, professional applications, toothpaste)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
II.	Sugary Foods or Drinks (including juice, carbonated or non-carbonated soft drinks, energy drinks, medicinal syrups)	Primarily at mealtimes <input type="checkbox"/>		Frequent or prolonged between meal exposures/day <input type="checkbox"/>
III.	Caries Experience of Mother, Caregiver and/or other Siblings (for patients ages 6-14)	No carious lesions in last 24 months <input type="checkbox"/>	Carious lesions in last 7-23 months <input type="checkbox"/>	Carious lesions in last 6 months <input type="checkbox"/>
IV.	Dental Home: established patient of record, receiving regular dental care in a dental office	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
General Health Conditions		Check or Circle the conditions that apply		
I.	Special Health Care Needs (developmental, physical, medical or mental disabilities that prevent or limit performance of adequate oral health care by themselves or caregivers)	<input type="checkbox"/> No	Yes (over age 14) <input type="checkbox"/>	Yes (ages 6-14) <input type="checkbox"/>
II.	Chemo/Radiation Therapy	<input type="checkbox"/> No		<input type="checkbox"/> Yes
III.	Eating Disorders	<input type="checkbox"/> No	<input type="checkbox"/> Yes	
IV.	Medications that Reduce Salivary Flow	<input type="checkbox"/> No	<input type="checkbox"/> Yes	
V.	Drug/Alcohol Abuse	<input type="checkbox"/> No	<input type="checkbox"/> Yes	
Clinical Conditions		Check or Circle the conditions that apply		
I.	Cavitated or Non-Cavitated (incipient) Carious Lesions or Restorations (visually or radiographically evident)	No new carious lesions or restorations in last 36 months <input type="checkbox"/>	1 or 2 new carious lesions or restorations in last 36 months <input type="checkbox"/>	3 or more carious lesions or restorations in last 36 months <input type="checkbox"/>
II.	Teeth Missing Due to Caries in past 36 months	<input type="checkbox"/> No		<input type="checkbox"/> Yes
III.	Visible Plaque	<input type="checkbox"/> No	<input type="checkbox"/> Yes	
IV.	Unusual Tooth Morphology that compromises oral hygiene	<input type="checkbox"/> No	<input type="checkbox"/> Yes	
V.	Interproximal Restorations - 1 or more	<input type="checkbox"/> No	<input type="checkbox"/> Yes	
VI.	Exposed Root Surfaces Present	<input type="checkbox"/> No	<input type="checkbox"/> Yes	
VII.	Restorations with Overhangs and/or Open Margins: Open Contacts with Food Impaction	<input type="checkbox"/> No	<input type="checkbox"/> Yes	
VIII.	Dental/Orthodontic Appliances (fixed or removable)	<input type="checkbox"/> No	<input type="checkbox"/> Yes	
IX.	Severe Dry Mouth (Xerostomia)	<input type="checkbox"/> No		<input type="checkbox"/> Yes

Overall assessment of dental caries risk: Low Moderate High

Patient Instructions:

© American Dental Association, 2009, 2011. All rights reserved.



Polygon surface: 96.99484

Periodontal Risk: high

Age: 56

(1 - 32)

22

Number of teeth and implants: 2 4 6

Number of sites per tooth / implant: of 132

Number of BOP-pos. sites:

Number of sites with PPD ≥ 5mm:

Number of missing teeth: %

% alveolar bone loss (estimated in % or 10% per 1mm): %

Syst./Gen. Yes No

Envir. Non-smoker (NS) Former smoker (FS) Occasional smoker (O) Smoker (S)

Physical Exam

- **Periodontal Charting**
- **Dental Charting**
- **Screening for oropharyngeal cancers**



Diagnostic Testing

- **Radiographs**
- **Salivary diagnostics**
- **HbA1C**
- **pH testing**
- **Sleep study**
- **Inflammatory testing**



Staging and Grading Periodontitis



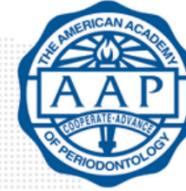
The 2017 World Workshop on the Classification of Periodontal and Peri-Implant Diseases and Conditions resulted in a new classification of periodontitis characterized by a multidimensional staging and grading system. The charts below provide an overview. Please visit perio.org/2017wwdc for the complete suite of reviews, case definition papers, and consensus reports.

PERIODONTITIS: STAGING

Staging intends to classify the severity and extent of a patient's disease based on the measurable amount of destroyed and/or damaged tissue as a result of periodontitis and to assess the specific factors that may attribute to the complexity of long-term case management.

Initial stage should be determined using clinical attachment loss (CAL). If CAL is not available, radiographic bone loss (RBL) should be used. Tooth loss due to periodontitis may modify stage definition. One or more complexity factors may shift the stage to a higher level. See perio.org/2017wwdc for additional information.

	Periodontitis	Stage I	Stage II	Stage III	Stage IV
Severity	Interdental CAL <i>(at site of greatest loss)</i>	1 – 2 mm	3 – 4 mm	≥5 mm	≥5 mm
	RBL	Coronal third (<15%)	Coronal third (15% - 33%)	Extending to middle third of root and beyond	Extending to middle third of root and beyond
	Tooth loss <i>(due to periodontitis)</i>	No tooth loss		≤4 teeth	≥5 teeth
Complexity	Local	<ul style="list-style-type: none"> Max. probing depth ≤4 mm Mostly horizontal bone loss 	<ul style="list-style-type: none"> Max. probing depth ≤5 mm Mostly horizontal bone loss 	In addition to Stage II complexity: <ul style="list-style-type: none"> Probing depths ≥6 mm Vertical bone loss ≥3 mm Furcation involvement Class II or III Moderate ridge defects 	In addition to Stage III complexity: <ul style="list-style-type: none"> Need for complex rehabilitation due to: <ul style="list-style-type: none"> Masticatory dysfunction Secondary occlusal trauma (tooth mobility degree ≥2) Severe ridge defects Bite collapse, drifting, flaring <20 remaining teeth (10 opposing pairs)
Extent and distribution	Add to stage as descriptor	For each stage, describe extent as: <ul style="list-style-type: none"> Localized (<30% of teeth involved); Generalized; or Molar/incisor pattern 			



PERIODONTITIS: GRADING

Grading aims to indicate the rate of periodontitis progression, responsiveness to standard therapy, and potential impact on systemic health.

Clinicians should initially assume grade B disease and seek specific evidence to shift to grade A or C.

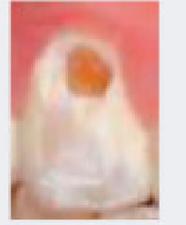
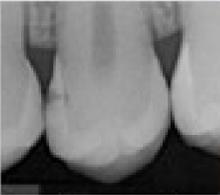
See perio.org/2017wwdc for additional information.

	Progression		Grade A: Slow rate	Grade B: Moderate rate	Grade C: Rapid rate
Primary criteria <i>Whenever available, direct evidence should be used.</i>	Direct evidence of progression	Radiographic bone loss or CAL	No loss over 5 years	<2 mm over 5 years	≥2 mm over 5 years
	Indirect evidence of progression	% bone loss / age	<0.25	0.25 to 1.0	>1.0
		Case phenotype	Heavy biofilm deposits with low levels of destruction	Destruction commensurate with biofilm deposits	Destruction exceeds expectations given biofilm deposits; specific clinical patterns suggestive of periods of rapid progression and/or early onset disease
Grade modifiers	Risk factors	Smoking	Non-smoker	<10 cigarettes/day	≥10 cigarettes/day
		Diabetes	Normoglycemic/no diagnosis of diabetes	HbA1c <7.0% in patients with diabetes	HbA1c ≥7.0% in patients with diabetes

The 2017 World Workshop on the Classification of Periodontal and Peri-Implant Diseases and Conditions was co-presented by the American Academy of Periodontology (AAP) and the European Federation of Periodontology (EFP).

TABLE 2

American Dental Association Caries Classification System.

	AMERICAN DENTAL ASSOCIATION CARIES CLASSIFICATION SYSTEM						
	Sound	Initial		Moderate	Advanced		
Clinical Presentation	No clinically detectable lesion. Dental hard tissue appears normal in color, translucency, and gloss.	Earliest clinically detectable lesion compatible with mild demineralization. Lesion limited to enamel or to shallow demineralization of cementum/dentin. Mildest forms are detectable only after drying. When established and active, lesions may be white or brown and enamel has lost its normal gloss.		Visible signs of enamel breakdown or signs the dentin is moderately demineralized.	Enamel is fully cavitated and dentin is exposed. Dentin lesion is deeply/severely demineralized.		
Other Labels	No surface change or adequately restored	Visually noncavitated		Established, early cavitated, shallow cavitation, microcavitation	Spread/disseminated, late cavitated, deep cavitation		
Infected Dentin	None	Unlikely		Possible	Present		
Appearance of Occlusal Surfaces (Pit and Fissure)*†	ICDAS 0 	ICDAS 1 	ICDAS 2 	ICDAS 3 	ICDAS 4 	ICDAS 5 	ICDAS 6 
Accessible Smooth Surfaces, Including Cervical and Root‡							
Radiographic Presentation of the Approximal Surface§	 E0 [¶] or R0 [#] No radiolucency	 E1 [¶] or RA1 [#]	 E2 [¶] or RA2 [#]	 D1 [¶] or RA3 [#]	 D2 [¶] or RB4 [#] Radiolucency extends into the middle one-third of the dentin	 D3 [¶] or RC5 [#] Radiolucency extends into the inner one-third of the dentin	

* Photographs of extracted teeth illustrate examples of pit-and-fissure caries.

† The ICDAS notation system links the clinical visual appearance of occlusal caries lesions with the histologically determined degree of dentinal penetration using the evidence collated and published by the ICDAS Foundation over the last decade; ICDAS also has a menu of options, including 3 levels of caries lesion classification, radiographic scoring and an integrated, risk-based caries management system ICCMS. (Pitts NB, Ekstrand KR. International Caries Detection and Assessment System [ICDAS] and its International Caries Classification and Management System [ICCMS]: Methods for staging of the caries process and enabling dentists to manage caries. *Community Dent Oral Epidemiol* 2013;41[1]:e41-e52. Pitts NB, Ismail AI, Martignon S, Ekstrand K, Douglas GAV, Longbottom C. ICCMS Guide for Practitioners and Educators. Available at: https://www.icdas.org/uploads/ICCMS-Guide_Full_Guide_US.pdf. Accessed April 13, 2015.)

‡ "Cervical and root" includes any smooth surface lesion above or below the anatomical crown that is accessible through direct visual/tactile examination.

§ Simulated radiographic images.

¶ E0-E2, D1-D3 notation system.³³

R0, RA1-RA3, RB4, and RC5-RC6 ICCMS radiographic scoring system (RC6 = into pulp). (Pitts NB, Ismail AI, Martignon S, Ekstrand K, Douglas GAV, Longbottom C. ICCMS Guide for Practitioners and Educators. Available at: https://www.icdas.org/uploads/ICCMS-Guide_Full_Guide_US.pdf. Accessed April 13, 2015.)



- **Tests, labs, and/or measurements**
- **Lifestyle changes**
- **Medications**
- **Surgical or procedural interventions**

Goal Setting

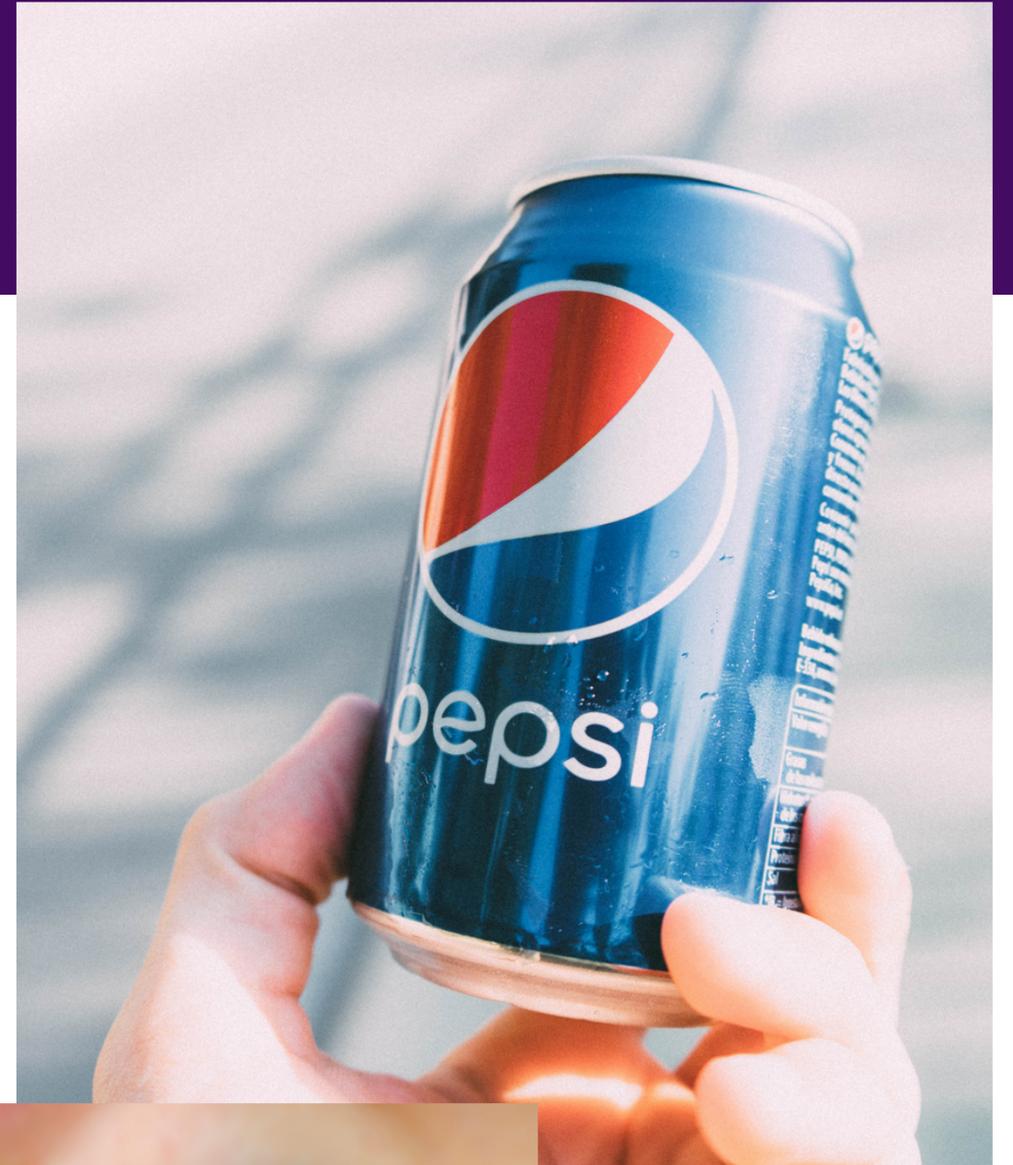


- **SMART Goals**

- **Improved labs & diagnostics**
- **Improvement on physical exam**
- **Improvement of symptoms**

Lifestyle Changes

- **Diet**
 - pH
 - **Sugar consumption**
 - **Inflammatory foods**
- **Home Care**
 - **Biofilm removal**
 - **Interdental aids**
- **EDUCATION!!!**



Medications

- Oral rinses
- Probiotics
- Antibiotics
- Antimicrobials
- Fluoride varnish
- Silver diamine fluoride



Surgical or Procedural Interventions

- Giving patient treatment **OPTIONS**
- Tracking outcomes of interventions
- Prioritizing **minimally invasive approaches**
- **Interprofessional care to treat underlying disease process**



- **Ongoing education**
- **Routine visits**
- **Periodic labs and tests**
- **Interdisciplinary team approach**
- **Updates to diagnosis**

**2 MIN
BREAK**

CASE STUDY

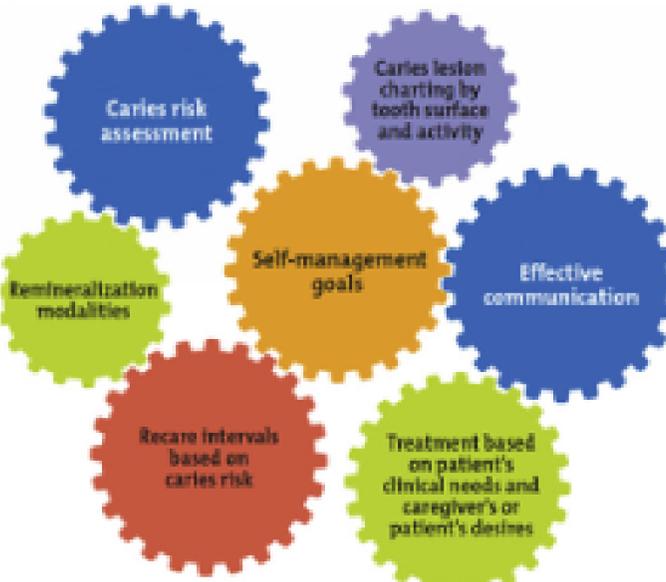
Man Wai Ng, Zameera Fida, Dental Hygienist–Led Chronic Disease Management System to Control Early Childhood Caries, Journal of Evidence Based Dental Practice, Volume 16, Supplement, 2016, Pages 20-33.

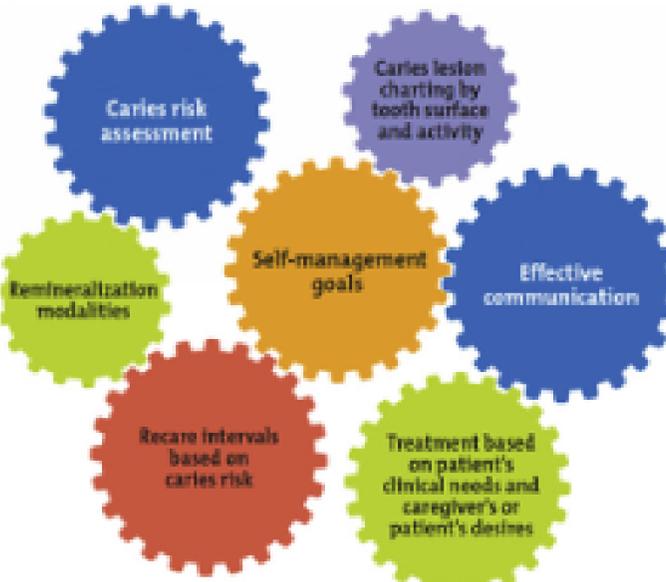


"Even after receiving costly surgical treatment under general anesthesia in the operating room, many children develop new and recurrent caries after only 6–12 months"

Man Wai Ng, Zameera Fida, Dental Hygienist–Led Chronic Disease Management System to Control Early Childhood Caries, Journal of Evidence Based Dental Practice, Volume 16, Supplement, 2016, Pages 20-33.

Figure 2. ECC chronic disease management clinical protocol*.



	Caries risk assessment	<ul style="list-style-type: none"> • Performed in full or abbreviated format during each visit • Children who have at least one tooth with demineralization or cavitation lesion is an ECC patient
	Effective communication	<ul style="list-style-type: none"> • With permission, explain the caries process to parent; and use structured communication strategies such as <ul style="list-style-type: none"> ○ <i>Fixing the cavities does not fix the problem</i> ○ <i>Without a change in diet and home care, new cavities and broken filling will result</i> ○ <i>Change is hard and won't happen over night</i>
	Self-management goal setting	<ul style="list-style-type: none"> • Engage and coach parent to select one or two goals to work on until the next visit • Goals may include more frequent tooth brushing, topical fluoride use and specific diet modification strategies
	Caries charting	<ul style="list-style-type: none"> • Use a charting system, such as ICDAS or ADA Caries charting system to: <ul style="list-style-type: none"> ○ Document caries by tooth, surface and activity ○ Monitor disease improvement or progression
	Fluorides and other remineralization strategies	<ul style="list-style-type: none"> • Topical fluorides, including over-the-counter toothpaste, stannous fluoride, xylitol, and/or calcium phosphate products can be offered
	Restorative treatment	<ul style="list-style-type: none"> • Full range of treatment options can be presented based on each patient's needs and parent's desires, including <ul style="list-style-type: none"> ○ Conventional treatment (incl. use of pharmacologic management) ○ Interim therapeutic restorations for caries control and sealants
	Risk-based recare intervals	<p>Patients are recommended to return in:</p> <ul style="list-style-type: none"> • 1-3 months (if high risk) • 3-6 months (if moderate risk) • 6-12 months (if low risk) <p>At the recare/disease management visit, perform:</p> <ul style="list-style-type: none"> • Caries risk assessment • Self-management goal setting • Exam and charting • X-rays if indicated • Fluoride varnish

*DentaQuest Institute

Table 1. ECC risk-based chronic disease management protocol.

Existing risk category	New clinical findings	Fluoride varnish interval	Sample self-management goals	Restorative treatment	CDM return interval	Other
Low	<ul style="list-style-type: none"> No disease indicators of caries; or Completely remineralized (arrested) carious lesions 	6-12 mo	<ul style="list-style-type: none"> Twice daily brushing with F toothpaste^a Stannous fluoride^b on cavitated lesions 		6-12 mo	
Moderate	<ul style="list-style-type: none"> No disease indicators^c but has risk factors^d; and/or inadequate protective factors^e Disease indicators present with some remineralization 	3-6 mo	<ul style="list-style-type: none"> Twice or more daily brushing with F toothpaste Stannous fluoride on cavitated lesions Dietary changes 	<ul style="list-style-type: none"> Sealants ITR Conventional restorative 	3-6 mo	<ul style="list-style-type: none"> Xylitol gum or candies or wipes Calcium phosphate paste
High	<ul style="list-style-type: none"> Active caries (disease indicators present) No remineralization occurring Heavy plaque 	1-3 mo	<ul style="list-style-type: none"> Twice or more daily brushing with F toothpaste Stannous fluoride on cavitated lesions Dietary changes 	<ul style="list-style-type: none"> ITR Sealants Conventional restorative Sedation/GA 	1-3 mo	<ul style="list-style-type: none"> Xylitol gum or candies Calcium phosphate paste

ITR, interim therapeutic restoration; GA, general anesthesia.

^aBrush with a smear of 1000-ppm F toothpaste.

^bApply a smear of 1000-ppm stannous fluoride to cavitated lesions.

^cExamples of disease indicators include demineralization, cavitated lesions, existing restorations, enamel defects, deep pits and fissures.

^dExamples of risk factors include patient/maternal/family history of decay, plaque on teeth, frequent snacks of sugars/cooked starch/sugared beverages.

^eExamples of protective factors include fluoride exposure (topical and/or systemic), xylitol.

2 sites, 30 months

Table 2. ECC Collaborative Phase I: comparison of rates of new cavitation, pain, and referral to OR between ECC patients and historical control patients.

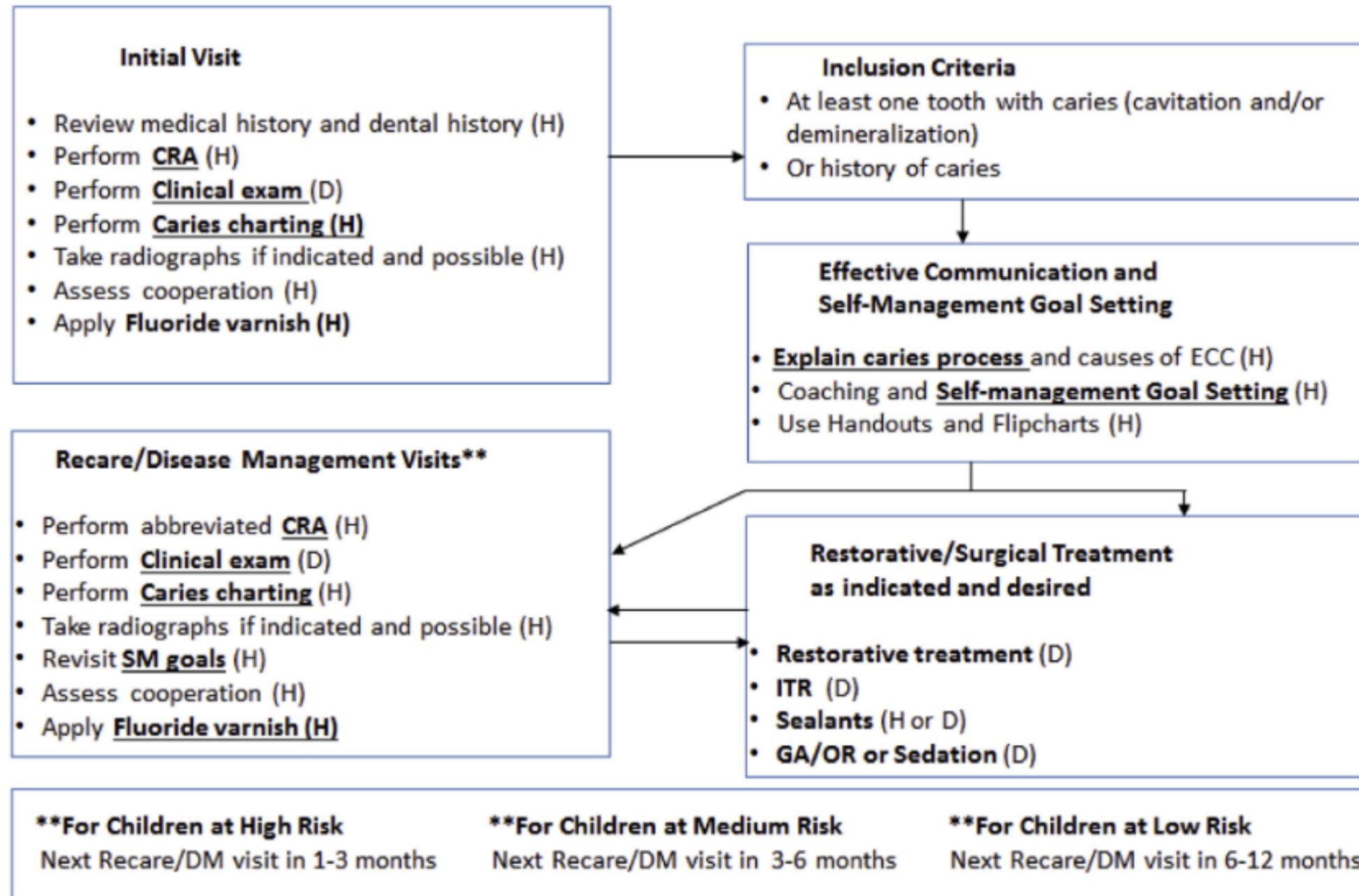
Outcomes	Boston Children's Hospital			Saint Joseph Hospital		
	ECC (n = 403) %	Historical control (n = 129) %	Improvement %	ECC (n = 234) %	Historical control (n = 80) %	Improvement %
New cavitation	26.1	75.2	▼ 65.3	41.0	71.3	▼ 57.5
Pain	13.4	21.7	▼ 38.2	7.3	31.3	▼ 23.3
Referral to OR	10.9	20.9	▼ 47.8	14.9	25.0	▼ 67.8

5 additional sites, 18 months

Table 3. ECC Collaborative Phase II: comparison of rates of new cavitation, pain, and referral to OR between ECC patients and historical control patients.

Outcomes	ECC (n = 344) %	Historical control (n = 316) %	Percentage improvement %	Improvement range %
New cavitation	33	46	▼ 28	▲ 14-▼ 71
Pain	8	11	▼ 27	▲ 80-▼ 100
Referral to OR	14	22	▼ 36	0-▼ 81

Figure 9. Flow diagram of the ECC chronic disease management protocol and the potential roles of dental team members.



(H) = Hygienist's role
ECC = early childhood caries
DM = disease management

(D) = Dentist's role
ITR = interim therapeutic restoration
CRA = caries risk assessment

GA/OR = general anesthesia/operating room
SMGs = self management goals



"The traditional dentist/hygienist/assistant model needs to evolve to focus on systematic risk assessment and behaviorally based management of the disease itself, with sensitivity toward the familial environment."

Man Wai Ng, Zameera Fida, Dental Hygienist–Led Chronic Disease Management System to Control Early Childhood Caries, *Journal of Evidence Based Dental Practice*, Volume 16, Supplement, 2016, Pages 20-33.

"The health care system is increasingly moving away from volume-driven fee-for-service (FFS) payments and toward value-based payment (VBP) arrangements to improve quality, enhance both the patient and providers' experience of care, and reduce costs."

Moving Toward Value-Based Payment in Oral Health Care



Most Common VBP Models

01

Pay For Performance

02

Shared Savings

03

Bundled Payments

04

Global or Capitated Payments

**We need to move
away from
procedural
reimbursements
and focus on
patient
outcomes!**





"When the focus turns to results rather than services (value rather than volume), the oral health care delivery model can change to proactively preventing oral disease rather than one primarily designed around the restorative measures needed to treat disease."

Riley W, Doherty M, Love K. A framework for oral health care value-based payment approaches. J Am Dent Assoc. 2019 Mar;150(3):178-185. doi: 10.1016/j.adaj.2018.10.021. PMID: 30803489.

ICD-9 CM	ICD-10 CM
521.00 Dental caries, unspecified	K02.9 Dental caries, unspecified
521.01 Dental caries, limited to enamel	K02.51 Dental caries on pit and fissure surface, limited to enamel K02.61 Dental caries on smooth surface, limited to enamel
521.02 Dental caries extending into dentin	K02.52 Dental caries on pit and fissure surface, penetrating into dentin K02.62 Dental caries on smooth surface penetrating into dentin
521.03 Dental caries extending into pulp	K02.53 Dental caries on pit and fissure surface, penetrating into pulp K02.63 Dental caries on smooth surface penetrating into pulp.

Tabular Modifications

M35 Other systemic involvement of connective tissue		
Revise	M35.0	Sicca syndrome [Sjogren] Sjogren syndrome
	Add	Sicca syndrome
	Add	Excludes1: Dry mouth, unspecified (R68.2)
Revise	M35.00	Sicca Sjogren syndrome, unspecified
Revise	M35.01	Sicca Sjogren syndrome with keratoconjunctivitis
Revise	M35.02	Sicca Sjogren syndrome with lung involvement
Revise	M35.03	Sicca Sjogren syndrome with myopathy
Revise	M35.04	Sicca <u>Sjogren</u> syndrome with tubulo-interstitial nephropathy
New code	M35.05	Sjogren syndrome with inflammatory arthritis
New code	M35.06	Sjogren syndrome with peripheral nervous system involvement
New code	M35.07	Sjogren syndrome with central nervous system involvement
New code	M35.08	Sjogren syndrome with gastrointestinal involvement
New code	M35.0A	Sjogren syndrome with glomerular disease
New code	M35.0B	Sjogren syndrome with vasculitis
New code	M35.0C	Sjogren syndrome with dental involvement
Revise	M35.09	Sicca <u>Sjogren</u> syndrome with other organ involvement

KEY STRATEGIES



Add periodontal disease, caries, and oropharyngeal cancers to the list of chronic conditions



Increase use of ICD 10 codes & proper staging and grading of oral disease to track outcomes



Advocate for oral payment reform, especially when patients have comorbidities

**Time to change
oral health care.**

Let's Connect!



Alyssa Aberle MBA RDH

alyssa.aberle@gmail.com

720.884.6465



facebook.com/alyssardh



instagram.com/alyssardh



linktr.ee/alyssardh

Resources

Chronic Care Management Booklet

Centers for Medicare and Medicaid Services (CMS)

<https://www.cms.gov/outreach-and-education/medicare-learning-network-mln/mlnproducts/downloads/chroniccaremanagement.pdf>

Dental Codeology Consortium

Find on Facebook or [contact Kathy Forbes](#)

Integrative Dental Coaching, Machell Hudson RDH

www.integrativedentalcoaching.com

American Academy for Oral & Systemic Health

www.aaosh.org/

Alternative Payment Methodology Guidebook

Colorado Department of Healthcare Policy & Finance

<https://hcpf.colorado.gov/sites/hcpf/files/Alternative%20Payment%20Methodology%20Guidebook%202022.2.pdf>

Moving Toward Value-Based Payment in Oral Health Care

Center for Healthcare Strategies, Inc.

https://www.chcs.org/media/Moving-Toward-VBP-in-Oral-Health-Care_021021.pdf

Research

Loesche WJ, Grossman NS. Periodontal disease as a specific, albeit chronic, infection: diagnosis and treatment. Clin Microbiol Rev. 2001 Oct;14(4):727-52, table of contents. doi: 10.1128/CMR.14.4.727-752.2001. PMID: 11585783; PMCID: PMC89001.

Azouni KG, Tarakji B. The trimeric model: a new model of periodontal treatment planning. J Clin Diagn Res. 2014 Jul;8(7):ZE17-20. doi: 10.7860/JCDR/2014/8458.4623. Epub 2014 Jul 20. PMID: 25177662; PMCID: PMC4149168.

Barbara Ann Holstein, Managing Chronic Disease in Affordable Primary Care, The Journal for Nurse Practitioners, Volume 14, Issue 6, 2018, Pages 496-501.e1.

Nazir MA. Prevalence of periodontal disease, its association with systemic diseases and prevention. Int J Health Sci (Qassim). 2017 Apr-Jun;11(2):72-80. PMID: 28539867; PMCID: PMC5426403.

Edelstein BL, Ng MW. Chronic Disease Management Strategies of Early Childhood Caries: Support from the Medical and Dental Literature. Pediatr Dent. 2015 May-Jun;37(3):281-7. PMID: 26063557.

Riley W, Doherty M, Love K. A framework for oral health care value-based payment approaches. J Am Dent Assoc. 2019 Mar;150(3):178-185. doi: 10.1016/j.adaj.2018.10.021. PMID: 30803489.

Man Wai Ng, Zameera Fida, Dental Hygienist–Led Chronic Disease Management System to Control Early Childhood Caries, Journal of Evidence Based Dental Practice, Volume 16, Supplement, 2016, Pages 20-33.
