South Dakota State Board of Dentistry

Board Meeting Agenda

10:00 a.m. Central Friday February 6, 2026

Drifters Event Center -- 325 E. Hustan Avenue Ft. Pierre SD 57532

1) **Call to Order**
2) **Open Forum:** 5 minutes for the public to address the Board
3) **Approval of Minutes**
4) **Adoption of Agenda**
5) **Financial Report**
6) **Office Update**
7) **Organization and Program Updates**
    a. SD Dental Association, Dental Wellness Program, Oral Health Coalition
    b. SD Dental Hygienists' Association
8) **Formal Hearings**
    a. Dr. Jeffrey Loftus
    b. Dr. Cale Slack
    c. Robinson Larraga
9) **Executive Session - SDCL 1-25-2(3) and (4)**
10) **License Applications**
11) **Compliance/Legal**
12) **New Business:**
    a. Board Operations
    b. Continuing Education Course Honorarium Application
    c. Teledentistry Draft Regulations and Resources - Update
    d. Meeting Dates
13) **Announcements:** Next Meetings – May 29, 2026 and October 23, 2026.
14) **Adjourn**

SD State Board of Dentistry
Board Meeting
Drifters Event Center – Ft. Pierre, SD
Friday October 10, 2025

President Van Dam called the meeting to order at 10:13 a.m. Central.

Board Members Present: Dr. Scott Van Dam, Dr. Brian Prouty, Dr. Nick Renemans, Dr. Harold Doerr, Dr. Jon Schaack, and Amy Perry.

Board Staff Present: Brittany Novotny, Lisa Harsma, and Dusti Palecek.

Board Staff Present via Video/Audio Conferencing: Megan Borchert (General Counsel)

Presenters Attending via Video/Audio Conferencing: Caitlyn Lint (SDDHA), Amanda McKnelly (Midwest Health Management Services/Health Professionals Assistance Program), Marsha Jensen (Southeast Technical College), and Miranda Drake (University of South Dakota)

Others Present: Paul Knecht (SDDA)

Van Dam called for public testimony during the open forum. There was no public testimony.

Motion to approve the minutes by Schaack. Second by Perry. Motion carried.

Motion to move approve the agenda by Perry. Second by Doerr. Motion carried.

Motion to approve the financial report by Perry. Second by Renemans. Motion carried.

Novotny provided an office update.

Paul Knecht presented an update on the South Dakota Dental Association (SDDA), the Dental Wellness Program, and the Oral Health Coalition and related subgroups.

Caitlyn Lint presented an update on the South Dakota Dental Hygienists' Association (SDDHA).

Amanda McKnelly presented an update on the Health Professionals Assistance Program (HPAP).

Marcia Jensen presented an update on the Southeast Technical College Dental Assisting Program.

Nicole Pahl provided a written update on the Lake Area Technical College Dental Assisting Program and the status of their Dental Hygiene Program.

Miranda Drake presented an update on the University of South Dakota Dental Hygiene program.

Motion to move into Executive Session pursuant to SDCL 1-25-2 (3) by Perry. Second by Doerr. Motion carried. The Board went into Executive Session at 10:54 a.m.

Motion to move out of Executive Session by Doerr. Second by Schaack. Motion carried. The Board moved out of Executive Session at 1:22 p.m.

Motion to approve the dentist credential verification applications of Richard Ryan Coburn, Johnathon Lee O'Brien, Bethany Jane Olson and Aaron Marc Williams by Perry. Second by Doerr. Motion carried.

Motion to approve the dental hygienist credential verification applications of Katie Jean Bloemker, Diane Rachelle Lee and Jessica Marie Warcken by Schaack. Second by Perry. Motion carried.

Motion to approve the dentist applications of Brianna Lynn Clemetson, William Drake Ernst, Peyton Blaire Ernst, Melodee Jo Grant, Preston Paul Herfurth, Andrea Nicole Kae, Peyton Polly Kuchenbecker, Kaden Paul Larsen, Brody Garth McBee, Ethan William McKinney, Shay Jahen Merritte, Haley Marie Molstad, Mariah Lee Ann Oyen, ReeAnn Marie, Rice, Chance Michael Salway, Nicholas William Scheer and Sydney Katherine Schultz by Schaack. Second by Prouty. Motion carried.

Motion to approve the dental hygienist applications of Roarie Daisy Anderson, Kaytlin Joy Scarlett Barfield, Emilee Amanda Beekman, Alyssa Kadrmas Brooks, Arlette Ortega Chavez, Jean Sarephine Hart, Kaylie Rena Johnsen, Erika Brianna Kint, Brooklyn Victoria Kranz, Olivia Grace Krull, Lindsey Shea Malicki, Raquel RaeAnne McAuliffe, Madelyn Jo Miller, Kayla Christine Moseley, Sara J Pizzo and Madeleine Rose Rausch by Perry. Second by Doerr. Motion carried.

Motion to approve the application to reinstate from Emeritus Status the dental license of Dr. Carol Nielsen by Renemans. Second by Prouty. Motion carried.

Motion to approve payment on JENESQ invoices #7 and #8 by Doerr. Second by Perry. Motion carried.

Novotny and Borchert discussed the draft teledentistry regulations. Motion to solicit additional information and data from national organizations relative to teledentistry by Perry. Second by Schaack. Motion carried.

Paul Knecht presented the South Dakota Dental Association (SDDA) Petition, Administration of Nitrous Oxide (unregistered Dental Assistants). The Board reviewed the Petition and information provided by the SDDA. Paul Knecht answered questions from the Board related to the Petition.

Motion to go into Executive Session pursuant to SDCL 1-25-2(3) by Doerr. Second by Perry. Motion carried. The Board went into Executive Session at 1:51 p.m.

Motion to move out of Executive Session by Doerr. Second by Renemans. Motion carried. The Board moved out of Executive Session at 2:08 p.m.

Motion to deny the SDDA Petition, Administration of Nitrous Oxide (unregistered Dental Assistants), and to issue a formal denial by Doerr. Second by Prouty. The Board discussed the Proposal and concerns. Motion carried.

Motion to approve the amended mission statement of the Board, as presented, by Perry. Second by Schaack. Motion carried.

Megan Borchert conducted a review of the open meeting laws pursuant to SDCL 1-25-13.

Motion to approve the Radiography Course Application submitted by Leslie Greager by Perry. Second by Doerr. Motion carried.

The Board reviewed the clinical competency examination materials.

Motion to approve, per ARSD 20:43:03:01(4), the components of the patient and simulation based dental clinical competency examinations administered by CRDTS and CDCA-WREB-CITA that meet the requirements outlined in 20:43:03:02, as presented, by Perry. Second by Doerr. Motion carried.

Motion to approve, per ARSD 20:43:03:08(4), the components of the patient and simulation based dental hygiene clinical competency examinations administered by CRDTS and CDCA-WREB-CITA that meet the requirements outlined in ARSD 20:43:03:09, as presented, by Perry. Second by Prouty. Motion carried.

Motion to approve, per 20:43:03:04(4), the patient and simulation based dental clinical competency examinations administered by CRDTS and CDCA-WREB-CITA, as presented, by Perry. Second by Renemans. Motion carried.

Motion to approve, per 20:43:03:10(4), the patient and simulation based dental hygiene clinical competency examinations administered by CRDTS and CDCA-WREB-CITA, as presented, by Perry. Second by Prouty. Motion carried.

Motion to approve the 2026 continuing education honorarium application, as presented, by Schaack. Second by Perry. Motion carried.

Motion to appoint Schaack as the dentist approving board member and continuing education reviewing board member by Perry. Second by Renemans. Motion carried.

The Board announced meeting dates of February 6, 2026; May 29, 2026; and October 23, 2026.

The Board thanked Dr. Renemans for his nine years of service on the Board. The Board highlighted the many leadership and committee roles held by Dr. Renemans, recognizing the tremendous asset he has been. During his years of service, Dr. Renemans participated in numerous projects and regulatory updates. Dr. Renemans also served in many leadership roles, including Board President from 2022-2024.

Motion to adjourn by Renemans. Second by Van Dam. Motion carried.

There being no further business, the meeting was adjourned at 2:54 p.m.

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Amy Perry, Secretary

SD State Board of Dentistry
Board Meeting
Teleconference
Monday December 15, 2025

President Van Dam called the meeting to order at 6:34 pm Central.

Board Members Present: Dr. Scott Van Dam, Dr. Brian Prouty, Dr. Jon Schaack, Dr. Harold Doerr, Dr. Donald Massa and Ashley Flynn.

Board Staff Present: Brittany Novotny, Lisa Harsma, and Megan Borchert.

Others Present: Dr. Joshua Nehring and Jim Bowen.

Van Dam called for public testimony during the open forum. There was no public testimony.

Motion to approve the agenda by Doerr. Second by Schaack. Motion carried.

Motion to move into Executive Session pursuant to SDCL 1-25-2 (3) and (4) by Doerr. Second by Schaack. Motion carried. The Board went into Executive Session at 6:35pm.

Motion to move out of Executive Session by Schaack. Second by Flynn. Motion carried. The board moved out of Executive Session at 7:19 pm.

Motion to approve the Application to Reinstate the Moderate Sedation Permit of Dr. Joshua Nehring by Doerr. Second by Prouty. Motion carried.

Van Dam announced that after seventeen years of service, the Executive Secretary, Brittany Novotny, has elected to step down from that role, and her firm will conclude its day-to-day management of Board operations effective May 31, 2026. The Board formally recognized and expressed its sincere gratitude to Brittany Novotny and the team at Midwest Solutions, Inc., notably Lisa Harsma and Dusti Palecek, for the many years of exemplary service. Van Dam remarked that Brittany's dedication, expertise, professionalism, and collaborative leadership have been integral to the Board's success. On behalf of the Board, he expressed sincere appreciation for her service and partnership and extended best wishes for continued success in her future endeavors, emphasizing the significant contributions she and her team have made to the profession.

Motion to move forward with the Request For Proposals (RFP) process and to appoint Dr. Scott Van Dam, Dr. Harold Doerr and Dr. Brian Prouty to an advisory committee to assist with the RFP process, by Schaack. Second by Massa. Motion carried.

Van Dam noted the next board meeting will be held February 6, 2026.

Motion to adjourn by Doerr. Second by Massa. Motion carried.

There being no further business, the meeting was adjourned at 7:26 pm.

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Amy Perry, Secretary

Remaining Authority by Object/Subobject

Expenditures current through 01/03/2026 09:50:29 AM
HEALTH -- Summary
FY 2026 Version -- AS -- Budgeted and Informational
FY Remaining: 49.0 %

09202 Board of Dentistry - Info

Subobject		Operating	Expenditures	Encumbrances	Commitments	Remaining	PCT AVL
EMPLOYEE SALARIES							
5101030	Board & Comm Mbrs Fees	13,797	1,660	0	0	12,137	88.0
Subtotal		**13,797**	**1,660**	**0**	**0**	**12,137**	88.0
EMPLOYEE BENEFITS							
5102010	Oasi-employer's Share	1,252	127	0	0	1,125	89.9
Subtotal		**1,252**	**127**	**0**	**0**	**1,125**	89.9
51 Personal Services							
Subtotal		**15,049**	**1,787**	**0**	**0**	**13,262**	88.1
TRAVEL							
5203030	Auto-priv (in-st.) H/rte	1,772	239	0	0	1,533	86.5
5203070	Air-charter-in State	22,000	2,185	0	0	19,815	90.1
5203100	Lodging/in-state	1,637	0	0	0	1,637	100.0
5203130	Non-employ. Travel-in St.	2,500	0	0	0	2,500	100.0
5203140	Meals/taxable/in-state	305	0	0	0	305	100.0
5203150	Non-taxable Meals/in-st	200	0	0	0	200	100.0
5203260	Air-comm-out-of-state	1,000	0	0	0	1,000	100.0
5203330	Non-employ Travel-out-st.	3,000	0	0	0	3,000	100.0
Subtotal		**32,414**	**2,424**	**0**	**0**	**29,990**	92.5
CONTRACTUAL SERVICES							
5204010	Subscriptions	300	0	0	0	300	100.0
5204020	Dues & Membership Fees	5,000	900	0	0	4,100	82.0
5204050	Computer Consultant	34,400	27,304	17,776	0	-10,680	0.0
5204060	Ed & Training Consultant	3,307	0	0	0	3,307	100.0
5204080	Legal Consultant	38,616	104,813	0	0	-66,197	0.0
5204090	Management Consultant	295,140	163,426	165,422	0	-33,708	0.0
5204100	Medical Consultant	40,000	25,169	199,831	0	-185,000	0.0
5204130	Other Consulting	7,000	-5,990	82,420	0	-69,430	0.0
5204160	Workshop Registration Fee	2,000	0	0	0	2,000	100.0
5204181	Computer Services-state	316	0	0	0	316	100.0
5204190	Computer Services-private	500	0	0	0	500	100.0
5204200	Central Services	3,549	3,067	0	0	482	13.6
5204203	Central Services	203	7	0	0	196	96.6
5204204	Central Services	1,211	247	0	0	964	79.6
5204207	Central Services	1,016	150	0	0	866	85.2
5204360	Advertising-newspaper	400	0	0	0	400	100.0

Remaining Authority by Object/Subobject

Expenditures current through 01/03/2026 09:50:29 AM
HEALTH -- Summary
FY 2026 Version -- AS -- Budgeted and Informational
FY Remaining: 49.0 %

09202 Board of Dentistry - Info

Subobject		Operating	Expenditures	Encumbrances	Commitments	Remaining	PCT AVL
5204460	Equipment Rental	0	150	0	0	-150	0.0
5204480	Microfilm & Photography	500	0	0	0	500	100.0
5204510	Rents-other	725	700	0	0	25	3.4
5204530	Telecommunications Srvcs	4,000	0	0	0	4,000	100.0
5204550	Garbage & Sewer	0	25	0	0	-25	0.0
5204590	Ins Premiums & Surety Bds	1,500	0	0	0	1,500	100.0
5204960	Other Contractual Service	12,000	180	0	0	11,820	98.5
Subtotal		**451,683**	**320,148**	**465,449**	**0**	**-333,914**	0.0
	SUPPLIES & MATERIALS						
5205020	Office Supplies	1,100	239	0	0	861	78.3
5205310	Printing-state	1,000	0	0	0	1,000	100.0
5205350	Postage	4,500	2,552	0	0	1,948	43.3
5205390	Food Stuffs	500	0	0	0	500	100.0
Subtotal		**7,100**	**2,791**	**0**	**0**	**4,309**	60.7
	OTHER						
5208010	Other	500	0	0	0	500	100.0
Subtotal		**500**	**0**	**0**	**0**	**500**	100.0
52 Operating Subtotal		**491,697**	**325,363**	**465,449**	**0**	**-299,115**	0.0
Total		**506,746**	**327,150**	**465,449**	**0**	**-285,853**	0.0

AGENCY 09 HEALTH
BUDGET UNIT 09202 BOARD OF DENTISTRY - INFO

CENTER	COMP	ACCOUNT	DESCRIPTION	CURRENT MONTH	YEAR-TO-DATE	
COMPANY NO	6503					
COMPANY NAME	PROFESSIONAL & LICENSING BOARDS					
092020061807	6503	4293005	DENTIST CREDENTIAL	1,200.00	6,600.00	
092020061807	6503	4293015	HYGIENIST CREDENTIAL	.00	1,500.00	
092020061807	6503	4293105	DENTIST NEW LICENSE	200.00	1,800.00	
092020061807	6503	4293115	DENTIST JP EXAM	300.00	5,400.00	
092020061807	6503	4293125	DENTIST REINSTATE LICENSE	600.00	600.00	
092020061807	6503	4293135	DENTIST NITROUS OXIDE	.00	400.00	
092020061807	6503	4293145	DENTIST MOD SEDAT RENEW	50.00	150.00	
092020061807	6503	4293150	DENTIST GA/DEEP SEDATION	.00	50.00	
092020061807	6503	4293160	DENTIST HOST PERMIT LIC	.00	100.00	
092020061807	6503	4293205	HYGIENIST NEW LICENSE	.00	1,050.00	
092020061807	6503	4293215	HYGIENIST JP EXAM	.00	1,620.00	
092020061807	6503	4293222	HYGIENIST ANESTHESIA	.00	450.00	
092020061807	6503	4293235	HYGIENIST NITRIOUS OXIDE	.00	360.00	
092020061807	6503	4293305	RADIOLOGY NEW	720.00	4,590.00	
092020061807	6503	4293307	RADIOLOGY RENEWAL	405.00	405.00	
092020061807	6503	4293405	ADA EXPANDED FUNCTION NEW	315.00	3,150.00	
092020061807	6503	4293420	ADA EXPAND FUNC ADMIN NIT	180.00	2,835.00	
092020061807	6503	4293505	CORPORATE NEW LICENSE	.00	100.00	
092020061807	6503	4293600	TEMP LICENSE	500.00	2,300.00	
092020061807	6503	4293850	COLLABORATIVE SUPERVISION	.00	20.00	
ACCT: 4293			BUSINESS & OCCUP LICENSING (NON-GOVERNMENTAL)	4,470.00	33,480.00	*
092020061807	6503	4299000	OTHER LIC., PRMTS, & FEES	37,111.14	37,111.14	
ACCT: 4299			OTHER LIC, PRMTS, & FEES (NON-GOVERNMENTAL)	37,111.14	37,111.14	*
ACCT: 42			LICENSES, PERMITS & FEES	41,581.14	70,591.14	**

AGENCY 09 HEALTH
BUDGET UNIT 09202 BOARD OF DENTISTRY - INFO

CENTER	COMP	ACCOUNT	DESCRIPTION	CURRENT MONTH	YEAR-TO-DATE	
092020061807	6503	4595000	VERIFICATION LETTERS	50.00	500.00	
092020061807	6503	4595800	LIST OF PRACTITIONERS	.00	6,900.00	
ACCT: 4595				50.00	7,400.00	*
ACCT: 45		CHARGES FOR SALES & SERVICES		50.00	7,400.00	**
092020061807	6503	4920045	NONOPERATING REVENUES	.00	15,269.79	
ACCT: 4920		NONOPERATING REVENUE		.00	15,269.79	*
092020061807	6503	495000000000000000	REFUND OF PRIOR YEARS EXP	.00	500.00	
ACCT: 4950		REFUND OF PRIOR YEARS EXPENDITURES		.00	500.00	*
ACCT: 49		OTHER REVENUE		.00	15,769.79	**
CNTR: 092020061807				41,631.14	93,760.93	***
CNTR: 092020061				41,631.14	93,760.93	****
CNTR: 0920200				41,631.14	93,760.93	*****
COMP: 6503				41,631.14	93,760.93	******
B UNIT: 09202				41,631.14	93,760.93	*******

AGENCY: 09 HEALTH
BUDGET UNIT: 09202 BOARD OF DENTISTRY - INFO

COMPANY	CENTER	ACCOUNT	BALANCE	DR/CR	CENTER DESCRIPTION
6503	092000061807	1140000	230,988.03	DR	BOARD OF DENTISTRY
COMPANY/SOURCE TOTAL 6503 618			230,988.03	DR *	
COMP/BUDG UNIT TOTAL 6503 09202			230,988.03	DR **	
BUDGET UNIT TOTAL 09202			230,988.03	DR ***	

South Dakota
DENTAL ASSOCIATION

A constituent society of the American Dental Association

S.D. Dental Association
804 N. Euclid, Ste 103
Pierre, SD 57501-1194
Phone (605) 224-9133
FAX (605) 224-9168
www.sddental.org

January 7, 2026

Dr. Scott Van Dam, Chairman
South Dakota State Board of Dentistry
PO Box 1079
Pierre, SD 57501

Dear Dr. Van Dam:

The South Dakota Dental Association (SDDA) is seeking funds to continue the Wellbeing Program that was started in June of 2021. In the four and half years of the program has been in place we have fostered a "culture of wellness" within the dental community in South Dakota through wellbeing-education and by providing individual counseling or coaching to those who need it. We intend to continue to retain Mary Wolf, a licensed-professional-counselor, for another year of counseling and coaching services. Since the advent of the program more than 70 individuals have received counseling through Mary. All individuals licensed by the South Dakota Board of Dentistry or employed in a dental office in South Dakota are eligible for help through the program.

We are requesting $10,000 from the Board of Dentistry. We will request an equal amount from the South Dakota Dental Foundation and the SDDA will continue to supply additional funding as needed for the program and will commit staff to manage the program. As has been the case in previous years, the funds will be used to fund our agreement with Mary. We anticipate Mary will provide counseling/coaching for 18 or more individuals as well as present a wellbeing session at the SDDA annual session.

Sincerely,

Paul Knecht
Executive Director

South Dakota State Board of Dentistry
P.O. Box 1079, 1351 N. Harrison Ave. Pierre, SD 57501-1079
Ph: 605-224-1282 Fax: 1-888-425-3032

E-mail: contactus@sdboardofdentistry.com www.sdboardofdentistry.org

Application for Continuing Education Course Honorarium

Background

It is the policy of the Board to allocate resources, when available, to fund continuing education courses that further the mission of the Board.

Procedure

Application Deadline:	December 31, 2025. *Applications received after this deadline will not be considered.*
Submit Applications to:	South Dakota State Board of Dentistry PO Box 1079 Pierre, SD 57501 Or electronically to contactus@sdboardofdentistry.com
Fund Amount:	The Board will fund up to $10,000 in total during this cycle.

Criteria for Consideration

- ✓ Any funded course must be open to all dental professionals free of charge.
- ✓ The sponsor organization must meet the applicable state contractor requirements.
- ✓ The course must further the mission of the Board.
- ✓ Preference will be given to courses that impact a large number of licensees or registrants and courses provided in partnership with other professional associations.
- ✓ If the Board receives multiple applications, the maximum funding amount may be split.

If an application is approved:

- ✓ The sponsor organization must be prepared to complete the state contract process.
- ✓ The sponsor organization must note in its promotional materials the following: *"The honorarium for this speaker is being funded by the South Dakota State Board of Dentistry. This course is open to all dental professionals free of charge. The content and opinions expressed during this course do not necessarily reflect the views of nor are they endorsed by the South Dakota State Board of Dentistry."*
- ✓ Following the course date, the sponsor organization must submit a brief report, including how many South Dakota licensees and/or registrants attended.

South Dakota State Board of Dentistry

Application for Continuing Education Course Honorarium

Course Information

Title of Course: *Detailed course outline must be attached:*

Application of Color Therapy & Shade Selection in Restorative Dentistry

Looking at the Restorative Success Through the Lens of Proven Occlusion Based Principles

Speaker(s): *Curriculum Vitae or Resume must be attached:*

Lane Ochi, DDS, FACD, FICD

Date(s) of Course: Friday, May 15, 2026

Course Location: Sioux Falls Convention Center

Speaker Honorarium Total: $ 9100.00

South Dakota State Board of Dentistry Honorarium Amount requested: $9100.00

Applicant Information

Sponsor Organization Name: South Dakota Dental Association

Sponsor Organization Contact: Melissa Afdahl

Address: 804 N. Euclid Ave. | Pierre, SD 57501

Phone: 605.609.1152 Email: melissa@sddental.org

Partner Organization Name (if applicable):

Application Questions

Please type or print clearly; use additional paper if necessary.

1. Does the sponsor organization meet the requirements to serve as a state contractor?

   ☒ Yes

   ☐ No

2. Please list the course objectives:

   Please see attachments.

3. What is the target population?

   Dental Professionals

4. What is the anticipated number of *South Dakota* licensees and/or registrants that will attend this course?
   a. Dentists: 250
   b. Dental Hygienists: 250
   c. Registered Dental Assistants: 350
   d. Radiographers: _____
   e. Other Dental Office Staff: 55

5. List other possible sources of financial support for this course:

   N/A

Dr Lane Ochi

DDS, FACD, FICD
General Dentist

Dr Lane Ochi has presented at national and international audiences on the topic of aesthetic restorative dentistry and occlusion.

Lane M. Ochi D.D.S., F.A.C.D., F.I.C.D., graduated with honors from the University of Southern California in 1981, where he received the Robert W. McNulty Memorial Award for the highest scholastic achievement. He has been elected to membership in Alpha Tau Epsilon - U.S.C. Dental School Honor Society, Phi Kappa Phi - National Society of Scholars, Omicron Kappa Upsilon - National Dental Honor Society, the Pierre Fauchard Academy - International Honor Dental Society, and he is a Fellow in the American College of Dentists and the International College of Dentists.

He is currently an Associate Clinical Professor in the Department of Restorative Dentistry, and was the Co-director of Occlusion at U.S.C. School of Dentistry. He is also an Assistant Director in the Advanced Restorative Institute Dental Education Center, and serves as a specialist consultant to the Graduate Prosthodontic Program at the Veterans Affairs Hospital in West Los Angeles.

He has lectured to national and international audiences on the subject of aesthetic restorative dentistry and occlusion. He was presented with the McCollum Award from the IAG that recognises those who have contributed significantly to the clinical application and educational advancement of occlusion internationally.

He has received multiple Commendations from the County of Los Angeles for his efforts to promote the health and wellbeing of underserved populations in his community.

Dr. Ochi maintains a full time private practice in Beverly Hills with an emphasis on physiologic and aesthetic reconstructive dentistry. His patients include Academy Award winners, former Miss America's, and some of the most recognised names in the entertainment business.

“The application of color theory and shade selection in restorative dentistry”

Color theory is a language that conceptually and perceptually describes the elements of color and their interactions. Unfortunately, it’s quite a tricky concept, and we all know if the color of a restoration is off it can result in us feeling like we’ve failed, and the patient walks away disappointed.

Understanding color is tricky. Slight variances in shade play with our eyes, our minds, and, ultimately, our dentistry. The illumination in the dental treatment room, optical illusions, color blindness, and fatigue are among the dental professional’s ongoing obstacles to successful shade matching. This course will enlighten the dentist and ceramist on the dimensions of color, the effect of metamerism and other phenomenon.

By being fluent in the language of color, we can sharpen our perception of color, better understand existing color dynamics, make better predictions, and communicate more clearly about color.

A review of these concepts as rules and guidelines will be presented in a manner that can be utilized to resolve complex esthetic problems. Armed with this knowledge you can get your restorations to match adjacent teeth more successfully, so your patients leave feeling happy with your restorative outcomes.

Educational Objectives:

Upon completion of this course, you should be able to:

• Understand the interactions of light, color, color perception and shade matching.

• Understand the phenomenon of metamerism, and how it can act as a complicating factor in shade selection.

• Understand how to make the best shade selection.

• Learn 3 simple tricks to improve your ability to select the most correct color.

"Looking at the restorative success through the lens of proven occlusion based principles"

Our profession is rich with concepts of how to address the function & dysfunction of the temporomandibular system. Many of the early and still popular etiologic theories are based on mechanical concepts of occlusion. While we can point to treatment success, we must be careful to assign factual evidence to support these beliefs.

We continue to be faced with a myriad of treatment options, all with the same evidence based challenges. If we are to utilize any of these mechanical designs in our restorative treatments, we must recognize the biologic diversity of every patient we treat.

Failure visits our practices in many forms, even with the newest restorative materials that promise success. In this program we will explore the forces that threaten our finest efforts and what options we must address.

Equally important is the application of communication and appreciate purpose vs. process treatment planning as it applies to our everyday dentistry and beyond. Learn cooperative problem identification where the dentist and patient discover what is happening in the patient's mouth and what can be predicted for the years ahead.

Educational Objectives:

Upon completion of this course, you should be able to:

• Understand the benefits and limitations of treating to MIP.

• Recognize the advantages to treatment planning and treating to CR.

• Determining whether the VDO may have changed with tooth wear, and how to establish a new VDO.

• Balance esthetic outcomes with functional and parafunctional design for longevity.

• How to spread out the cost of treatment by treating in phases and still achieve a predictable outcome.

Policy on Teledentistry

Revised
2025

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Purpose

The American Academy of Pediatric Dentistry (**AAPD**) recognizes the need for improved access to oral health care services for infants, children, adolescents, and individuals with special health care needs when circumstances create barriers to care. The AAPD advocates teledentistry as a valuable tool to improve access to care for pediatric patients.

Methods

This policy was developed by the Council on Clinical Affairs and adopted in 2021.[1] A PubMed/MEDLINE search was performed using the terms: (*dental care for children* [**MeSH**] OR *evidence based dentistry* [MeSH] OR *oral health disparities* [**Tiab**] OR *general practice, dental* [MeSH] OR *vulnerable populations* [MeSH]) AND (*telemedicine* [MeSH] OR *teledentistry* [Tiab] OR *remote consultation* [MeSH] OR *videoconferencing* [MeSH] OR *digital health* [MeSH] OR *distance counseling* [MeSH]); fields: all; limits: within the last 10 years, English. One hundred ninety articles were identified in this search. Additionally, websites for the American Dental Association, AAPD, American Academy of Pediatrics, and American Telemedicine Association were reviewed. Expert opinions and best current practices were relied upon when clinical evidence was not available.

Background

Telehealth broadens health care delivery for patients in remote and underserved communities.[2-5] Teledentistry involves the use of telehealth modalities to deliver dental care and has many benefits in improving access to oral health care in a cost-effective manner for infants, children, adolescents, and individuals with special health care needs.[6] Teledentistry may provide time savings, reduce transportation burdens, and facilitate treatment planning for patients, parents, and practitioners.[7] Additionally, teledentistry is useful in providing consultations for time-sensitive injuries or when unexpected circumstances result in difficulties accessing care.

Telehealth, including teledentistry, occurs in numerous formats, including asynchronous (also known as store and forward) or synchronous (live video) modalities, mobile health care utilizing mobile technology, and remote patient monitoring.[4,8,9] Asynchronous modalities in telehealth utilize the transmission of health records, including photographs, videos, and radiographs, to a practitioner so that he may assess the patient.[4,6,8] Asynchronous modalities do not occur in real time. Synchronous telehealth modalities include a real-time 2-way visual interaction between a practitioner and patient.[4,8] Mobile health care utilizes mobile technology such as cellular telephones to promote oral health behaviors and monitor oral health.[4,8] Remote patient monitoring is the electronic transmission of health and medical data from individuals outside a hospital or clinic to health care professionals in an alternate location to facilitate monitoring and surveillance of diseases.[10]

Teledentistry expands access to oral health care, contributing to greater health equity.[2,6,8] Virtual dental appointments can result in improved access to specialty care for patients in rural and underserved communities.[6,11,12] Use of teledentistry increases potential for collaborative multidisciplinary care, such as that needed for patients with cleft lip and palate. Teledentistry heightens continuity of care and augments oral health instruction, dietary counseling, and nutrition education; it may lead to timely detection and treatment of early childhood caries.[6,7,13] Additionally, teledentistry is widely accepted by patients, their families, and dental professionals through utilization of technology that is economical and already part of daily life for many.[6,14,15]

Studies find teledentistry as reliable as in-person examinations for dental, orthognathic, and oral surgery evaluations, including recognition and management of odontogenic infections.[6,16] When possible, obtaining dental radiographs in conjunction with the teledentistry visit can aid in a more thorough dental diagnosis. Examinations conducted via teledentistry result in valid treatment decisions by dental professionals.[7,16]

Statutes and case law of individual states govern the practice of dentistry, including teledentistry. Some states may require dentists to be licensed in the state in which their patient is receiving services.[8] As with traditional delivery of dental services, consent for and documentation of teledentistry in accordance with state guidelines are essential. Documentation of a teledentistry visit would be like that of an in-person visit, encompassing a thorough description of the encounter. Security measures and privacy of protected patient information are necessary to ensure compliance with state and federal laws.[8,17] Review of applicable regulations can help oral health care professionals determine their compliance with licensure, documentation, and electronic security requirements for teledentistry. The care delivered through teledentistry is expected to conform to evidence-based dentistry.[8]

ABBREVIATIONS
AAPD: American Academy of Pediatric Dentistry. **MeSH:** Medical subject heading. **Tiab:** Title and abstract.

Policy statement

The AAPD encourages the use of teledentistry as an adjunct to in-person clinical care to improve access to care for infants, children, adolescents, and individuals with special health care needs. The AAPD advocates that teledentistry services

- be recognized as a vital extension of contemporary pediatric dentistry by stakeholders including oral health care professionals, patients, state and federal regulatory agencies, and third party payors.
- complement but do not serve as a substitute for the establishment of a dental home.
- serve as a useful tool for the timely assessment and triage of traumatic injuries.
- provide an important option when access to oral health care professionals is limited including, but not limited to, local unforeseen circumstances, patients in remote locations, and patients with special health care needs who may not be able to engage in traditional services.
- be consistent with evidence-based guidelines and recommendations promulgated by organizations or agencies with recognized expertise and stature.
- be included as an essential component of health care benefits plans with reimbursement rates on par with in-person delivery of care.

The AAPD recognizes that teledentistry is an expanding and increasingly beneficial technology. Further research and development of teledentistry policy and technology are needed on a state and national level to facilitate widespread implementation.

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ADA Policy on Teledentistry

Teledentistry refers to the use of telehealth systems and methodologies in dentistry. Telehealth refers to a broad variety of technologies and tactics to deliver virtual medical, health, and education services. Telehealth is not a specific service, but a collection of means to enhance care and education delivery.

Teledentistry can include patient care and education delivery using, but not limited to, the following modalities:

Synchronous (live video): Live, two-way interaction between a person (patient, caregiver, or provider) and a provider using audiovisual telecommunications technology.

Asynchronous (store and forward): Transmission of recorded health information (for example, radiographs, photographs, video, digital impressions and photomicrographs of patients) through a secure electronic communications system to a practitioner, who uses the information to evaluate a patient's condition or render a service outside of a real-time or live interaction.

Remote patient monitoring (RPM): Personal health and medical data collection from an individual in one location via electronic communication technologies, which is transmitted to a provider (sometimes via a data processing service) in a different location for use in care and related support of care.

Mobile health (mHealth): Health care and public health practice and education supported by mobile communication devices such as cell phones, tablet computers, and personal digital assistants (PDA).

General Considerations: While in-person (face to face) direct examination has been historically the most direct way to provide care, advances in technology have expanded the options for dentists to communicate with patients and with remotely located licensed dental team members. The ADA believes that examinations performed using teledentisty can be an effective way to extend the reach of dental professionals, increasing access to care by reducing the effect of distance barriers to care. Teledentistry has the capability to expand the reach of a dental home to provide needed dental care to a population within reasonable geographic distances and varied locations where the services are rendered.

In order to achieve this goal, services delivered via teledentistry must be consistent with how they would be delivered in-person. Examinations and subsequent interventions performed using teledentistry must be based on the same level of information that would be available in an in-person environment, and it is the legal responsibility of the dentist to ensure that all records collected are sufficient for the dentist to make a diagnosis and treatment plan. The treatment of patients who receive services via teledentistry must be properly documented and should include providing the patient with a summary of services. A dentist who uses teledentistry shall have adequate knowledge of the nature and availability of local dental resources to provide appropriate follow-up care to a patient following a teledentistry encounter. A dentist shall refer a patient to an acute care facility or an emergency department when referral is necessary for the safety of the patient or in case of emergency.

As the care provided is equivalent to in person care, insurer reimbursement of services provided must be made at the same rate that it would be made for the services when provided in person, including reimbursement for the teledentistry codes as appropriate.

Patients' Rights: Dental patients whose care is rendered or coordinated using teledentistry modalities have the right to expect:

1. That any dentist delivering, directing or supervising services using teledentistry technologies will be licensed in the state where the patient receives services, or be providing these services as otherwise authorized by that state's dental board.
2. Access to the licensure and board certification qualifications of the oral health care practitioner who is providing the care in advance of the visit.
3. That the delivery of services through teledentistry technologies will follow evidence-based practice guidelines, to the degree they are available, as a means of ensuring patient safety, quality of care and positive health outcomes.

4. That they will be informed about the identity of the providers collecting or evaluating their information or providing treatment, and of any costs they will be responsible for in advance of the delivery of services.
5. That relevant patient information will be collected prior to performing services using teledentistry technologies and methods including medical, dental, and social history, and other relevant demographic and personal information.
6. That the provision of services using teledentistry technologies will be properly documented and the records and documentation collected will be provided to the patient upon request.
7. That services provided using teledentistry technologies and methods include care coordination as a part of a dental home and that the patient's records be made available to any entity that is serving as the patient's dental home.
8. That the patient will be actively involved in treatment decisions, will be able to choose how they receive a covered service, including considerations for urgency, convenience and satisfaction and without such penalties as higher deductibles, co-payments or coinsurance relative to that of in-person services.
9. That the dentist shall determine the delivery of services using teledentistry technologies and all services are performed in accordance with applicable laws and regulations addressing the privacy and security of patients' private health information.

Quality of Care: The dentist is responsible for, and retains the authority for ensuring, the safety and quality of services provided to patients using teledentistry technologies and methods. Services delivered via teledentistry should be consistent with in-person services, and the delivery of services utilizing these modalities must abide by laws addressing privacy and security of a patient's dental/medical information.

Supervision of Allied Dental Personnel: The extent of the supervision of allied dental personnel should conform to the applicable dental practice act in the state where the patient receives services and where the dentist is licensed. The dentist should be knowledgeable regarding the competence and qualifications of the allied personnel utilized, and should have the capability of immediately contacting both the allied dental personnel providing service and the patient receiving services. All services delivered by allied dental personnel should be consistent with the ADA Comprehensive Statement on Allied Dental Personnel.

Licensure: Dentists and allied dental personnel who deliver services through teledentistry modalities must be licensed or credentialed in accordance with the laws of the state in which the patient receives service. The delivery of services via teledentistry must comply with the state's scope of practice laws, regulations or rules. Teledentistry cannot be used to expand the scope of practice or change permissible duties of dental auxiliaries. The American Dental Association opposes a single national federalized system of dental licensure for the purposes of teledentistry.

Reimbursement: Dental benefit plans and all other third-party payers, in both public (e.g. Medicaid) and private programs, shall provide coverage for services using teledentistry technologies and methods (synchronous or asynchronous) delivered to a covered person to the same extent that the services would be covered if they were provided through in-person encounters. Coverage for services delivered via teledentistry modalities will be at the same levels as those provided for services provided through in-person encounters and not be limited or restricted based on the technology used or the location of either the patient or the provider as long as the health care provider is licensed in the state where the patient receives service.

Technical Considerations: Dentists are encouraged to consider conformance with applicable data exchange standards to facilitate delivery of services via teledentistry modalities. These include, but are not limited to, Digital Imaging and Communications in Medicine (DICOM) standards when selecting and using imaging systems, X12/HL7 for the exchange of information and ICD-9/10-CM/SNOMED/SNODENT for documentation consistency.

Policy updated in 2020.

Tags

Science and Technology

Related

Investigation

Comparison of initial dental treatment decisions between in-person and asynchronous teledentistry examinations for people with special health care needs

Supplemental material is available online.

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ABSTRACT

Background. People with special health care needs in long-term care settings have difficulty accessing a traditional dental office. The goal of the authors was to assess initial treatment decision concordance between dentists conducting traditional in-person examinations using mobile equipment and additional dentists conducting examinations using asynchronous teledentistry technology.

Methods. Six dentists from Access Dental Care, a North Carolina mobile dentistry nonprofit, saw new patients on-site at 12 participating facilities or asynchronously off-site with electronic dental records, radiographs, and intraoral images, all captured by an on-site dental hygienist. Off-site dentists were masked to other dentists' treatment need decisions; 3 through 5 off-site examinations were conducted for each on-site examination. Demographic and binary treatment need category data were collected. For the 3 most prevalent treatment types needed (surgery, restorative, and new removable denture), the authors calculated the percentage agreement and κ statistics with bootstrapped CIs (1,000 replicates).

Results. The 100 enrolled patients included 47 from nursing homes, 45 from Programs of All-Inclusive Care for the Elderly, and 8 from group homes for those with intellectual and developmental disabilities. Mean (SD) age was 73.9 (16.5) years. Among dentate participants, the percentage agreement and bootstrapped κ (95% CI) were 87% and 0.74 (0.70 to 0.78) for surgery and 78% and 0.54 (0.50 to 0.58) for restorative needs, respectively, and among dentate and edentulous participants, they were 94% and 0.78 (0.74 to 0.83), respectively, for new removable dentures.

Conclusions. The authors assessed the initial dental treatment decision concordance between on-site dentists conducting in-person examinations with a mobile oral health care delivery model and off-site dentists conducting examinations with asynchronous dentistry. Concordance was substantial for surgery and removable denture treatment decisions and moderate for restorative needs. Patient characteristics and facility type were not significant factors in the levels of examiner agreement.

Practical Implications. This evidence supports teledentistry use for patients with special health care needs and could help improve their access to oral health care.

Key Words. Telemedicine; oral health; dental care delivery; clinical decision making; nursing homes; dental care for aged; teledentistry; older adults.

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As the US population continues to age, there is an increasing need for long-term health care services. However, access to many health care services, including oral health care, continues to remain limited for older adults. People living in long-term care (LTC) facilities, in particular, face substantial barriers in receiving oral health care, resulting in more untreated coronal and root caries and missing teeth than in people living independently.[1-5] These disparities can be attributed to several factors, including the limited mobility of this vulnerable population along with the complex medical conditions, cognitive decline, and other disabilities of people living in LTC

facilities. In addition, many LTC facilities often lack adequate equipment or sufficient training for staff members to provide oral health care to residents. Furthermore, most dentists do not leave their established fixed locations of practice to provide care elsewhere in the community.[6]

To help address the oral health needs of this population, mobile oral health care is a delivery model for adults in LTC settings and community programs in which providers bring services and supplies to the location of their patients.[7] However, the COVID-19 pandemic resulted in major limitations for mobile oral health care and further exacerbated the existing barriers to access oral health care for LTC residents. The pandemic exposed considerable disparities in oral health for many vulnerable populations, including LTC residents, due to staff shortages, an inability for caretakers to visit LTC facilities, and other limitations on oral health care delivery.[6,8] During this time, the use of teledentistry, or virtual oral health care delivery, increased. However, teledentistry is still underused in LTC settings and generally less studied than other oral health care delivery models.[8] An opportunity exists to use teledentistry to improve access to oral health care for populations with special care needs.

Studies have reported on the wide scope of purposes that teledentistry can be used for, including education and health promotion, consultation, referral, screening, detection of lesions, and assessment of oral function.[8-11] In a 2017 scoping review, specific to the use of teledentistry for older adults, only 1 of 19 studies reviewed was conducted in the United States, and most had small sample sizes or other study limitations.[9] Only 1 study, performed in France and Germany, included nursing home residents, and only 3 studies assessed the accuracy of teledentistry compared with on-site examination, each for different purposes.[8-11] Thus, our study's purpose was to assess the initial treatment decision concordance between dentists conducting traditional in-person examinations using mobile equipment and additional dentists conducting examinations using asynchronous teledentistry technology among adults with special health care needs, including mostly older adults.

Secondarily, we wanted to determine whether agreement between the on-site dentists using mobile equipment and off-site dentists (acting as teledentists) using teledentistry technology was affected by different patient characteristics and settings.

METHODS

Our study was reviewed by and received approval from the University of North Carolina (UNC) at Chapel Hill institutional review board (21-2456). We used the Strengthening the Reporting of Observational Studies in Epidemiology checklist as a guide for reporting this cross-sectional, observational study design (Figure 1).[12] For data collection, Adams School of Dentistry at UNC partnered with Access Dental Care (ADC), a nonprofit organization that provides comprehensive, on-site, portable oral health care to those in North Carolina living in skilled nursing homes and group homes for those with intellectual and developmental disabilities. ADC also serves 4 regional Programs of All-Inclusive Care for the Elderly (PACE). Each region has an ADC mobile dentistry team (dentist, dental hygienist, ≥ 1 dental assistants) that has a contract with and serves the LTC facilities in that region.

Eligibility criteria

Inclusion criteria were 18 years or older, located in or attending 1 of the 12 facilities that had contracted with ADC to provide mobile oral health care, requested a new patient dental examination from March 7, 2022, through June 5, 2023, and either the patient or his or her legal authorized representative (LAR) (ie, responsible party) could speak English and provide informed consent. Exclusion criteria were lack of informed consent and patients who were uncooperative during initial dental examination, undergoing intravenous feeding, or receiving palliative care.

Recruitment

The project coordinator (PC) (B.R.T.) was notified of new patients with consent to receive their dental care from ADC and contacted the patient or LAR via phone to discuss our study. Those agreeing to participate signed a study-specific consent form and a Health Insurance Portability and Accountability Act (commonly known as HIPAA) consent form to participate either electronically via DocuSign or via paper consent forms sent through the US Postal Service. After the consent process there was no difference, compared with usual care, with the initial dental examination the

ABBREVIATION KEY

ADC: Access Dental Care.
CAB: Community Advisory Board.
LAR: Legal authorized representative.
LTC: Long-term care.
NA: Not applicable.
PACE: Programs of All-Inclusive Care for the Elderly.
PC: Project coordinator.
UNC: University of North Carolina.

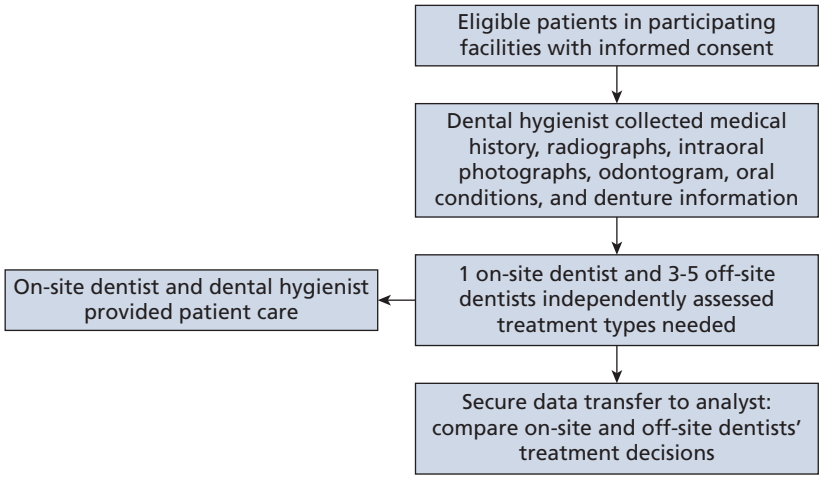

Figure 1. Study design.

patient received from the on-site dentist; however, different ADC dentists also looked at their records remotely. The number of patients seen by each on-site dentist and dental hygienist depended on the number newly enrolled in this mobile dentistry program who resided in their assigned region and provided study consent.

Training

Before initiating our study, we held an all-day session for all study personnel to understand the goals and study protocol and become familiar with the data-collection process, practicing with hypothetical patient scenarios. A hands-on session to practice using the digital MouthWatch Intraoral Camera (Mouthwatch, LLC) was included. Other than a discussion of what constitutes the need for urgent care, there was intentionally no attempt to standardize the dentists' treatment decisions, as that might bias the study results designed to reflect usual patient care. Clinicians who joined our study later received similar training.

Data collection

One of the on-site dental hygienists (B.W.; Julie Shore, RDH; Wendy Gray, RDH; Sherry L. Redmond, RDH; Cindy Shepherd, RDH) reviewed the medical history provided by the facility with 1 of the on-site dentists (B.E.M.; Steven D. Bryant, DMD; Diane Jacobs, DDS; Duy Ngo, DDS; Roberta Blazzio, DDS; Jae Hee Shim, DMD) before screening the patient, obtaining radiographs, or providing a dental prophylaxis or scaling and root planing. This prophylaxis often is conducted at the first visit before the dental examination because of the high prevalence of plaque and calculus in this population, making it challenging to visualize their dentition. The dental hygienist inputted the patient information, including chief concern, medical history, patient behavior and mobility status, number of teeth present, oral hygiene rating, radiographs (obtained using the NOMAD Pro Handheld X-Ray System [Aribex, Inc]), intraoral photographs, odontogram, and information regarding oral conditions and patient dentures (if applicable) electronically into Fuse (Patterson Dental), a Health Insurance Portability and Accountability Act–compliant cloud-based health record platform. The same information was collected for each patient by the dental hygienist unless patient behavior hindered data collection. The information on Fuse was shared with the on-site dentist the same day and off-site dentists asynchronously.

We developed a randomization protocol for a balanced study design for the PC to evenly assign 1 of the initial 4 dentists to conduct the on-site examination, with the other 3 as the off-site dentists for that patient. Using 3 off-site dentists instead of 1 for each patient provided more on-site dentist and remote dentist pairs in the data set. A larger total number of pairs can improve the agreement estimates. This means the 95% CIs for the κ statistic would have increased precision (ie, be narrower) with multiple pairs per patient than if there were only 1 off-site dentist per patient.

We later expanded the number of participating dentists to 6 to accelerate data collection, although they conducted fewer total examinations. To maintain blinding, all dentists independently recorded the types of treatment category each patient needed on paper data collection forms,

scanned their forms, and sent them securely to the PC. These binary treatment decisions were not entered into the electronic patient record until after all off-site dentists completed their reviews of the dental hygienists' digitized information asynchronously. These usually were completed within a few days and not more than a week.

The on-site dentist completed an in-person patient examination and provided treatment as per patient needs. If the on-site dentist needed additional diagnostic information or changed the treatment plan after seeing the patient, this was recorded. The PC transferred deidentified, coded, encrypted data securely to UNC for statistical analysis. We enlisted a 7-member Community Advisory Board (CAB) that included administrators and family members of residents from the different types of participating facilities to provide input about our study, including educational recruitment materials, findings, and dissemination.

STATISTICAL METHODS

Descriptive analysis included characteristics of study participants, dental care providers, patient setting, and frequency distribution of clinical decisions. We report the number and percentage of on-site treatment decisions and the number and percentage of the treatment decisions by 3 through 5 off-site dentists for each treatment type. We included some instances of dentists reporting "unable to determine" in the denominators to calculate percentages.

Given that 1 patient only had 1 on-site dentist but had multiple off-site dentists, we calculated the percentage of decision agreement as the ratio of the number of off-site dentists' decisions that reached the same treatment decision for a patient as the paired on-site dentist of the total number of on-site and off-site dentist pairs summed across all patients. For example, if a patient was examined by 1 on-site dentist (as all patients were) and 3 off-site dentists, then the sample size contribution of this patient was 3 to the denominator and a value of 0, 1, 2, or 3 in the numerator corresponding to the number of off-site dentists who reached the same treatment decision as the on-site dentist. We obtained P values from χ^2 tests.

We considered κ statistics with 95% CIs to measure concordance for treatment type between on-site and off-site dentists' decisions. Unlike with the percentage agreement among the 2 different dentist examination types, we calculated the κ scores to adjust for chance, which is a more conservative yet robust measure of concordance. κ between 0.41 and 0.60 is considered moderate agreement and between 0.61 and 0.80 is considered substantial agreement.[13] Our goal was to detect the substantial category of κ, with minimum κ of 0.61. Using the original, balanced study design based on 4 dentists, we used analytic derivations using matrix multiplication applied to an underlying multinomial distribution for the possible combinations of the 4 ratings to obtain the asymptotic SE for an estimated κ of 0.70 for agreement between on-site and off-site dentists' ratings (middle value of 0.61 and 0.80). In turn, further calculations suggested a planned sample size of 240 would provide a lower confidence bound of 0.618 corresponding to the low end of the range of substantial agreement.[14,15]

In addition, to adjust for multiple on-site and off-site pairs of ratings within patients in CIs, we computed the cluster-bootstrapped 95% CI for κ by means of taking 1,000 random samples of all on-site and off-site examination pairs with replacement. We report the average bootstrapped κ as the κ estimate, and the 2.5th and 97.5th percentiles were the confidence limits.

Interexaminer agreement between on-site and off-site dentists was stratified by treatment type and determined using percentage agreement. We used the on-site dentist examination as the reference standard to determine sensitivity and specificity for asynchronous teledentistry examinations. We did not assess diagnostic accuracy based on a stronger reference standard. We used logistic regression with random intercepts for multiple within-subject pairs of ratings to study the impact of covariates (patient demographic factors) on the level of clinical agreement and disagreement between on-site and off-site dentists for treatment types. We adjusted the threshold for significance using the Bonferroni statistic to account for multiple comparisons. We performed data processing and statistical analyses with SAS Version 9.4 (SAS Institute).

RESULTS

Study facilities, providers, and CAB

The 12 participating facilities, located in 11 counties, included 8 skilled nursing facilities, 3 PACE, and 1 organization with 3 participating group homes. The CAB provided feedback on educational

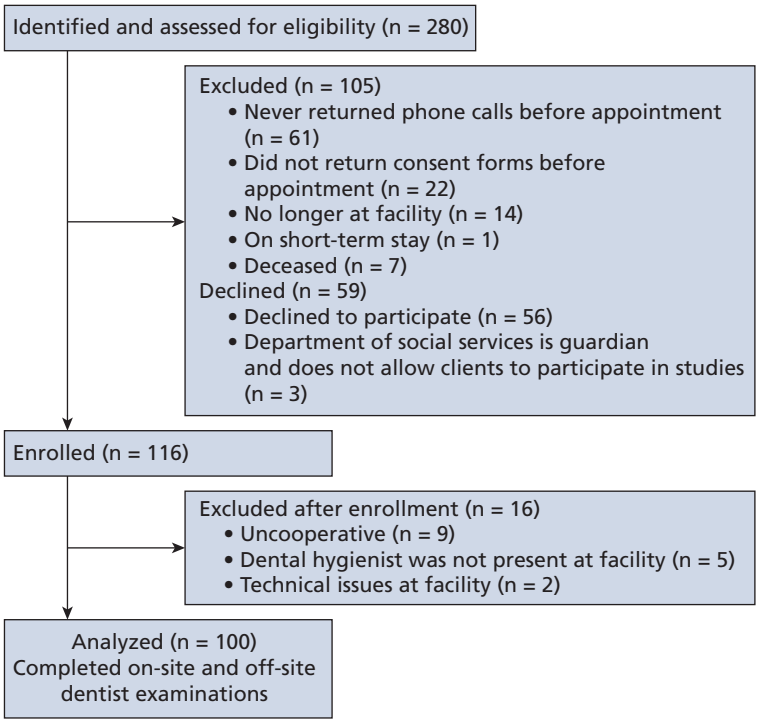

Figure 2. Flowchart of participant recruitment, eligibility, and enrollment, March 7, 2022-June 5, 2023.

materials developed to inform facility staff members, LAR, and residents about teledentistry and suggestions regarding recruitment and dissemination of findings.

The 3 male and 3 female dentists graduated from dental school from 1975 through 2022 and had worked with ADC from 1 through 23 years. The 5 female dental hygienists graduated from a dental hygiene program from 1995 through 2014 and had from less than 1 year through 23 years of experience working with ADC. The 1 male and 7 female dental assistants also participated and served as recorders for the dental hygienists in addition to their usual clinical roles during the in-person examinations.

Study participants

A flow diagram of participant recruitment, reasons for exclusion, and enrollment is shown in Figure 2. From the lists provided by the facilities, we attempted to contact 280 patients or their LAR to inform them about our study and obtain consent. For the 100 enrolled, 37 adults provided their own consent and 63 provided consent via their LAR. The dentists conducted 100 on-site dental examinations and 346 teledentistry examinations.

The participants' demographic characteristics are shown in Table 1. The mean (SD) age was 73.9 (16.5) years, ranging from 18 through 97 years. Patients were from skilled nursing homes (47%), PACE (45%), and group homes (8%). Those in group homes were younger, with mean (SD) age of 31.9 (12.6) years, ranging from 18 through 51 years. Women comprised 75% of participants. Approximately three-fourths were White and one-fourth were Black, with 2 people identifying as Hispanic. Regarding oral health status, 75% were dentate with a mean (SD) number of 19.9 (8.9) teeth, and 25% were edentulous. Cognitive impairment information was not available for almost one-half of the participants. One-half took blood thinners, 35% had diabetes, and 20% had had a stroke.

Each on-site dental hygienist assessed her own patients' ability to perform oral hygiene independently, and 70% of participants needed assistance or were dependent on others for this personal care. PACE participants were more likely to perform oral hygiene independently, whereas those in group homes were more likely to be dependent. The dental hygienists also recorded patient mobility; 54% of the participants were nonambulatory, with most of them needing assistance with transfer to a dental chair or a mechanical lift. For 79% of participants, their last dental visit was more than 2 years ago. In 6%, the dental hygienist was unable to complete obtaining the intraoral photographs because of lack of cooperation.

Table 1. Teledentistry study participants' characteristics (n = 100).

CHARACTERISTIC	VALUE
Demographics	
Race, %	
White	73
Black	26
Other	1
Ethnicity, %	
Hispanic	2
Non-Hispanic	98
Age, y, mean (SD), median, minimum-maximum	73.9 (16.5), 77, 18-97
Age group, y, %	
18-64	19
≥65	81
Sex, %	
Female	75
Male	25
Consent, %	
Self	37
Responsible party	63
Insurance, %	
Programs of All-Inclusive Care for the Elderly	45
Self-pay	19
Medicare Advantage dental plan	5
Medicaid	26
Private dental insurance	5
Facility type, %	
Nursing home	47
Programs of All-Inclusive Care for the Elderly	45
Group home	8
Length of stay, y, %	
<1	86
≥1	14
Oral Health Related	
Last dental visit, %	
<6 mo	3
6 mo-1 y	5
>1 y-2 y	13
>2 y	79
Dentate status, %	
Dentate	75
Edentulous	25
No. of teeth, all, mean (SD)	15.1 (11.6)
No. of teeth, dentate, mean (SD)	19.9 (8.9)
No. of teeth, %	
0	25
1-8	12
9-20	19
21-32	44
Oral hygiene ability, %	
Independent	29

Table 1. Continued

CHARACTERISTIC	VALUE
Needs assistance	41
Dependent	30
Tooth mobility, %	
Yes	14
No	80
Unable to determine	6
Partial denture, %	
Maxillary	2
Mandibular	7
Both	1
None	90
Full denture, %	
Maxillary	17
Mandibular	1
Both	12
None	70
Chief concern, %	
Tooth pain	2
Ill-fitting denture	8
Missing filling	1
Wants denture	5
None	58
Other	26
Medical and Physical	
Cognitive impairment, %	
Mild	7
Moderate	14
Severe	14
Unknown	48
None	17
Tobacco use, %	
Yes	5
No	90
Unknown	5
Diabetes, %	
Yes	35
No	65
Coronary heart disease, %	
Yes	18
No	82
Stroke, %	
Yes	20
No	80
Blood thinners, %	
Yes	50
No	50
Patient mobility, %	
Ambulatory	46
Nonambulatory	54

Table 2. Comparison of number and percentage of treatment decisions by on-site dentists and 3 to 5 off-site dentists using asynchronous teledentistry for each type of treatment needed, *P* value and percentage agreement.

TYPE OF TREATMENT NEEDED	ON-SITE DENTISTS' DECISIONS* USING IN-PERSON EXAMINATIONS, NO. (%)	ALL OFF-SITE DENTISTS' DECISIONS* USING ASYNCHRONOUS TELEDENTISTRY, NO. (%)	*P* VALUE	AGREEMENT, %
Restorative	48 (68.6)	138 (62.7)	.42	78.4
Surgery	33 (43.4)	107 (41.6)	.93	87.1
New Removable Denture	15 (15.0)	33 (15.3)	.96	94.4
Urgent Care	6 (7.9)	42 (16.3)	NA†	82.4
Pathology	5 (6.6)	10 (3.9)	NA	92.4
Crown	2 (2.6)	5 (2.0)	NA	97.5
Silver Diamine Fluoride	2 (2.6)	13 (5.1)	NA	95.2
Denture Reline	2 (2.6)	4 (1.2)	NA	98.1
Denture Repair	1 (1.0)	4 (1.2)	NA	99.4
Partial Repair	1 (1.0)	1 (0.4)	NA	98.8
Fixed Bridge	0	0	NA	100.0
Periodontal Surgery	0	1 (0.4)	NA	99.5

* Includes the few decisions reported as unable to determine in denominators. † NA: Not applicable.

Table 3. Measures of concordance between on-site and off-site dentists' decisions by patient treatment need type.

TYPE OF TREATMENT NEEDED	BOOTSTRAPPED κ (95% CI)	SENSITIVITY, %	SPECIFICITY, %
Dentate Only (n = 75)			
Restorative	0.54 (0.50 to 0.58)	78	79
Surgery	0.74 (0.70 to 0.78)	87	87
Dentate and Edentulous (n = 100)			
New removable denture	0.78 (.74 to 0.83)	76	98

Types of treatment needed

Table 2 shows the number and percentage of patient treatment decisions by type of treatment needed from the on-site dentists conducting in-person examinations and the number and percentage among the off-site dentists conducting asynchronous teledentistry examinations, the *P* values to compare the proportions between the 2 types of examinations for the 3 main treatment categories (most other categories had small sample sizes), and the percentage agreement between the on-site and off-site dentists' decisions. Only 6 patients were reported as needing urgent treatment by the on-site dentist, although most patients had not seen a dentist in more than 2 years. A resident may have received urgent oral health care from ADC before study enrollment, thus becoming ineligible.

The greatest need was for restorative care, followed by surgery and new removable denture. There were many categories with insufficient sample size to calculate κ statistics. Consequently, the 3 most prevalent types were analyzed further. There were no significant differences between the on-site and off-site dentists' decisions for these 3 treatment types.

Treatment concordance

Percentage agreement for these 3 main treatment types ranged from 78.4% through 94.4%, and κ ranged from 0.54 through 0.78 with relatively narrow bootstrapped 95% CI (width, <0.10). Sensitivity ranged from 76% through 87%, and specificity ranged from 79% through 98% (Table 3).

Table 4. Percentage agreement and disagreement for surgery treatment need by on-site and off-site dentist pairs for selected participant demographic characteristics.*

PATIENT CHARACTERISTIC	AGREEMENT, NO. (%)	DISAGREEMENT, NO. (%)	*P* VALUE†
Race			
White	141 (84.4)	26 (15.6)	.12
Other	48 (96.0)	2 (4.0)	
Age Group, Y			
18-74	71 (92.2)	6 (7.8)	.35
≥75	118 (84.3)	22 (15.7)	
Sex			
Male	38 (80.9)	9 (19.1)	.57
Female	151 (88.8)	19 (11.2)	
Consent			
Self	68 (90.7)	7 (9.3)	.42
Responsible party	121 (85.2)	21 (14.8)	
Medicaid			
Yes	43 (89.6)	5 (10.4)	.81
No	146 (86.4)	23 (13.6)	
Facility Type			
Programs of All-Inclusive Care for the Elderly	76 (84.4)	14 (15.6)	.93
Nursing home or group home	113 (89.0)	14 (11.0)	
Last Dental Visit, Y			
≤2	37 (88.1)	5 (11.9)	.99
>2	152 (86.9)	23 (13.1)	
No. of Teeth			
1-20	85 (89.5)	10 (10.5)	.53
21-32	99 (84.6)	18 (15.4)	
Oral Hygiene Ability			
Independent	53 (84.1)	10 (15.9)	.82
Needs assistance	80 (88.9)	10 (11.1)	
Dependent	56 (87.5)	8 (12.5)	
Patient Mobility			
Ambulatory	110 (92.4)	9 (7.6)	.23
Nonambulatory	79 (80.6)	19 (19.4)	
Diabetes			
Yes	71 (81.6)	16 (18.4)	.28
No	118 (90.8)	12 (9.2)	
Coronary Heart Disease			
Yes	35 (83.3)	7 (16.7)	.93
No	154 (88.0)	21 (12.0)	
Stroke			
Yes	46 (93.9)	3 (6.1)	.25
No	143 (85.1)	25 (14.9)	

* Treatment decisions for the 75 dentate participants. † None of the *P* values were below the Bonferroni threshold of .0038 for significance after multiple testing adjustment. The *P* values were calculated using logistic regression with random patient intercept and bias-adjusted empirical standard errors.

Relative to the on-site dentist's treatment decisions, the off-site dentists were good at determining who did and did not need different types of treatment. The on-site dentists reported needing additional information for 25%, mostly to determine whether the patient needed sedation for the next visit on the basis of their experience with the patient's behavior. After seeing the patient, they subsequently made a change in treatment needs for 13 patients for 8 different reasons. No pattern could be discerned. Off-site dentists did not have this opportunity. The on-site dentists reported in 1% through 7% of situations, varying by treatment type, that they were unable to make a treatment decision; this ranged from 2% through 10% for the off-site dentists, most frequently for surgery-related decisions.

We evaluated the percentage agreement and disagreement between the on-site and off-site dentists for each of the 3 treatments for 13 selected patient characteristics to determine whether these characteristics affected the level of concordance. Table 4 shows the results for the surgery treatment need. Results for the other 2 treatment types are shown in eTable 1 and eTable 2, available online at the end of this article. For the surgery and restorative categories, there was 100% agreement for the edentulous participants. Thus, for the remaining characteristics, comparisons were limited to the dentate participants. No significant differences in percentage agreement were found at *P* value below .05 for surgery. There were differences for restorative agreement for age group and sex, but they were no longer significant after correcting the *P* value for multiple testing with the Bonferroni threshold of *P* value equaling .05/13 (.0038). For removable denture, analysis included all participants regardless of dentition status. There was a significant difference by sex at the threshold of *P* value below .05, but not when using the adjusted Bonferroni threshold of *P* value of .0038. Thus, patient characteristics or facility type were not significant factors in the level of agreement of dentists' clinical treatment decisions.

DISCUSSION

Our results indicate a moderate to substantial level of concordance, using κ statistics, in the initial dental treatment decisions for patients with special health care needs between the 2 types of examination methods used in our study: dentists providing on-site mobile dental services in participating facilities and dentists using an asynchronous teledentistry, Health Insurance Portability and Accountability Act–compliant model. Given the concordance of these results, our findings suggest teledentistry can provide a valuable, timely benefit to various aspects of in-person oral health care, particularly among patient populations with otherwise limited access to care. Many patients in LTC cannot provide their own consent for treatment. With initial teledentistry screening, the dentist has a better idea of how soon the patient needs to be seen and the type of treatment needed. Treatment plans can be sent in advance to responsible parties, who may be at a distant location, to obtain treatment consent. This process can aid with appropriate scheduling of the visit to the facility, and when the dentist is on-site, treatment can be performed right away.

In a study of 291 children, the University of Rochester's Medical Center investigators found teledentistry examinations were comparable to the results of clinical examinations when screening for early childhood caries in preschool-aged children.[11]

Results of past surveys of patients' experiences with teledentistry have been favorable. Teledentistry can help dental care providers prioritize care for patients with urgent needs and provide oral health guidance and prescription services for managing conditions at home. This process saves time and money for the patient and allows the provider to focus on critical patient needs in person.[16]

The American Dental Association continues to update its teledentistry policies.[17] Results of a 2023 American Dental Association survey of panel member dentists indicated 30% were using teledentistry in their practices, primarily to care for adults aged 25 through 64 years.[18] Our results show teledentistry also can be of benefit to older adults, particularly people with disabilities and special health care needs.

As discussed in an American Dental Education Association policy report, implementation of teledentistry depends on state licensing regulations, allied health professionals' scope-of-practice provisions, and private and public reimbursement mechanisms.[19] Teledentistry can play an important role in reducing oral health disparities, including for those with special health care needs. In some states, regulations and reimbursement differ for synchronous and asynchronous teledentistry. For residents in LTC, asynchronous teledentistry is essential.

Our study has some limitations. The sample size and timeline were based on prepandemic enrollment of new patients into the ADC system. A smaller sample size than planned was obtained, and this limited analyses. However, κ values representing substantial agreement, used to determine sample size, were obtained for 2 of the 3 treatment categories. The lower κ for restorative needs may reflect difficulty obtaining high-quality radiographs in this population. Other investigators have reported variability in dentists' caries detection and management decisions.[20,21]

There were many unexpected challenges in recruiting facilities and patients. We approached 28 facilities but enrolled 12. The COVID-19 pandemic greatly affected nursing homes, resulting in clinic cancellations, severe staff shortages, and increased staff turnover, which continued throughout our study. Admission to residential facilities declined during the pandemic because of COVID-19 lockdowns, resulting in fewer new eligible residents. The proportion who declined to participate was higher than expected, which may have reflected, in part, a desire to not take on anything extra during the pandemic.

Our study results are based on data obtained from dental hygienists and dentists with a wide range of training and experience and a patient population with diverse characteristics. The small number of dentists limits generalizability. However, the variability in their training and experience enhances the generalizability of the results. Bootstrapping methods were used to obtain 95% CIs surrounding the κ scores.

In this model, the dental hygienist, using mobile dental equipment, could collect the necessary medical and dental information and obtain intraoral images and radiographs for electronic transmission to an off-site dentist. The favorable findings indicate asynchronous teledentistry can be recommended for initial treatment decisions by dentists who can then be much more prepared to provide the type of care needed when they are able to see the patient on-site.

CONCLUSIONS

People with special health care needs in nursing or group homes or PACE facilities face barriers in access to oral health care. For the 100 participating patients in 12 North Carolina facilities, there was moderate to substantial agreement among the 6 dentists (κ, 95% CI) between their on-site and asynchronous off-site dentist treatment decisions for surgery, restorative needs, and new removable dentures. The type of facility and patient characteristics did not affect significantly the level of examiner concordance. The results provide evidence that teledentistry can serve as a beneficial addition to the oral health care delivery system for people with special health care needs. ■

DISCLOSURES

Dr. Weintraub serves as an unpaid volunteer member on the Access Dental Care Board of Directors. None of the other authors reported any disclosures.

SUPPLEMENTAL DATA

Supplemental data related to this article can be found at: https://doi.org/10.1016/j.adaj.2024.05.004.

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eTable 1. Percentage agreement and disagreement for restorative treatment need decisions by on-site and off-site dentist pairs for selected participant demographic characteristics*.

PATIENT CHARACTERISTIC	AGREEMENT, NO. (%)	DISAGREEMENT, NO. (%)	*P* VALUE†
Race			
White	129 (81.1)	30 (18.9)	.18
Other	31 (68.9)	14 (31.1)	
Age Group, Y			
18-74	66 (88.0)	9 (12.0)	.04
≥75	94 (72.9)	35 (27.1)	
Sex			
Male	48 (92.3)	4 (7.7)	.01
Female	112 (73.7)	40 (26.3)	
Consent			
Self	61 (79.2)	16 (20.8)	.79
Responsible party	99 (78.0)	28 (22.0)	
Medicaid			
Yes	37 (78.7)	10 (21.3)	.89
No	123 (78.3)	34 (21.7)	
Facility Type			
Programs of All-Inclusive Care for the Elderly	70 (77.8)	20 (22.2)	.95
Nursing home or group home	90 (78.9)	24 (21.1)	
Last Dental Visit, Y			
≤2	23 (71.9)	9 (28.1)	.43
>2	137 (79.7)	35 (20.3)	
No. of Teeth			
1-20	64 (77.1)	19 (22.9)	.85
21-32	91 (78.4)	25 (21.6)	
Oral Hygiene Ability			
Independent	51 (81.0)	12 (19.0)	.38
Needs assistance	62 (72.9)	23 (27.1)	
Dependent	47 (83.9)	9 (16.1)	
Patient Mobility			
Ambulatory	72 (74.2)	25 (25.8)	.30
Nonambulatory	88 (82.2)	19 (17.8)	
Diabetes			
Yes	61 (79.2)	16 (20.8)	.88
No	99 (78.0)	28 (22.0)	
Coronary Heart Disease			
Yes	27 (75.0)	9 (25.0)	.60
No	133 (79.2)	35 (20.8)	
Stroke			
Yes	30 (71.4)	12 (28.6)	.37
No	130 (80.2)	32 (19.8)	

* Treatment decisions for the 75 dentate participants. † None of the *P* values are below the Bonferroni threshold of .0038 for significance after multiple testing adjustment. The *P* values were calculated using logistic regression with random patient intercept and bias-adjusted empirical standard errors.

eTable 2. Percentage agreement and disagreement for new removable denture treatment need decisions by on-site and off-site dentist pairs for selected participant demographic characteristics*.

PATIENT CHARACTERISTIC	AGREEMENT, NO. (%)	DISAGREEMENT, NO. (%)	*P* VALUE†
Race			
White	223 (94.1)	14 (5.9)	.98
Other	63 (95.5)	3 (4.5)	
Age Group, Y			
18-74	100 (91.7)	9 (8.3)	.40
≥ 75	186 (95.9)	8 (4.1)	
Sex			
Male	64 (85.3)	11 (14.7)	.04
Female	222 (97.4)	6 (2.6)	
Consent			
Self	100 (91.7)	9 (8.3)	.28
Responsible party	186 (95.9)	8 (4.1)	
Medicaid			
Yes	79 (95.2)	4 (4.8)	.88
No	207 (94.1)	13 (5.9)	
Facility Type			
Programs of All-Inclusive Care for the Elderly	114 (91.2)	11 (8.8)	.13
Nursing home or group home	172 (96.1)	6 (3.9)	
Last Dental Visit, Y			
≤ 2	49 (92.5)	4 (7.5)	.92
> 2	237 (94.8)	13 (5.2)	
No. of Teeth			
1-20	81 (91.0)	8 (9.0)	.38
21-32	131 (95.6)	6 (4.4)	
Oral Hygiene Ability			
Independent	88 (97.8)	2 (2.2)	.60
Needs assistance	111 (94.1)	7 (5.9)	
Dependent	87 (91.6)	8 (8.4)	
Patient Mobility			
Ambulatory	130 (94.2)	8 (5.8)	.52
Nonambulatory	156 (94.5)	9 (5.5)	
Diabetes			
Yes	179 (97.3)	3 (2.7)	.40
No	179 (92.7)	14 (7.3)	
Coronary Heart Disease			
Yes	243 (85.0)	43 (15.0)	.45
No	14 (82.4)	3 (17.6)	
Stroke			
Yes	56 (93.3)	4 (6.7)	.60
No	230 (94.7)	13 (5.3)	

* Treatment decisions for the 100 dentate and edentulous participants. † None of the *P* values are below the Bonferroni threshold of .0038 for significance after multiple testing adjustment. The *P* values were calculated using logistic regression with random patient intercept and bias-adjusted empirical standard errors.

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Accuracy of Teledentistry for Diagnosing Dental Pathology Using Direct Examination as a Gold Standard: Results of the Tel-e-dent Study of Older Adults Living in Nursing Homes

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Abstract

Importance: Dental neglect and high levels of unmet dental needs are becoming increasingly prevalent among elderly residents of long-term care facilities, although frail, elderly, and dependent populations are the most in need of professional dental care. Little is known about the validity of teledentistry for diagnosing dental pathology in nursing home residents.

Objectives: To evaluate the accuracy of teledentistry for diagnosing dental pathology, assessing the rehabilitation status of dental prostheses, and evaluating the chewing ability of older adults living in nursing homes (using direct examination as a gold standard).

Design: Multicenter diagnostic accuracy study performed in France and Germany.

Setting: Eight nursing homes in France and Germany.

Participants: Nursing home residents with oral or dental complaints, self-reported or reported by caregivers, willing to receive oral or dental preventive care. In total, 235 patients were examined. The mean age was 84.4 ± 8.3 years, and 59.1% of the subjects were female.

Intervention: The patients were examined twice. Each patient was his or her own control. First, the dental surgeon established a diagnosis by reviewing a video recorded in the nursing home and accessed remotely. Second, within a maximum of 7 days, patients were examined conventionally (face-to-face) by the same surgeon who established the initial diagnosis.

Measurements: All residents received a comprehensive clinical examination in their home by a trained geriatrician and underwent a dental hygiene evaluation that used the Silness-Loe and Greene-Vermillion dental hygiene assessment indices. The diagnoses established via the video recording and in the face-to-face setting were compared. The main outcome measure was number of dental pathologies.

Results: In total, 128 (55.4%) patients had a dental pathology. The sensitivity of teledentistry for diagnosing dental pathology was 93.8% (95% confidence interval [CI] 90.7-96.9), and the specificity was 94.2% (95% CI 91.2-97.2). Among the 128 cases of dental pathology identified by teledentistry, 6 (4.8%) were false positives. The teledentistry assessments were quicker than the face-to-to-face examinations (12 and 20 minutes, respectively).

Conclusions: Teledentistry showed excellent accuracy for diagnosing dental pathology in older adults living in nursing homes; its use may allow more regular checkups to be carried out by dental professionals.

Keywords: Validity; nursing home; older adults; oral health; teledentistry.

Related information

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STATUTES

36-6A-1. Definitions.

Terms used in this chapter mean:

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(18) "Direct supervision," the supervision of a dental hygienist or registered dental assistant requiring that a dentist diagnose the condition to be treated, a dentist authorize the procedure to be performed, a dentist remain in the dental clinic while the procedure is performed, and before dismissal of the patient a dentist approve the work performed by the dental hygienist or registered dental assistant. A dentist may provide direct supervision via live video. A dentist must appear upon request using live video with a response time similar to what would be expected if the dentist were present in the dental clinic;

...

(21) "Indirect supervision," the supervision of a dental hygienist or registered dental assistant requiring that a dentist authorize the procedures and a dentist be in the dental clinic while the procedures are performed by the registered dental assistant or dental hygienist. A dentist may provide indirect supervision via live video. A dentist must appear upon request using live video with a response time similar to what would be expected if the dentist were present in the dental clinic;

...

(31) "Teledentistry," the practice of dentistry via telehealth as outlined in SDCL 34-52 ~~where the patient and the dentist are not in the same physical location, and which utilizes the exchange of clinical information and images over remote distances~~.

Source: SL 2015, ch 199, § 1; SL 2016, ch 193, § 1.

36-6A-49.4. Teledentistry ~~services to comply with chapter as if services provided in person~~ standards.

Any services provided by a licensee or registrant through teledentistry ~~or electronic means~~ shall comply with the provisions of this chapter to the same standard of competence as if the services were provided in person by a licensee or registrant. A dentist shall not conduct an evaluation using teledentistry if the standard of competence or the evidence based standards of practice to sufficiently establish an informed diagnosis necessitates an in person evaluation. A licensee or registrant utilizing teledentistry shall:

(1) Establish protocols for technological failures.

(2) Ensure appropriate follow up care for a patient in a reasonable timeframe following a teledentistry encounter; and

(3) Refer a patient to an acute care facility or an emergency department when referral is necessary for the safety of the patient or in the case of emergency.

Source: SL 2015, ch 199, § 61.

ADMINISTRATIVE RULES

20:43:11:01. Content. A dentist who treats patients shall maintain legible, complete, and accurate medical records. The medical record must contain the patient's clinical and financial record. The clinical record must contain the following information:

(1) For each clinical record entry note:

(a) The signature, initials, or electronic verification of the individual that made the entry note; and

(b) If treatment was provided, the name and the signature, initials, or electronic verification of the individual that provided treatment and the name of the supervising dentist;

(2) The date of each patient record entry, document, radiograph or model;

(3) The examination findings documented by subjective complaints, objective findings, an assessment or diagnosis of the patient's condition, and proposed treatment options;

(4) Current dental and medical history that may affect dental treatment;

(5) Any images, radiographs, test results or other diagnostic aid used to aid in the diagnosis. All film or digital radiographs must be of diagnostic quality. Retention of molds or study models is at the discretion of the dentist, except for molds or study models for orthodontia or full mouth reconstruction that must be retained as part of the clinical record;

(6) An agreed upon treatment plan based on the assessment or diagnosis of the patient's condition;

(7) A complete description of all treatment or procedures administered to the patient at each visit;

(8) A record of any medication administered or dispensed in office, or prescribed, including:

(a) The date administered, dispensed, or prescribed;

(b) The name of the patient to which the medication was administered, dispensed, or prescribed;

(c) The name of the medication; and

(d) The dosage and amount of the medication administered, dispensed, or prescribed, including refills;

(9) Referrals, patient response to referrals, and any communication to and from any health care provider regarding the patient;

(10) Notation of communication to and from the patient or patient's parent or guardian, including:

(a) Notation of informed consent, including communication of potential risks and benefits of proposed treatment, recommended tests, and alternatives to treatment, including no treatment or tests;

(b) Notation of post-treatment instructions or reference to an instruction pamphlet given to the patient;

(c) Notation regarding patient complaints or concerns associated with treatment, including complaints or concerns obtained in person, by phone call, mail, electronic communication, or digital communication; and

(d) Termination of the doctor-patient relationship; ~~and~~

(11) A copy of, or notation regarding, each laboratory order~~.~~; and

(12) A dentist who provides dental services via teledentistry must also:

(a) Ensure that a teledentistry encounter is clearly characterized as such in the patient's clinical record; and

(b) Include the following in the informed consent:

(i) Consent from the patient to receive teledentistry services, including a statement that patients may decline teledentistry services;

(ii) The types of dental services provided via teledentistry and methods of teledentistry delivery, including limitations on services and how privacy will be protected;

(iii) The identity, contact information, practice location, licensure or registration, and credentials of all licensees and registrants involved in the patient's care;

(iv) Instructions outlining how medical records can be accessed;

(v) Protocol for technological failures or emergency situations; and

(vi) Protocol for referral for appropriate follow up care with a dentist pursuant to an established treatment plan.