CENTER FOR PREVENTION AND HEALTH PROMOTION
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Dental Pilot Project Program: Site Visit Report

The Dental Pilot Project Program allows authorized organizations to test, demonstrate, and evaluate new or expanded roles for oral healthcare professionals before changes in licensing laws are made by the State of Oregon Legislature. The intent of the project is to examine the quality of care provided, determine trainee competency, and demonstrate the new or revised practices do not harm patient safety. The project also seeks to offer solutions to improve access to care, cost effectiveness, and the efficacy of introducing a new workforce model.

The Oregon Health Authority (OHA) is responsible for monitoring approved pilot projects and ascertaining the progress of each project in meeting its stated objectives and complying with program statutes and regulations (OARs 333-010-0700 through 333-010-0820). The primary role of OHA is monitoring for patient safety. Secondarily, OHA evaluates approved projects and the evaluation includes, but is not limited to, reviewing progress reports and conducting site visits.

Site visits are conducted with the primary purpose of health and safety monitoring and to determine compliance with administrative rules. Site visits are conducted using both qualitative and quantitative methodological approaches. They primarily consist of participant interviews and clinical records review.

Project Name & ID Number:	Dental Pilot Project #100, “Oregon Tribes Dental Health Aide Therapist Pilot Project.”
Project Sponsor:	Northwest Portland Area Indian Health Board (NPAIHB)
Date of Site Visit:	September 20, 2018
Site Location:	NARA Residential Treatment Center 17645 NW St Helens Rd, Portland, OR 97231
Description of Location:	NARA Residential Treatment Center[1] is a residential addiction treatment center located in Portland, Oregon. According to materials and information provided by NARA and available online at www.naranorthwest.org which provides information about the program, “Services are guided

[1] NARA Residential Treatment Center, https://www.naranorthwest.org/projects/adult-residential-addictions-treatment/

	by [a] Cultural Director who trains and consults with staff on cultural competence and provides cultural programming for clients." "Our staff includes master's level Counselors, Clinical Supervisors, Certified Alcohol Drug Counselors (CADC), and Psychologists. Interns from local colleges and universities may also provide services. A Family Nurse Practitioner provides on-site physical health services. Access to other Mental Health Therapists, Psychiatrists, Psychiatric Nurses, Dental Professionals and Medical Providers is the key to our Integrated Care Model. NARA is licensed by the State of Oregon to provide mental health and residential addiction treatment services." "Our Residential Addiction Services provide a range of integrated services to offer recovering persons hope and support. Clients come to NARA from all over Oregon and the United States. Services are supplemented with community recovery support such as Good Medicine 12 Step Group to facilitate a positive transition when clients complete residential treatment." "Services: • Assessment and Evaluation • Individualized and Collaborative Service Planning • Individual and Group Counseling • Case Management Services • Cultural Groups and Activities • Parenting Support • Parent-Child Development Services • Childcare while participating in on-site treatment services • Oregon Health Plan Eligibility Assistance • Access to Peer Based, Recovery Support Services • Access to Physical Health and Mental Health Services • Access to Transitional Housing as needed" Please visit NARA at www.naranorthwest.org for more information about NARA and their programs.
Primary Contact Name and Title:	Christina Peters, Project Director

Site Visits

Oregon Administrative Rule (OAR) 333-010-0790: Dental Pilot Projects: Authority Responsibilities[2]

(1) Project monitoring. Program staff shall monitor and evaluate approved projects which shall include, but is not limited to:
(b) Periodic, but at least annual, site visits to one or more project offices, employment/utilizations sites, or other locations where trainees are being prepared or utilized;
(3) Site visits.
(a) Site visits shall include, but are not limited to:
(A) Determination that adequate patient safeguards are being utilized;
(B) Validation that the project is complying with the approved or amended application;
(C) Interviews with project participants and recipients of care; and
(D) Reviews of patient records to monitor for patient safety, quality of care, minimum standard of care and compliance with the approved or amended application.
(b) If the Authority has convened an advisory committee, representatives of the committee may be invited by the Authority to participate in the site visit though the Authority may, at its discretion, limit the number of members who can participate;
(c) Written notification of the date, purpose and principal members of the site visit team shall be sent to the project director at least 90 calendar days prior to the date of the site visit;
(d) Plans to interview trainees, supervisors, and patients or to review patient records shall be made in advance through the project director;
(e) An unannounced site visit may be conducted by program staff if program staff have concerns about patient or trainee safety;
(f) The Authority will provide the project sponsor with at least 14 business days to submit to the Authority required patient records, data or other documents as required for the site visit; and
(g) Following a site visit the Authority will:
(A) Within 60 calendar days, issue a written preliminary report to the sponsor of findings of the site visit, any deficiencies that were found, and provide the sponsor with the opportunity to submit a plan of corrective action;
(i) A signed plan of correction must be received by the Authority within 30 calendar days from the date the preliminary report of findings was provided to the project sponsor;
(ii) The Authority shall determine if the written plan of correction is acceptable no later than 30 calendar days after receipt. If the plan of correction is not acceptable to the Authority, the Authority shall notify the project sponsor in writing and request that the plan of correction be modified and resubmitted no later than 10 business days from the date the letter of non-acceptance was mailed to the project sponsor;
(iii) The project sponsor shall correct all deficiencies within 30 calendar days from the date of correction provided by the Authority, unless an extension of time is requested from the Authority. A request for such an extension shall be submitted in writing and must accompany the plan of correction.
(iv) If the project sponsor does not come into compliance by the date of correction reflected on the approved plan of correction, the Authority may propose to suspend or terminate the project as defined under OAR 333-010-0820, Suspension or Termination of Project.

[2] Full Text of Oregon Administrative Rules 333-010-0700 through 333-010-0820, Oregon Secretary of State, Oregon Administrative Rules, Oregon Health Authority, Public Health Division, Chapter 333, Division 10, Health Promotion and Chronic Disease Prevention, Online at https://sos.oregon.gov/

Pass or Fail Site Visit

Per Oregon Administrative Rule (OAR) 333-010-0455, a report of findings and an indication of pass or fail for site visits shall be provided to the project director in written format within 60 calendar days following a site visit. OHA has determined that Dental Pilot Project #100 is in compliance with the requirements set forth in OARs 333-010-0400 through 333-010-0470, and therefore has **passed** the site visit. Please see Appendix A for a copy of the preliminary report of findings.

In 2018, Oregon Administrative Rules 333-010-0700 through 333-010-0820 were amended. Due to a significant amount of revision to the rule text, rules 333-010-0400 through 333-010-0470 were repealed and replaced with new rule language, OAR 333-010-0700 through 333-010-0820, which went into effect December 1, 2018.

The site visit conducted on September 20th, 2018 fell under administrative rules in effect at that time which required OHA to determine a pass or fail for the site visit. As of December 1, 2018, site visits no longer receive a determination of pass or failure. In the event deficiencies are found during a site visit, the project director will be notified and required to submit a corrective plan of action.

Objectives of the Site Visit:	**Methodology:**
1. Determination that adequate patient safeguards are being utilized. 2. Validation that the project is complying with the approved or amended application 3. Compliance with OARs 333-010-0400 – 333-010-0470.	1. Interviews with project participants which may include trainees, patients, supervising dentists, project managers and/or project administrators 2. Clinical records review

Attendees:

Name	Title	Organization
Bruce Austin, DMD	Statewide Dental Director	OHA
Jennifer Clemens, DMD, MPH	Dental Director	Capitol Dental Care/Smile Keepers
Kelly Hansen	Research Analyst/Oral Health Program	OHA
Pam Johnson	Project Manager	NPAIHB
Sarah Kowalski, RDH, MS	Dental Pilot Project Program Coordinator	OHA
Christina Peters	Project Director	NPAIHB
Karen Shimada, MS	Executive Director, Oregon Oral Health Coalition	OHA Dental Pilot Project Advisory Committee

Project Sponsor Representatives and Interviewees:

Name	Title	Organization
Dawn Cram, RN, BSN	Residential Nurse Manager	NARA
Ben Steward, DHAT	Dental Health Aide Therapist	NARA

Record Reviewers:

Name	Title	Organization
Bruce Austin, DMD	Statewide Dental Director	Oregon Health Authority
Daniel Blickenstaff, DMD	Executive Director	Oregon Board of Dentistry
Jennifer Clemens, DMD, MPH	Dental Director	Capitol Dental Care/Smile Keepers
Rose McPharlin, DDS	General Dentist	OHSU-School of Dentistry
Caroline Muckerheide, DDS	Pediatric Dentist	Private Practice
Brandon Schwindt, DMD	Pediatric Dentist	Private Practice

Interviews:

OHA staff and members of the Advisory Committee for Dental Pilot Project #100 met with the Residential Nurse Manager and the Dental Health Aide Therapist (DHAT) Trainee at the facility.

The Residential Nurse Manager provided a broad overview of the facility, treatment program, and a description of the barriers and challenges to the population served by the program. NARA's goal is to integrate services into the program on site to reduce the number of hours or days a client is pulled out of treatment to see a dentist, physician, or other care provider. Many of the clients have not had adequate dental care in years, if ever. NARA has found that the individuals in their addiction treatment programs attain greater success when served in an integrated model of care—caring for the physical and mental needs of the clients. Families, including partners and children under the age of 5, are allowed to move in to the facility, staying in their own units.

The DHAT trainee is currently providing oral health education and oral health assessments at the NARA site. A grant was recently received by NARA's Dental Clinic to purchase the additional equipment needed to provide dental treatment on site at NARA Residential. The Residential Nurse Manager discussed the severe and acute dental needs experienced by most of their patients yet felt that most needs could likely be attended to by a DHAT. In the past, a dentist would attempt to come to NARA Residential, however staff indicate that dentist time has proved to be extremely difficult to schedule. The NARA Dental Clinic has an extensive wait list and a limited number of dentists. Multiple staff members emphasized that allowing a DHAT to provide services under their scope of practice allows clients to be seen on site at the residential facility in a timely manner and it is cost-effective because the DHAT is paid roughly half the salary of a dentist.

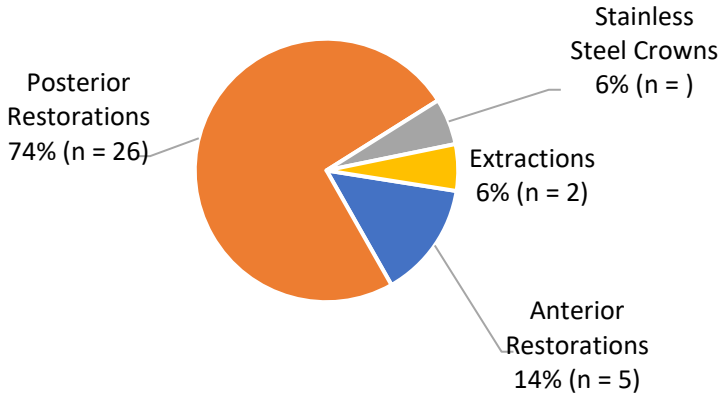
Clinical Records Review:

A rating form was developed based on the standards of the Western Regional Examining Board (*WREB*), a clinical testing agency, published literature on classifying dental adverse events, and Advisory Committee input.[3,4,5,6] However, while the Pilot Project chart reviews and subsequent analysis are in part designed using published materials and criteria from WREB, they are not meant to be a stand-in for a licensing test and should not be considered as such. The purpose of these chart reviews is to systematically monitor for patient safety in an approved project and to have a diverse panel of clinical reviewers assess that trainees meet project goals and provide the applicable minimum standard of care.

Charts were selected using a stratified random sampling method.[7] Using all procedures listed in the Quarterly Detailed Data Report after the Stipulated Agreement of April 3, 2018 as the initial sampling frame, procedures were limited to irreversible procedures (which include restorations, extractions and stainless steel crowns) and stratified by procedure category. Of 78 restorations, restorations were ordered by number of surfaces restored, age, and insurance status, 16 restorations from 13 patient charts were selected using a systematic sampling scheme. After removing duplicate chart numbers, 13 charts were selected. Thirty-five specific procedures were then abstracted from these 13 charts for review. All charts had personal identifying information such as name, specific age, date and location redacted before review.

Altogether, after including procedures not initially indicated in the sampling scheme, 35 procedures represent 13% (*n* = 31*)* of total restorations completed in the time frame and 66% (*n* = 2) of stainless steel crowns completed. were represented (*Figure 1*). Additionally, two extractions were reviewed, although both were completed before the Stipulated Agreement of April 3, 2018.

Figure 1: Makeup of chart review sample by procedure type.



Each of the resulting 35 procedures along with related X-ray and intraoral images were reviewed. Each procedure was reviewed by a minimum of three licensed

[3] WREB. (2019). *2019 Dental Exam Candidate Guide*. [Exam Criteria Documentation]. Retrieved from https://wreb.org/candidates/dental/dentalpdfs/Website_2019_Dental_Candidate_Guide.pdf
Additional information may also be found through the Commission on dental Competency Assessments Dental Therapy Exam guidelines https://www.cdcaexams.org/dental-therapy-exam/

[4] Kalenderian, E., Obadan-Udoh, E., Maramaldi, P., Etolue, J., Yansane, A., Stewart, D., … Walji, M. F. (2017). Classifying Adverse Events in the Dental Office. Journal of patient safety, 10.1097/PTS.0000000000000407. Advance online publication. doi:10.1097/PTS.0000000000000407

[5] Obadan, E. M., Ramoni, R. B., & Kalenderian, E. (2015). Lessons learned from dental patient safety case reports. *Journal of the American Dental Association (1939), 146*(5), 318–26.e2. doi:10.1016/j.adaj.2015.01.003

[6] Haladyna, T. (2010). *An Evaluation of the Western Region Examining Board Dental Examination*. [Report]. Retrieved November 14, 2019 from WREB https://wreb.org/resources/articles/2010_WREBDentalExam_Report.pdf

[7] Parsons, V.L. (2017). Stratified Sampling. In Wiley StatsRef: Statistics Reference Online (eds N. Balakrishnan, T. Colton, B. Everitt, W. Piegorsch, F. Ruggeri and J.L. Teugels). doi:10.1002/9781118445112.stat05999.pub2

dentists. The full panel of reviewers was comprised of a collaboration between the Advisory Committee, an external contracted expert from the OHSU-School of Dentistry and the Oregon Board of Dentistry, were required to attend a chart review training and calibration session before reviewing charts.

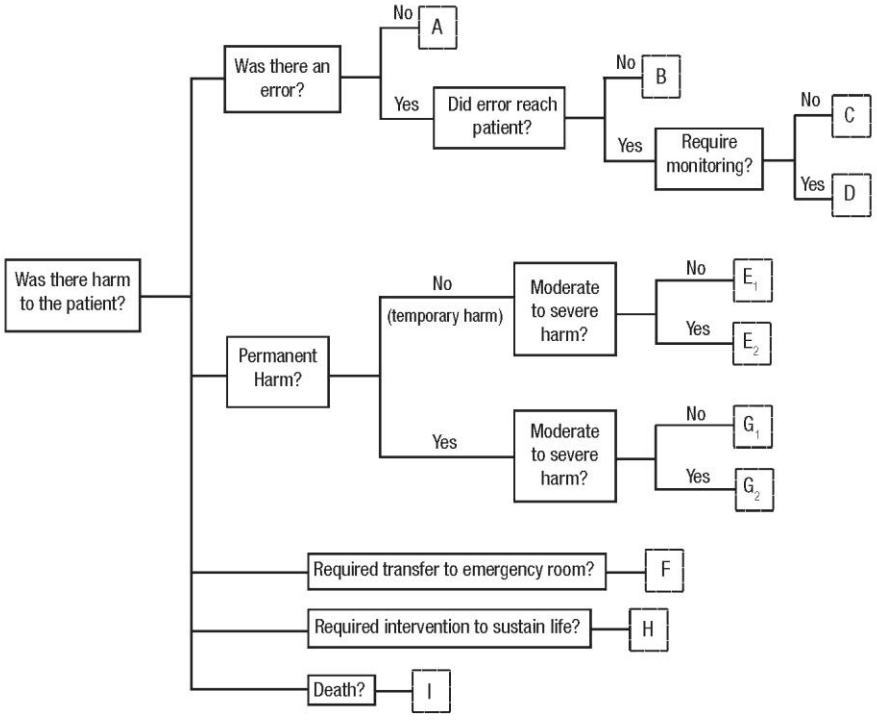
This report is primarily focused on objective measures of patient safety, administrative record keeping and compliance within the approved scope of practice for the pilot project. At the conclusion of the pilot project, OHA will publish a full report of findings as part of its overall evaluation and programmatic responsibilities.

Clinical Record Review Results:

I. Adverse Events

If two or more reviewers identified an adverse event in their reviews, the procedure was evaluated by an external consultant, Dr. Rose McPharlin, Assistant Professor of Restorative Dentistry, OHSU School of Dentistry. Dr. McPharlin is an expert in the area of patient harm and quality of care. The review of patient records included a table for defining the severity of dental adverse events (*Figure 2*).

Figure 2: Adverse event severity categories.[8]



Category	Description of Dental Adverse Event Severity Categories using the Dental AE severity tree
A	No errors
B	Error with no impact on patient
C	Error with minimal/mild impact to patient; does not require monitoring
D	Error with moderate to severe impact to patient; requires monitoring
E_1	Temporary (reversible or transient) minimal/mild harm to the patient
E_2	Temporary (reversible or transient) moderate to severe harm to the patient
F	Harm to the patient that required transfer to emergency room and/or prolonged hospitalization
G_1	Permanent minimal/mild patient harm
G_2	Permanent moderate to severe patient harm
H	Intervention required to sustain life
I	Patient death

Based on the external consultant's review, two procedures were identified as adverse events. Both were temporary in nature. In one case, cement was retained for one month before it was

[8] Adapted from: Kalenderian, E., Obadan-Udoh, E., Maramaldi, P., Etolue, J., Yansane, A., Stewart, D., … Walji, M. F. (2017). Classifying Adverse Events in the Dental Office. Journal of patient safety, 10.1097/PTS.0000000000000407. Advance online publication. doi:10.1097/PTS.0000000000000407

detected and removed. The duration of foreign matter retention was 1 month before it was removed, so severity was rated as E2--moderate to severe E2.

In the second case, Dr. McPharlin's final review notes that "the photo and the original diagnosis was for occlusal caries based on the clinical caries seen in the distal pit. The operator chose to open the mesial box for reasons that are not documented or can be seen radiographically as only incipient. The opening of the mesial box also resulted in hard tissue damage to the adjacent tooth, which will be shed soon: AE hard tissue damage of E1 nature."

II. Images and Radiographs

All reviews are conducted retrospectively using redacted chart notes, radiographs and intraoral photos. Reviewers were asked to indicate if both images and radiographs are were considered sufficient for evaluation. Of all procedures reviewed, 79% *(n* = 26*)* of charts included intra-oral images and 73% *(n* = 24*)* of charts included radiographs that reviewers felt were sufficient for evaluation.

Several reviewers reported difficulty with image quality in comment sections, including concerns that images were blurry and not of diagnostic quality, and whether the entire scope of work was visible in the photograph.

Effective September 2018, the NAIHB project implemented new intra-oral cameras to aid in further evaluation. Additionally, the since implemented Standard Operating Procedures Manual has the following stipulations for procedure photos:

> "Procedures requiring tooth preparation and final restoration require pre-op, mid-op, and post-op intraoral photos when appropriate. Images must be of high quality with no debris, blood, or excess restorative material present.
> Extractions: A recent radiograph of the tooth to be extracted is required including a pre-op intraoral photo. A post-op photo of the removed tooth must be taken including all residual coronal or root tip remnants. A post-op PA is not required.
> All photos require the following:
> • A label with correct tooth number
> • Correct dates attached to each photo to allow for easy retrievability
> Appendix C [of Evaluation & Monitoring Plan] lists all additional requirements for intraoral/extraoral photos and radiographs."

III. Anesthetic Notes

Reviewers were asked to evaluate the appropriateness of anesthetic provided and of clarity of documentation of any drug administration. A majority of reviewers rated 97% *(n* = 33*)* of cases as having appropriate anesthetic for the procedure. All cases were rated as having administered drug dosages within standard recommended limits and appropriately entered into chart notes. However, reviewers frequently commented that chart notes for seven patient charts did not provide a weight for pediatric patients so as to ensure an appropriate level of anesthesia is administered. The NAIHB has since instituted a set of standard operating procedures for all Pilot Project #100 trainees that include the documentation of weight for all patients under the age of 10 years who receive anesthetic treatment.

IV. Diagnosis

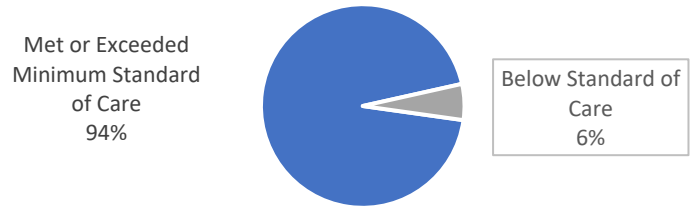
Based on the ratings provided by reviewers for the diagnosis description, 94% *(n* = 33*)* of procedures reviewed met or exceeded the minimum standard of care for diagnosis description. In the remaining 3% *(n* = 3*)* of cases, reviewers were evenly split on whether the listed diagnosis was appropriate.

V. Treatment

When determining if the treatment rendered is appropriate, there are several issues that must be addressed in drawing a conclusion. The dental provider must discuss the benefits, risks, costs of treatment, alternatives to treatment which may include a patient choosing to forgo treatment. Dental providers may encourage an optimal course of treatment however ultimately a patient has the right to choose whichever course of treatment they are most comfortable with. There are many barriers when choosing dental treatment, financial concerns are often a primary concern in addition to transportation barriers or missing additional work.

Based on the ratings provided by reviewers for the appropriateness of treatment, most procedures, 94% *(n* = 33*),* met or exceeded the standard of care for appropriate treatment according to a majority of reviewers.

Figure 3: Percent of cases rated as treatment appropriate for diagnosis by a majority of reviewers.



VI. Overall impression of procedure quality

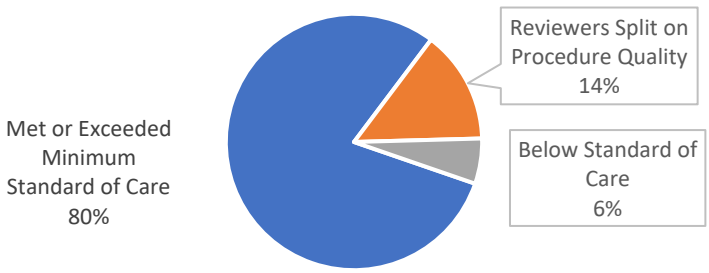
The measure entitled “overall impression of procedure quality” was scored by reviewers on a 1-5 scale as follows:

1: Significant deficiencies exist. Procedure can be considered a failure
2: Significant deficiencies exist, procedure falls under absolute minimum standard of care
3: Minimum standard of care. Only minor deficiencies present.
4: Procedure quality is adequate to good. Only minor deficiencies present.
5: Procedure is highly successful, no deficiencies present.

A rating of three is the minimum standard of care. Each procedure is rated by at least three but as many as six licensed dentists trained. However, there is a high degree of variation within reviewer responses. Therefore, the “overall impression” rating was converted from a five-point scale to a binary measure (whether or not the minimum standard of care was met according to a majority of reviews).

Based on the ratings provided by reviewers for the overall impression of procedure quality, most procedures (80%) *(n* = 28*)* were rated at or above the minimum standard of care by the majority of reviewers. In 14% *(n* = 5*)* of cases (four posterior restorations and one anterior restoration), reviewers were evenly split in their assessment of procedure quality as being above or below minimum standard of care. 6% *(n* = 2*)* of cases (two posterior restorations) were rated below the minimum standard of care by a majority of reviewers.

Figure 4: Percent of cases rated at or above minimum standard of care.



To demonstrate the range of quality of care provided, median score for each procedure was used as a measure of the central tendency of reviewers. Mean (average) scores at the case level are easily skewed by wide ranges in reviewer scores. Therefore, median scores are used similarly to the methodology used by WREB for these types of dental procedures.[9]

The average median score for all procedures on a scale of 1 to 5 was 3.50 (SD = 0.79), above the previously set cut point of minimum standard of care.[10] See *Figure 5* for box plots of median overall impression of procedure quality scores averaged across reviewers for each chart and broken down by procedure type. As seen in Figure 5, interquartile ranges (boxes) are all at or above minimum standard of care.

[9] For context, WREB uses the median score of three reviewers in their methodology so as to more accurately represent the central tendency in the case of small numbers.
From page 48 of the 2019 Dental Exam Candidate Guide:
"The Operative Exam is graded by three independent Grading Examiners. Grading Examiners grade according to the Operative Scoring Criteria Rating Scale on pgs. 50-53 and 61-62. The recorded score for each category is based on the median (middle) score of the three (3) scores assigned by the Grading Examiners. The median grades are then weighted and summed for the preparation and finish respectively, then averaged for the total procedure score."

[10] For the subjective measure of Overall Impression of Procedure Quality, the Intraclass Correlation Coefficient (ICC) as a measure of interrater reliability was 0.529, indicating moderate reliability.

Figure 5: Median ratings for overall impression of procedure quality by procedure type.

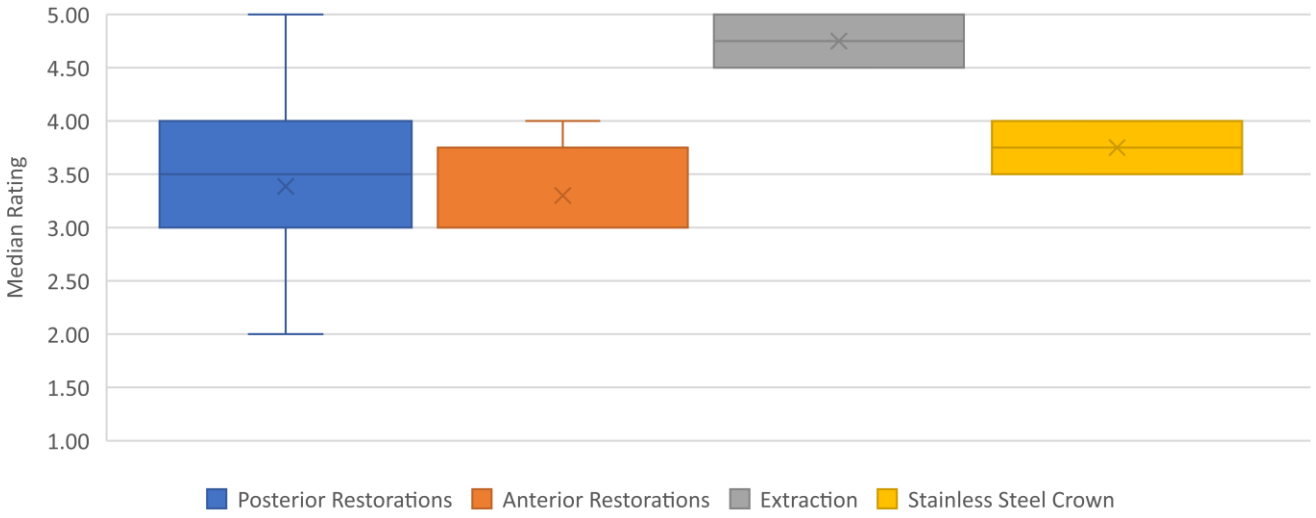


Table 1: Statistics for median rankings of overall impression of procedure quality by procedure type

	Median	Mean	Std. Deviation	Range	N
Posterior Restorations	3.5	3.42	0.82	3	26
Anterior Restorations	3	3.3	0.45	1	5
Extractions	4.75	4.75	0.35	0.5	2
SSCs	3.75	3.75	0.35	0.5	2

VII. Amalgam/Composite Restorations – Posterior

Amalgam/composite restorations were scored as Unacceptable (1), Inadequate (2), Acceptable – Minimum Standard of Care (3), Appropriate (4), or Optimal (5) on the following criteria:

Posterior Restorations Sub-Criteria	Minimum standard of care (see Appendix B for the full rating criteria)
Preparation: Outline and Extension	• Outline moderately weakens marginal ridge or a cusp. Isthmus is too wide or too narrow for lesion. • Cavosurface angles possibly compromise the integrity of the tooth or restoration. Cavosurface is moderately rough but will not adversely affect the final restoration.
Preparation: Internal Form	• Pulpal floor and/or axial wall is moderately shallow or deep.
Preparation: Operative Environment	• Damage to the adjacent tooth can be removed by polishing, but the shape of the contact will be changed. • Management of any damage is appropriate • Documentation of difficult behavior if necessary to explain excessive damage
Finish: Anatomical Form	• Moderate variation in normal anatomical form is present. Marginal ridge is improperly shaped.

	• There is moderate variation of proximal contour and shape.
Finish: Margins	• Moderate marginal excesses and/or deficiencies are present.
Finish: Damage	• Moderate damage to hard or soft tissue is evident.

The ratings for each category were indexed by averaging the scores across these 6 criteria to create an overall rating. This overall rating was then converted from a five-point scale to a binary measure as previously described. There were 26 posterior restorations reviewed and based on the ratings provided by reviewers for Amalgam/Composite Restorations – Posterior, all of the procedures were rated as meeting or exceeding the standard of care for this category by a majority of reviewers.

Table 2: Percent and number of Posterior Restorations rated above or below standard of care in specific sub-criteria.

Posterior Restorations Sub-Criteria	Cases at or above minimum standard of care	Cases below minimum standard of care	Cases with reviewers evenly split
Preparation: Outline and Extension	85% (*n* = 22)	0% (*n* = *0*)	15% (*n* = *4*)
Preparation: Internal Form	81% (*n* = *21)*	8% (*n* = *2*)	12% (*n* = *3*)
Preparation: Operative Environment	100% (*n* = *26)*	0% (*n* = *0)*	0% (*n* = *0)*
Finish: Anatomical Form	100% (*n* = *26)*	0% (*n* = *0)*	0% (*n* = *0)*
Finish: Margins	85% (*n* = *22)*	0% (*n* = *0)*	15% (*n* = *4)*
Finish: Damage	100% (*n* = *26)*	0% (*n* = *0)*	0% (*n* = *0)*

On a scale of 1 to 5, the average overall median score for Posterior Restorations was 4.16 (SD = 0.77), above the previously set cut point of minimum standard of care. See *Figure 6* for box plots of median Posterior Restoration scores broken down by rating sub-criteria.

Figure 6: Median Ratings for Sub-Criteria in Posterior Amalgam/Composite Restorations

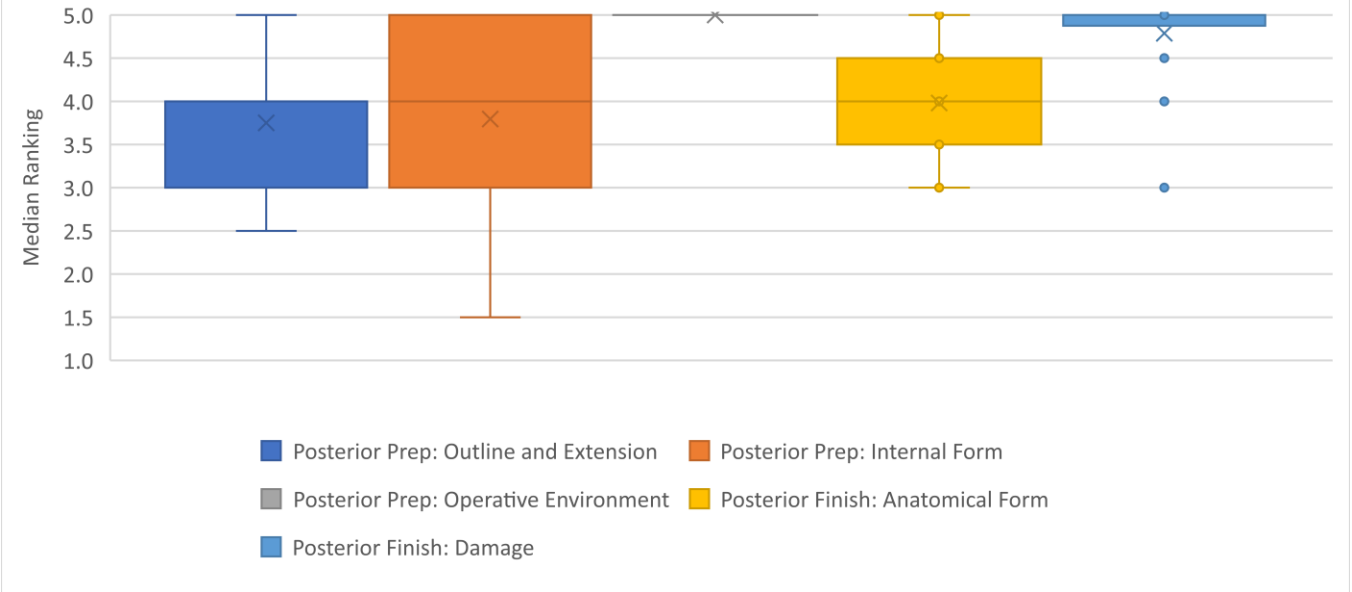


Table 3: Statistics for median rankings of Posterior Amalgam/Composite Restorations by sub-criteria.

	Median	Mean	Std. Deviation	Range	N
Preparation: Outline and Extension	4.00	3.75	0.75	2.50	26
Preparation: Internal Form	4.00	3.88	1.02	3.50	26
Preparation: Operative Environment	5.00	4.92	0.39	2.00	26
Finish: Anatomical Form	4.00	3.98	0.56	2.00	26
Finish: Margins	4.25	4.15	0.82	2.50	26
Finish: Damage	5.00	4.79	0.47	2.00	26

VIII. Anterior Composite Restorations

Anterior composite restorations were scored as Unacceptable (1), Inadequate (2), Acceptable – Minimum Standard of Care (3), Appropriate (4), or Optimal (5) on the following criteria:

Anterior Restorations Sub-Criteria	Minimum standard of care (see Appendix B for the full rating criteria)
Preparation: Outline and Extension	• Cavosurface angles possibly compromise the integrity of the tooth or restoration. Cavosurface is moderately rough but will not adversely affect the final restoration. • Cavosurface angles possibly compromise the integrity of the tooth or restoration.
Preparation: Shape and Extension	• Outline is moderately over or under extended. Outline is moderately irregular but does not weaken the tooth. • Gingival margin is moderately overextended. • Any overextension that severely weakens tooth is properly documented
Preparation: Operative Environment	• Damage to the adjacent tooth can be removed by polishing, but the shape of the contact will be changed.
Finish: Anatomical Form	• Moderate variation in normal anatomical form is present. Marginal ridge is improperly shaped. • There is moderate variation of proximal contour and shape.
Finish: Margins	• Moderate marginal excesses and/or deficiencies are present.
Finish: Damage	• Moderate damage to hard or soft tissue is evident.

All 5 procedures reviewed met or exceeded the standard of care for this category indexed across these criteria, using the same methodology as Posterior Restorations. On a scale of 1 to 5, the average median score for Posterior Restorations was 4.12 (SD = 0.45), above the previously set cut point of minimum standard of care. See *Figure 7* for box plots of median Anterior Restoration scores broken down by rating sub-criteria.

Figure 7: Median Ratings for Sub-Criteria in Anterior Composite Restorations

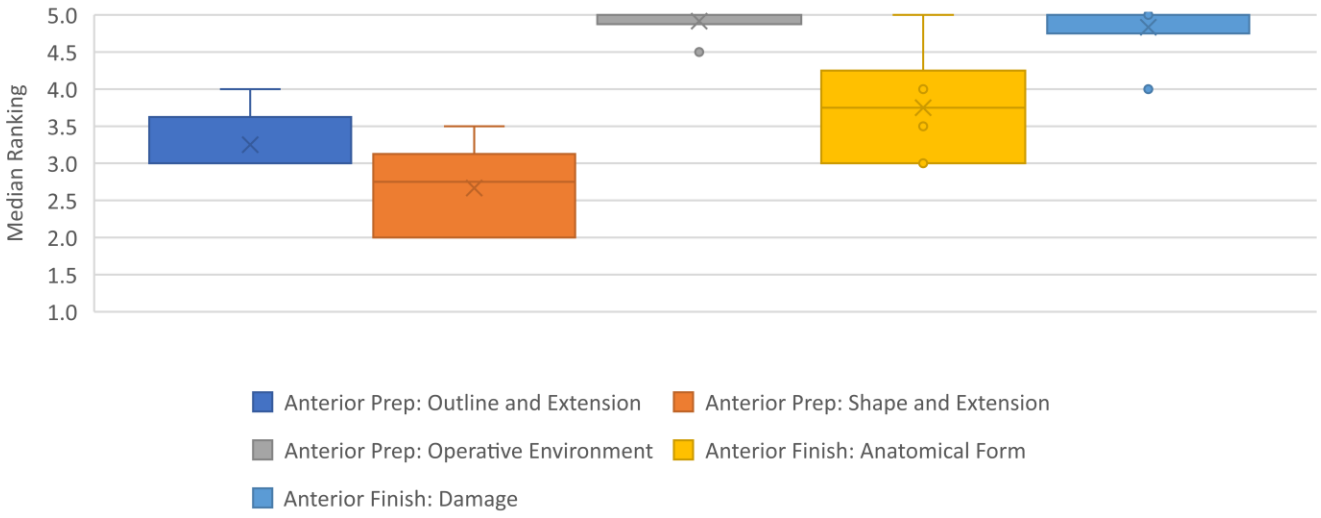


Table 4: Statistics for median rankings of Anterior Composite Restorations by sub-criteria.

	Median	Mean	Std. Deviation	Range	N
Preparation: Outline and Extension	3.00	3.30	0.45	1.00	5
Preparation: Shape and Extension	2.50	2.60	0.65	1.50	5
Preparation: Operative Environment	5.00	4.90	0.22	0.50	5
Finish: Anatomical Form	4.00	3.80	0.84	2.00	5
Finish: Margins	4.00	4.10	0.74	2.00	5
Finish: Damage	5.00	4.80	0.45	1.00	5

Within the sub-criteria, 40% (*n* =2) of anterior restorations were rated below standard of care on “Prep: Shape and Extension.” Reviewer comments indicate that remaining caries was the main area of concern. All other areas were rated on average at or above standard of care.

IX. Stainless Steel Crowns

Stainless steel crowns were scored as Unacceptable (1), Inadequate (2), Acceptable – Minimum Standard of Care (3), Appropriate (4), or Optimal (5) on the following criteria:

Stainless Steel Crowns Sub-Criteria	Minimum standard of care (see Appendix B for the full rating criteria)
Preparation: Occlusal Reduction/ Incisal Reduction /Proximal reduction	• Deviates up to 1.0 mm from optimal. • Sharp angles may affect the restoration.
Preparation: Caries Removal	• Complete Caries Removal
Preparation: Operative Environment	• Damage to the adjacent tooth can be removed by polishing, but the shape of the contact will be changed. • Moderate damage to hard or soft tissue is evident.

Adaptation, Cementation, Occlusion	• Fit of crown is good (good contacts, length, and occlusion) • Correct position • Slight evidence of cement remaining radiographically • Occlusion appears good.
Finish: Function	• Occlusion is slightly in hyper-occlusion

All procedures reviewed met or exceeded the standard of care for this category and all sub criteria according to a majority of reviewers.

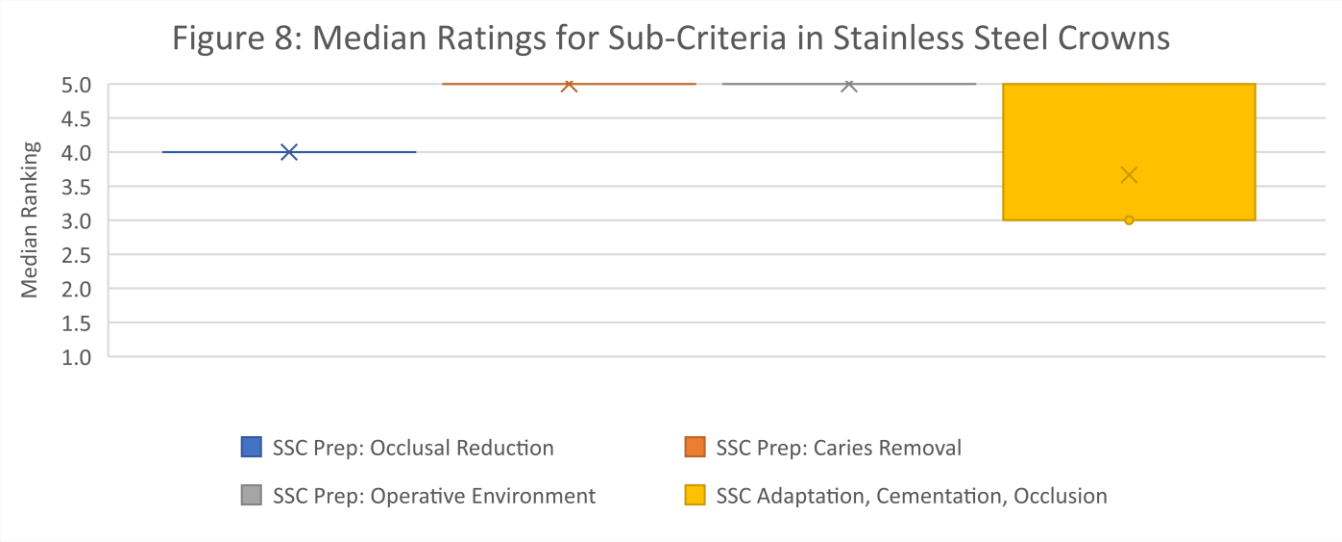


Table 5: Statistics for median rankings of Stainless Steel Crowns (SSC) by sub-criteria.

	Median	Mean	Std. Deviation	Range	N
SSC Prep: Occlusal Reduction	4.00	4.00	0.00	0.00	2
SSC Prep: Caries Removal	5.00	5.00	0.00	0.00	2
SSC Prep: Operative Environment	5.00	5.00	0.00	0.00	2
SSC Adaptation, Cementation, Occlusion	4.00	4.00	1.41	2.00	2
SSC Finish: Function	4.75	4.75	0.35	0.50	2

X. Extractions

Extractions were scored into two categories based upon specific project criteria for simple extractions

Yes: Minimum standard of care, tooth removed successfully with no complications
No: Extraction does not follow stipulated guidelines.

Both extractions reviewed met or exceeded the standard of care for this category according to a majority of reviewers.

Summary of Findings:

- There were two instances of temporary adverse events of E1 (Temporary minimal/mild harm to the patient) and E2 (Temporary moderate to severe harm to the patient) that were revealed during the site visit using the Dental Adverse Event Tree. Both of these were temporary adverse events in nature.

- DHAT trainees are operating under their approved scope of practice.

- The project is in full compliance with their approved amended application.

- Intra-oral cameras were implemented by October 1, 2018, after the date of the site visit in September 2018.

- Comments indicated in chart reviews that the reviewers had difficulty in determining many of the components of the chart review due to the lack of visibility in photos taken. Intra-oral cameras were not employed as of the date of this particular site visit.

- Weights were not recorded for a number of patients under age 10. Though not required in the Oregon Dental Practice Act, OHA requires weights to be recorded for patients age 10 and under who receive anesthetic. This is included in the standard operating procedures and was implemented as policy in both clinics after this site visit.

Report of Findings

333-010-0410: Dental Pilot Projects: Minimum Standards A dental pilot project shall: (1) Provide for patient safety as follows: (a) Provide treatment which does not expose a patient to risk of harm when equivalent or better treatment with less risk to the patient is available;	**ID Number** **MS1A**

Program Requirements	**Met** ☒	**Not Met** ☐
Observations and/or Identified Deficiencies:	No deficiencies identified.	
Corrective Action	Not applicable.	
Required Next Steps	Not applicable.	

333-010-0410: Dental Pilot Projects: Minimum Standards A dental pilot project shall: (1) Provide for patient safety as follows: (b) Seek consultation whenever the welfare of a patient would be safeguarded or advanced by having recourse to those who have special skills, knowledge and experience;	**ID Number** **MS1B**

Dental Pilot Project Program Requirements	**Met** ☒	**Not Met** ☐
Observations and/or Identified Deficiencies:	No deficiencies identified.	
Corrective Action:	Not applicable.	
Required Next Steps	Not applicable.	

333-010-0410: Dental Pilot Projects: Minimum Standards A dental pilot project shall: (1) Provide for patient safety as follows: (c) Provide or arrange for emergency treatment for a patient currently receiving treatment;		**ID Number** **MS1C**
Dental Pilot Project Program Requirements	**Met** ☒	**Not Met** ☐
Observations and/or Identified Deficiencies:	No deficiencies identified. There were no instances of emergencies.	
Corrective Action	Not applicable.	
Required Next Steps	Not applicable.	

333-010-0410: Dental Pilot Projects: Minimum Standards A dental pilot project shall: (1) Provide for patient safety as follows: (d) Comply with ORS 453.605 to 453.755 or rules adopted pursuant thereto relating to the use of x-ray machines;		**ID Number** **MS1D**
Dental Pilot Project Program Requirements	**Met** ☒	**Not Met** ☐
Observations and/or Identified Deficiencies:	No deficiencies identified.	
Corrective Action	Not applicable.	
Required Next Steps	Not applicable.	

333-010-0410: Dental Pilot Projects: Minimum Standards A dental pilot project shall: (1) Provide for patient safety as follows: (f) Comply with the infection control procedures in OAR 818-012-0040		**ID Number** **MS1F**
Dental Pilot Project Program Requirements	**Met** ☒	**Not Met** ☐
Observations and/or Identified Deficiencies:	No deficiencies identified.	

Corrective Action	Not applicable.
Required Next Steps	Not applicable.

333-010-0410: Dental Pilot Projects: Minimum Standards (3) Assure that trainees have achieved a minimal level of competence before they enter the employment/utilization phase;		**ID Number** **MS3**
Dental Pilot Project Program Requirements	**Met** ☒	**Not Met** ☐
Observations and/or Identified Deficiencies:	No deficiencies identified.	
Corrective Action	Not applicable.	
Required Next Steps	Not applicable.	

333-010-0420: Dental Pilot Projects: Trainees (1) A dental pilot project must have a plan to inform trainees of their responsibilities and limitations under Oregon Laws 2011, chapter 716 and these rules.		**ID Number** **T1**
Dental Pilot Project Program Requirements	**Met** ☒	**Not Met** ☐
Observations and Identified Deficiencies:	No deficiencies identified.	
Corrective Action	Not applicable.	
Required Next Steps	Not applicable.	

333-010-0425: Dental Pilot Projects: Instructor and Supervisor Information A dental pilot project must have: (2) A plan to orient supervisors to their roles and responsibilities.		**ID Number** **S2**
Dental Pilot Project Program Requirements	**Met** ☒	**Not Met** ☐
Observations and Identified Deficiencies:	No deficiencies identified.	
Corrective Action	Not applicable.	
Required Next Steps	Not applicable.	

333-010-0435: Dental Pilot Projects: Evaluation and Monitoring (2) Monitoring Plan. A sponsor of a dental pilot project must have a monitoring plan approved by the Authority that ensures at least quarterly monitoring and describes how the sponsor will monitor and ensure: (a) Patient safety;	**ID Number** **EM2A**

Dental Pilot Project Program Requirements	**Met** ☒	**Not Met** ☐
Observations and Identified Deficiencies:	No observed deficiencies.	
Corrective Action	Not applicable.	
Required Next Steps	Not applicable.	

333-010-0435: Dental Pilot Projects: Evaluation and Monitoring (2) Monitoring Plan. A sponsor of a dental pilot project must have a monitoring plan approved by the Authority that ensures at least quarterly monitoring and describes how the sponsor will monitor and ensure: (b) Trainee competency;	**ID Number** **EM2B**

Dental Pilot Project Program Requirements	**Met** ☒	**Not Met** ☐
Observations and Identified Deficiencies:	No deficiencies identified.	
Corrective Action	Not applicable.	
Required Next Steps	Not applicable.	

333-010-0435: Dental Pilot Projects: Evaluation and Monitoring (2) Monitoring Plan. A sponsor of a dental pilot project must have a monitoring plan approved by the Authority that ensures at least quarterly monitoring and describes how the sponsor will monitor and ensure: (c) Supervisor fulfillment of role and responsibilities;	**ID Number** **EM2C**

Dental Pilot Project Program Requirements	**Met** ☒	**Not Met** ☐
Observations and Identified Deficiencies:	No deficiencies identified.	
Corrective Action	Not applicable.	
Required Next Steps	Not applicable.	

333-010-0435: Dental Pilot Projects: Evaluation and Monitoring (2) Monitoring Plan. A sponsor of a dental pilot project must have a monitoring plan approved by the Authority that ensures at least quarterly monitoring and describes how the sponsor will monitor and ensure: (d) Employment/utilization site compliance.	**ID Number** **EM2D**

Dental Pilot Project Program Requirements	**Met** ☒	**Not Met** ☐

Observations and Identified Deficiencies:	No deficiencies identified.
Corrective Action	Not applicable.
Required Next Steps	Not applicable.

333-010-0435: Dental Pilot Projects: Evaluation and Monitoring (3) Data. A sponsor's evaluation and monitoring plans must describe: (b) How data will be monitored for completeness;		**ID Number** **EM3B**
Dental Pilot Project Program Requirements	**Met** ☒	**Not Met** ☐
Observations and Identified Deficiencies:	No deficiencies identified.	
Corrective Action	Not applicable.	
Required Next Steps	Not applicable.	

333-010-0435: Dental Pilot Projects: Evaluation and Monitoring 5) A sponsor must provide a report of information requested by the program in a format and timeframe requested.		**ID Number** **EM5**
Dental Pilot Project Program Requirements	**Met** ☒	**Not Met** ☐
Observations and Identified Deficiencies:	No deficiencies identified.	
Corrective Action	Not applicable.	
Required Next Steps	Not applicable.	

333-010-0435: Dental Pilot Projects: Evaluation and Monitoring (6) A sponsor must report adverse events to the program the day they occur. Adverse Events determined E2(Severe Harm or greater), F, G, H, I must be reported to OHA the day they occur. See Appendix B Table 2 for Dental Adverse Event Severity Categories		**ID Number** **EM6**
Dental Pilot Project Program Requirements	**Met** ☒	**Not Met** ☐
Observations and Identified Deficiencies:	No deficiencies. There were no instances of adverse events of severe harm identified by the project. In final chart review, there were two instances of temporary adverse events of E1 (Temporary minimal/mild harm to the patient) and E2 (Temporary moderate to severe harm to the patient) that were revealed during the site visit using the Dental Adverse Event Tree. Both of these are temporary and reversible adverse events in nature.	

Corrective Action	Not applicable.
Required Next Steps	Not applicable.

333-010-0440: Dental Pilot Projects: Informed Consent (1) A sponsor must ensure that informed consent for treatment is obtained from each patient or a person legally authorized to consent to treatment on behalf of the patient.		**ID Number** **IC1**
Dental Pilot Project Program Requirements	**Met** ☒	**Not Met** ☐
Observations and Identified Deficiencies:	No deficiencies identified.	
Corrective Action	Not applicable.	
Required Next Steps	Not applicable.	

333-010-0440: Dental Pilot Projects: Informed Consent (4) Dental pilot project staff or trainees must document informed consent in the patient record prior to providing care to the patient.		**ID Number** **IC4**
Dental Pilot Project Program Requirements	**Met** ☒	**Not Met** ☐
Observations and Identified Deficiencies:	No deficiencies identified.	
Corrective Action	Not applicable.	
Required Next Steps	Not applicable.	

333-010-0440: Dental Pilot Projects: Informed Consent (5) Informed consent needs to be obtained specifically for those tasks, services, or functions to be provided by a pilot project trainee.		**ID Number** **IC5**
Dental Pilot Project Program Requirements	**Met** ☒	**Not Met** ☐
Observations and Identified Deficiencies:	No deficiencies identified.	
Corrective Action	Not applicable.	
Required Next Steps	Not applicable.	

333-010-0455 Dental Pilot Projects: Program Responsibilities (2) Site visits. (A) Determination that adequate patient safeguards are being utilized;		**ID Number** **PR2A**
Dental Pilot Project Program Requirements	**Met** ☒	**Not Met** ☐

Observations and Identified Deficiencies:	No deficiencies observed.
Corrective Action	Not applicable.
Required Next Steps	Not applicable.

333-010-0455 Dental Pilot Projects: Program Responsibilities (2) Site visits. (B) Validation that the project is complying with the approved or amended application		**ID Number** **PR2B**
Dental Pilot Project Program Requirements	**Met** ☒	**Not Met** ☐
Observations and Identified Deficiencies:	No deficiencies identified.	
Corrective Action	Not applicable.	
Required Next Steps	Not applicable.	

333-010-0460 Dental Pilot Projects: Modifications (1) Any modifications or additions to an approved project shall be submitted in writing to program staff.		**ID Number** **M1**
Dental Pilot Project Program Requirements	**Met** ☒	**Not Met** ☐
Observations and Identified Deficiencies:	No deficiencies identified.	
Corrective Action	Not applicable.	
Required Next Steps	Not applicable.	

333-010-0460 Dental Pilot Projects: Modifications (3) All other modifications require program staff approval prior to implementation.		**ID Number** **M3**
Dental Pilot Project Program Requirements	**Met** ☒	**Not Met** ☐
Observations and Identified Deficiencies:	No deficiencies identified.	
Corrective Action	Not applicable.	
Required Next Steps	Not applicable.	

REPORT END

CENTER FOR PREVENTION AND HEALTH PROMOTION
Oral Health Program
Kate Brown, Governor

Oregon Health Authority

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Portland, Oregon 97232-2186
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December 17, 2018

Joe Finkbonner
NW Portland Area Indian Health Board
2121 SW Broadway STE 300
Portland, Oregon 97201

On September 20, 2018, the Oregon Health Authority conducted a required site visit for Dental Pilot Project #100, “Oregon Tribes Dental Health Aide Therapist Pilot Project” at the NARA Residential Treatment Center in Portland, Oregon.

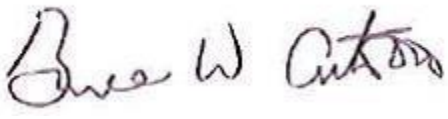
The OHA Dental Pilot Project Program is responsible for monitoring approved pilot projects. The primary role of the Oregon Health Authority is monitoring for patient safety. Secondarily, program staff shall evaluate approved projects and the evaluation shall include, but is not limited to, reviewing progress reports and conducting site visits.

The Oregon Health Authority is responsible for ascertaining the progress of the project in meeting its stated objectives and in complying with program statutes and regulations.

The Oregon Health Authority has determined that Dental Pilot Project #100 is in compliance with the requirements set forth in the Oregon Administrative Rules 333-010-0400 through 333-010-0470 and therefor has **passed** the site visit.

A full report of findings will be issued to the project sponsor upon completion of the chart reviews.

Sincerely,



Bruce Austin, DMD
Statewide Dental Director

OHA Clinical Chart Review Form & Guidelines : DPP #100

Sources: IHS Oral Health Program Guide, OHA DPP#100 Advisory Committee input, Western Regional Examining Board, Kalenderian E. Classifying Adverse Events in the Dental Office. Journal of Patient Safety. 2017

Chart Number:

Tooth Number:

Reminders:

- N/A (Not Applicable) and Unable to Determine are always additional answer options
- Please provide additional comments whenever possible. Comments are required when rating below the minimum standard of care.
- Please note in comment sections whenever images are not sufficient for dependable evaluation.

CRITERIA	Description			Assessment	Comments
Diagnosis					
1. Diagnosis Description Appropriate	**Yes:** Falls within minimum standard of care.	**No:** Must indicate deficiency in comments.			
2. Treatment appropriate	**Yes**: Falls within minimum standard of care.	**No:** Must indicate deficiency in comments.			
Images					
1. Radiographs available and sufficient for diagnosis	**1:** Radiographs are present and adequate for evaluation	**2:** Radiographs are present, but not adequate for evaluation. Please describe why.	**3:** Radiographs are not present for this procedure		
2. Intra-Oral Images are sufficient for evaluation.	**1:** Intra-oral images are present and adequate for evaluation	**2:** Intra-oral images are present, but not adequate for evaluation. Please describe why.	**3:** Intra-oral images are not present for this procedure		
Administration of Drugs					
1. Anesthetic used appropriate for procedure	**Yes:** Appropriate anesthetic, location, and dosage	**No:** Grossly inappropriate anesthetic, location, or dosage			
2. Within recommended Limits	**Yes**: Drug dosages are within limits recommended by the Physician's Desk Reference or American Hospital Formulary Service. Dosage notation includes quantity, type, concentration and strength	**No**: Drug dosages are outside recommended limits.	**Unable to Determine**		

CRITERIA	Description					Assessment	Comments
3. Entered in Progress Notes (including anesthetic)	**Yes:** All drugs and dosages are entered in the medical and/or dental progress notes (including local anesthetic).		**No:** Must indicate deficiency in comments.				
4. Antibiotic Prophylaxis Given When Needed	**1:** Prophylaxis is called for and appropriately administered.	**2:** Prophylaxis is called for but is **not** appropriately administered. I.e. not given at all or an inappropriate amount or drug is given. Please comment.	**3:** Prophylaxis is not needed in this case and is not administered.				
5. Any previous history of anesthetic/drug/allergy/ reactions noted	**Yes:** Reactions and allergies to drugs are documented in dental record. "NKDA" is considered acceptable		**No:** Must indicate deficiency in comments.				
6. Requisite vital stats considered	**Yes:** Pre and post op vitals (including but not limited to) blood pressure for oral surgery procedures. Weight noted for all anesthetics and analgesics administered to minors age 10 and under.		**No:** Must indicate deficiency in comments.				
Evaluation of Procedure – Reviewer must use appropriate chart rubric to answer corresponding questions. Posterior Restorations (page 5), Anterior Restorations (page 7), SSC (page 9)							
1. Overall impression of procedure quality – used for all procedures	**1:** Significant deficiencies exist. Procedure can be considered a failure	**2:** Significant deficiencies exist, procedure falls under absolute minimum standard of care	**3: Minimum** standard of care. Only minor deficiencies present.	**4:** Procedure quality is adequate to good. Only minor deficiencies present.	**5:** Procedure is highly successful, no deficiencies present.		
2. Extractions – Treatment is appropriate for diagnosis	**Yes:** Minimum standard of care, tooth removed successfully with no complications		**No:** Extraction does not follow stipulated guidelines.				
Miscellaneous Documentation							
1. Rubber Dam or Isolation Documentation	**Yes:** Isolation is noted		**No:** Isolation is not noted				
2. Complications Noted	**1:** Any complications are sufficiently noted	**2:** No complications evident and none noted	**3:** No: Any complications that are present are not noted				

CRITERIA	Description		Assessment	Comments
Adverse Events				
1. Adverse Events	**Yes:** There were any Adverse Events noted during the review associated with this procedure. Please comment	**No:** There were no adverse events.		
2. AE Category	Select Dental AE Type Classification Category, if applicable. See Table 1. **Must be completed if response to Adverse Events #1 is "Yes"**			
3. AE Severity	Review Dental Adverse Severity Tree and assign an appropriate category. See Table 2. **Must be completed if response to Adverse Events #1 is "Yes"**			
4. Errors	**Yes:** There were any Errors noted during the review associated with this procedure. Please comment	**No:** There were no Errors.		
5. Error Category	Select Dental AE Type Classification Category, if applicable. See Table 1. **Must be completed if response to Errors #4 is "Yes"**			
6. Error Severity	Review Dental Adverse Severity Tree and assign an appropriate category. See Table 2. **Must be completed if response to Errors #4 is "Yes"**			

Adverse Events are categorized according to the following Dental AE Type Classification:

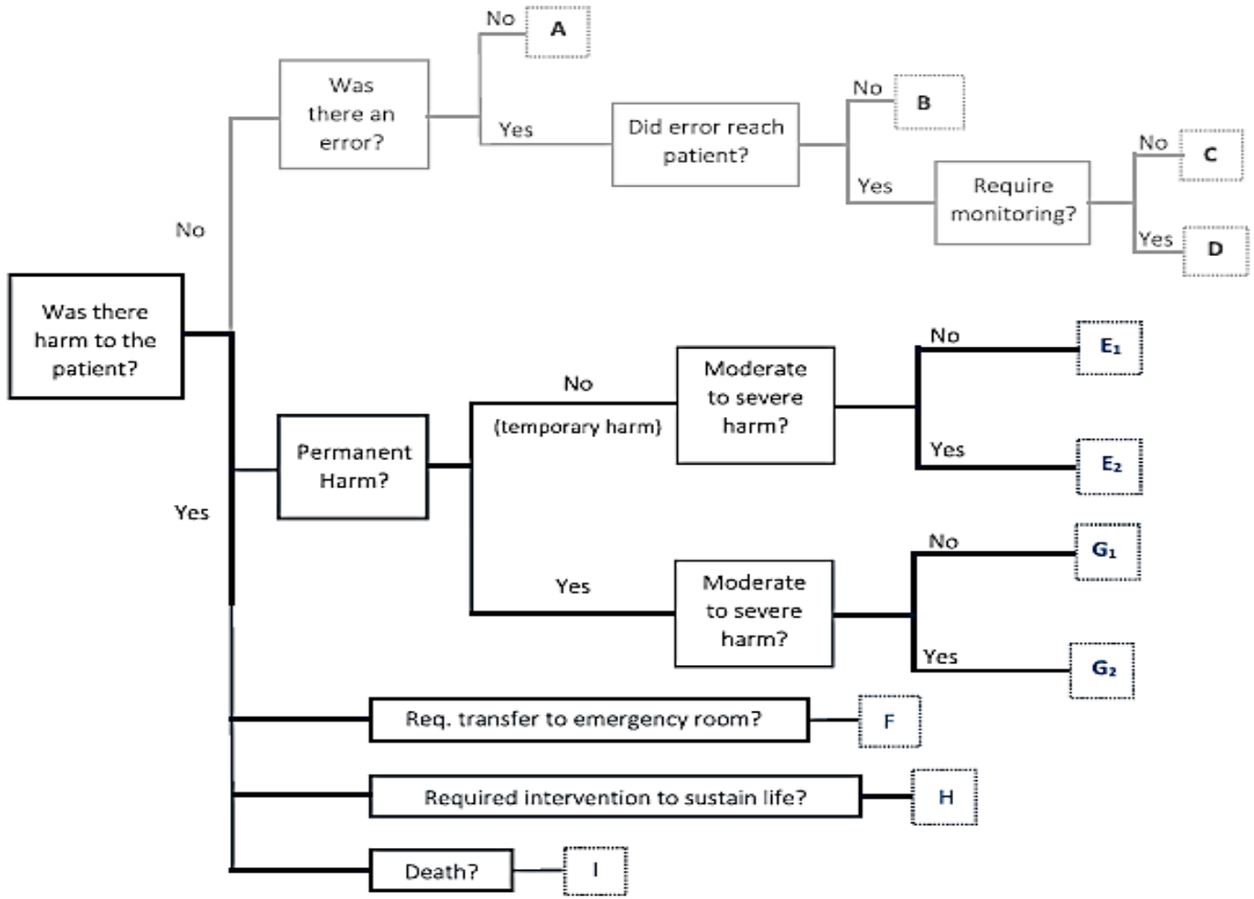
Table 1. Dental AE Type Classification[1]

AE Categories:

1. **Pain**
2. **Infection**
3. **Hard tissue damage**
4. **Nerve injury**
5. **Soft tissue damage/inflammation**
6. **Other oro-facial harm**
7. **Allergy, toxicity, or foreign body response**
8. **Aspiration or ingestion of foreign body**
9. **Wrong site, wrong patient, or wrong procedure**
10. **Bleeding**
11. **Other systemic harm**
12. **Other harm**

[1] Adapted from: Kalenderian E, Obadan-Udoh E, Maramaldi P, et al. Classifying Adverse Events in the Dental Office [published online ahead of print, 2017 Jun 30]. J Patient Saf. 2017;10.1097/PTS.0000000000000407. doi:10.1097/PTS.0000000000000407

Table 2. Dental Adverse Event Severity Categories.



Category	Description of Dental Adverse Event Severity Categories using the Dental AE severity tree
A	No errors
B	Error with no impact on patient
C	Error with minimal/mild impact to patient; does not require monitoring
D	Error with moderate to severe impact to patient; requires monitoring
E1	Temporary (reversible or transient) minimal/mild harm to the patient
E2	Temporary (reversible or transient) moderate to severe harm to the patient
F	Harm to the patient that required transfer to emergency room and/or prolonged hospitalization.
G1	Permanent minimal/mild patient harm.
G2	Permanent moderate to severe patient harm.
H	Intervention required to sustain life
I	Patient death.

Scoring Criteria – Amalgam/Composite Restorations – Posterior[3]

	1 **Unacceptable**	2 **Inadequate**	3 **Acceptable – Minimum Standard of Care**	4 **Appropriate**	5 **Optimal**	**Comments**
P.1 Prep: Outline and Extension	• Outline is grossly and improper and lacks any definite form. • Caries remains in the enamel or is not completely accessed. • Cavosurface angles are grossly improper. Cavosurface has multiple major areas of roughness and/or enamel weakness that will cause the restoration to fail.	• Outline severely weakens marginal ridge or a cusp. Outline is misshapen and/or forces improper angle of exit. • Improper cavosurface angles or rough cavosurface will cause the final restoration to fail.	• Outline moderately weakens marginal ridge or a cusp. Isthmus is too wide or too narrow for lesion. • Cavosurface angles possibly compromise the integrity of the tooth or restoration. Cavosurface is moderately rough but will not adversely affect the final restoration.	• Outline is slightly irregular but does not weaken tooth. • Isthmus is slightly wider than required for lesion. • Cavosurface angles are not optimal but do not compromise the integrity of the tooth or restoration. Cavosurface has small areas of minor roughness.	• Outline is generally smooth and flowing and does not weaken tooth in any manner. • Proximal cavosurface angles are equal to or slightly greater than 90°. The integrity of both tooth and restoration is maintained.	N/A: Unable to Determine
P.2 Prep: Internal Form	• Walls and/or floors are grossly deep with total lack of concern for the pulp. • Caries remains in the dentin or is not completely accessed. (All caries must be removed except in the area of imminent pulp exposure, evidence based partial caries removal protocol, and must be noted in chart	• Pulpal floor and/or axial wall is critically shallow or critically deep. • Affected dentin remains. (All caries must be removed except in the area of imminent pulp exposure, evidence based partial caries removal protocol, and must be noted in chart)	• Pulpal floor and/or axial wall is moderately shallow or deep.	• Pulpal floor and/or axial wall is slightly shallow or deep.	• Pulpal floor depth as determined by the lesion or defect does not exceed 2.0 mm from the cavosurface. Enamel may remain on the pulpal floor. Axial wall depth at the gingival floor is appropriate.	N/A: Unable to Determine

[3] Adapted for review of radiograph and intraoral imagery from Western Regional Examining Board, Central Regional Testing Service, American Board of Dental Examiners, The Commission on Dental Competency Assessments

	1 **Unacceptable**	2 **Inadequate**	3 **Acceptable – Minimum Standard of Care**	4 **Appropriate**	5 **Optimal**	**Comments**
P.3 Prep: Operative Environment	• Damage to the adjacent tooth will definitely require restoration.	• Damage to the adjacent tooth will be difficult to polish out and still maintain appropriate proximal contour. The adjacent tooth will likely require restoration.	• Damage to the adjacent tooth can be removed by polishing, but the shape of the contact will be changed. • Management of any damage is appropriate • Documentation of difficult behavior if necessary to explain excessive damage	• Minor damage to the adjacent tooth can be removed by polishing without changing the shape of the contact.	• No damage to the adjacent tooth.	N/A: Unable to Determine:
P.4 Finish: Anatomical Form	• There is gross lack of anatomical form • Grossly improper proximal contour or shape.	• Anatomical form is improper. Marginal ridge is poorly shaped. • Anatomy is too deep or too flat. • Proximal contour is poor. Embrasures are severely over or under contoured.	• Moderate variation in normal anatomical form is present. Marginal ridge is improperly shaped. • There is moderate variation of proximal contour and shape.	• Slight variation in normal anatomical form is present. • There is slight variation of proximal contour and shape.	• Anatomical form is consistent and harmonious with contiguous tooth structure. • Proper proximal contour and shape are restored.	N/A: Unable to Determine:
P.5 Finish: Margins	• Multiple open margins, or gross excesses or deficiencies, are present.	• A deep open margin is present, or critical excesses or deficiencies are present.	• Moderate marginal excesses and/or deficiencies are present.	• Slight marginal excesses and/or deficiencies are present.	• There are no excesses or deficiencies anywhere along margins.	N/A: Unable to Determine:
P.6 Finish: Damage	• Gross mutilation of hard or soft tissue is evident.	• Severe damage to hard or soft tissue is evident.	• Moderate damage to hard or soft tissue is evident.	• Minor damage to hard or soft tissue is evident.	• There is no damage to hard or soft tissue.	N/A: Unable to Determine:

Scoring Criteria: Anterior Composite Restorations[4]

	1 **Unacceptable**	2 **Inadequate**	3 **Acceptable – Minimum Standard of Care**	4 **Appropriate**	5 **Optimal**	**Comments**
A.1 Prep: Outline and Extension	• Cavosurface has multiple gross irregularities and/or enamel weaknesses that will cause the restoration to fail. • Cavosurface angles are grossly inappropriate for the situation and will lead to fracture of the restoration. ○	• Cavosurface angles will lead to enamel fracture or fracture of the restoration. ○	• Cavosurface angles possibly compromise the integrity of the tooth or restoration. Cavosurface is moderately rough but will not adversely affect the final restoration. • Cavosurface angles possibly compromise the integrity of the tooth or restoration. ○	• Cavosurface angles are not optimal but do not compromise the integrity of the tooth or restoration. ○	• Proximal cavosurface angles are equal to or slightly greater than 90°. The integrity of both tooth and restoration is maintained. • Cavosurface forms a smooth continuous curve with no sharp angles. • There are no acute cavosurface angles. ○	N/A: ○ Unable to Determine: ○
A.2 Prep: Shape and Extension	• Caries remains in the dentin or is not completely accessed. (All caries must be removed except in the area of imminent pulp exposure, evidence based partial caries removal protocol, and must be noted in chart) • Outline is grossly improper and/or lacks any definite form. • Gingival wall is grossly overextended. ○	• Affected dentin remains. (All caries must be removed except in the area of imminent pulp exposure, evidence based partial caries removal protocol, and must be noted in chart) • Outline is severely over or underextended. • Gingival wall is in contact or obviously overextended. • Incisal extension has broken contact. ○	• Outline is moderately over or under extended. Outline is moderately irregular but does not weaken the tooth. • Gingival margin is moderately overextended. • Any overextension that severely weakens tooth is properly documented ○	• Outline is slightly over or under extended. • Outline is slightly irregular but does not weaken the tooth. ○	• Outline provides optimal access for caries removal and insertion of restorative material. ○	N/A: ○ Unable to Determine: ○

[4] Adapted for review of radiograph and intraoral imagery from Western Regional Examining Board, Central Regional Testing Service, American Board of Dental Examiners, The Commission on Dental Competency Assessments

	1 **Unacceptable**	2 **Inadequate**	3 **Acceptable – Minimum Standard of Care**	4 **Appropriate**	5 **Optimal**	**Comments**
A.3 Operative Environment	• Damage to the adjacent tooth will definitely require restoration. ○	• Damage to the adjacent tooth will be difficult to polish out and still maintain appropriate proximal contour. The adjacent tooth will likely require restoration. ○	• Damage to the adjacent tooth can be removed by polishing, but the shape of the contact will be changed. ○	• Minor damage to the adjacent tooth can be removed by polishing without changing the shape of the contact. ○	• No damage to the adjacent tooth. ○	N/A: ○ Unable to Determine: ○
A.4 Finish: Anatomical Form	• There is gross lack of anatomical form • Grossly improper proximal contour or shape. ○	• Anatomical form is improper. Marginal ridge is poorly shaped. • Anatomy is too deep or too flat. • Proximal contour is poor. Embrasures are severely over or under contoured ○	• Moderate variation in normal anatomical form is present. Marginal ridge is improperly shaped. • There is moderate variation of proximal contour and shape. ○	• Slight variation in normal anatomical form is present. • There is slight variation of proximal contour and shape. ○	• Anatomical form is consistent and harmonious with contiguous tooth structure. • Proper proximal contour and shape are restored. ○	N/A: ○ Unable to Determine: ○
A.5 Finish: Margins	• Multiple open margins, or gross excesses or deficiencies, are present. ○	• A deep open margin is present, or critical excesses or deficiencies are present. ○	• Moderate marginal excesses and/or deficiencies are present. ○	• Slight marginal excesses and/or deficiencies are present. ○	• There are no excesses or deficiencies anywhere along margins. ○	N/A: ○ Unable to Determine: ○
A.6 Finish: Damage	• Gross mutilation of hard or soft tissue is evident ○	• Severe damage to hard or soft tissue is evident. ○	• Moderate damage to hard or soft tissue is evident. ○	• Minor damage to hard or soft tissue is evident ○	• There is no damage to hard or soft tissue. ○	N/A: ○ Unable to Determine: ○

Scoring Criteria: Stainless Steel Crowns

	1 Unacceptable	2 Inadequate	3 Acceptable	4 Appropriate	5 Optimal	Comments
SSC.1 Prep: Occlusal Reduction/ Incisal Reduction /Proximal reduction	• Sharp angles would preclude adequate crown adaptation. • Reduction is insufficient to allow full seating of the crown and results in the SSC being in moderate-severe hyperocclusion • Reduction is excessive and results in compromise of the tooth due to insufficient tooth structure remaining or pulpal exposure	• Sharp angles will affect crown prognosis. • Reduction is insufficient to allow full seating of the crown and results in the SSC being in mild-moderate hyperocclusion	• Deviates up to 1.0 mm from optimal. • Sharp angles may affect the restoration.	• Slightly deviates from optimal. • Occlusal reduction is sufficient. • Interproximal reduction sufficient.	• Occlusal Reduction/Incisal Reduction 1-1.5 mm compared to adjacent teeth. • Sharp cusp tips removed, line angles are rounded. • Bevel occlusal 1/3 of buccal and lingual.	N/A: Unable to Determine:
SSC.2 Prep: Caries Removal	• Caries remains in the enamel or dentin or is not completely accessed. • (All caries must be removed except in the area of imminent pulp exposure, evidence based partial caries removal protocol)	• Affected dentin remains. (All caries must be removed except in the area of imminent pulp exposure, evidence based partial caries removal protocol)			• Complete Caries Removal	N/A: Unable to Determine:
SSC.3 Prep: Operative Environment	• Damage to the adjacent tooth will definitely require restoration. • Gross mutilation of hard or soft tissue is evident.	• Damage to the adjacent tooth will be difficult to polish out and still maintain appropriate proximal contour. The adjacent tooth will likely require restoration. • Severe damage to hard or soft tissue is evident.	• Damage to the adjacent tooth can be removed by polishing, but the shape of the contact will be changed. • Moderate damage to hard or soft tissue is evident.	• Minor damage to the adjacent tooth can be removed by polishing without changing the shape of the contact. • Minor damage to hard or soft tissue is evident.	• No damage to the adjacent tooth. • There is no damage to hard or soft tissue.	N/A: Unable to Determine:

	1 Unacceptable	2 Inadequate	3 Acceptable	4 Appropriate	5 Optimal	Comments
SSC.4 Adaptation, Cementation, Occlusion	• Fit of crown not appropriate (too large, small, short, or long) • Crown is positioned incorrectly. • Excessive cement remains. • Crown in obvious hyperocclusion. ○		• Fit of crown is good (good contacts, length, and occlusion) • Correct position • Slight evidence of cement remaining radiographically • Occlusion appears good ○		• Fit and contours of crown good. • Correct position • All remaining cement removed • Occlusion appears good ○	N/A: ○ Unable to Determine: ○
SSC.5 Finish: Function	• Occlusion is grossly in hyper occlusion. ○		• Occlusion is slightly in hyper-occlusion. ○	• Occlusion is restored to proper centric but there a some lateral interferenc ○	• Occlusion is restored to proper centric with no la al interferences. ○	N/A: ○ Unable to Determine: ○

Final Comments:

Reviewer Name

Time Spent on Review (minutes)

Chart ID