

Case Number:	CM15-0092634		
Date Assigned:	05/20/2015	Date of Injury:	04/02/2003
Decision Date:	10/07/2015	UR Denial Date:	04/24/2015
Priority:	Standard	Application Received:	05/13/2015

HOW THE IMR FINAL DETERMINATION WAS MADE

MAXIMUS Federal Services sent the complete case file to an expert reviewer. He/she has no affiliation with the employer, employee, providers or the claims administrator. He/she has been in active clinical practice for more than five years and is currently working at least 24 hours a week in active practice. The expert reviewer was selected based on his/her clinical experience, education, background, and expertise in the same or similar specialties that evaluate and/or treat the medical condition and disputed items/Service. He/she is familiar with governing laws and regulations, including the strength of evidence hierarchy that applies to Independent Medical Review determinations.

The Expert Reviewer has the following credentials:
 State(s) of Licensure: California
 Certification(s)/Specialty: Dentist

CLINICAL CASE SUMMARY

The expert reviewer developed the following clinical case summary based on a review of the case file, including all medical records:

The injured worker is a 52 year old male, who sustained an industrial injury on 04/02/2003 secondary to a slip/fall. On provider visit dated 03/23/2015 the injured worker has reported medication use caused loss of teeth. On examination of the injured worker was noted to have multiple cracked and missing teeth. The diagnoses have included decay due to xerostomia from medication use, chronic pain syndrome and complex regional pain syndrome. Treatment to date has included numerous clinicians, and various treatment modalities including spinal cord stimulator, and medication that was known to produce dry mouth, which is a factor in tooth decay and periodontal disease. The provider requested sinus augmentation with bone graft, biologic materials, membranes, bone grafts, surgical placement of implants, sedation, porcelain crowns, deep cleaning with gingival irrigation, custom implant abutments, abutment supported crowns, occlusal guard and temporary upper and lower denture.

IMR ISSUES, DECISIONS AND RATIONALES

The Final Determination was based on decisions for the disputed items/services set forth below:

Sinus augmentation with bone graft #4: Upheld

Claims Administrator guideline: The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG), Head Procedure Summary.

MAXIMUS guideline: Decision based on MTUS ACOEM Chapter 2 General Approach to Initial Assessment and Documentation Page(s): 3. Decision based on Non-MTUS Citation J Prosthodont Res. 2015 Jul;59(3):178-84. doi: 10.1016/j.jpor.2015.04.003. Epub 2015 Jun 13. A longitudinal retrospective study of the analysis of the risk factors of implant failure by the application of generalized estimating equations. Noda K1, Arakawa H1, Kimura-Ono A1, Yamazaki S1, Hara ES1, Sonoyama W1, Maekawa K1, Okura K2, Shintani A3, Matsuka Y2, Kuboki T4. Braz Dent J. 2013;24(2):136-41. History of chronic periodontitis is a high risk indicator for peri-implant disease. Casado PL1, Pereira MC, Duarte ME, Granjeiro JM. Clin Oral Implants Res. 2013 Dec 31. doi: 10.1111/clr.12319. Periodontitis, implant loss and peri-implantitis. A meta-analysis. Sgolastra F1, Petrucci A, Severino M, Gatto R, Monaco A. Clin Oral Implants Res. 2003 Jun;14(3):329-39. Long-term implant prognosis in patients with and without a history of chronic periodontitis: a 10-year prospective cohort study of the ITI Dental Implant System. Karoussis IK1, Salvi GE, Heitz-Mayfield LJ, Bragger U, Hammerle CH, Lang NP. Evid Based Dent. 2014 Jun;15(2):59-60. Periodontitis and dental implant loss. Lee DW.

Decision rationale: CA MTUS/ACOEM Guidelines - General Approach to Initial Assessment and Documentation, A focused medical history, work history, and physical examination generally are sufficient to assess the patient who complains of an apparently job-related disorder. The initial medical history and examination will include evaluation for serious underlying conditions, including sources of referred symptoms in other parts of the body. The initial assessment should characterize the frequency, intensity, and duration in this and other equivalent circumstances. In this assessment, certain patient responses and findings raise the suspicion of serious underlying medical conditions. These are referred to as red flags. Their absence rules out the need for special studies, immediate consultation, referral, or inpatient care during the first 4 weeks of care (not necessarily the first 4 weeks of the worker's condition), when spontaneous recovery is expected, as long as associated workplace factors are mitigated. In some cases, a more complete medical history and physical examination may be indicated if the mechanism or nature of the complaint is unclear. Records reviewed indicate that patient was noted to have multiple cracked and missing teeth. The diagnoses have included decay due to xerostomia from medication use, chronic pain syndrome and complex regional pain syndrome. Treatment to date has included numerous medications that is known to produce dry mouth which is a factor in tooth decay and periodontal disease. Also, patient is a smoker which is a risk factor in implantology. The provider is recommending a referral to a periodontist for consultation and to treatment plan for replacement of missing teeth with dental implants. However, in the records provided there is insufficient documentation on why implants would be a better option for this patient, over other conservative options, especially since this patient is a smoker, which is a risk factor in implantology. A clear rationale for this extensive invasive treatment plan is lacking in the records. Per reference mentioned above, "The GEE analysis revealed that a significant risk factor for early implant failure was smoking" (Noda K 2015). Also per other reference mentioned above, "a focused medical history, work history and physical examination generally are sufficient to assess the patient who complains of an apparently job related disorder" in order to evaluate a patient's needs. This reviewer does not believe this has been sufficiently

documented in this case. Therefore, this reviewer recommends non-certification of surgical placements of multiple implants and all other related procedures including sinus augmentation, biologic materials, membrane, bone graft, sedation, custom implant abutments and temporary upper and lower denture at this time.

Biologic materials #4: Upheld

Claims Administrator guideline: The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG), Head Procedure Summary.

MAXIMUS guideline: Decision based on MTUS ACOEM Chapter 2 General Approach to Initial Assessment and Documentation Page(s): 3. Decision based on Non-MTUS Citation J Prosthodont Res. 2015 Jul;59(3):178-84. doi: 10.1016/j.jpor.2015.04.003. Epub 2015 Jun 13. A longitudinal retrospective study of the analysis of the risk factors of implant failure by the application of generalized estimating equations. Noda K1, Arakawa H1, Kimura-Ono A1, Yamazaki S1, Hara ES1, Sonoyama W1, Maekawa K1, Okura K2, Shintani A3, Matsuka Y2, Kuboki T4. Braz Dent J. 2013;24(2):136-41. History of chronic periodontitis is a high risk indicator for peri-implant disease. Casado PL1, Pereira MC, Duarte ME, Granjeiro JM. Clin Oral Implants Res. 2013 Dec 31. doi: 10.1111/clr.12319. Periodontitis, implant loss and peri-implantitis. A meta-analysis. Sgolastra F1, Petrucci A, Severino M, Gatto R, Monaco A. Clin Oral Implants Res. 2003 Jun;14(3):329-39. Long-term implant prognosis in patients with and without a history of chronic periodontitis: a 10-year prospective cohort study of the ITI Dental Implant System. Karoussis IK1, Salvi GE, Heitz-Mayfield LJ, Brägger U, Hämmerle CH, Lang NP. Evid Based Dent. 2014 Jun;15(2):59-60. Periodontitis and dental implant loss. Lee DW.

Decision rationale: CA MTUS/ACOEM Guidelines - General Approach to Initial Assessment and Documentation. A focused medical history, work history, and physical examination generally are sufficient to assess the patient who complains of an apparently job-related disorder. The initial medical history and examination will include evaluation for serious underlying conditions, including sources of referred symptoms in other parts of the body. The initial assessment should characterize the frequency, intensity, and duration in this and other equivalent circumstances. In this assessment, certain patient responses and findings raise the suspicion of serious underlying medical conditions. These are referred to as red flags. Their absence rules out the need for special studies, immediate consultation, referral, or inpatient care during the first 4 weeks of care (not necessarily the first 4 weeks of the worker's condition), when spontaneous recovery is expected, as long as associated workplace factors are mitigated. In some cases, a more complete medical history and physical examination may be indicated if the mechanism or nature of the complaint is unclear. Records reviewed indicate that patient was noted to have multiple cracked and missing teeth. The diagnoses have included decay due to xerostomia from medication use, chronic pain syndrome and complex regional pain syndrome. Treatment to date has included numerous medications that are known to produce dry mouth, which is a factor in tooth decay and periodontal disease. Also, patient is a smoker which is a risk factor in implantology. The provider is recommending a referral to a periodontist for consultation and to treatment plan for replacement of missing teeth with dental implants. However, in the records provided there is insufficient documentation on why implants would be a better option for this

patient, over other conservative options, especially since this patient is a smoker which is a risk factor in implantology. A clear rationale for this extensive invasive treatment plan is lacking in the records. Per reference mentioned above, "The GEE analysis revealed that a significant risk factor for early implant failure was smoking" (Noda K 2015). Also per other reference mentioned above, "a focused medical history, work history and physical examination generally are sufficient to assess the patient who complains of an apparently job related disorder" in order to evaluate a patient's needs. This reviewer does not believe this has been sufficiently documented in this case. Therefore, this reviewer recommends non-certification of surgical placements of multiple implants and all other related procedures including sinus augmentation, biologic materials, membrane, bone graft, sedation, custom implant abutments and temporary upper and lower denture at this time.

Membrane #4, 10, 13, 19, 20, 21, 29, and 30: Upheld

Claims Administrator guideline: The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG), Head Procedure Summary.

MAXIMUS guideline: Decision based on MTUS ACOEM Chapter 2 General Approach to Initial Assessment and Documentation Page(s): 3, Chronic Pain Treatment Guidelines. Decision based on Non-MTUS Citation J Prosthodont Res. 2015 Jul;59(3):178-84. doi: 10.1016/j.jpor.2015.04.003. Epub 2015 Jun 13. A longitudinal retrospective study of the analysis of the risk factors of implant failure by the application of generalized estimating equations. Noda K1, Arakawa H1, Kimura-Ono A1, Yamazaki S1, Hara ES1, Sonoyama W1, Maekawa K1, Okura K2, Shintani A3, Matsuka Y2, Kuboki T4. *Braz Dent J.* 2013;24(2):136-41. History of chronic periodontitis is a high risk indicator for peri-implant disease. Casado PL1, Pereira MC, Duarte ME, Granjeiro JM. *Clin Oral Implants Res.* 2013 Dec 31. doi: 10.1111/clr.12319. Periodontitis, implant loss and peri-implantitis. A meta-analysis. Sgolastra F1, Petrucci A, Severino M, Gatto R, Monaco A. *Clin Oral Implants Res.* 2003 Jun;14(3):329-39. Long-term implant prognosis in patients with and without a history of chronic periodontitis: a 10-year prospective cohort study of the ITI Dental Implant System. Karoussis IK1, Salvi GE, Heitz-Mayfield LJ, Bragger U, Hammerle CH, Lang NP. *Evid Based Dent.* 2014 Jun;15(2):59-60. Periodontitis and dental implant loss. Lee DW.

Decision rationale: A focused medical history, work history, and physical examination generally are sufficient to assess the patient who complains of an apparently job-related disorder. The initial medical history and examination will include evaluation for serious underlying conditions, including sources of referred symptoms in other parts of the body. The initial assessment should characterize the frequency, intensity, and duration in this and other equivalent circumstances. In this assessment, certain patient responses and findings raise the suspicion of serious underlying medical conditions. These are referred to as red flags. Their absence rules out the need for special studies, immediate consultation, referral, or inpatient care during the first 4 weeks of care (not necessarily the first 4 weeks of the worker's condition), when spontaneous recovery is expected, as long as associated workplace factors are mitigated. In some cases, a more complete medical history and physical examination may be indicated if the mechanism or nature of the complaint is unclear. Records reviewed indicate that patient was noted to have multiple cracked and missing teeth. The diagnoses have included decay due to xerostomia from medication use, chronic pain syndrome and complex regional pain syndrome. Treatment to date has included numerous medications that are known to produce dry mouth, which is a factor in tooth decay and periodontal disease. Also, patient is a smoker which is a risk factor in implantology. The provider is recommending a referral to a periodontist for

consultation and to treatment plan for replacement of missing teeth with dental implants. However, in the records provided there is insufficient documentation on why implants would be a better option for this patient, over other conservative options, especially since this patient is a smoker, which is a risk factor in implantology. A clear rationale for this extensive invasive treatment plan is lacking in the records. Per reference mentioned above, "The GEE analysis revealed that a significant risk factor for early implant failure was smoking" (Noda K 2015). Also per other reference mentioned above, "a focused medical history, work history and physical examination generally are sufficient to assess the patient who complains of an apparently job related disorder" in order to evaluate a patient's needs. This reviewer does not believe this has been sufficiently documented in this case. Therefore, this reviewer recommends non-certification of surgical placements of multiple implants and all other related procedures including sinus augmentation, biologic materials, membrane, bone graft, sedation, custom implant abutments and temporary upper and lower denture at this time.

Bone graft #10, 13, 19, 20, 21, 29, and 30: Upheld

Claims Administrator guideline: The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG), Head Procedure Summary.

MAXIMUS guideline: Decision based on MTUS ACOEM Chapter 2 General Approach to Initial Assessment and Documentation Page(s): 3. Decision based on Non-MTUS Citation J Prosthodont Res. 2015 Jul;59(3):178-84. doi: 10.1016/j.jpor.2015.04.003. Epub 2015 Jun 13. A longitudinal retrospective study of the analysis of the risk factors of implant failure by the application of generalized estimating equations. Noda K1, Arakawa H1, Kimura-Ono A1, Yamazaki S1, Hara ES1, Sonoyama W1, Maekawa K1, Okura K2, Shintani A3, Matsuka Y2, Kuboki T4. Braz Dent J. 2013;24(2):136-41. History of chronic periodontitis is a high risk indicator for peri-implant disease. Casado PL1, Pereira MC, Duarte ME, Granjeiro JM. Clin Oral Implants Res. 2013 Dec 31. doi: 10.1111/clr.12319. Periodontitis, implant loss and peri-implantitis. A meta-analysis. Sgolastra F1, Petrucci A, Severino M, Gatto R, Monaco A. Clin Oral Implants Res. 2003 Jun;14(3):329-39. Long-term implant prognosis in patients with and without a history of chronic periodontitis: a 10-year prospective cohort study of the ITI Dental Implant System. Karoussis IK1, Salvi GE, Heitz-Mayfield LJ, Bragger U, Hammerle CH, Lang NP. Evid Based Dent. 2014 Jun;15(2):59-60. Periodontitis and dental implant loss. Lee DW.

Decision rationale: CA MTUS/ACOEM Guidelines - General Approach to Initial Assessment and Documentation - A focused medical history, work history, and physical examination generally are sufficient to assess the patient who complains of an apparently job-related disorder. The initial medical history and examination will include evaluation for serious underlying conditions, including sources of referred symptoms in other parts of the body. The initial assessment should characterize the frequency, intensity, and duration in this and other equivalent circumstances. In this assessment, certain patient responses and findings raise the suspicion of serious underlying medical conditions. These are referred to as red flags. Their absence rules out the need for special studies, immediate consultation, referral, or inpatient care during the first 4 weeks of care (not necessarily the first 4 weeks of the worker's condition), when spontaneous recovery is expected, as long as associated workplace factors are mitigated. In some cases, a more complete medical history and physical examination may be indicated if the mechanism or nature of the complaint is unclear. Records reviewed indicate that patient was noted to have multiple cracked and missing teeth. The diagnoses have included decay due to xerostomia from medication use, chronic pain syndrome and complex regional pain syndrome.

Treatment to date has included numerous medications that are known to produce dry mouth, which is a factor in tooth decay and periodontal disease. Also, patient is a smoker which is a risk factor in implantology. The provider is recommending a referral to a periodontist for consultation and to treatment plan for replacement of missing teeth with dental implants. However, in the records provided there is insufficient documentation on why implants would be a better option for this patient, over other conservative options, especially since this patient is a smoker, which is a risk factor in implantology. A clear rationale for this extensive invasive treatment plan is lacking in the records. Per reference mentioned above, "The GEE analysis revealed that a significant risk factor for early implant failure was smoking" (Noda K 2015). Also per other reference mentioned above, "a focused medical history, work history and physical examination generally are sufficient to assess the patient who complains of an apparently job related disorder" in order to evaluate a patient's needs. This reviewer does not believe this has been sufficiently documented in this case. Therefore, this reviewer recommends non-certification of surgical placements of multiple implants and all other related procedures including sinus augmentation, biologic materials, membrane, bone graft, sedation, custom implant abutments and temporary upper and lower denture at this time.

Surgical placement of implants #4, 10, 13, 13, 19, 20, 29, and 30: Upheld

Claims Administrator guideline: The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG), Head Procedure Summary.

MAXIMUS guideline: Decision based on MTUS ACOEM Chapter 2 General Approach to Initial Assessment and Documentation Page(s): 3. Decision based on Non-MTUS Citation J Prosthodont Res. 2015 Jul;59(3):178-84. doi: 10.1016/j.jpor.2015.04.003. Epub 2015 Jun 13. A longitudinal retrospective study of the analysis of the risk factors of implant failure by the application of generalized estimating equations. Noda K1, Arakawa H1, Kimura-Ono A1, Yamazaki S1, Hara ES1, Sonoyama W1, Maekawa K1, Okura K2, Shintani A3, Matsuka Y2, Kuboki T4. Braz Dent J. 2013;24(2):136-41. History of chronic periodontitis is a high risk indicator for peri-implant disease. Casado PL1, Pereira MC, Duarte ME, Granjeiro JM. Clin Oral Implants Res. 2013 Dec 31. doi: 10.1111/clr.12319. Periodontitis, implant loss and peri-implantitis. A meta-analysis. Sgolastra F1, Petrucci A, Severino M, Gatto R, Monaco A. Clin Oral Implants Res. 2003 Jun;14(3):329-39. Long-term implant prognosis in patients with and without a history of chronic periodontitis: a 10-year prospective cohort study of the ITI Dental Implant System. Karoussis IK1, Salvi GE, Heitz-Mayfield LJ, Bragger U, Hammerle CH, Lang NP. Evid Based Dent. 2014 Jun;15(2):59-60. Periodontitis and dental implant loss. Lee DW.

Decision rationale: CA MTUS/ACOEM Guidelines - General Approach to Initial Assessment and Documentation - A focused medical history, work history, and physical examination generally are sufficient to assess the patient who complains of an apparently job-related disorder. The initial medical history and examination will include evaluation for serious underlying conditions, including sources of referred symptoms in other parts of the body. The initial assessment should characterize the frequency, intensity, and duration in this and other equivalent circumstances. In this assessment, certain patient responses and findings raise the suspicion of serious underlying medical conditions. These are referred to as red flags. Their absence rules out the need for special studies, immediate consultation, referral, or inpatient care during the first 4 weeks of care (not necessarily the first 4 weeks of the worker's condition), when spontaneous recovery is expected, as long as associated workplace factors are mitigated. In some cases, a more complete medical history and physical examination may be indicated if the mechanism or nature of the complaint is unclear. Records reviewed indicate that patient was

noted to have multiple cracked and missing teeth. The diagnoses have included decay due to xerostomia from medication use, chronic pain syndrome and complex regional pain syndrome. Treatment to date has included numerous medications that is known to produce dry mouth which is a factor in tooth decay and periodontal disease. Also, patient is a smoker which is a risk factor in implantology. The provider is recommending a referral to a periodontist for consultation and to treatment plan for replacement of missing teeth with dental implants. However, in the records provided there is insufficient documentation on why implants would be a better option for this patient, over other conservative options, especially since this patient is a smoker, which is a risk factor in implantology. A clear rationale for this extensive invasive treatment plan is lacking in the records. Per reference mentioned above, "The GEE analysis revealed that a significant risk factor for early implant failure was smoking" (Noda K 2015). Also per other reference mentioned above, "a focused medical history, work history and physical examination generally are sufficient to assess the patient who complains of an apparently job related disorder" in order to evaluate a patient's needs. This reviewer does not believe this has been sufficiently documented in this case. Therefore, this reviewer recommends non-certification of surgical placements of multiple implants and all other related procedures including sinus augmentation, biologic materials, membrane, bone graft, sedation, custom implant abutments and temporary upper and lower denture at this time.

Sedation: Upheld

Claims Administrator guideline: The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG), Head Procedure Summary.

MAXIMUS guideline: Decision based on MTUS ACOEM Chapter 2 General Approach to Initial Assessment and Documentation Page(s): 3, Chronic Pain Treatment Guidelines. Decision based on Non-MTUS Citation J Prosthodont Res. 2015 Jul;59(3):178-84. doi: 10.1016/j.jpor.2015.04.003. Epub 2015 Jun 13. A longitudinal retrospective study of the analysis of the risk factors of implant failure by the application of generalized estimating equations. Noda K1, Arakawa H1, Kimura-Ono A1, Yamazaki S1, Hara ES1, Sonoyama W1, Maekawa K1, Okura K2, Shintani A3, Matsuka Y2, Kuboki T4. *Braz Dent J.* 2013;24(2):136-41. History of chronic periodontitis is a high risk indicator for peri-implant disease. Casado PL1, Pereira MC, Duarte ME, Granjeiro JM. *Clin Oral Implants Res.* 2013 Dec 31. doi: 10.1111/clr.12319. Periodontitis, implant loss and peri-implantitis. A meta-analysis. Sgolastra F1, Petrucci A, Severino M, Gatto R, Monaco A. *Clin Oral Implants Res.* 2003 Jun;14(3):329-39. Long-term implant prognosis in patients with and without a history of chronic periodontitis: a 10-year prospective cohort study of the ITI Dental Implant System. Karoussis IK1, Salvi GE, Heitz-Mayfield LJ, Brägger U, Hämmerle CH, Lang NP. *Evid Based Dent.* 2014 Jun;15(2):59-60. Periodontitis and dental implant loss. Lee DW.

Decision rationale: CA MTUS/ACOEM Guidelines - General Approach to Initial Assessment and Documentation - A focused medical history, work history, and physical examination generally are sufficient to assess the patient who complains of an apparently job-related disorder. The initial medical history and examination will include evaluation for serious underlying conditions, including sources of referred symptoms in other parts of the body. The initial assessment should characterize the frequency, intensity, and duration in this and other equivalent circumstances. In this assessment, certain patient responses and findings raise the suspicion of serious underlying medical conditions. These are referred to as red flags. Their absence rules out the need for special studies, immediate consultation, referral, or inpatient care during the first 4 weeks of care (not necessarily the first 4 weeks of the worker's condition),

when spontaneous recovery is expected, as long as associated workplace factors are mitigated. In some cases, a more complete medical history and physical examination may be indicated if the mechanism or nature of the complaint is unclear. Records reviewed indicate that patient was noted to have multiple cracked and missing teeth. The diagnoses have included decay due to xerostomia from medication use, chronic pain syndrome and complex regional pain syndrome. Treatment to date has included numerous medications that are known to produce dry mouth, which is a factor in tooth decay and periodontal disease. Also, patient is a smoker which is a risk factor in implantology. The provider is recommending a referral to a periodontist for consultation and to treatment plan for replacement of missing teeth with dental implants. However, in the records provided there is insufficient documentation on why implants would be a better option for this patient, over other conservative options, especially since this patient is a smoker, which is a risk factor in implantology. A clear rationale for this extensive invasive treatment plan is lacking in the records. Per reference mentioned above, "The GEE analysis revealed that a significant risk factor for early implant failure was smoking" (Noda K 2015). Also per other reference mentioned above, "a focused medical history, work history and physical examination generally are sufficient to assess the patient who complains of an apparently job related disorder" in order to evaluate a patient's needs. This reviewer does not believe this has been sufficiently documented in this case. Therefore, this reviewer recommends non-certification of surgical placements of multiple implants and all other related procedures including sinus augmentation, biologic materials, membrane, bone graft, sedation, custom implant abutments and temporary upper and lower denture at this time.

Porcelain crowns #3, 5, 11, 12, 14, 22, and 28: Overturned

Claims Administrator guideline: The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG), Head Procedure Summary.

MAXIMUS guideline: The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG) Head.

Decision rationale: Per Guidelines, Dental trauma treatment (facial fractures) Recommended. Trauma to the oral region occurs frequently and comprise 5 percent of all injuries for which people seek treatment. Among all facial injuries, dental injuries are the most common, of which crown fractures and luxations occur most frequently. An appropriate treatment plan after an injury is important for a good prognosis. The International Association of Dental Traumatology (IADT) has developed guidelines for the evaluation and management of traumatic dental injuries. Dental implants, dentures, crowns, bridges, onlays, inlays, braces, pulling impacted teeth, or repositioning impacted teeth, would be options to promptly repair injury to sound natural teeth required as a result of, and directly related to, an accidental injury. Records reviewed indicate that this patient presents with severely worn and loss of teeth which greatly restricts the patient's ability to chew. Dentist is recommending Porcelain crowns #3, 5, 11, 12, 14, 22, and 28. Per reference mentioned above, "crowns, bridges, onlays, inlays, braces, pulling impacted teeth, or repositioning impacted teeth, would be options to promptly repair injury to sound natural teeth required as a result of, and directly related to, an accidental injury". Therefore this reviewer finds this request for Porcelain crowns #3, 5, 11, 12, 14, 22, and 28 medically necessary to properly repair this patient's teeth and restore her chewing ability.

Deep cleaning with gingival irrigation: Overturned

Claims Administrator guideline: The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation Comprehensive periodontal therapy: A statement by the American Academy of Periodontology.

MAXIMUS guideline: The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Comprehensive periodontal therapy: a statement by the American Academy of Periodontology. J Periodontol 2011 Jul;82(7):943-9.

Decision rationale: Records reviewed indicate that patient was noted to have multiple cracked and missing teeth. The diagnoses have included decay due to xerostomia from medication use, chronic pain syndrome and complex regional pain syndrome. Treatment to date has included numerous medications that is known to produce dry mouth which is a factor in tooth decay and periodontal disease. As stated in the reference above, treatment procedures indicated for patients with any periodontal disease should include "removal of supra- and subgingival bacterial plaque/biofilm and calculus by comprehensive, meticulous periodontal scaling and root planing." Therefore based on the findings mentioned above, this reviewer finds this request for Deep cleaning with gingival irrigation medically necessary to prevent further teeth decay in this patient.

Custom implant abutments #4, 10, 13, 19, 20, 21, 29, and 30: Upheld

Claims Administrator guideline: The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG), Head Procedure Summary.

MAXIMUS guideline: Decision based on MTUS ACOEM Chapter 2 General Approach to Initial Assessment and Documentation Page(s): 3. Decision based on Non-MTUS Citation J Prosthodont Res. 2015 Jul;59(3):178-84. doi: 10.1016/j.jpor.2015.04.003. Epub 2015 Jun 13. A longitudinal retrospective study of the analysis of the risk factors of implant failure by the application of generalized estimating equations. Noda K1, Arakawa H1, Kimura-Ono A1, Yamazaki S1, Hara ES1, Sonoyama W1, Maekawa K1, Okura K2, Shintani A3, Matsuka Y2, Kuboki T4. Braz Dent J. 2013;24(2):136-41. History of chronic periodontitis is a high risk indicator for peri-implant disease. Casado PL1, Pereira MC, Duarte ME, Granjeiro JM. Clin Oral Implants Res. 2013 Dec 31. doi: 10.1111/clr.12319. Periodontitis, implant loss and peri-implantitis. A meta-analysis. Sgolastra F1, Petrucci A, Severino M, Gatto R, Monaco A. Clin Oral Implants Res. 2003 Jun;14(3):329-39. Long-term implant prognosis in patients with and without a history of chronic periodontitis: a 10-year prospective cohort study of the ITI Dental Implant System. Karoussis IK1, Salvi GE, Heitz-Mayfield LJ, Brägger U, Hämmerle CH, Lang NP. Evid Based Dent. 2014 Jun;15(2):59-60. Periodontitis and dental implant loss. Lee DW.

Decision rationale: CA MTUS/ACOEM Guidelines - General Approach to Initial Assessment and Documentation - A focused medical history, work history, and physical examination generally are sufficient to assess the patient who complains of an apparently job-related disorder. The initial medical history and examination will include evaluation for serious underlying conditions, including sources of referred symptoms in other parts of the body. The initial assessment should characterize the frequency, intensity, and duration in this and other equivalent circumstances. In this assessment, certain patient responses and findings raise the suspicion of serious underlying medical conditions. These are referred to as red flags. Their absence rules out the need for special studies, immediate consultation, referral, or inpatient care during the first 4 weeks of care (not necessarily the first 4 weeks of the worker's condition), when spontaneous recovery is expected, as long as associated workplace factors are mitigated.

In some cases, a more complete medical history and physical examination may be indicated if the mechanism or nature of the complaint is unclear. Records reviewed indicate that patient was noted to have multiple cracked and missing teeth. The diagnoses have included decay due to xerostomia from medication use, chronic pain syndrome and complex regional pain syndrome. Treatment to date has included numerous medications that are known to produce dry mouth, which is a factor in tooth decay and periodontal disease. Also, patient is a smoker which is a risk factor in implantology. The provider is recommending a referral to a periodontist for consultation and to treatment plan for replacement of missing teeth with dental implants. However, in the records provided there is insufficient documentation on why implants would be a better option for this patient, over other conservative options, especially since this patient is a smoker, which is a risk factor in implantology. A clear rationale for this extensive invasive treatment plan is lacking in the records. Per reference mentioned above, "The GEE analysis revealed that a significant risk factor for early implant failure was smoking" (Noda K 2015). Also per other reference mentioned above, "a focused medical history, work history and physical examination generally are sufficient to assess the patient who complains of an apparently job related disorder" in order to evaluate a patient's needs. This reviewer does not believe this has been sufficiently documented in this case. Therefore, this reviewer recommends non-certification of surgical placements of multiple implants and all other related procedures including sinus augmentation, biologic materials, membrane, bone graft, sedation, custom implant abutments and temporary upper and lower denture at this time.

Abutment supported crowns #4, 10, 13, 19, 20, 21, 21, 29, and 30: Upheld

Claims Administrator guideline: The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG), Head Procedure Summary.

MAXIMUS guideline: Decision based on MTUS ACOEM Chapter 2 General Approach to Initial Assessment and Documentation Page(s): 3. Decision based on Non-MTUS Citation J Prosthodont Res. 2015 Jul;59(3):178-84. doi: 10.1016/j.jpor.2015.04.003. Epub 2015 Jun 13. A longitudinal retrospective study of the analysis of the risk factors of implant failure by the application of generalized estimating equations. Noda K1, Arakawa H1, Kimura-Ono A1, Yamazaki S1, Hara ES1, Sonoyama W1, Maekawa K1, Okura K2, Shintani A3, Matsuka Y2, Kuboki T4. Braz Dent J. 2013;24(2):136-41. History of chronic periodontitis is a high risk indicator for peri-implant disease. Casado PL1, Pereira MC, Duarte ME, Granjeiro JM. Clin Oral Implants Res. 2013 Dec 31. doi: 10.1111/clr.12319. Periodontitis, implant loss and peri-implantitis. A meta-analysis. Sgolastra F1, Petrucci A, Severino M, Gatto R, Monaco A. Clin Oral Implants Res. 2003 Jun;14(3):329-39. Long-term implant prognosis in patients with and without a history of chronic periodontitis: a 10-year prospective cohort study of the ITI Dental Implant System. Karoussis IK1, Salvi GE, Heitz-Mayfield LJ, Bragger U, Hammerle CH, Lang NP. Evid Based Dent. 2014 Jun;15(2):59-60. Periodontitis and dental implant loss. Lee DW.

Decision rationale: CA MTUS/ACOEM Guidelines - General Approach to Initial Assessment and Documentation - A focused medical history, work history, and physical examination generally are sufficient to assess the patient who complains of an apparently job-related disorder. The initial medical history and examination will include evaluation for serious underlying conditions, including sources of referred symptoms in other parts of the body. The initial assessment should characterize the frequency, intensity, and duration in this and other equivalent circumstances. In this assessment, certain patient responses and findings raise the suspicion of serious underlying medical conditions. These are referred to as red flags. Their absence rules out the need for special studies, immediate consultation, referral, or inpatient care

during the first 4 weeks of care (not necessarily the first 4 weeks of the worker's condition), when spontaneous recovery is expected, as long as associated workplace factors are mitigated. In some cases, a more complete medical history and physical examination may be indicated if the mechanism or nature of the complaint is unclear. Records reviewed indicate that patient was noted to have multiple cracked and missing teeth. The diagnoses have included decay due to xerostomia from medication use, chronic pain syndrome and complex regional pain syndrome. Treatment to date has included numerous medications that is known to produce dry mouth which is a factor in tooth decay and periodontal disease. Also, patient is a smoker which is a risk factor in implantology. The provider is recommending a referral to a periodontist for consultation and to treatment plan for replacement of missing teeth with dental implants. However, in the records provided there is insufficient documentation on why implants would be a better option for this patient, over other conservative options, especially since this patient is a smoker which is a risk factor in implantology. A clear rationale for this extensive invasive treatment plan is lacking in the records. Per reference mentioned above, "The GEE analysis revealed that a significant risk factor for early implant failure was smoking" (Noda K 2015). Also per other reference mentioned above, "a focused medical history, work history and physical examination generally are sufficient to assess the patient who complains of an apparently job related disorder" in order to evaluate a patient's needs. This reviewer does not believe this has been sufficiently documented in this case. Therefore, this reviewer recommends non-certification of surgical placements of multiple implants and all other related procedures including sinus augmentation, biologic materials, membrane, bone graft, sedation, custom implant abutments and temporary upper and lower denture at this time.

Occlusal guard: Overturned

Claims Administrator guideline: The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation The Regence Group Dental Policy.

MAXIMUS guideline: The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Bruxism Management , Author: Jeff Burgess, DDS, MSD; Chief Editor: Arlen D Meyers, MD, MBA. Appliance Therapy.

Decision rationale: Records reviewed indicate that this patient presents with severely worn and loss of teeth which greatly restricts the patient's ability to chew. Dentist is recommending Occlusal guard. Per medical reference mentioned above, "Occlusal splints are generally appreciated to prevent tooth wear and injury and perhaps reduce night time clenching or grinding behavior rather than altering a causative malocclusion. In addition, they are unlikely to significantly reducing nocturnal behavior. The type of appliance that has been studied and suggested as helpful in managing the consequences of nocturnal bruxism is the flat-planed stabilization splint, also called an occlusal bite guard, bruxism appliance, bite plate, and night guard." Therefore, this reviewer finds this request for occlusal guard to be medically necessary to prevent further tooth wear in this patient.

Temporary upper and lower denture: Upheld

Claims Administrator guideline: The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG), Head Procedure Summary.

MAXIMUS guideline: The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation J Prosthodont Res. 2015 Jul;59(3):178-84. doi:

10.1016/j.jpor.2015.04.003. Epub 2015 Jun 13. A longitudinal retrospective study of the analysis of the risk factors of implant failure by the application of generalized estimating equations. Noda K1, Arakawa H1, Kimura-Ono A1, Yamazaki S1, Hara ES1, Sonoyama W1, Maekawa K1, Okura K2, Shintani A3, Matsuka Y2, Kuboki T4. *Braz Dent J.* 2013;24(2):136-41. History of chronic periodontitis is a high risk indicator for peri-implant disease. Casado PL1, Pereira MC, Duarte ME, Granjeiro JM. *Clin Oral Implants Res.* 2013 Dec 31. doi: 10.1111/clr.12319. Periodontitis, implant loss and peri-implantitis. A meta-analysis. Sgolastra F1, Petrucci A, Severino M, Gatto R, Monaco A. *Clin Oral Implants Res.* 2003 Jun;14(3):329-39. Long-term implant prognosis in patients with and without a history of chronic periodontitis: a 10-year prospective cohort study of the ITI Dental Implant System. Karoussis IK1, Salvi GE, Heitz-Mayfield LJ, Bragger U, Hammerle CH, Lang NP. *Evid Based Dent.* 2014 Jun;15(2):59-60. Periodontitis and dental implant loss. Lee DW.

Decision rationale: Records reviewed indicate that patient was noted to have multiple cracked and missing teeth. The diagnoses have included decay due to xerostomia from medication use, chronic pain syndrome and complex regional pain syndrome. Treatment to date has included numerous medications that is known to produce dry mouth which is a factor in tooth decay and periodontal disease. Also, patient is a smoker which is a risk factor in implantology. The provider is recommending a referral to a periodontist for consultation and to treatment plan for replacement of missing teeth with dental implants. However, in the records provided there is insufficient documentation on why implants would be a better option for this patient, over other conservative options, especially since this patient is a smoker, which is a risk factor in implantology. A clear rationale for this extensive invasive treatment plan is lacking in the records. Per reference mentioned above, "The GEE analysis revealed that a significant risk factor for early implant failure was smoking" (Noda K 2015). Also per other reference mentioned above, "a focused medical history, work history and physical examination generally are sufficient to assess the patient who complains of an apparently job related disorder" in order to evaluate a patient's needs. This reviewer does not believe this has been sufficiently documented in this case. Therefore, this reviewer recommends non-certification of surgical placements of multiple implants and all other related procedures including sinus augmentation, biologic materials, membrane, bone graft, sedation, custom implant abutments and temporary upper and lower denture at this time.