



Statement by the American Association of Oral and Maxillofacial Surgeons Concerning the Management of Selected Clinical Conditions and Associated Clinical Procedures

Temporomandibular Disorders

Section 1: Parameters of Care as the Basis for Clinical Practice

Introduction

This statement is intended to summarize the procedures used in the management of patients presenting for care by oral and maxillofacial surgeons. The definitive guide to the management of such patients is *Parameters of Care: AAOMS Clinical Practice Guidelines for Oral and Maxillofacial Surgery (AAOMS ParCare) Sixth Edition 2017*. Any references used in the development of this statement can be found in *AAOMS ParCare 2017*. This statement is not intended as a substitute for *AAOMS ParCare 2017*, but rather as a synopsis of the information contained in *AAOMS ParCare 2017*.

Section 2: Temporomandibular Disorders

I. Background

Temporomandibular Disease (TMD) is a collective term that describes clinical problems involving the function of the masticatory muscles and the jaw joint.

TMD has been used to refer to a group of conditions that often are called “TMJ syndrome” by physicians and dentists to describe the pain associated with the head, neck and jaw. This has resulted in confusion regarding diagnostic and treatment options.

There are two distinct categories: masticatory muscle disorders and temporomandibular joint disorders.

Masticatory muscle problems may result from abnormal parafunctional habits such as bruxism and clenching of teeth in response to stress, referred pain patterns of the cervical spine and systemic muscle disorders (e.g., dyskinesia, fibromyalgia, myositis). If the abnormal habits exceed the functional capacity of the jaw joint, temporomandibular joint pathology may occur.

Temporomandibular joint disorders (e.g., internal derangement, degenerative joint disease, rheumatoid arthritis, mandibular dislocation, ankyloses, hyper- or hypoplasia, condylar osteolysis, fractures) may also occur from varied etiologies.

Typically, the initial presentation can be confusing as both a masticatory element and a joint disorder can coexist.

The health consequences of TMD can be severe. Dependence on pain medications, decreased productivity and disability may occur. Masticatory muscle problems can be treated with a combination of rest, medication, change in habits, an orthotic appliance and physical therapy.

Lack of early and proper diagnosis and treatment in either category may result in unnecessary expenditure of resources.

II. Diagnostic Assessment for Temporomandibular Disease

The diagnostic assessment for any condition should be guided by the Patient Assessment section of the AAOMS Parameters.

Masticatory Muscle Disorders

A. Pertinent historical and physical findings:

1. Unilateral or bilateral, dull, aching pre-auricular pain is usually the first symptom. This pain may also involve the temporal, cervical and occipital regions. The masticatory muscles may exhibit tightness, hypertrophy and fatigue. These symptoms may be worse in the morning if patients have been clenching or grinding (bruxism) their teeth while asleep. The patient may complain of ear fullness and jaw-joint clicking. Physical examination reveals tenderness over the affected muscles as well as limited jaw function. Bruxism will show wear facets on the dentition.



2. Patients complain of intermittent decrease in motion of the mandible, and their pain is poorly localized.
3. Patients with TM joint pain complain of continuous pain with function, and their pain is more localized to the joint.

B. Appropriate diagnostic tests and examinations:

1. Imaging studies (e.g., standard TMJ X-rays, CT, MRI).
2. Differential diagnostic blocks with local anesthetic.
3. Therapeutic trial of medication (e.g., NSAID or muscles relaxants).

C. Inappropriate diagnostic evaluations include muscle-evoked potentials and sonography. Narcotic analgesics are usually not utilized.

Temporomandibular Joint Disorders

Temporomandibular joint disorders can be the result of internal derangement, degenerative joint disease, rheumatoid arthritis, infectious arthritis, mandibular dislocation, neoplasia, ankylosis, condylar hyper- or hypoplasia, condylar osteolysis and fractures.

A. Patient historical and physical findings:

1. Unilateral or bilateral pain with or without popping or crepitus.
2. The pain is usually continuous, increases with function and is generally localized to the joint.
3. Mandibular hypo- or hypermobility.

B. Appropriate diagnostic tests and examinations:

1. Imaging (e.g., plain or tomographic TMJ radiographs, computerized tomography (CT), magnetic resonance imaging (MRI), three dimensional imaging).
2. Appropriate laboratory testing (e.g., rheumatoid panel).

III. Indicated Therapy for Temporomandibular Disorders

Masticatory Muscle Disorders

Treatment for masticatory muscle disorders is ordinarily provided in an outpatient treatment facility.

A. Appropriate forms of therapy:

1. Medications

- a. NSAIDS
- b. Muscle relaxants
- c. Sedatives
- d. Antidepressants
- e. Local analgesic trigger point injections

2. Orthotic appliance

3. Physical therapy

- a. Exercises
- b. Ultrasound
- c. Galvanic stimulation
- d. Heat and cold packs
- e. TENS
- f. Iontophoresis

4. Dietary modifications

5. Psychological counseling

B. Favorable therapeutic outcomes:

1. Level of pain that is of little or no concern to the patient
2. Improved jaw function
3. Improved ability to masticate food
4. Functional and stable occlusion of the teeth
5. Limited period of disability

Temporomandibular Joint Disorders

The appropriate choice of care should be specific to each patient based on the type and degree of the patient's disorder, the nonsurgical and surgical options, the experience of the surgeon and the needs of the patient.

A. Non-surgical management:

1. Medication (e.g., NSAIDs)
2. Orthotic appliance
3. Physical therapy

B. Surgical treatment:

1. Manipulation under anesthesia (e.g., brisement)
2. Arthrocentesis
3. Non-arthroscopic lysis and lavage and manipulation
4. Arthroscopic surgery
 - a. Diagnostic
 - b. Operative
5. Open arthroplasty with or without autograft
6. Open arthroplasty with alloplast
7. Disc repair or removal, with or without replacement
8. Coronoidectomy
9. Condylectomy
10. Mandibular Condylotomy
11. Myotomy
12. Orthognathic Surgery
13. Partial or total joint reconstruction (e.g., autogenous graft, allogeneic graft and alloplastic implant)

C. Favorable therapeutic outcomes:

- a. Level of pain that is of little or no concern to the patient
- b. Improved jaw function
- c. Improved ability to masticate food
- d. Functional and stable occlusion
- e. In a growing child, continued symmetrical growth of the mandible in proper relationship to the midface
- f. Limited period of disability
- g. Acceptable clinical appearance
- h. Absence of recurrent jaw locking or dislocation
- i. Limited progression of the disease.