

# NATIONAL ACADEMY OF MANIPULATION UNDER ANESTHESIA PHYSICIANS

## **PURPOSE STATEMENT**

The purpose of the National Academy of Manipulation Under Anesthesia Physicians is to enhance interdisciplinary relations and standardize the procedure of manipulation under anesthesia.

Our common goal is to support quality assurance for all programs, physicians and facilities which adhere to the highest standards for ethical MUA practice.

Our general objectives are to recommend, promote, and review protocols and programs for the use of manipulation under anesthesia on a national level. The Academy does not recognize those programs, procedures, facilities or physicians which do not adhere to accepted standards of care as established by the Academy and/or recognized through Joint Accrediting Commissions or other state and federally regulated licensing organizations for physicians, hospitals and/or ambulatory surgical care facilities.

Members of the Academy must have completed a certification program from a CCE accredited institution, or be an allied health care provider/facility who is actively involved in rendering opinion or service to the MUA program or procedure.

Members are credentialed into the Academy by a committee which examines state licensure, malpractice coverage and certification of appropriate training in MUA.

## **PROTOCOLS AND STANDARDS**

### **CLINICAL JUSTIFICATION**

#### *Clinical Justification for Manipulation Under Anesthesia*

The patient has responded favorably to conservative, non invasive chiropractic and medical treatments, but continues to experience intractable pain and/or biomechanical dysfunction.

Sufficient care has been rendered prior to recommending MUA (standard is 2-6 weeks).

Manipulative procedures have been utilized in the clinical setting during the 2-6 week period prior to recommending MUA.

The patient's level of reproduced pain interferes with lifestyle. (Sleep, daily functional activities, work habits, etc.)

When medical pain management parameters for immediate acute care protocols are met, and if it is recommended by the medical pain management specialist, the MUA procedure can be used in conjunction with medical pain management for treatment of acute pain.

Diagnosed conditions must fall within the recognized categories of conditions responsive to MUA. The following disorders are classified as acceptable conditions for utilization of manipulation under anesthesia:

Patients whereby manipulation of the spine or other articulations is the treatment of choice, however, the patient's pain threshold inhibits the effectiveness of conservative manipulation.

Patients whereby manipulation of the spine or other articulations is the treatment of choice, however, due to the involuntary contraction of the supporting tissues (splinting mechanism), patient treatment is delayed or may be prolonged.

Patients whereby manipulation of the spine or other articulations is the treatment of choice, however, due to the extent of the injury mechanism, conservative manipulation has been minimally effective in 2-6 weeks of care and a greater degree of movement of the affected joint(s) is needed.

Patients whereby manipulation of the spine or other articulations is the treatment of choice by the physician, however, due to the chronicity of the problem and/or the fibrous tissue adhesions present, conservative manipulation is incomplete.

When the patient is considered for spinal disc surgery, MUA is an alternative and/or an interim treatment and may be used as a therapeutic and/or diagnostic tool in the overall consideration of the patient's condition.

## **DIAGNOSIS**

### *Establishing Medical Necessity*

Every condition treated must be properly diagnosed and justified by clinical documentation in order to establish medical necessity. Documentation of the patient's progress and the patient's response to treatment are combined to reveal the treating diagnosis. Those diagnoses which are most responsive to MUA include, but are not limited to the following:

- Sclerotogenous pain from the medial branch of dorsal rami
- Cervical, thoracic and lumbar myofascial pain syndromes
- Intervertebral disc syndromes without fragment, sequestration, or significant osseous encroachment with or without radiculopathy
- Cervical brachial pain syndrome associated with torticollis
- Chronic recurrent headaches
- Failed back surgeries which do not involve hypermobile motion units and have been responsive to clinical therapeutic trials of manipulation
- Adhesive capsulitis relative to articular motion of the appendicular skeleton
- Paravertebral muscle contraction related to functional biomechanical dysfunction syndromes (vertebral subluxation syndrome)

## **FREQUENCY AND FOLLOW-UP**

### *Guidelines for Determining the Necessity and Frequency of MUA*

The National Academy of MUA Physicians recommends the following considerations when determining the necessity and frequency of manipulation under anesthesia:

- The patient's response and progress to previous conservative care
- Consideration of functional life style
- The patient's psychological acceptance of the MUA procedure, and the psychosomatic response to overcoming chronic pain and discomfort.
- Prevention of additional gross deterioration
- Prevention of possible surgical intervention
- Correction of failed surgical intervention
- Chronicity
- Length of current treatment and patient progress

Patient age

Number of previous injuries to the same area

Level of intractable pain considering standard 2-6 week protocol parameter

Patient tolerance of previous treatment and procedures

Muscle contraction level (beyond splinting)

Response to previous MUA's based on objective clinical documentation and protocols for determining patient progress.

Fibrous adhesion from failed back surgery or prior injury

#### Protocols for Determining the Frequency of the MUA Procedure

Single spinal MUA is most often recommended when the patient is of a younger age, and when the injury to the area is of the first order (first injury to area)

Single spinal MUA is most often recommended when conservative care has been rendered for a sufficient time (2-6 weeks) and the patient's lifestyle and daily activities are interrupted in such a fashion as to warrant immediate relief.

If the patient is treated for intractable pain with a single MUA procedure and responds well, the necessity for future MUA's is greatly reduced.

Serial MUA (more than one) is recommended when conservative care as described in the Academy standards and protocols, has been rendered and when the condition is chronically present.

Serial MUA is recommended when the injury is recurrent in nature and fibrotic tissue and articulator fixation prevents a single MUA from being effective.

#### Protocols for Performing Serial MUA

If the patient regains 80% or more of normal biomechanical function during the first procedure and retains at least 80% of functional improvement during post MUA evaluation, then serial MUA is usually unnecessary if post MUA therapy and rehabilitation is performed.

If the patient regains 50-70% or less of normal biomechanical function during the first procedure and retains only 50-70% of improvement during post MUA evaluations, a second MUA is recommended.

If the patient continues to improve with the second MUA, however does not achieve at least an 80% improvement in function, then a third MUA is recommended and has been found to be of significant benefit.

If the patient has not achieved an 80% increase in function then a fourth or fifth MUA is recommended. This number of MUA's is rare especially when the procedure is completed in consecutive series. Some procedures have been repeated at a later date, and the patients have improved more rapidly than when the MUA was originally performed.

If the patient shows a 10-15% improvement during the first MUA and continues to show a 10-15% functional improvement during post MUA evaluations, it is recommended that additional evaluation be completed to establish the appropriateness of additional MUA's.

Since most patients gain between 50% to 75% improvement during the first day of a serial MUA treatment plan, a small improvement in function may indicate more extensive involvement. This is important since MUA has been found to be both therapeutic and diagnostic by surgeons in establishing objective evidence for surgical intervention

### Parameters for Determining MUA Progress

#### Subjective Changes

Patient's pain index, visual analogue scale, faces of pain

Patient's ability to engage in active range of motion

Patient's change in daily routine activities

Patient's change in job performance

Patient's change in sleep patterns

Patient's dietary change

#### Objective Changes

Change in measurable muscle mass

Change in muscle contractibility

Change in EMG and/or nerve conduction studies

Change in muscle strength

Change in controlled measurable passive ROM

Change in radiological studies (X-rays, CT, MRI)

### Post MUA Therapy

#### Therapy Following First MUA

Lay patient side posture on table

Heat area for 5 minutes

Repeat MUA stretching

Interferential on acute settings with ice for 15 minutes

Patient rest at home (not in bed)

#### Therapy Following Second MUA

Same as 1st day

No manipulation

May add PNF exercises during stretching if tolerated

#### Therapy Following Last MUA

Same protocol as above with PNF

Perform same manipulation as during MUA procedure

#### Week Following Last MUA

May put the patient in prone position if tolerated

Same as above with PNF and manipulation

Patient may heat at home if indicated (usually after day 7)

Treat patient daily

#### Next Two Weeks

Perform full protocol (stretching, PNF, manipulation)

Treat patient 2 times per week for 2 weeks

Begin home rehabilitation exercises 2-3 times per week

#### Next Four Weeks

Perform full protocol (stretching, PNF, manipulation)

Patient treated once per week for four weeks

Active progressive resistive strength/stabilization exercises, supervised/unsupervised 2-3 times per week (Advanced Rehabilitation before discharge)

## **SAFETY**

The Academy documents the need for certified MUA physicians as first assistants. The Academy recognizes two important factors regarding MUA and the certified first assistant.

#### Patient Safety

Manipulation under anesthesia is performed using the anesthesia technique determined by the anesthesiologist to be appropriate for the patient. MUA is performed with the patient in a semiconscious state. In this capacity, the patient depends on the primary doctor and first assistant to protect them from bodily injury. The primary doctor and the first assist move the patient in specific ranges of motion to accomplish the procedure. Since the patient is responsive only to painful stimuli and does not have the ability to respond to proprioceptive input, both the primary physician and the first assistant are key to a safe and successful procedure. The first assistant is responsible for patient stability, patient movement, patient observation, and completing portions of the procedure should the primary physician need assistance or be unable to perform the procedure. Since there are several instances during the procedure when the primary doctor has to move the patient, stabilizing and working with the patient would be unsafe without assistance from another trained physician.

#### Doctor Safety

Manipulation under anesthesia is a very physically demanding therapeutic procedure. Since

the patient is in a semiconscious state, the doctor has the added responsibility of insuring that the patient's extremities and torso do not fall from the treating surface. The doctor must also be able to move the patient without the assistance of patient response.

The first assist is responsible for helping the primary doctor move the patient through the prescribed ranges of motion. The first assistant is present to insure that all movements are accomplished without injury to the patient or to the primary doctor performing the procedure. As a result of the added weight of the patient in a semiconscious state, there is a high risk of injury to the doctor and the patient if only one doctor were to attempt the complex moves necessary for the MUA procedure. A certified first assistant physician is the only safe way to perform this procedure. In the cervical spine, the first assistant must secure the patient's shoulders to obtain the necessary traction for this part of the procedure. In the thoracic procedure, the first assistant turns the patient and applies proper traction for the adjustments. It is impossible to perform an MUA in the lumbosacral area without a certified MUA first assistant. The certified first assist coordinates movements with the primary doctor, assists with the actual procedure, and can complete the MUA procedure if necessary. A certified MUA physician carries the appropriate malpractice insurance to perform MUA. Since non-certified assistants may not carry malpractice coverage for MUA, utilization of ancillary staff to assist with the MUA procedure places the entire MUA team at risk.

## **FACILITIES**

All MUA procedures should be performed in the highest quality facility available and within the parameters of state regulations. The Academy recommends performing MUA in hospitals, ambulatory surgery centers or other specialty centers that meet the American Society of Anesthesiology standards, and adhere to Academy standards of care.

## **COMPENSATION**

Fees must be reasonable and in relation to standards and relative values within each state. The CPT code for MUA is 22505 and may be billed globally within the facility or billed separately by the individual providers. It is recommended that medical necessity and authorization be obtained prior to scheduling the patient.

## **ANESTHESIA STANDARDS**

### *Guidelines for Outpatient Based Manipulation Under Anesthesia*

Anesthesia is provided under the direct supervision of a board certified anesthesiologist or the medical physician based on applicable state laws.

The anesthesia provider must adhere to guidelines and recommendations as adopted by the Harvard Standards and the American Society of Anesthesiology.

#### Pre-MUA

Patients are appropriately evaluated by their medical physician, anesthesiologist and chiropractic physician prior to the procedure.

All appropriate clearance forms, laboratory results, imaging reports and other supportive data are available for review in the patients chart.

#### Intra-MUA

The anesthesiologist selects the anesthesia techniques based on the patient's medical condition and in mutual agreement with the MUA team.

The chiropractic physician does not order or administer any medications.

Blood pressure, oxygen saturation and EKG are recorded by the anesthesiologist throughout the procedure.

Supplemental oxygen is available if needed.

Resuscitative equipment and medications must be readily available at all times.

An emergency facility must be within 20 minutes of the treatment location.

#### Post MUA

The anesthesia provider will remain with the patient until the patient is stable.

Once the patient is stable, the anesthesia provider may depart as long as there is a trained ACLS provider present in the facility.

## **NURSING STANDARDS**

### *Patient Care Responsibilities*

#### Pre-MUA

Witness signature of procedure consent

Verify and document NPO compliance

Verify responsible adult driver or escort is available for patient

Verify and document present medications and allergies

Direct and assist the patient with appropriate attire for procedure

Escort the patient and medical chart to procedure room

### Intra-MUA

Direct and assist patient in transferring to the procedure table

Maintain patient safety, privacy and dignity

Complete appropriate medical record forms

Be available to assist anesthesia provider as needed

Be available to assist MUA providers as needed

Assist in transferring the patient to a recovery bed

Raise the bed's side rails for patient safety

### Post-MUA

Transport patient to recovery room with anesthesia provider

Receive report from anesthesia provider including medications given, vital signs, IV history and any other pertinent information

Secure appropriate monitoring equipment

Record vital signs on admission to recovery area and every 15 minutes until stable and then every 30 minutes until discharge

When the patient is conscious and alert, oral fluids may be offered

When the patient is tolerating fluids, a light snack may be offered

When the patient is tolerating food and fluids well and vital signs have remained stable for 15 minutes, the IV/Heparin lock may be discontinued

The patient may then be discharged to their responsible adult escort/driver with written instructions for activity and follow-up care

## **EDUCATIONAL STANDARDS**

### *Guidelines for MUA INSTRUCTIONAL Programs*

In order to maintain the highest standards of care, the following criteria are necessary for educational programs endorsed by the Academy. Institutions which teach MUA may offer additional information or specialized topics within the instructor's expertise, but courses which teach less than these standards are not considered adequate for academic endorsement.

The course must be recognized by CME or CCE standards and address the history of MUA with considerations for the newest developments as compared to past standards of care.

Specifics on the indications and contraindications for performing MUA

Justification of MUA within the scope of the chiropractic practice with emphasis on the interdisciplinary team concept.

Specifics on appropriate billing, proper documentation, diagnosis, practice ethics and quality assurance practices.

Hospital protocol should be reviewed to familiarize the physicians with the hospital and ambulatory surgical setting.

Written examination to help the doctor assimilate the course work.

Actual procedures are to be completed before full certification is granted. This can be accomplished in two ways. Procedures may be performed during the course work or at a later date under the supervision of a certified proctor. Since both methods allow for the doctor to be completely comfortable before he/she completes the MUA procedure, either method is acceptable. The Academy does not endorse courses which force the doctors to perform the MUA procedure before the doctor is

comfortable. Certification, however, must not be granted until actual procedures are performed under appropriate supervision.

Anatomy, physiology, and neurophysiology content:

General spinal and extremity articular anatomy relative to myology, neurology and orthopedic relationships

General considerations in articular neurology, pain perception and pain response

The neurophysiology of passive and active stretch A perspective on the general use of anesthesia including medications used, patient response, metabolism, side effects, and patient education The inflammatory cycle and fibrotic connective tissue accumulation relative to movement

Guidelines for Establishing Clinical/ Justification (History and Physical Examination)

History and Physical Examination

Grand rounds are required before procedures are completed to allow the doctors the opportunity to present at least two cases for review by the instructor. The following are required to be present in the history and physical documentation:

A brief description of onset (descriptive Hx) including present complaint(s) as well as similar past complaint(s) which lead to the present problem(s)

A list of all care prior to the MUA and the patient's response to that care

A brief description of the present care rendered including type, duration, response, referrals, consultations, second opinions and results of any diagnostic tests

A list of previous treatments and the patient's discharge status

A list of all subjective complaints and objective findings

Copies of reports from previous exams, X-rays, MRI's, CT's, etc.

Impressions and evaluations by allied health care providers and the attending physician

A complete past and present medical history Vitals signs and a review of relative or suspect systems

Examination findings should establish the case as appropriate for MUA

Rule out radicular symptomatology from other pathologies

Physicians rationale for requesting MUA. For example:

*The patient has chronic recurring headaches which manifest in the occipital area with radiation to the forehead. Review of systems is unremarkable for systemic pathology. Imaging studies indicate hypomobile motion units at C4-C5 and C5-C6, and the patient continues to suffer from chronic paravertebral muscle contraction from C1-T8. A working diagnosis of torticollis has been established and the patient has undergone 3 months of conservative care to include physical therapy, specific chiropractic adjustments with minimum articular motion, and drug therapy to include both analgesics and muscle relaxants. To date, the patient has responded only slightly to all forms of therapy. This patient falls within the standard acceptable forms of conditions that have responded favorably to MUA as documented in other cases and referenced case studies throughout the country. I am recommending MUA as an alternative to chronic prolonged conservative care possible future surgical intention.*