



---

# **Standardized Procedure Guidelines for the Trauma Nurse Practitioner**

University of California San Diego Medical Center  
Department of Surgery  
UCSD Medical Center, Hillcrest  
UCSD Medical Center, Thornton  
UCSD Medical Groups Satellite Clinics





## Table of Contents

<b>Statement of Approval</b> .....	4
<b>Record of Authorized Trauma Nurse Practitioner</b> .....	5
<b>General Policies</b>	
I. Purpose .....	5
II. Development and Approval, Revision, and Review .....	5
III. Setting/Location .....	5
IV. Role of the Nurse Practitioner .....	5
V. NP Education, Training, and Certification.....	6
VI. Role of the Supervising Physician .....	6
VII. TNP Written Records .....	6
VIII. Written Orders .....	6
IX. Patient Records .....	7
X. Hospital Privileges .....	7
XI. Evaluation.....	7
XII. Supervision .....	7
XIII. Physician Consultation/Evaluation.....	7
<b>Health Care Management Protocols</b>	
I. Health Care Management - Inpatient/Outpatient .....	8
II. Health Care Management -Tertiary/Emergency Care.....	9
III. Procedures .....	9
IV. Ordering Lab Tests/Diagnostic Studies/Consults .....	10
V. Medication Management .....	10
VI. Furnishing Medications.....	10
VII. Prescribing Controlled Substances for Acute and Chronic Pain Management.....	11



**Resources**

I. Medical Management ..... 14

II. Pharmacology ..... 14

III. Laboratory Medicine..... 14

**Appendix**

I. References for the Development of the Standardized Procedures ..... 15

II. Standardized Procedures for the Trauma Nurse Practitioner ..... 16

III. Nurse Practitioner Competency Sign-Off Sheet..... 19

IV. Approved List of Controlled Substances Schedule II and III .....23

V. UCSD Medical Center Policy (MCP) 641.1C: Furnishing of Drugs and Devices by Nurse Practitioners and Certified Nurse Midwives..... 29





Statement of Approval (Standard UCSD Form)



## Record of Authorized Trauma Nurse Practitioner

The undersigned Nurse Practitioner is approved and authorized to practice under these Standardized Protocols. Their signature implies they have reviewed this document and intend to abide by the Standardized Procedures.

Signature

Date

---

---

## General Policies

### **I. Purpose**

A. The purpose of the Standardized Procedures is to define the scope of practice for Nurse Practitioner(s) (NP) for the Trauma Division at UCSD Medical Center (UCSDMC). This is for the purpose of meeting the legal requirements for the provision of health care by nurse practitioners. They are established to assist all health care providers with an understanding of the role and scope of practice of the nurse practitioner and to provide safeguards so that the providers and patients may be assured of the best, most efficient health care possible. Nothing in these protocols should be intended to override existing Medical Center Policies and Procedures.

B. These Standardized Procedures are based on the guidelines established by the California Board of Registered Nursing in the Nursing Practice Act - Standardized Procedure Guidelines.

C. There are two distinct sections to this document. General policies include general requirements, responsibilities, and roles for the NP, along with the related role of the physician. Health Care Management Protocols delineate the NP functions and define the specific conditions and requirements for their implementation.

### **II. Development and Approval, Revision, and Review**

A. In accordance with California law, these Practice Guidelines were collaboratively developed and approved by a group composed of nurse practitioners, physicians, administrators, and legal representatives of the University of California San Diego Medical Center.

B. These will be reviewed annually and revised as warranted by changes in common clinical practice and/or changes in regulatory agency requirements. Completion of the review is the responsibility of the Chief of the Division of Trauma and the Trauma Nurse Practitioner.

### **III. Setting/Location**

The Nurse Practitioner(s) authorized to perform these Standardized Procedures may practice at UCSD Medical Center, Hillcrest, UCSD Medical Center, Thornton, UCSD Medical Center Satellite Clinics, and affiliated clinics. The Trauma Nurse Practitioner may also participate in patient care by telephone.

### **IV. Role of the Nurse Practitioner**

A. The Trauma Nurse Practitioner (TNP) is a specially trained member of the health care team equipped with skills in physical assessment, medical diagnosis, and psychosocial assessment which are used to deliver



primary health care, preventative health care, assess general medical and surgical disorders, and to recognize deviations from normal that require physician consultation or referral.

B. The TNP functions interdependently with staff and attending physicians as well as with other disciplines in providing individualized health care and to promote optimum health education for patients assigned to his/her care.

C. The TNP will be responsible as a member of the training model as well as a health care practitioner. He/she will operate as a role model for nursing students, nurse practitioner students, social work students, medical students, resident physicians, and other allied health professionals to demonstrate the part that nurse practitioners play in the expanded health care team.

D. As a Registered Nurse licensed by the State of California and employed by UCSD Medical Center, the TNP is authorized to carry out all policy and procedures listed in the UCSD Nursing Policy and Procedure Manual and unit specific nursing manuals.

#### **V. NP Education, Training, and Certification**

- A. The Trauma Nurse Practitioner will possess the following:
  - 1. Current California license as a Registered Nurse
  - 2. Current California certification as a Nurse Practitioner
  - 3. Proof of completion of an approved degree/certification program as a Nurse Practitioner
  - 4. Basic Life Support (BLS) certification
  - 5. Advanced Cardiac Life Support Provider (ACLS) certification
  - 6. Pediatric Advanced Life Support Provider (PALS) certification
  - 7. Possession of, or the ability to apply for, a Furnishing Number from the State of California, Board of Registered Nursing
- B. In addition, the NP may be certified by the American Academy of Nurse Practitioners or the American Nursing Credentialing Center.

#### **VI. Role of the Supervising Physician**

- A. Supervising physicians for the TNP are attending physicians or second year resident staff or above.
- B. These physicians maintain a collaborative and collegial relationship with the TNP. These physicians and the TNP will participate in making clinical decisions. When appropriate, each team member will inform the others of changes in the patient's clinical status and of the plan of care.
- C. Supervising physicians will abide by all physician roles described in these Standard Guidelines, including:
  - 1. Being available for consultation/patient evaluation
  - 2. Review and countersigning of patient charts
  - 3. Participation in TNP evaluation, including chart audits

#### **VII. TNP Written Records**

A written record of these Standardized Procedures, the list of nurse practitioners authorized to perform them, and a copy of each practitioner's license and applicable certifications will be kept in the Office of the Division Manager for Trauma and the Medical Staff Administration office.

#### **VIII. Written Orders**



A. All orders written by the TNP in accordance with these guidelines will receive the same attention by nursing personnel and ancillary departments as those of staff physicians.

B. The TNP may accept, record, and act upon a verbal or telephone order from a physician, according to the standard manner prescribed by current hospital and Medical Center Policies.

#### **IX. Patient Records**

A. All patient record keeping (including, but not limited to, progress notes, history and physical forms, treatment orders, discharge orders, verbal and telephone orders, diagnostic test orders and medication furnishing orders) will be recorded and signed by the TNP in accordance with the UCSD Medical Center Policy "Patient Treatment and Medication Orders" (MCP 321.3M).

B. The TNP will record all medical record notes in the problem oriented medical record guidelines for the department.

C. In accordance with Medicare regulations, a supervising physician will demonstrate ongoing involvement in the care of patients managed by the TNP by periodically reviewing and signing the patient chart.

D. The TNP shall be able to use the UCSD dictation system to record patient history and physicals, consultation notes, procedure notes, and discharge summaries.

#### **X. Hospital Privileges**

The TNP may write patient admission orders, in-house orders, and discharge orders. The history and physical will be co-signed by an attending physician within 48 hours per UC policy.

#### **XI. Evaluation**

A. For the first four weeks after hire, 5 patient charts per week written by the TNP will be reviewed by a supervising physician and co-signed.

B. Thereafter, randomly selected charts written by the TNP will be reviewed by a supervising physician.

C. The TNP will be evaluated according to Job Description criteria by the Chief of the Division of Trauma and attending physicians with whom the TNP directly practices initially at six months and 12 months from hire, and annually thereafter.

D. The TNP is subject to the professional peer review and quality assurance policies as set forth by UCSD.

#### **XII. Supervision**

The TNP is authorized to implement these Standardized Procedures without the direct or immediate observation of a physician, except as otherwise indicated in this document. Physician consultation is available at all times on-site and/or by phone.

#### **XIII. Physician Consultation/Evaluation**

A. Patients evaluated by the TNP for/on admission to the hospital will be presented to an attending physician the day of evaluation for discussion of the assessment, diagnosis, and management plan. The physician will countersign the patient chart within 48 hours.



B. The TNP will discuss all inpatient cases with the supervising physician daily. The TNP will secure from the supervising physician daily approval for the course of care.

C. Supervising physician consultation, either through the attending physician or senior resident staff shall be readily available to the TNP at all times during the performance of his/her practice, either in person or by phone.

D. Supervising physician consultation will be obtained in the following situations:

1. Emergencies
2. Bleeding
3. Evidence of infections
4. Abnormal radiographic or diagnostic test results
5. Adverse drug reactions
6. Whenever a situation goes beyond the intent of these guidelines or the scope of practice/experience of the nurse practitioner
7. Whenever the patient fails to respond to the management plan in an appropriate amount of time
8. At the patient, physician, or nurse practitioner's request

E. Physician consultations and recommendations will be recorded in the patient record.

## Health Care Management Protocols

### **I. Health Care Management - Inpatient/Outpatient**

Standardized procedures include but are not limited to the following:

A. Data Base:

1. Subjective Data
  - a. Patient report of history and symptoms
  - b. Patient medical records
  - c. Consultation from other health care providers
2. Objective Data
  - a. Physical exam, appropriate for disease process
  - b. Review physiologic parameters, laboratory results, diagnostic test results, other pertinent test data
3. Assessment
  - a. Diagnosis consistent with subjective/objective data
  - b. Assessment of disease status
4. Plan





- a. Diagnostic
  1. Laboratory tests and other diagnostic studies as outlined in this protocol
  2. Initiation of referrals as appropriate
- b. Treatment
  1. Administration of medications/devices as outlined in this protocol
  2. Dietary/Activity prescription as indicated by disease process and client condition
  3. Consultation/Follow-up appointments with supervising physician and/or other health care providers as appropriate
  4. Allied health care referrals as appropriate

#### B. Patient/Family Education

1. Provide information on diagnosis, disease course, expected outcomes, and prevention
2. Provide information on medications, treatment measures, and devices
3. Provide information on activities, disease prevention, lifestyle counseling, and support groups as appropriate
4. Provide and educate on referrals/follow-up care as necessary
5. Inform and update patient/family regarding the patient's condition, progress, and ongoing management
6. Obtain informed consent for treatments/procedures the TNP is authorized to perform

### **II. Health Care Management - Tertiary /Emergency Care**

- A. Initial evaluation/treatment/stabilization of the patient in accordance with UC policy
- B. Immediate activation of the Emergency Medical System
- C. Concurrent notification of the supervising physician

### **III. Procedures**

- A. The TNP may perform the following types of procedures:
  1. Chest tube removal
  2. Clearing cervical spine
  3. Flexion/extension supervision of cervical spine radiographs
  4. Wound V.A.C. dressing changes



5. Removal of wound drains
6. Suturing
7. Downsizing tracheostomy tubes and placing fenestrated trachs
8. Decannulating tracheostomies
9. Arterial catheter insertion
10. Performing needle thoracostomy
11. Peripherally inserted central catheter insertion
12. PICC removal

B. Conditions that must be met for the TNP to perform the above procedures are:

1. The TNP has been observed satisfactorily performing the procedure by a supervising physician or nurse practitioner provider.
2. The TNP is following standard medical technique for the procedure as described in the Resources.

#### **IV. Ordering Lab Tests/Diagnostic Studies/Consults**

The TNP is authorized to collect and/or order laboratory tests and diagnostic studies under the following Practice Guidelines:

- A. Routine laboratory tests and/or diagnostic tests may be ordered as needed as outlined in this document.
- B. Under the supervision of a medical staff member, the TNP may write orders for:
  1. Procedures, diagnostic studies, and other methods of treatment
  2. Consults for other services
  3. Oxygen and other medical gases
  4. Medical devices intrinsic to the medical practice of the supervising physician, within the program protocols, or as recommended by a specialty consult

#### **V. Medication Management**

The TNP may initiate, alter, discontinue, and renew medications and devices in accordance with these Standard Practice Guidelines, program protocols, and recommendation of the supervising physician.

#### **VI. Furnishing Medications**

- A. The TNP may furnish medications and devices intrinsic to the medical practice of the supervising physicians, delineated in the Trauma Protocols, Guidelines, and Algorithms, or recommended by a specialty consult, and contained in the Protocols, Medical Center Drug Formulary, or the AHFS Drug



Information Book. This is in accordance with the California Business and Professional Code Section 2836.1.

B. Furnishing medications and devices shall be pursuant to a transmittal order containing the following information:

1. Agency name, address, and telephone number
2. Patient's name
3. Date of issue
4. Name of Nurse Practitioner
5. NP Furnishing Number
6. Name of Supervising Physician
7. Trade or generic name of the drug
8. Quantity and strength of the drug and number of refills
9. Directions for use

C. Investigational Drugs/Devices: Under the supervision of a member of the medical staff and after a written consent is obtained, the TNP may initiate the investigational drug/device protocol, adjust the dose, frequency or other appropriate parameters when such judgment is explicit in the protocol, and after consultation/ approval of the supervising physician.

## **VII. Prescribing Controlled Substances Schedule II and III for Acute and Chronic Pain Management**

A. Definition:

This protocol covers the management of controlled substances schedule II and III medications (CS II and III) for patients with acute or chronic pain in/at UCSD Medical Center Hillcrest, UCSD Medical Center Thornton, and associated clinics as a result of traumatic injury, general surgical procedures and associated illnesses. Acute pain is the result of a self-limited illness or injury that will resolve within days to months, usually less than three months. Chronic pain is expected to last indefinitely. Acute and chronic pain is based on the individual patient's perception and self-report.

B. Subjective Data:

1. Patient History: Onset, location and description of pain, pain score, aggravating factors, intervening factors, response to treatment (previous or recent), risk for gastrointestinal bleed, anticoagulation therapy
2. Any or all of the following symptoms may be present: sharp, aching, continuous or intermittent pain, moaning, crying, grimacing, guarding, restlessness, agitation, decreased mobility, lethargy, anorexia
3. Red flags that may indicate possible drug misuse/abuse:
  - a. Physical Exam: needle "track" marks, abscesses, deterioration of physical appearance or grooming, fatigue, red or glazed eyes, constricted or dilated pupils, tachycardia



- b. Neurologic: changes in behavior, euphoria, restlessness, hyperactivity, slurred speech, lack of coordination, impaired judgment, delirium, changes in appetite, paranoia
  - c. Behavioral: “doctor shopping”, change in motivation or energy, changes in interests or hobbies, change in school or work performance, unusual effort to cover arms/legs, inappropriate dress, problems with the law, requests for early refills, spouse calling for medications, calling after hours, “lost prescriptions”, vague and multiple symptoms, alleged medication intolerance that prevents use of less habitualizing medications, evidence of intoxication
4. Potential contraindications to therapy:
- a. Absolute
    - i. allergy to opioid agents
    - ii. co-administration of a drug capable of inducing life-limiting drug-drug interaction
  - b. Relative
    - i. history of alcohol or other substance abuse or history of chronic, high-dose benzodiazepine use
    - ii. active alcohol or other substance abuse
    - iii. acute psychiatric instability
    - iv. intolerance, serious adverse effects, or history of inadequate clinical response
    - v. inability to manage opioid therapy responsibility
    - vi. unwillingness or inability to comply with reasonable treatment plan
- C. Objective Data: Physical findings that support use of CS II or III medications
- 1. General appearance
  - 2. Vital signs
  - 3. Site of pain
  - 4. Appropriate assessment of involved systems(s)
- D. Diagnostic Plan:
- 1. Pain scale: Using a scale of 0 to 10, have patient indicate his/her level of pain. 0 none, 1-3 mild, 4-6 moderate, 7-9 severe, 10 worst imaginable.
  - 2. Consider Wong Face Scale, especially for patients who have difficulty with verbal communication.
- E. Treatment Plan:
- 1. Analgesic therapy
    - a. Medications and supportive/adjunctive therapy will be prescribed in accordance with current accepted medical practice, current Federal and California law.
    - b. Response to therapy will be evaluated using criteria such as control of pain, increase in function, and improved quality of life.
    - c. See Appendix IV for approved list of Controlled Substances Schedule II and III including dose, frequency, and routes of administration. Refills are not authorized for CS II medications on any prescription blank.
    - d. Prescription blank will be secure, anti-fraud form as issued by DEA.
  - 2. Supportive/Adjunct therapy may include, but is not limited to, non-opioid medications such as NSAIDs and acetaminophen, ice, elevation, passive stretching, range of motion, rest, physical and occupational therapy.



- F. Patient Education: Will provide the patient with appropriate education related to the use of schedule II and III medications, including potential side effects and adverse reactions.
- G. Follow-up: Patient will be followed closely, daily while in-house and weekly in the outpatient clinics, or as needed to evaluate the effectiveness of treatment.
  
- H. Physician consultation or referral will be obtained in the following situations:
  - 1. Patient fails to respond to management plan in appropriate amount of time
  - 2. Any adverse drug reaction
  - 3. Potential abuse/misuse suspected
  - 4. At the patient, physician, nurse practitioner request
  
- I. References
  - 1. Cousins, M.J. & Bridenbaugh, P.O. (1988). *Neural Blockade in Clinical Anesthesia and Management of Pain* (2<sup>nd</sup> ed). Philadelphia: Lippincott.
  - 2. Irving, G.A., & Wallace, M.S. (1997). *Pain Management for the Practicing Physician*. New York: Churchill Livingstone.
  - 3. Rosenberg, A.D., Grande, C., & Bernstein, R.L. (2000). *Pain Management and Regional Anesthesia in Trauma*. London: W. B. Saunders.





## Resources

### **I. Medical Management**

Chen, H., Sola, O., & Lillemoe, K. (1996). Manual of Common Surgical Bedside Procedures. Baltimore: Williams and Wilkens.

Cardona, V. D., Hurn, P. D., Mason, P. J., Scanlon, A. M., & Veise-Berry, S. W. (1994). Trauma Nursing From Resuscitation Through Rehabilitation (2<sup>nd</sup> ed.). Philadelphia: W. B. Saunders.

Lunn-McHale, D. J. & Carlson, K. K. (Eds.). (2001). AACN Procedure Manual for Critical Care (4<sup>th</sup> ed). Philadelphia: W. B. Saunders.

Seidel, H., Ball, J., Dains, J., & Benedict, G. W. (1995). Mosby's Guide To Physical Examination. St. Louis: Mosby.

Thelan, L. A., Urden, L. D., Lough, M. E., & Stacy, K. M. (1998). Critical Care Nursing Diagnosis and Management. St. Louis: Mosby.

Tierney, L., McPhee, S., & Papadakis, M. (2004). Current Medical Diagnosis & Treatment (43<sup>rd</sup> ed). Stamford, CT: Lange Medical Books.

Way, L. W. & Doherty, G. M. (2003). Current Surgical Diagnosis & Treatment (11<sup>th</sup> ed). Los Altos, CA: Lange Medical Books.

### **II. Pharmacology**

AHFS Drug Information. (2004). Bethesda, MD: American Society of Health-System Pharmacists.

Physician's Desk Reference for Non-Prescription Drugs and Dietary Supplements. (2003). Montvale, NJ: Thomson PDR.

UCSD Medical Center Drug Formulary. (Current on-line version). [health.ucsd.edu/pharmacy](http://health.ucsd.edu/pharmacy).

### **III. Laboratory Medicine**

Pagana, K. D., & Pagana, T. J. (2003). Mosby's Diagnostic and Laboratory Test Reference (6<sup>th</sup> ed). St. Louis: Mosby.



## Appendix

### **I. References for the Development of the Standardized Procedures**

American Nurses Association & American Association of Critical-Care Nurses. (1995). Standards of Clinical Practice and Scope of Practice for the Acute Care Nurse Practitioner. Washington DC: American Nurses Publishing.

State of California, Board of Registered Nursing. (2001). Nursing Practice Act Rules and Regulations.

University of California San Diego Medical Center. Department of Anesthesiology, Center for Pain and Palliative Medicine. (2004). Standardized Procedure Guidelines for the Nurse Practitioner.

University of California, San Diego Medical Center. Department of Surgery. (2002). Standardized Procedure Guidelines for the Abdominal Organ Transplant Nurse Practitioners.

University of California, San Diego Medical Center. Department of Surgery. (2002). Standardized Procedure Guidelines for the Burn Surgery Nurse Practitioners.

University of California, San Diego Medical Center. Department of Surgery. (2003). Standardized Procedure Guidelines for the Orthopaedic Nurse Practitioners.

Zettler, R. (1993). The Process Protocol Workbook-California Edition.



## **II. Standardized Procedures for the Trauma Nurse Practitioner**

A. The Trauma Nurse Practitioner will follow the AACN Procedure Manual (4<sup>th</sup> ed.) for the following procedures:

1. Chest Tube Removal – pages 117-121
2. Drain Removal – pages 863-864
3. Suturing – pages 843–858
4. Performing Decannulation – pages 21-23
5. Arterial Catheter Insertion – pages 361–366
6. Performing Needle Thoracostomy – pages 141-144
7. Peripherally Inserted Central Catheter – pages 533-542

Reference:

Lunn-McHale, D. J. & Carlson, K. K. (Eds.). (2001). AACN Procedure Manual for Critical Care (4<sup>th</sup> ed). Philadelphia: W. B. Saunders.

B. Wound V.A.C. Dressing Changes

The Trauma Nurse Practitioner will follow the V.A.C. Therapy Clinical Guidelines published by the manufacturer for wound V.A.C. dressing changes.

C. Clearing of cervical spine and supervision of flexion/extension radiographic studies

The Trauma Nurse Practitioner will follow the Division of Trauma Protocols, Guidelines & Algorithms when clinically clearing a patient's cervical spine and when supervising flexion/extension studies in the department of radiology.

D. PICC Line Insertion and Removal

The Trauma Nurse Practitioner will train with the UCSD Infusion Center certified nurses to become competent in PICC line insertion and removal.

E. Suturing

The Trauma Nurse Practitioner, if not previously trained in suturing techniques, will attend and satisfactorily complete UCSD School of Medicine's Wound Management Workshop.





## F. Downsizing Tracheostomy Tubes and Placing Fenestrated Trachs

1. Indications
  - 1.1 Patient's pulmonary status has improved
  - 1.2 Mechanical ventilatory support is no longer needed
  - 1.3 There is a desire to downsize the tracheostomy tube to allow the patient to speak
2. Equipment needed
  - 2.1 Tracheostomy tube, correct size and type
  - 2.2 Tracheostomy ties
  - 2.3 Sterile barrier
  - 2.4 Water soluble lubricant
  - 2.5 Sterile 4 x 4 gauze
  - 2.6 Blunt-nose scissors
  - 2.7 10 cc syringe
  - 2.8 Pre-cut gauze tracheostomy dressing
  - 2.9 Gloves
3. Procedure
  - 3.1 Explain procedure to patient and answer questions
  - 3.2 Wash hands, don gloves
  - 3.3 Remove tracheostomy tube from sterile container. Inflate cuff to check performance prior to insertion
  - 3.4 Attach tracheostomy ties to neck plate hole
  - 3.5 Deflate cuff
  - 3.6 Remove inner cannula and insert obturator into outer cannula
  - 3.7 Lubricate end of tube with water or water soluble lubricant
  - 3.8 Suction secretions above existing cuff and in the hypopharynx prior to deflation
  - 3.9 Cut sutures on existing tracheostomy tube
  - 3.10 Deflate existing cuff



- 3.11 Cut patient's neck ties
- 3.12 Remove entire tracheostomy tube in downward motion following the curve of the tracheostomy tube
- 3.13 Immediately insert new tube using gentle forward pressure following the curve of the tracheostomy tube
- 3.14 Immediately remove obturator
- 3.15 Inflate cuff
- 3.16 Instal new inner cannula
- 3.17 Place neck ties
- 3.18 Discard used tube

#### 4. References

- 4.1 Tracheostomy Tube Adult Home Care Guide. (1996). St. Louis: Mallinckrodt Inc.
- 4.2 Potenza, B. (personal communication February 5, 2004).



## Nurse Practitioner Competency Sign-Off Sheet

\_\_\_\_\_ R.N., N.P.

The Trauma Nurse Practitioner must perform each procedure three times with supervision by a senior physician (4<sup>th</sup> year resident or higher) prior to performing independently. If a procedure has not been performed within six months, the TNP must be supervised an additional time for competency. For the initial three performances of each procedure, document MR# of patient on which the procedure was performed and the physician present. Afterwards, document the MR# to remain current.

<p>1. Chest Tube Removal</p> <p>MR# _____ Date _____ Physician present _____</p> <p>MR# _____ Date _____ Physician present _____</p> <p>MR# _____ Date _____ Physician present _____</p> <p>MR# _____ Date _____ MR# _____ Date _____</p> <p>MR# _____ Date _____ MR# _____ Date _____</p>
<p>2. Clearing Cervical Spine</p> <p>MR# _____ Date _____ Physician present _____</p> <p>MR# _____ Date _____ Physician present _____</p> <p>MR# _____ Date _____ Physician present _____</p> <p>MR# _____ Date _____ MR# _____ Date _____</p> <p>MR# _____ Date _____ MR# _____ Date _____</p>
<p>3. Flexion/Extension Supervision</p> <p>MR# _____ Date _____ Physician present _____</p> <p>MR# _____ Date _____ Physician present _____</p> <p>MR# _____ Date _____ Physician present _____</p> <p>MR# _____ Date _____ MR# _____ Date _____</p> <p>MR# _____ Date _____ MR# _____ Date _____</p>



4. Wound V.A.C. Dressing Changes

MR# \_\_\_\_\_ Date \_\_\_\_\_ Physician present \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ Physician present \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ Physician present \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ MR# \_\_\_\_\_ Date \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ MR# \_\_\_\_\_ Date \_\_\_\_\_

5. Removal of Wound Drains

MR# \_\_\_\_\_ Date \_\_\_\_\_ Physician present \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ Physician present \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ Physician present \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ MR# \_\_\_\_\_ Date \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ MR# \_\_\_\_\_ Date \_\_\_\_\_

6. Suturing

MR# \_\_\_\_\_ Date \_\_\_\_\_ Physician present \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ Physician present \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ Physician present \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ MR# \_\_\_\_\_ Date \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ MR# \_\_\_\_\_ Date \_\_\_\_\_

7. Downsizing Tracheostomy Tubes and Placing Fenestrated Trachs

MR# \_\_\_\_\_ Date \_\_\_\_\_ Physician present \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ Physician present \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ Physician present \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ MR# \_\_\_\_\_ Date \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ MR# \_\_\_\_\_ Date \_\_\_\_\_



8. Decannulating Tracheostomies

MR# \_\_\_\_\_ Date \_\_\_\_\_ Physician present \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ Physician present \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ Physician present \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ MR# \_\_\_\_\_ Date \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ MR# \_\_\_\_\_ Date \_\_\_\_\_

9. Arterial Catheter Insertion

MR# \_\_\_\_\_ Date \_\_\_\_\_ Physician present \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ Physician present \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ Physician present \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ MR# \_\_\_\_\_ Date \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ MR# \_\_\_\_\_ Date \_\_\_\_\_

10. Performing Needle Thoracostomy

MR# \_\_\_\_\_ Date \_\_\_\_\_ Physician present \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ Physician present \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ Physician present \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ MR# \_\_\_\_\_ Date \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ MR# \_\_\_\_\_ Date \_\_\_\_\_



11. Peripherally Inserted Central Catheter Insertion

MR# \_\_\_\_\_ Date \_\_\_\_\_ Physician present \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ Physician present \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ Physician present \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ MR# \_\_\_\_\_ Date \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ MR# \_\_\_\_\_ Date \_\_\_\_\_

12. PICC Removal

MR# \_\_\_\_\_ Date \_\_\_\_\_ Physician present \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ Physician present \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ Physician present \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ MR# \_\_\_\_\_ Date \_\_\_\_\_

MR# \_\_\_\_\_ Date \_\_\_\_\_ MR# \_\_\_\_\_ Date \_\_\_\_\_



#### **IV. Approved List of Controlled Substances Schedule II and III**

##### **ACETAMINOPHEN AND CODEINE [C-III]**

**Tylenol® with Codeine**

Elixir: Acetaminophen 120 mg, Codeine 12 mg/5 mL

*Adults and children >= 12 years:* 15 ml PO every 4 hours as needed. Maximum single dose of codeine is 60 mg/dose. Maximum dose of acetaminophen is 4 g/day.

Tablet: Acetaminophen 300 mg, Codeine Phosphate 15 mg

*Adults:* 1—2 tablets PO every 4 hours as needed. Maximum single dose of codeine is 60 mg/dose. Maximum dose of acetaminophen is 4 g/day.

Acetaminophen 300 mg, Codeine Phosphate 30 mg (#3)

*Adults:* 1—2 tablets PO every 4 hours as needed. Maximum single dose of codeine is 60 mg/dose. Maximum dose of acetaminophen is 4 g/day.

Acetaminophen 300 mg, Codeine Phosphate 60 mg (#4)

*Adults:* 1 tablet PO every 4 hours as needed. Maximum single dose of codeine is 60 mg/dose. Maximum dose of acetaminophen is 4 g/day.

##### **ACETAMINOPHEN AND HYDROCODONE [C-III]**

**Norco®, Vicodin®**

Elixir: Acetaminophen 167 mg, Hydrocodone 2.5 mg/5 mL

*Adults and adolescents >= 46 kg (101 pounds):* 15 ml PO every 4—6 hours as needed for pain. Do not exceed 90 ml (6 tablespoonfuls) in a 24-hour period.

Tablet: Acetaminophen 500 mg, Hydrocodone 5

*Adults:* 1—2 capsules or tablets PO every 4—6 hours as needed for pain. The maximum number of tablets or capsules per 24 hours is limited by a maximum acetaminophen dose of 4 g/day or a maximum hydrocodone dose of 60 mg/day

Acetaminophen 325 mg, Hydrocodone 10 mg

*Adults:* 1 tablet PO every 4—6 hours as needed for pain. The maximum number of tablets per 24 hours is limited by a maximum acetaminophen dose of 4 g/day or a maximum hydrocodone dose of 60 mg/day.

##### **ACETAMINOPHEN AND OXYCODONE [C-II]**

**Percocet®**

Tablet: Oxycodone 5 mg, Acetaminophen 325 mg

*Adults:* 1—2 tablets or capsules (2.5—10 mg of oxycodone) PO every 6 hours as needed. It may be necessary to exceed the usual dosage recommendation (i.e., give every 4 hours) in cases of severe pain or in those patients who have become tolerant to the analgesic effect of opiate agonists. Maximum acetaminophen dose is 4 g/day.

##### **ASPIRIN AND CODEINE [C-III]**

**Empirin with Codeine®**

Tablet: Aspirin 325 mg, Codeine Phosphate 15 mg (#2)

*Adults:* 1—2 tablets PO every 4 hours. Or, 1 tablet PO every 4 hours for tablets containing 60 mg codeine.

Aspirin 325 mg, Codeine Phosphate 30 mg (#3)

*Adults:* 1—2 tablets PO every 4 hours. Or, 1 tablet PO every 4 hours for tablets containing 60 mg codeine.

Aspirin 325 mg, Codeine Phosphate 60 mg (#4)

*Adults:* 1 PO every 4 hours.

##### **ASPIRIN AND OXYCODONE [C-II]**

**Percodan®**

Tablet: Oxycodone HCl 4.5 mg, Oxycodone Terephthalate 0.38 mg, Aspirin 325 mg

Usual adult dosage is 1 tablet PO every 6 hours as needed. Do not exceed 12 tablets every 24 hours.

##### **BELLADONNA AND OPIUM [C-II]**

**B and O**

Suppository: Belladonna 15 mg, Opium 60 mg

*Adults:* Insert 1 suppository rectally once or twice daily as needed.

##### **CODEINE [C-II]**

Injection: 15 mg/mL; 30 mg/mL; 60 mg/mL

*Adults:* 15—60 mg SC/IM every 4—6 hours as needed or around the clock. Due to a decrease in incremental



efficacy with increasing doses and an increase in adverse reactions, codeine should be limited to 60 mg/dose. Do not exceed 360 mg/24 hours.

Solution: 3 mg/mL

*Adults:* 10—20 mg PO every 4—6 hours. Maximum dose should not exceed 120 mg/24 hours when used as an antitussive.

Tablet: 30 mg; 60 mg

*Adults:* 15—60 mg PO every 4—6 hours as needed or around the clock. Due to a decrease in incremental efficacy with increasing doses and an increase in adverse reactions, codeine should be limited to 60 mg/dose. Do not exceed 360 mg/24 hours.

### **FENTANYL CITRATE [C-II]**

**Actiq®, Duragesic®, Sublimaze®**

Injection: 100 mcg/2 mL; 250 mcg/5 mL; 1 mg/20 mL

*Adults:* 50—100 mcg IM, or by slow IV over 1—2 minutes, given 30—60 minutes before surgery

Lozenge on a Stick: 200 mcg; 400 mcg; 600 mcg; 800 mcg; 1200 mcg; 1600 mcg (Actiq®)

*Adults and adolescents > 16 years:* The initial dose for breakthrough pain is 200 mcg placed between the cheek and lower gum. The unit should be sucked, not chewed, over a period of 15 minutes. Additional doses, if needed, may start 15 minutes after the previous unit is completed (30 minutes after the previous administration). No more than 2 units/breakthrough episode should be used. If treatment of several consecutive breakthrough pain episodes requires more than 1 unit, increase the dose to the next higher available strength. Each new dose should be evaluated over 1—2 days to determine whether it provides adequate pain relief and acceptable side effects. Side effects may be greater during this initial period as compared to later, after the effective dose is determined. If patients require > 4 units/day once an appropriate breakthrough dose is determined, the dose of the long-acting opioid should be re-evaluated.

Patch, Transdermal: 25 mcg/hr; 50 mcg/hr; 75 mcg/hr; 100 mcg/hr (Duragesic®)

*Adults:* Use a transdermal system delivering 25 mcg/hour initially, unless the patient is already receiving an opiate dose equivalent to more than 135 mg/day of oral morphine.

### **HYDROMORPHONE [C-II]**

**Dilaudid®**

Injection: 2 mg/mL; 4 mg/mL; 10 mg/mL

*Adults and children > 12 years:* Initially, 1—2 mg SC, IM, or IV every 3—4 hours. Severe pain may require 3—4 mg SC, IM, or IV every 3—6 hours. Titrate to pain relief.

Injection, Nonpreserved: 10 mg/mL

*Adults and children > 12 years:* Initially, 1—2 mg SC, IM, or IV every 3—4 hours. Severe pain may require 3—4 mg SC, IM, or IV every 3—6 hours. Titrate to pain relief.

Suppository: 3 mg

*Adults:* 3 mg suppository PR every 6—8 hours. Titrate to pain relief.

Tablet: 2 mg; 4 mg

*Adults and children > 12 years:* Initially, 1—4 mg PO every 3—4 hours. In adults weighing > 50 kg, 3—6 mg PO every 3—4 hours has been recommended in patients with severe pain. Titrate to pain relief.

### **LEVORPHANOL [C-II]**

**Levorphan, Levo-Dromeran®**

Tablet: 2 mg

*Adults:* 2 mg PO; may increase to 3 or 4 mg for severe pain.

### **METHADONE [C-II]**

**Dolophine®**

Injection: 10 mg/mL

*Adults:* 2.5—10 mg PO, IM, or SC, every 4—12 hours, as needed or around the clock, titrated to pain relief. For the relief of severe, chronic pain (i.e., in terminally ill patients), dosages of 5—20 mg PO every 6—8 hours have been used.

Solution: 1 mg/mL

*Adults:* 2.5—10 mg PO, IM, or SC, every 4—12 hours, as needed or around the clock, titrated to pain relief. For the relief of severe, chronic pain (i.e., in terminally ill patients), dosages of 5—20 mg PO every 6—8 hours have been used.





Tablet: 5 mg; 10 mg

*Adults:* 2.5—10 mg PO, IM, or SC, every 4—12 hours, as needed or around the clock, titrated to pain relief. For the relief of severe, chronic pain (i.e., in terminally ill patients), dosages of 5—20 mg PO every 6—8 hours have been used.

### **MORPHINE [C-II]**

**Duramorph®, Oramorph®, Roxanol®**

Injection: 2 mg/mL; 4 mg/mL; 8 mg/mL; 10 mg/mL ; 15 mg/mL ; 100 mg/4 mL

Injection, Unpreserved: 0.5 mg/mL; 1 mg/mL

*Adults*  $\geq$  50 kg: 2.5—15 mg IV/SC/IM every 2—6 hours as needed, titrated to pain relief. AHCPR guidelines recommend an initial dose of 10 mg IV/SC/IM every 3—4 hours.<sup>[174]</sup> Alternatively, a loading dose of 0.05—0.1 mg/kg IV, followed by 0.8—10 mg/hour IV, titrated to pain relief.

Solution: 2 mg/mL; 20 mg/mL

*Adults*  $\geq$  50 kg: Initially, 10—30 mg PO every 3—4 hours as needed.

Suppository: 5 mg; 10 mg; 20 mg

*Adults:* 10—20 mg PR every 4 hours, as needed.

Tablet: 10 mg; 15 mg; 30 mg

*Adults*  $\geq$  50 kg: Initially, 10—30 mg PO every 3—4 hours as needed.

Tablet, Sustained-Release: 15 mg; 30 mg; 60 mg; 100 mg

*Adults:* 15—30 mg PO every 12 hours (tablets); 20 mg PO twice daily or 40 mg PO once daily (Kadian®); or 30 mg PO once daily (Avinza™), titrated to response and tolerance. However, it is recommended not to begin opioid naive patients with the extended-release capsules. If morphine  $\leq$  60 mg/day is required, use of the 15 mg extended-release tablet. Dosage adjustments may be done every 1—2 days (tablets) or every 2 days (Kadian®) based upon the total amount of morphine/day required (controlled-release dose + breakthrough doses). The dose of Avinza™ should be adjusted in increments  $\leq$  30 mg every 4 days.

### **OXYCODONE [C-II]**

Solution: 1 mg/mL; 20 mg/mL

Tablet: 5 mg

*Adults:* For initial dosing in opiate-naive patients, 5 mg PO every 6 hours as needed is recommended. The usual adult dose after titration is 10—30 mg PO every 4 hours as needed. In opiate-tolerant patients with chronic cancer pain, it is not unusual for patients to require doses of 20—45 mg PO every 4 hours, with some patients requiring as much as 120 mg PO every 4 hours

Tablet, Sustained-Release: 10 mg; 20 mg; 40 mg; 80 mg

*Adults:* Initiate therapy at 10 mg PO every 12 hours in opiate-naive patients. Frequent assessment of the patient's pain, side effects and adjustment of oxycodone dose is indicated until the patient is stable on the new therapy. Dosage adjustments may be carried out every 1—2 days based upon the total amount of oxycodone/day required (controlled-release dose + breakthrough doses).

### **PENTAZOCINE AND NALOXONE [C-IV]**

**Talwin® NX**

Tablet: 50 mg pentazocine, 500 mcg naloxone HCl/tablet

*Adults, adolescents and children*  $>$  12 years: 50 mg (one tablet) PO every 3—4 hours, as needed. May be increased to 100 mg (2 tablets) PO every 3—4 as needed. Total daily dosage should not exceed 600 mg/day (12 tablets/day).

### **PHENOBARBITAL [C-IV]**

**Luminal®**

Elixir: 20 mg/5 mL

Injection: 30 mg/mL; 60 mg/mL; 130 mg/mL

Tablet: 15 mg; 30 mg; 60 mg; 100 mg

Oral or intravenous maintenance dosage:

*Adults and adolescents:* 1—3 mg/kg/day PO or IV in 1—2 divided doses. Because phenobarbital is sedating and has a long half-life, single daily doses administered at bedtime are recommended.



### CLONAZEPAM [C-IV]

Klonopin®

Tablet: 500 mcg; 1 mg; 2 mg

Tablet, Rapid: 0.25 mg

**For the treatment of panic disorder with or without agoraphobia:**

Oral dosage:

*Adults:* The recommended initial dose is 0.25 mg PO twice daily, increasing to 1 mg/day after 3 days in most patients. The recommended dose of 1 mg/day PO is based on the results from a fixed dose study in which the optimal effect was seen at 1 mg/day. Higher doses of 2, 3 and 4 mg/day in that study were less effective than the 1 mg/day dose and were associated with more adverse effects. Some individual patients may benefit from doses of up to a maximum dose of 4 mg/day, and in those instances, the dose may be increased in increments of 0.125—0.25 mg twice daily every 3 days until panic disorder is controlled or until side effects make further increases undesired. To reduce the incidence of daytime drowsiness, administration of one dose at bedtime may be desirable. The maximum dose is 4 mg/day PO.

**For the alternative treatment of absence seizures, petit mal variant (Lennox-Gastaut syndrome), and akinetic and myoclonic seizures (myoclonia):**

Oral dosage:

*Adults and adolescents (weight > 30 kg):* Initially, 1.5 mg/day PO, divided into three equal doses. This dosage may be increased by 0.5—1 mg every 3 days until seizures are controlled. Maximum dosage of 20 mg/day PO. The typical maintenance dose ranges 2—8 mg/day.

### CLORAZEPATE [C-IV]

Tranxene®

Tablet: 3.75 mg; 7.5 mg; 15 mg

**For the treatment of anxiety:**

Oral dosage (Tranxene T-Tab® tablets or generic equivalent):

*Adults and adolescents:* Initially, 7.5—15 mg PO as a single dose at bedtime or in 2—3 divided doses. Adjust gradually, if necessary, within the range of 15—60 mg/day PO. The usual dosage is 30 mg/day PO in divided doses.

**For use as an alternative agent for the treatment of partial seizures:**

Oral dosage (Tranxene T-Tab® tablets or equivalent):

*Adults and adolescents:* Initially, up to 7.5 mg PO 2—3 times per day. Increase by no more than 7.5 mg per week and should not exceed 90 mg/day. The usual maintenance dosage is 0.5—1 mg/kg/day; however, up to 3 mg/kg/day has been used.

### DIAZEPAM [C-IV]

Valium®, Diastat®

Gel, Rectal: 2.5 mg; 5 mg; 10 mg; 15 mg; 20 mg

Rectal dosage:

NOTE: It is recommended that rectal diazepam be used to treat no more than five episodes per month and no more than one episode every five days.

*Adults and adolescents:* 0.2 mg/kg PR. Doses should be rounded upward to the next available dosage

Injection: 5 mg/mL

Parenteral dosage:

*Adults and adolescents:* 2—10 mg IM or IV, depending on severity of anxiety. The dose may be repeated in 3—4 hours. For use preoperatively as an anxiolytic, 5—10 mg is recommended.

Solution: 5 mg/5 mL

Tablet: 2 mg; 5 mg; 10 mg

**For the treatment of anxiety:**

Oral dosage (oral solution or regular tablets):

*Adults and adolescents:* 2—10 mg PO two to three times per day.

### FLUOXYMESTERONE [C-III]

Halotestin®

Tablet: 2 mg; 5 mg; 10 mg

**For androgen replacement therapy:**

*Adults:* 5 mg PO one to four times daily.



For treatment of inoperable breast carcinoma:

*Adults:* 10—40 mg PO per day in divided doses.

### METHYLTESTOSTERONE [C-III]

Metandren®

Tablet: 10 mg

**For androgen replacement therapy, related to cryptorchidism:**

Oral dosage (capsules or tablets):

*Adults:* The recommended dose is 10 mg PO three times per day.

**For palliative treatment of breast cancer in women:**

Oral dosage (capsules or tablets):

*Adults:* The recommended dose is 50 mg PO once daily up to four times per day. If a suitable response occurs within 2—4 weeks, the dose may be reduced to 50 mg 2 times per day.

### NANDROLONE DECANOATE [C-III]

Deca-Durabolin®

Injection, in Oil: 200 mg/mL

**For the treatment of anemia associated with chronic renal failure:**

NOTE: When given at 3—4 week intervals, therapy may be continued for up to 12 weeks. If necessary, the cycle may be repeated if the second-course is preceded by a 4-week rest period. Adequate iron intake is required for a maximal response. Therapy should be discontinued if no hematologic improvement is seen within the first six months.

Intramuscular dosage:

*Adult and adolescent males >= 14 years of age:* The recommended dose is 50—200 mg IM at one- to four-week intervals.

### OXANDROLONE [C-III]

Oxandrin®

Tablet: 2.5 mg

**For the treatment of cachexia, and as adjunct therapy to promote weight gain and protein anabolism after weight loss following extensive surgery, chronic infections, or severe trauma, after prolonged administration of corticosteroids, and in some patients who without definite pathophysiologic reasons fail to gain or to maintain normal weight:**

NOTE: Adequate caloric and protein consumption is required.

Oral dosage:

*Adults:* 2.5 mg PO two to four times per day; however, a range from 2.5 to 20 mg PO per day may be necessary.

The usual duration of therapy is two to four weeks, which may be repeated as needed. The dose and duration will depend upon the efficacy and tolerability observed.

### OXYMETHOLONE [C-III]

Anadrol®

Tablet: 50 mg

**Dosage:**

*Adults:* 1—5 mg/kg PO per day. Dosage should be individualized.

### TESTOSTERONE [C-III]

Androderm®, Delatestryl®,  
Depo-Testosterone®

Injection, in Oil (as Cypionate): 100 mg/mL (Depo-Testosterone®); 200 mg/mL (Depo-Testosterone®)

Injection, in Oil (as Enanthate) 200 mg/mL (Delatestryl®)

**•for the treatment of hypogonadism (primary and hypogonadotropic types) or symptoms associated with andropause†:**

Intramuscular dosage (testosterone cypionate or testosterone enanthate):

*Adult males:* 50—400 mg IM once every 2—4 weeks.

Transdermal (Androderm®): 2.5 mg/24 hours; 5 mg/24 hours

Topical gel dosage (only for AndroGel®):

*Adult males >= 18 years:* Initially 5 g of 1% gel (containing 50 mg of testosterone and delivering 5 mg of testosterone systemically) applied once daily (preferably in the morning) to clean, dry, intact skin of the upper



arms and/or abdomen. Measure serum testosterone level 14 days later to ensure proper dosage. If the serum testosterone level is below the normal range or if the desired clinical response is not achieved, may increase to 7.5 g of gel once daily (containing 75 mg of testosterone and delivering 7.5 mg/day of testosterone systemically), and then to 10 g of gel once daily (containing 100 mg of testosterone and delivering 10 mg/day of testosterone systemically) as clinically indicated. The maximum dosage is 10 g/day of gel based on clinical trials.