STANDARDIZED PROCEDURE

ALTEPLASE (TPA) USE FOR MANAGEMENT OF PLEURAL AND ABDOMINAL EFFUSIONS (Adult/Peds)

I. Definition

The purpose of this procedure is to optimize and facilitate drainage of abdominal or pleural effusions with enzymatic fibrinolysis using intracatheter TPA. The Advanced Health Practitioner will safely administer intracatheter TPA and initiate appropriate diagnostic treatment for any suspected complications following the procedure.

II. Background Information

A. Setting: The setting (inpatient vs outpatient) and population (adults vs pediatrics) for the Advanced Health Practitioner (AHP) is determined by the approval of the privileges requested on the AHP Privilege Request Form. If the procedure is being done on a Pediatric patient, make sure Child Life is involved and use age appropriate language and age appropriate developmental needs with care of children, as appropriate to the situation.

B. Supervision

Required when there is any change in medical condition following this procedure. Required when diagnostic test results indicate the need for medical intervention. Consultation may take place by telephone. An MD order is required to initiate this procedure.

C. Indications

1. Subjective data:
   a) assess respiratory status, if pleural effusion
2. The objective data will include but is not limited to:
   a) decreased drain output
   b) reaccumulation of fluid as demonstrated via diagnostic imaging.
   c) loculated fluid collections
3. The following parameters are required for tPA administration.
   a) platelets > 30,000
   b) INR < 1.5
   c) PT < 15 seconds
   d) PTT < 35 seconds

D. Precautions/Contraindications: as stated under supervision, consultation must be obtained in all cases where there is a change in medical status.

III. Materials

TPA (2mg/2ml) and sterile water (dosage amount per supervising MD order) 10ml syringe, clamp.

IV. Intra-catheter TPA Administration

A. Patient Preparation and Education

1. Advanced Health Practitioner will explain to the patient and/or family the risks associated with TPA administration as well as the purpose of diagnostic testing, and therapeutic treatments included in the patient's treatment plan.
2. Assess the patients risk for bleeding: diagnosis, recent invasive procedures, recent bleeding complications, medication profile, and recent laboratory results, if available.
3. Assess catheter for malfunction and patency.

B. Procedure

1. Ensure MD order is in place for amount of medication.
2. Assess drain output
3. Assess vital signs
4. Reconstitute TPA (1mg/1ml of sterile water)
5. Clamp drain as proximal to patient as possible
6. Disconnect catheter from pleurevac, bag or bulb
7. Attach syringe to catheter and unclamp
8. Administer TPA, flush with 5-10ml sterile water
9. Clamp catheter, dwell time 1-2 hours
10. Attach drainage vehicle (pleurevac, bag or bulb)
11. Unclamp

C. Post-procedure

Unclamp catheter after 1-2 hours and assess drainage quantity and characteristics. Assess vital signs.

V. Documentation

A. Documentation is in the electronic medical record.

1. Documentation of the pretreatment evaluation and any abnormal physical findings.
2. Record the time out, indication for the procedure, procedure, EBL, the outcome, how the patient tolerated the procedure, medications (drug, dose, route, & time) given, complications, and the plan in the note, as well as any teaching and discharge instructions.

B. All abnormal or unexpected findings are reviewed with the supervising physician.

VI. Competency Assessment

A. Initial Competence

1. The Advanced Health Practitioner will be instructed on the efficacy and the indications of this therapy and demonstrate understanding of such.
2. The Advanced Health Practitioner will demonstrate knowledge of the following:
   a. Medical indication and contraindications of Alteplase injection.
   b. Risks and benefits of the procedure
   c. Related anatomy and physiology
   d. Consent process (if applicable)
   e. Steps in performing the procedure
   f. Documentation of the procedure
   g. Ability to interpret results and implications in management.
3. Each Advanced Health Practitioner is to directly observe this procedure at least once in its entirety.
4. The attending interventional radiologist or designee will directly supervise each nurse practitioner a minimum of **three** times for each procedure, or more often if needed, until competency is demonstrated.
5. Designee is defined as another attending physician who works directly with the supervising physician and is authorized to supervise the Advanced heath Practitioner.
6. A copy of the signed competency certificates will be retained by the practitioner's department for the personnel file and will also be sent to the medical staff office for the credentialing file.

B. Continued proficiency

1. The Advanced Health Practitioner will demonstrate competence by successful completion of the initial competency.
2. Each candidate will be initially proctored and signed off by an attending physician. Advanced Health Practitioner must perform this procedure at least **three** times per year. In cases where this minimum is not met, the attending, must again sign off the procedure for the Advanced Health Practitioner. The Advanced Health Practitioner will be signed off after demonstrating 100% accuracy in completing the procedure.
3. Demonstration of continued proficiency shall be monitored through the annual evaluation.
4. A clinical practice outcomes log is to be submitted with each renewal of credentials. It will include the number of procedures performed per year and

any adverse outcomes. If an adverse outcome occurred, a copy of the procedure note will be submitted.

VII. RESPONSIBILITY

Questions about this procedure should be directed to the Chief Nursing and Patient Care Services Officer at 353-4380.

VIII. HISTORY OF PROCEDURE

Revised February 2012 by Subcommittee of the Committee for Interdisciplinary Practice
Reviewed February 2012 by the Committee on Interdisciplinary Practice
Prior revision Sept 2009
Approved February 2012 by the Executive Medical Board and the Governance Advisory Council