



DOCTOR'S ORDERS

**INTRAPLEURAL t-PA and D-Nase
ADMINISTRATION ORDERS**

Adult Critical Care and Telemetry Units ONLY

*****RESTRICTED TO PULMONARY AND THORACIC SURGERY PROVIDERS*****

(All orders will be implemented as checked off or modified)

PHYSICIAN TO ASSURE 3 WAY STOPCOCK IN PLACE ON INTRAPLEURAL CATHETER BEFORE ORDERING t-PA

Chest tube location for Alteplase (t-PA) /Dornase Alfa (DNase) administration: _____

1. Check one of the following: place chest tube at -20 cm suction _____ cm suction
2. Obtain Alteplase (t-PA) 10mg in 30 ml saline and Dornase Alfa (DNase) 5 mg in 30 ml sterile water, each in a separate leur-lock syringe
3. Alteplase (t-PA) /Dornase Alfa (DNase) administration as follows (**check one of the following**):

For non-anticoagulated patients (Repeat every 12 hours for total of six doses Alteplase (t-PA) and six doses Dornase Alfa (DNase) over 72 hours)

- a. Administer Alteplase (t-PA) 10mg in 30 ml saline once chest tube and stopcock have been placed then at 0900 and 2100 (**see note below**) through three way stopcock over 30 seconds followed by a 10 ml NS flush. Close stopcock to patient for one hour. Then open the stopcock and place chest tube back to suction for one hour.

NOTE: Pharmacy to send 1st t-PA dose now. Pharmacy to time second dose for 0900 or 2100, whichever is greater than 12 hours after first dose t-PA ordered. All subsequent t-PA doses should occur on 0900/2100 schedule.

- b. Next administer Dornase Alfa (DNase) 5 mg in 30 ml sterile water 2 hours after 1st dose of t-PA then at 1100 and 2300 (**see note below**) through three way stopcock over 30 seconds followed by a 10 ml NS flush. Close stopcock to patient for one hour. Then open the stopcock and place chest tube back to suction.

NOTE: Pharmacy to send 1st DNase dose now. Pharmacy to time second dose for 1100 or 2300, whichever is greater than 14 hours after first dose t-PA ordered. All subsequent DNase doses should occur on 1100/2300 schedule.

- c. Flush chest tube with 20 ml saline 6 hours after the start of each Alteplase (t-PA) administration

For anticoagulated patients (Repeat daily for total of three doses Alteplase (t-PA) and three doses Dornase Alfa (DNase) over 72 hours)

- a. Administer Alteplase (t-PA) 10mg in 30 ml saline once chest tube and stopcock have been placed then at 0900 daily (**see note below**) through in-line intrapleural stopcock over 30 seconds followed by a 10 ml NS flush. Close stopcock to patient for one hour. Then open the stopcock and place chest tube back to suction for one hour.

NOTE: Pharmacy to send 1st t-PA dose now. Pharmacy to time second dose for next 0900 time that is greater than 24 hours after first dose t-PA ordered. All subsequent t-PA doses should occur at 0900.

- b. Next administer Dornase Alfa (DNase) 5 mg in 30 ml sterile water 2 hours after 1st dose of t-PA then daily (**see note below**) at 1100 through in-line intrapleural stopcock over 30 seconds followed by a 10 ml NS flush. Close stopcock to patient for one hour. Then open the stopcock and place chest tube back to suction.

NOTE: Pharmacy to send 1st DNase dose now. Pharmacy to time second dose DNase for next 1100 time that is greater than 26 hours after first dose t-PA ordered. All subsequent DNase doses should occur daily at 1100.

- c. Flush chest tube with 20 ml saline 6, 12 and 18 hours after the start of each Alteplase (t-PA) administration

4. Record Chest tube output per shift

5. Notify the ordering physician for the following:

- a. Difficulty injecting the Alteplase (t-PA) or Dornase Alfa (DNase)
- b. Chest discomfort
- c. Allergic reaction
- d. Hypoxemia
- e. Hemodynamic instability
- f. Bloody chest tube output ≥ 200 cc/hr for 4 hours or ≥ 1000 cc upon opening the stopcock

6. Obtain CXR 24 hours after 1st dose of Alteplase (t-PA) & Dornase Alfa (DNase) completed _____ (**indicate date/time**)

7. Obtain CXR 48 hours after 1st dose of Alteplase (t-PA) & Dornase Alfa (DNase) completed _____ (**indicate date/time**)

8. Obtain chest CT without contrast 72 hours after 1st dose of Alteplase (t-PA) & Dornase Alfa (DNase) completed _____ (**indicate date/time**)

PHYSICIAN SIGNATURE:

DATE:

TIME:

PATIENT LABEL

INFORMATION FOR PHYSICIANS:

- If after 1st 24 hours CT output is < 100 ml **AND** CXR verifies appropriate position of catheter, consider surgical consult
- If after 48 hours **AND** no or minimal improvement seen on CXR, obtain Chest CT without contrast and consider surgical consult
- If after 72 hours:
 - There is no residual loculations on CT discontinue chest tube once output < 100 ml over 24 hours
 - If minimal to small loculations/effusion and patient clinically improved (afebrile, improving inflammatory markers, improving oxygen requirements, ambulating), discontinue chest tube once output < 100 ml over 24 hours

INFORMATION FOR NURSES:

- Nurse to verify stopcock in place before faxing orders to Pharmacy
 - If not in place, contact ordering physician so they can arrange to place stopcock
 - Nurses may not place the stopcock
- After verification that stopcock is in place, fax order to Pharmacy and Rx message with first dose information per instructions on order

PATIENT LABEL