UCONN JOHN DEMPSEY HOSPITAL
DEPARTMENT OF PHARMACY SERVICES
M E M O R A N D U M

To: Pharmacy and Operating Room Staff
From: Department of Pharmacy
RE: Aerosolized Talc Backorder
Date: November 2, 2016

Aerosolized Talc is on indefinite backorder due to manufacturing delays and the company cannot estimate a release date. In the meantime we will use **Sterile Talc Powder** mixed into a suspension (slurry) for pleurodesis.

Indication
Sterile Talc Powder is indicated to decrease the recurrence of malignant pleural effusions in symptomatic patients following maximal drainage of the pleural effusion.

Mechanism of Action
Talc instilled into the pleural cavity is thought to result in an inflammatory reaction. This reaction can promote adherence of the visceral and parietal pleura, which may prevent re-accumulation of pleural fluid.

Recommended Dose
The recommended dose is 5 g, suspended in 50 ml to 100 ml 0.9% Sodium Chloride Injection.

Preparation
Pharmacy will prepare the syringes as described per the package insert upon request of the operating room. Please give **sufficient notice** when product is required for a procedure. Order request can be faxed to 860-679-1231 (main pharmacy).

- The contents of the bottle after diluted with 0.9% Sodium Chloride will be divided equally into two 60mL syringes to a total volume of 50mL in each syringe.
- 10mL of air will be drawn into each syringe to the 60mL mark to allow for mixing prior to administration.
- Each syringe should contain 2.5 g of Sterile Talc Powder in 50mL of 0.9% sodium chloride injection, with an air headspace of 10mL.
- The syringes will be labeled to “shake syringe well” and “for pleurodesis only”.

Administration

- Prior to administration, continuously agitate the syringes to evenly re-disperse the talc and avoid settlement.
- Immediately prior to administration, vent the 10 ml air headspace from each syringe. Administer the talc suspension through the chest tube according to standard procedures.
- Standard chest tubes or small-bore catheters have been used for talc slurry pleurodesis. The slurry is instilled through the chest tube when there is complete lung expansion and a minimum of pleural fluid.
- The chest tube should be clamped for 1 hour after talc slurry instillation.
- Patient rotation is recommended to ensure even distribution.

Storage

- Store prepared suspension in refrigerator.
- Discard the prepared suspension if not used within 12 hours.

Warnings and Precautions

- ***Pneumonitis and Acute Respiratory Distress Syndrome (ARDS***)
  Acute Pneumonitis and ARDS, including fatal cases, occur with intrapleural talc administration.
- ***Interference with Future Procedures***
  Sclerosis of the pleural space may preclude or complicate subsequent ipsilateral surgery and diagnostic procedures. Consider the possible effects of the use of Sterile Talc Powder on future diagnostic and therapeutic procedures prior to administration.

Possible Disadvantages for suspension (slurry)

- Lack of uniform distribution
- Accumulation in dependent areas of the pleural space possibly leading to incomplete pleurodesis.
- Decreased direct contact time with the pleural space with subsequent decrease in effectiveness

Adverse Reactions

- ***Common adverse***: fever and pain
- ***Other adverse reactions***: dyspnea, arrhythmia, empyema, and acute respiratory distress

References

- Sterile Talc Powder [Package Insert]. Woburn, MA: Bryan Corporation
- ASHP Current Drug Shortage. Available at: http://www.ashp.org/menu/DrugShortages/CurrentShortages/bulletin.aspx?id=1248. Accessed November 2, 2016.
- “Management of malignant pleural effusions” Eur Respir J 2001; 18:402-419