

## SPUTUM INDUCTION

**Purpose:** To expedite all physician orders for collection of sputum specimen in a timely, consistent, and cost effective manner while maintaining optimal patient care.

**Description:** Sputum induction is defined as a bland aerosol treatment given to enhance cough production of a sputum specimen to be used for laboratory diagnostics.

**Indications:** The need to obtain a sputum specimen for laboratory diagnostics in a patient with apparent lung secretions present but a nonproductive cough.

**Hazards/Complications:**

Administration of any aerosolized substance has the potential for inducing bronchospasm.

**Equipment:**

- 1) Personal protective equipment (PPE)
- 2) Emerson isolation chamber
- 3) HHN, Normal Saline
- 4) Sputum Specimen Cup

**Personnel:** All respiratory Care Practitioners; Respiratory Technician I and II; Respiratory Therapist I and II.

**Policy:**

- 1) Appropriate personal protective equipment shall be worn when specimens are collected. Sub-micron masks and gloves are mandated, if patient has not been ruled out for TB.
- 2) Patients who have a productive cough are to be given containers for collection by the Nursing Staff immediately after the order is written. It is recommended to transport patient to treatment room for procedure, if patient has not been ruled out for TB. Personnel who remain in the room should wear gloves and sub-micron mask during the procedure.
- 3) For patients who require naso-tracheal suctioning for sputum specimens, collection will be performed by the respiratory therapy staff. Sub-micron mask, goggles, and gloves must be worn, if patient has not had TB ruled out.
- 4) For patients with tracheostomy tube or endotracheal tube, suctioning for sputum specimen may be performed by nursing staff or physician. Sub-micron mask, gloves, and goggles are to be worn.
- 5) In the event a patient has a non-productive cough, a written order for sputum induction by the ordering physician must be obtained (order must include the number of specimens, or days for collection).
- 6) A bland aerosol treatment will be administered by Respiratory personnel, including cough instructions and coaching. Cough instructions should include turning head and covering mouth with tissue. Tissues should be disposed of in a bedside receptacle. Mask and gloves must be worn; goggles are recommended.
- 7) Sputum collection on patients with possible TB or other infectious diseases must be done in a treatment room or isolation room (i.e. immunosuppressed patients).
- 8) Documentation of the therapy and results will be made in the Cardiopulmonary Services Progress notes. If sputum induction efforts are unsuccessful the ordering physician will be notified by the staff responsible for procedure.
- 9) Respiratory staff are responsible only for the induction and collecting of sputum in those patients with a non-productive cough. Processing and transport of specimens is the responsibility of nursing personnel.
- 10) Age appropriate considerations include assessing the patient's ability to comply with the procedure.

Cardiopulmonary Services  
General Procedures  
Proc7.9

Infection Control:

- 1) Standard Universal Precautions shall be followed at all times.
- 2) Sputum Inductions on patients suspected of having T.B. that are not in a respiratory isolation room, shall be performed in the department Emerson isolation chamber.

REFERENCES:

1. *AARC Clinical Practice Guidelines*, 1993.
2. Burton, Gee, Hodgkin, *Respiratory Care*, 1977.
3. LSU Medical Center, Infection Control Committee recommended standards.

Reviewed: May 1989  
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