COMPREHENSIVE ASPIRATION RISK MANAGEMENT PLAN FOR INDIVIDUALS WITH NEURODEVELOPMENTAL DISABILITIES

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THIS PRESENTATION IS A COLLABORATION BETWEEN:

NM DDSD/CLINICAL SERVICES BUREAU & UNM SCHOOL OF MEDICINE

COMPREHENSIVE ASPIRATION RISK MANAGEMENT PLAN FOR INDIVIDUALS WITH NEURODEVELOPMENTAL DISABILITIES

OVERVIEW AND MEDICAL CONSIDERATIONS

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TRANSDISCIPLINARY EVALUATION AND SUPPORT CLINIC (TEASC)

OUTLINE

- Overview of Course Objectives
- Some Definitions
- Signs and Symptoms of Aspiration
- Review of Medical Risk Factors for Dysphagia and Aspiration
- Minimizing the Risk for Aspiration Pneumonia
- Diagnosis and Management of Aspiration Pneumonia

This course will present the policies and procedures developed by a collaborative effort between the University of New Mexico School of Medicine and the New Mexico DOH Developmental Disabilities Supports Division to reduce aspiration pneumonia in individuals with neurodevelopmental disabilities.

COURSE OBJECTIVES

- *List 3 risk factors for aspiration.*
- *Identify 3 compensatory strategies to support oral motor function and reduce aspiration risk.*
- *List 3 strategies for optimizing positioning for safe swallowing.*
- *List 3 nutrition recommendations to promote health and wellness. Use the CARMP program on a presented case to develop Individualized Mealtime Strategies.*

DEFINITIONS

Dysphagia

- A condition in which disruption of the swallowing process interferes with a patient's ability to eat or drink.
- It can result in aspiration pneumonia, chronic lung disease, malnutrition, dehydration, weight loss, airway obstruction.

Dysphagia can be secondary to defects in any of the 3 phases of swallowing, which are as follows:

- Oral phase:
  - Oral preparatory phase
  - Oral transit phase
- Pharyngeal phase
- Esophageal phase

DEFINITIONS

- **Aspiration**: Passive entry of any food item into the trachea (eg, during inhalation), although the word often is used to denote any entry of a bolus into the trachea in any manner.

SIGNS AND SYMPTOMS OF ORAL OR PHARYNGEAL DYSPHAGIA INCLUDE:

- Coughing or choking with swallowing
- Difficulty initiating swallowing
- Food sticking in the throat
- Sialorrhea (Drooling)
- Wheezing
- Unexplained weight loss
- Change in dietary habits
- Recurrent pneumonia
- Change in voice or speech (wet voice)
- Nasal regurgitation

SIGNS AND SYMPTOMS OF ESOPHAGEAL DYSPHAGIA INCLUDE:

- Sensation of food sticking in the chest or throat
- Change in dietary habits
- Recurrent pneumonia
- Symptoms of gastroesophageal reflux disease (GERD), including heartburn, belching, sour regurgitation

Other associated factors/symptoms of dysphagia include the following:

- General weakness
- Mental status changes
- Weight loss
- Chronic lung disease/Chronic hypoxia

EVALUATION AND MANAGEMENT OF ASPIRATION PNEUMONIA

How do we diagnose Pneumonia?

- Not always an exact science….

Frequent Questions from Caregivers:

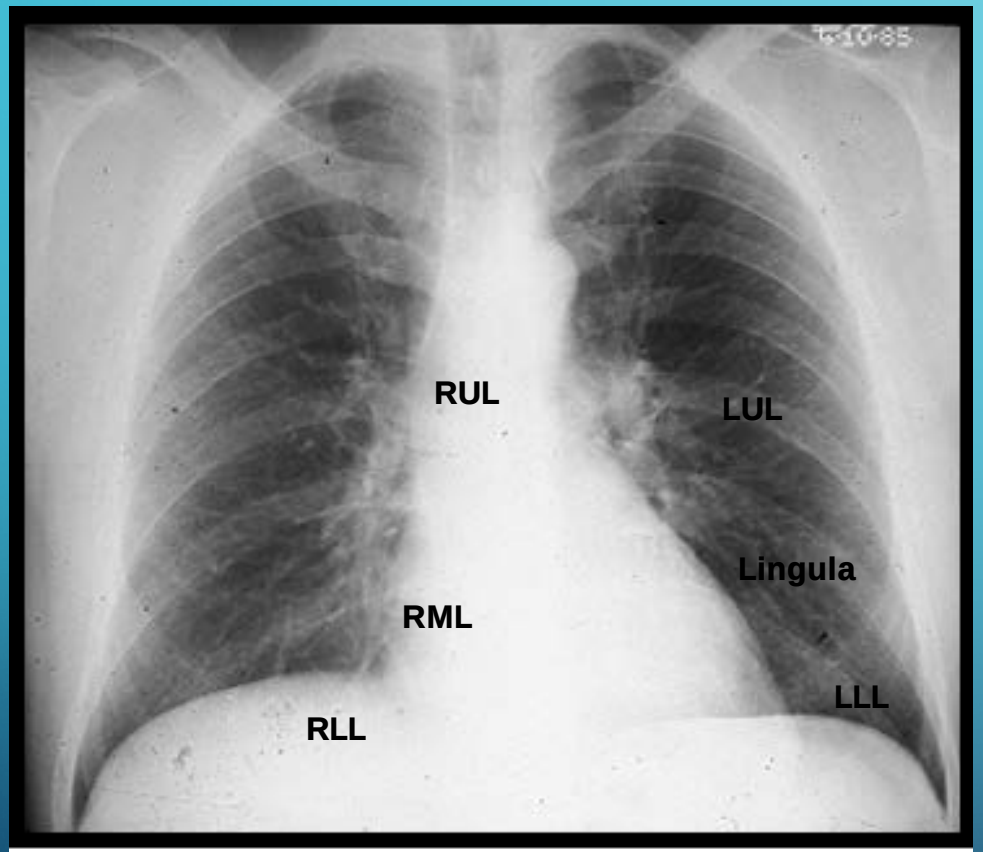
This Individual is NPO- How can it be Aspiration?

I am very careful with the Mealtime procedures and the CARMP- Why does the doctor think this is aspiration pneumonia?

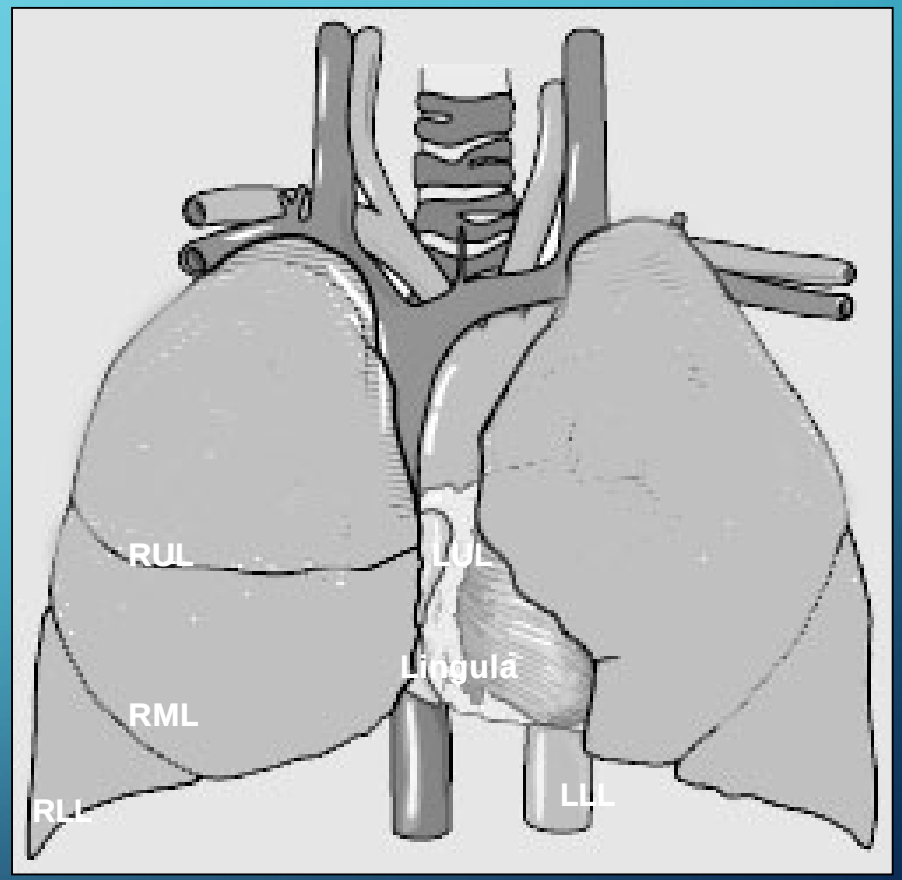
EVALUATION AND MANAGEMENT OF ASPIRATION PNEUMONIA

- **Clinical history**
- Vital signs- Look for tachycardia, fever, low blood pressure, increased respiratory rate, oxygen requirement
- CBC- Look for Elevated White Blood Cell count
- Chemistry Panel- Electrolyte abnormalities, evidence of dehydration
- Chest Xray- Evidence of Pneumonia- The X-ray findings do not always correlate, can take a few days for the X ray to show any abnormality
- Other labs
- **PHYSICAL EXAM!**

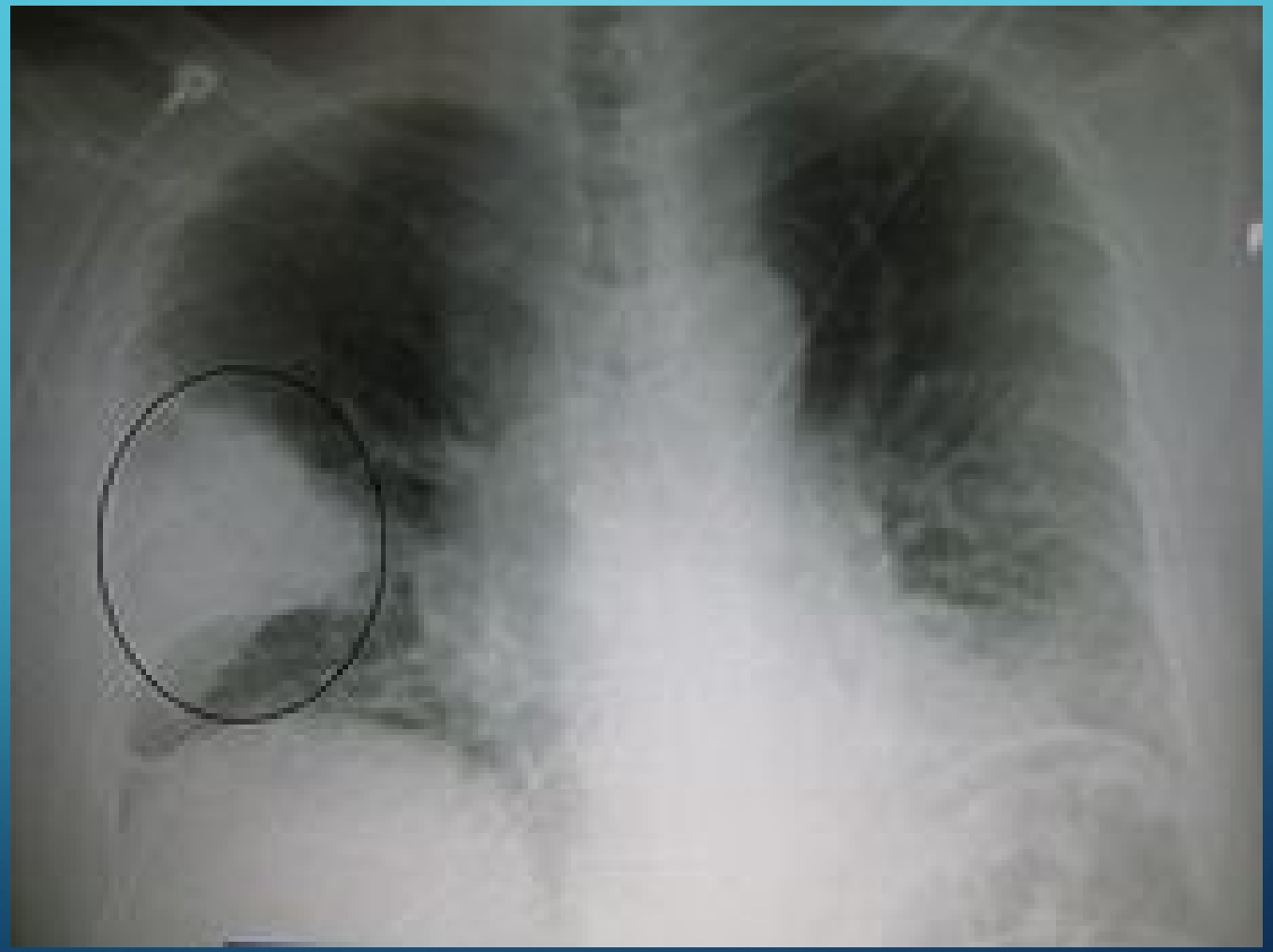
REVIEW OF LUNG ANATOMY



Normal chest film Posteroanterior view of a normal chest radiograph. Courtesy of Carol M Black, MD.



PNEUMONIA



RISK FACTORS FOR DYSPHAGIA AND ASPIRATION

Neurologic disorders:

- Stroke
- Parkinson's
- MS
- CP
- Muscular dystrophy
- Other neurologic /muscle disease

Developmental and genetic syndromes

Esophageal disorders

- Acid Reflux
- Achalasia
- Pressure on the esophagus-Certain cancers, enlarged thyroid, enlarged heart may put
- Stricture
- Esophageal diverticula, such as Zenker’s

RISK FACTORS FOR DYSPHAGIA AND ASPIRATION

Behavioral/Functional:

- Risky eating behaviors.
- Eating too fast
- Taking large bites
- Eating while lying down or walking
- Limitations in chewing due to low oral motor coordination, painful or missing teeth or dentures

Other Causes

- Intoxication or drug overdose
- Seizure disorders
- Recent anesthesia
- Poor oral care
- Gastroesophageal reflux

MINIMIZING THE RISK FOR ASPIRATION/ ASPIRATION PNEUMONIA.

- Minimize fatigue while eating/drinking
- Good positioning
- Limit distractions
- Good oral hygiene
- Medication management
- Manage GERD
- Managing risky eating behaviors
- Supervision while eating or drinking

MEET TJ

TJ is a 15 year old young man with a history of spastic quadriplegic cerebral palsy, intellectual disability, visual impairment, microcephaly, seizure disorder, self injurious behavior, mild dysphagia and gastroesophageal reflux. He underwent a gastrostomy tube placement in October 2014 for failure to thrive.

After a recent surgery, he stopped eating and drinking and his Mom brought him to SAFE clinic for assistance with increasing his oral feeding.