#### Aspiration: An Overview of Risk and Reducing Incidence

Toni Benton MD Carla Fedor RN,CDDN Continuum of Care Project UNM HSC SOM

#### Outline

#### • Why is it important to know about aspiration

- What is aspiration
  - How is NM working to minimize aspiration in the DD population
  - What is the SARL
  - Criteria for the SARL
  - ACT
  - ACT screening tool
- Resources
  - SAFE
  - OCSB

#### What is aspiration?

 Aspiration is when the contents of the mouth or the stomach enter the respiratory system, (the larynx, the trachea, the bronchi or the lungs). This can cause cough, wheezing, fevers, pneumonias, bronchitis, weight loss dehydration, lung disease and even respiratory failure and death.

 It is the leading cause of death among people on the New Mexico DD waiver

## Why do I need to know about aspiration?

- Caregivers who understand about aspiration and ways to prevent it can make a big difference for the clients they assist
- Fewer respiratory infections
- Fewer ER visits
- Better nutritional status
- Safer, more enjoyable mealtimes
- Better quality of life

#### **Risk factors for Aspiration**

- Swallowing food whole without chewing
- Rapid rate of eating or drinking
- o Pica
- Food seeking behavior
- Rumination
- Frequent vomiting or regurgitation
- Very slow eating
- o Poor head control
- Becomes fatigued during meals
- Not able to remain alert during meal
- Unable to feed self

#### Risk factors for Aspiration (cont)

- History of recurrent pneumonia or other respiratory infections
- Diagnosis of Dysphagia and/or GERD
- Scoliosis/Kyphosis
- Spasticity
- Movement Disorders
- Seizures
- Tube Feeding
- Ory mouth

# Signs and Symptoms that may be Associated with Aspiration

- Rales or rhonchi heard with a stethoscope
- Shortness of breath
- Rapid heart beat
- Repeated unexplained low grade fevers
- Coughing or gagging during or after meals
- Gurgling sounds in throat while breathing
- Weak or absent cough
- Wheezing without history of asthma
- Fear of eating or refusal to eat or drink
- Unexplained weight loss
- Bluish lips or fingernails
- Mental status changes

## Signs and Symptoms of Oral Pharyngeal Dysphagia

- Coughing or gagging during or after meals
- Gurgling sounds in throat while breathing
- Choking on food or liquid
- Wet sounding speech or change in voice
- Watery eyes during eating or drinking
  Food or liquid coming out of the nose when eating

Signs and Symptoms Esophageal Dysphagia

Sensation of food sticking in the chest

• Sensation of food sticking in the throat

Rumination
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A
 A

Regurgitation

Drooling

#### **Complications of Aspiration**

- > Aspiration pneumonia
- > Bronchitis
- > Wheezing or asthma
- > Chronic Lung Disease
- > Heart Problems
- > Dehydration
- > Fevers
- > Weight Loss
- > Poor Nutrition
- > Death

### Movie Review

## **Oral Hygiene**

- Poor dental hygiene leads to an increase of dangerous bacteria in the mouth
- Therefore, everything that passes through the mouth will pick up these bacteria
- If the oral secretions go to the stomach no problem
- If the oral secretions go to the lungs these bacteria are more virulent and can cause a severe infection
- Studies have shown that aggressive daily oral care can result in lower risk of pneumonia in persons with dysphagia

## **Oral Hygiene**

 A dry mouth can increase the number of dangerous bacteria in the oral cavity

#### Causes of dry mouth

- > Certain medications
- > NPO
- Salivary gland surgery to reduce drooling
- Certain diseases

## **Oral Hygiene**

 Every person with severe dysphagia or who is NPO should have an oral hygiene plan which has been developed by a professional with experience in dysphagia

 Direct care staff should be trained on proper oral hygiene

#### You don't have to have teeth to qualify for an oral hygiene plan !



## **Positioning for Safe Eating**

- The way an individual is positioned has an impact on that person's risk for aspiration
- Some individuals with developmental disabilities have problems with muscle control because their muscles are too stiff, not stiff enough or move back and forth between these 2 extremes
- Some individuals with DD have skeletal deformities

#### **Problems with Positioning**

- Tipping the head back/ opens the person's airway allowing food to drop straight into the trachea
- Eating while reclined/the food falls to the back of the throat too quickly
- Poor support decreases motor control

## What is Ideal Positioning?

- Pelvis supported in an upright position
- Trunk and head well aligned over the pelvis
- Shoulders in a relaxed position
- Hands toward midline
- Chin tucked
- Face upright

#### Food Texture

Regular texture
Mechanical Chopped
Mechanical Soft
Ground
Pureed
Liquefied

#### Liquid Consistencies

Regular or Thin

- Nectar Thickened
- Honey or Syrup Thickened
- Pudding Thickened

#### **Best Practices**

- Follow Mealtime Procedures for Individual
- Proper positioning
- Neutral head position-NEVER TIP BACK
  - > Chin tuck
- Small bolus
- Empty mouth before offering another bite
- Listen for clear breathing

#### Best Practices: Don'ts

#### SOLIDS

- Rush
- Feed with a fork
- Overload spoon
- Scrape spoon on back of teeth
- Turn spoon over to wipe on tongue
- Leave independent eater unattended

#### LIQUIDS

- Rush
- Tip head back
- Allow individual to tip head back
- Present or permit more than two swallows per sip.
- Place rim of cup against the upper lip

#### Adaptive Equipment

- Spoons and dishes to make it easier to eat independently
- Spoons that increase safety such as coated to protect teeth, and/or small to regulate bite size
- Cups or straws to promote correct head position and/or control rate of flow





#### What is the SARL? Statewide Aspiration Risk List

- A program that supports and monitors individuals at risk for aspiration who are served by the NM Developmental Disability Medicaid Waiver
- Persons whose names are referred to this list are required:
  - > to have a Mealtime Procedure Packet
  - > must be monitored closely by an eating specialist and by their case manager

#### **Aspiration Clinical Team**

- The NM Department of Health, in conjunction with the Continuum of Care Project, launched an initiative in the area of aspiration prevention
- The intent of this initiative is the assessment and reduction of risk by assisting provider agencies in recognizing and managing aspiration risk
- Initially, resources were focused on assessment and prevention for Jackson Class Members
- In the future it may be extended to other at-risk consumers receiving services under the Developmental Disability Waiver

#### **ACT Team**

Comprised of professionals with specialized knowledge in aspiration issues and risk

- > Physician
- > Registered Nurse
- Speech-Language Pathologist
- > Administrative support person

#### **Aspiration Clinical Team**

- Team to conduct screenings in the person's normal eating environment
- The Continuum of Care developed an assessment tool to be used by the ACT teams
- Following the screening, recommendations are given to the Interdisciplinary Team regarding ways to improve aspiration management
- Continuum of Care has begun to analyze trends and make recommendations for systemic improvements based on data gathered during the assessments

# Systemic Trends and Areas of Concern

- Paperwork is not consistent
- Clinical professionals giving recommendations without listening to direct care staff
- Different protocols or methods used by different caregivers for the same individual

#### Resources

 SAFE Clinic (Supports and Assessment for Feeding and Eating)

- SARL
- Clinical Services Bureau
  - > Nursing
  - > SLP
  - > PT
  - > OT