Strategies for Prevention of Aspiration Pneumonia

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Objectives:

1. Identify effective methods for the practical application of concepts related to improving the delivery of services for persons with developmental disabilities

2. Identify advances in clinical assessment and management of selected healthcare issues related to persons with developmental disabilities

Notes:
Strategies for Prevention of Aspiration Pneumonia

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TODAY’S FOCUS

• Leading Causes of Mortality
• Define Aspiration Pneumonia
• Identify Risk Factors
• Learn Signs and Symptoms of Aspiration Pneumonia
• Discuss Preventable Measures

World, 2008
Leading Causes of Death

1. Heart Disease
2. Stroke
3. Lower Respiratory Infections
4. Chronic Obstructive Pulmonary Disease (COPD)
5. Diarrheal Diseases
US, 2009
Leading Causes of Death
(Entire Population from CDC)
1. Heart Disease
2. Cancer
3. Chronic Lower Respiratory Disease
4. Stroke
5. Accidents

Massachusetts, 2008
Leading Causes of Death
Individuals with Developmental Disabilities
1. Alzheimer’s Disease
2. Heart Disease
3. Septicemia
4. Aspiration Pneumonia
5. Cancer

THIS PRESENTATION WILL ADDRESS ASPIRATION PNEUMONIA:

Causes
Signs and Symptoms
Treatment
Definition of Aspiration Pneumonia:

A pulmonary infection that develops in response to the passage of foreign material into the lower respiratory tract.

(The Center of Nursing Continuing Education)

Aspiration Pneumonia occurs when foreign materials (usually food, liquids, vomit, or saliva) are breathed into the lungs or airways to the lungs.
Risk Factors for Aspiration Pneumonia:
1. GERD
2. Swallowing problems - dysphagia
3. Tongue thrust
4. Immobility
5. Spinal deformities
6. The need to be fed by someone

Gastro-esophageal Reflux Disease
(Commonly known as GERD)

Occurs when the stomach contents go into the esophagus
causing inflammation and may enter the lungs

GERD
GERD Can Cause:

1. Chronic upper respiratory infections
2. Reactive airway disease - asthma
3. Acute aspiration pneumonia
4. Recurrent pneumonia
5. Premature death

SUPPORTIVE TREATMENT

1. Modify diet
2. Improve body positioning
3. Medications that:
   - decrease stomach acid
   - increase lower esophageal sphincter pressure
   - cause stomach emptying

SURGICAL TREATMENT

- Reserved for those in whom medical treatment has failed or who have significant complications
- Gastrostomy Tube or Jejunostomy tube
- Nissan Fundoplication
IMPAIRED MOBILITY

SUPINE POSITION

SCOLIOSIS

TRACHEOSTOMY

GASTRO-
ESOPHAGEAL
REFLUX

G-TUBE
FEEDING

CHRONIC
UTI & BOWEL
IMPACIONS

NON-WEIGHT
BEARING

ASPIRATION

BONE LOSS

FRACTURES

EMBOLI

S UDDEN DEATH

CHRONIC
PULMONARY
FUNCTION

IMPAIRED
PULMONARY
FUNCTION

CHRONIC
RECURRENT
PNEUMONIA

CURVATURES OF THE SPINE

FRONT VIEW

SIDE VIEW

Convexity

Concavity

Compensatory
curve

Pelvic
sitt

Pelvic
sitt

Kyphosis

Lordosis

Esophagus

Fundus

Lower esophageal sphincter

Diaphragm

Pylorus

Antrum

Duodenum

Mucosas
SIGNS & SYMPTOMS OF SWALLOWING PROBLEMS OR ACUTE ASPIRATION

- Increased coughing or choking
- Wet, raspy voice
- Increased breathing rate
- Fever

SIGNS & SYMPTOMS OF CHRONIC ASPIRATION

- Drooling
- Increased coughing or choking
- Weight loss
- Low grade fever
- Clenching mouth closed or food escaping from mouth

Treatment of Aspiration Pneumonia

- Antibiotics
- Oxygen
- Bronchoscopy
- Medications to reduce wheezing and bronchospasm
- Mechanical ventilation
Preventative Measures

- Feed upright
- Modify diet - thickened consistency
- Feed with chin tucked
- Elevate head of bed at night
- Good oral care
- Staff trained in proper feeding techniques

PROPER POSITIONING

Avoid Supine:
- Laying on your back for long periods increases spasticity and scoliosis
- It also increases GERD and slows down the digestive process
- Supine lying impedes swallowing and the cough reflex and
- Reduces lung capacity

SIMPLE TECHNIQUES

- A slight adjustment in the position can often make all the difference.
- Using equipment properly can help the person maintain a good position when he cannot support himself.
THERAPEUTIC POSITIONS

SITTING

Head in midline, neck slightly flexed
Shoulders in midrange, without rotation
Forearms supported on firm surface
Pelvis stabilized, parallel with floor, slight anterior tilt, derotated, weight equally distributed along thighs

REMEMBER....

The Quality of the position is as (if not more) important as the Quantity of positions

HEALTH PROFESSIONALS HAVE A ROLE in ASSISTING the PERSON to PREVENT ASPIRATIONS and PNEUMONIA

- Nurse
- Occupational or Physical Therapist
- Dietician, especially for people with gastrostomy or jejunostomy tube feedings
CONTACT INFORMATION

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