Reducing Health Risk Through Education: The Major Causes of Preventable Death in People with IDD

PRESENTED BY:

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There are Preventable Causes of Death in People with IDD!

Preventable Health Risks

- The Fatal Five +
  - Aspiration
  - Bowel Obstruction/Constipation
  - Seizures
  - Sepsis
  - Dehydration
  - Gastroesophageal Reflux

Preventable Health Risks

- Polypharmacy
- Drug Toxicities
- Drug Interactions
- Falls
- Adverse Behaviors
- Swallowing Difficulties
- Nutritional Issues
- And More

Barriers to Reducing Risk

- Communication barriers
- Lack of understanding of risks
- Lack of training
  - Inadequate training resources
  - Inconsistent Training
- Not knowing when to act
- Staff turnover
- Lack of available healthcare providers who understand IDD health

What is Needed

- Must be able to know who is at risk
- What they are at risk for
- Staff must be aware of risks -teaching
  - Front line staff –DSPs
  - Nurses
  - Case Managers
- Must know how and when to act on identified risks
- Must have access to clinicians who understand IDD healthcare

What is Needed - Summary

1. Identify health risks

2. Train staff

3. Improve clinicians' knowledge and competency

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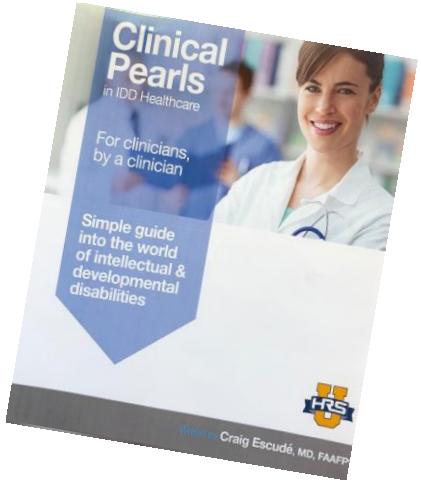

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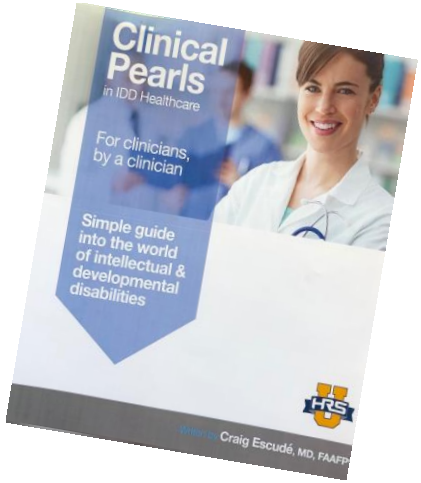
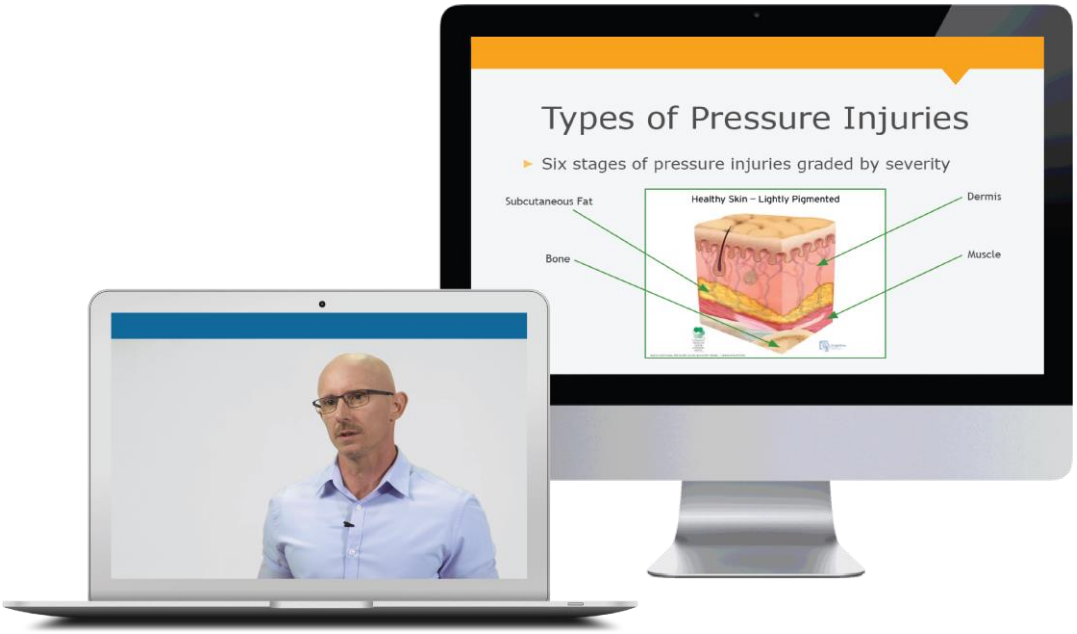


eLEARN COURSES



eLEARN COURSES

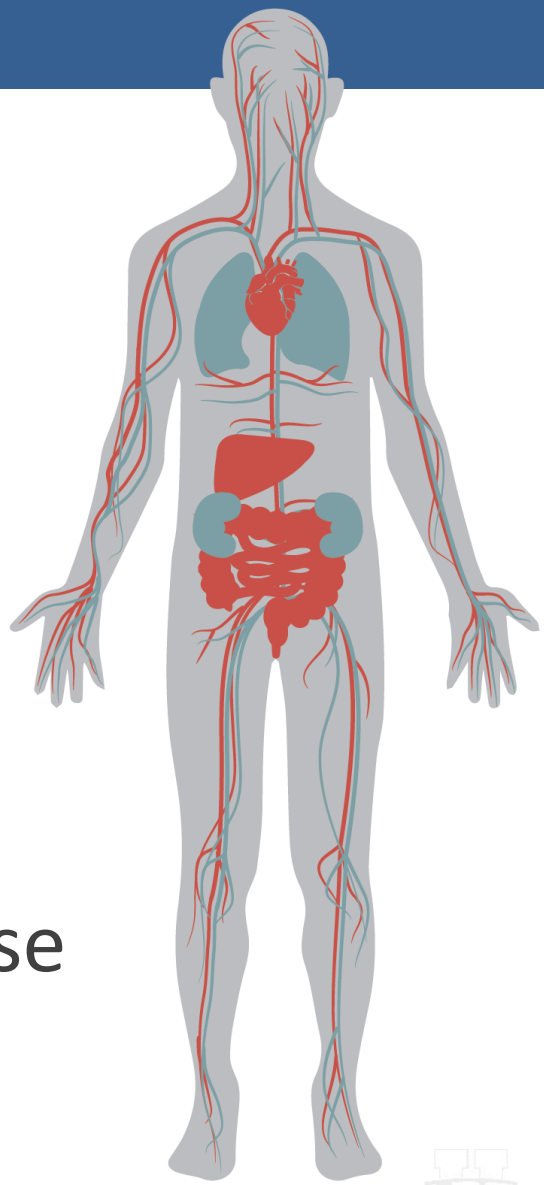
- Fatal Five Plus
- Choking
- Physical and Nutritional Supports
- Person Centered Thinking
- Custom Development

THE FATAL FIVE +

- Aspiration
- Bowel Obstruction
- Dehydration
- Seizures
- Sepsis

PLUS

- Gastroesophageal Reflux Disease
- Knowing when to act!



THE FATAL FIVE +

Our courses have three distinct paths for different personnel:

- Direct Support
- Nurses
- Case Managers

Sample of Course Content

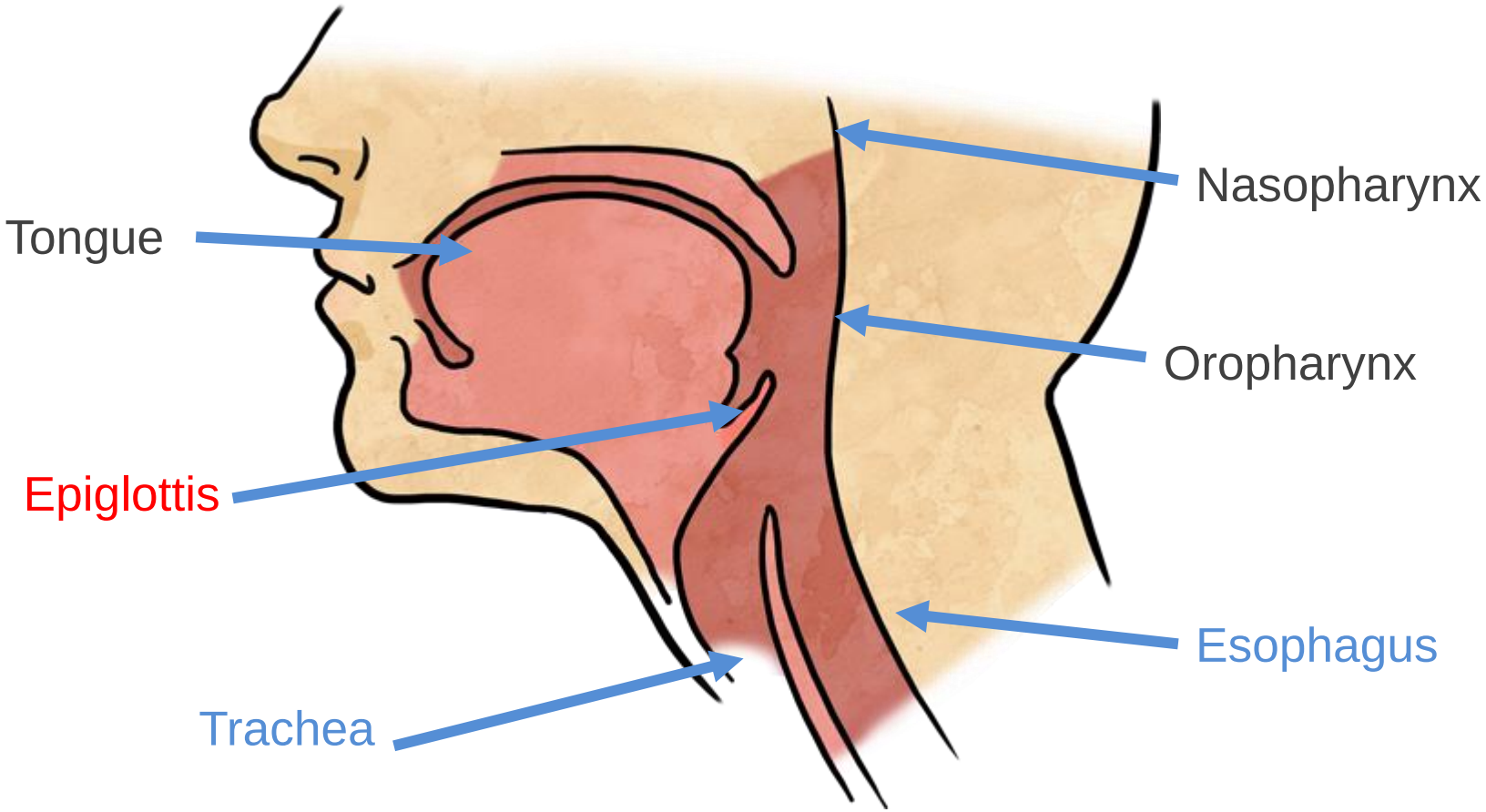
Aspiration

Breathing food or fluid into the airway

Aspiration

- A high cause of death in people with IDD
- Influenced by many factors
- Individual management and staff training are critical!
- Identifying root cause is vital!
- Can be caused by food going in or out of the stomach

Anatomy of the Head and Neck



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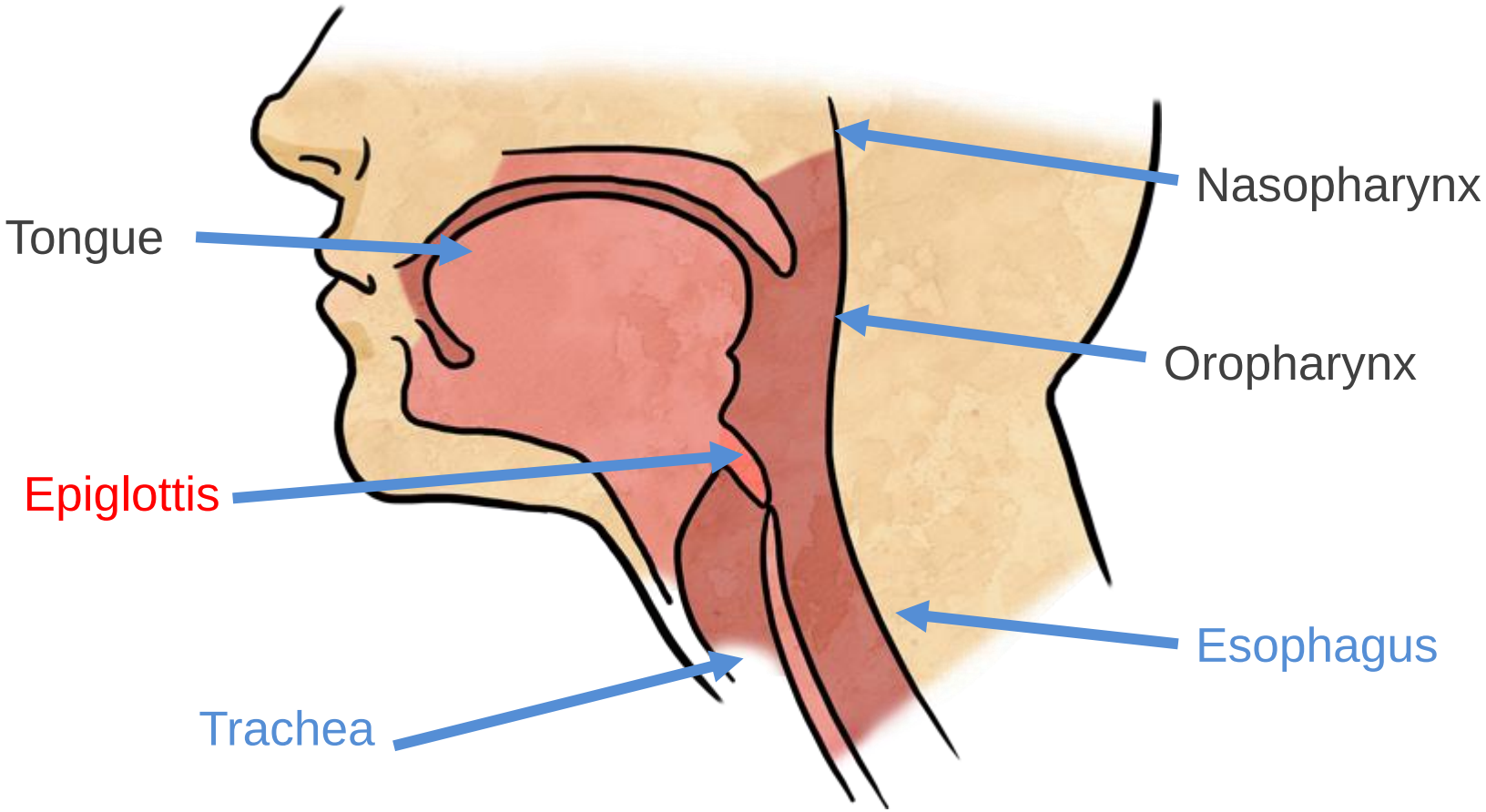
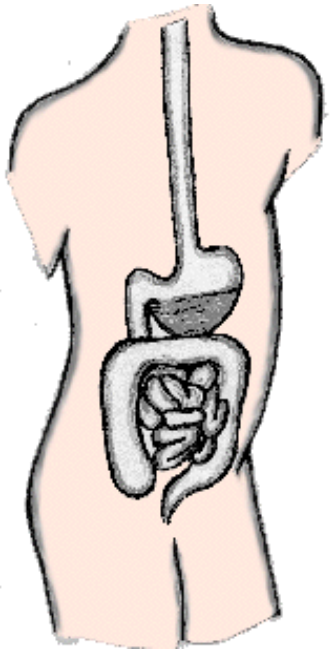
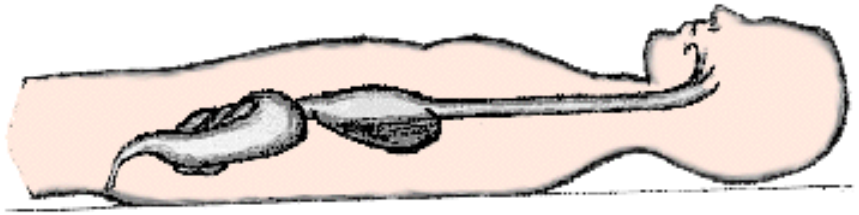


Positioning for Emptying



Poor gastric outflow in scoliosis to the left



Poor gastric outflow in aligned supine without incline

Aspiration – Subtle Signs and Symptoms

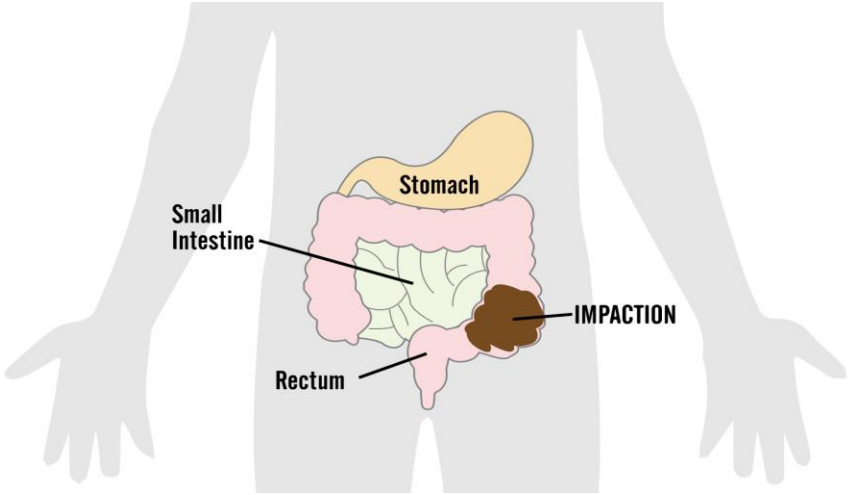
- Cough - especially with feeding
- Refusal to drink thin liquids
- Resistance in eating or drinking
- Recurrent pneumonia
- Reactive airway disease

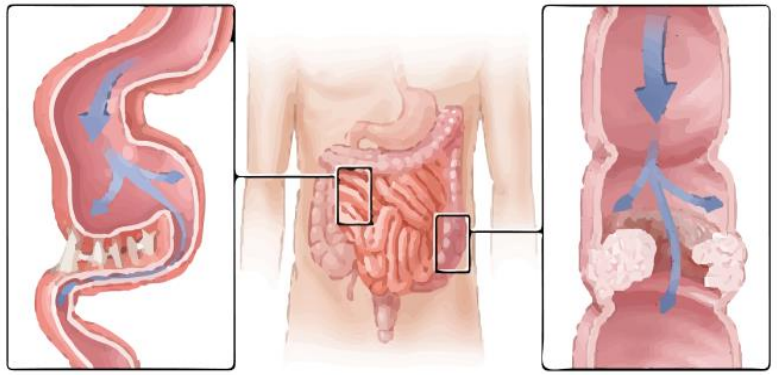
Aspiration - Prevention

- Positioning
- Feeding techniques
  - Feeding evaluation
    - Thickening Liquids
    - Food texture/size
- Test - Modified barium swallow
- PEG Tube
  - Volume/Time
- J-Tube
- J-Tube/PEG

Bowel Obstruction

Blocking of movement through the GI tract from scar tissue, lack of movement (peristalsis) or constipation or foreign body





Scar tissue on small intestine

Cancer in colon

Bowel Obstruction

- Major cause of death in the community
- Inability to communicate pain or other symptoms
- Over-reliance on bowel management medications
- Influence of anti-cholinergic drugs
- Failure to implement early intervention
- Risk of repeat incidents is VERY high!

The GI Tract

- It is impacted by…EVERYTHING
  - Medications
  - Stress
  - Physiology
  - Position
  - Nutrition/hydration

Constipation

Primary cause of “everything”

- Fever
- Anorexia
- Vomiting
- Seizures
- Medication Intoxication
- Decreased LOC
- Pneumonia
- Behavioral outbursts
- Death

Constipation - Causes

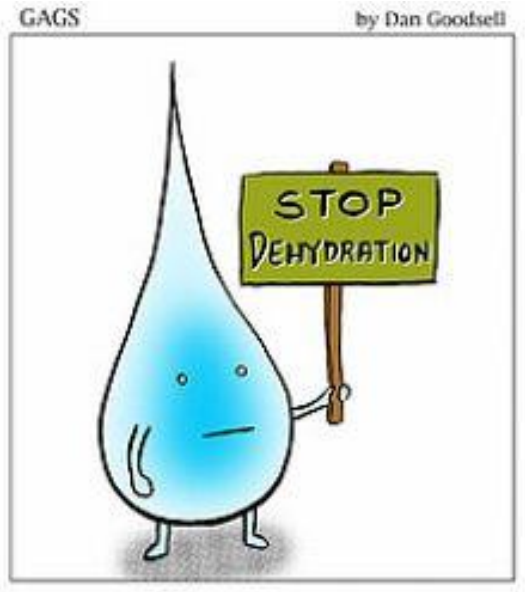
- Decreased GI motility
- Immobility
- Lack of sensation
- Diet
- Medications
  - Anti-Epileptic Drugs
  - Antipsychotics
  - Iron
  - Anti-cholinergics
  - Opiates
- Pica
  - Common
  - May cause bowel obstruction

Constipation - Treatment

- Diet
  - Fiber
  - Adequate fluid intake
- Laxatives
  - MOM
  - Mg Citrate
  - Polyethylene glycol
- Suppositories
- Enemas
- Manual dis-impaction

Dehydration

- Vomiting
- Limited intake
    - Limited ability to communicate thirst
    - Immobility to access fluids
    - Loss during intake
    - Medical conditions – DM
    - Staff awareness
- Dysphagia
- Drooling
- If PEG Tube – inadequate amount of fluids provided
- Draining PEG- Excess fluid loss without replacement
    - Follow electrolytes



Seizures

An alteration in brain function resulting in changes in awareness, or function for a brief period of time

Seizures

- Can be most severe and difficult to treat
- Varying presentations
- Status epilepticus prevalent
  - Sub-clinical status - rapid eye movements
- Accurate seizure record VERY helpful in management

SEIZURE RECORD

Name: _____ Case#: _____

Date	Time	How Long?	Usual Seizure? (check one)		Staring? (check one)		Jerking? (check one)			After Seizure (check all that apply)			Rescue Med?		ER Visit?		Signature/Title
			Y	N	Y	N	L	R	B	Tired	H/A	Sleep	Y	N	Y	N	

Abbreviations:
Y = yes N = no L = left R = right B = both H/A = headache

Seizures – Precipitating Factors

- Constipation
- Infection
- Medication compliance issues
- Menses
- Age
- Shunt issues
  - May see change in LOC
- Head Injury
- Stroke
- Hypoglycemia
- Electrolyte Imbalance

Seizures – What to do

•Ease the person to the floor.

•Turn the person gently onto one side. This will help the person breathe.

•Clear the area around the person of anything hard or sharp. This can prevent injury.

•Put something soft and flat, like a folded jacket, under his or her head.

•Remove eyeglasses.

•Loosen ties or anything around the neck that may make it hard to breathe.

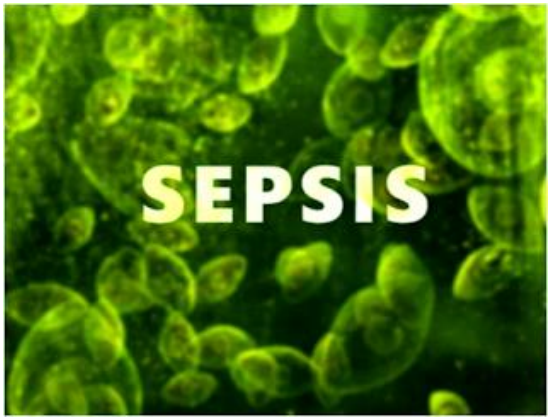
•Time the seizure. Call 911 if the seizure lasts longer than 5 minutes. Follow your program’s guidelines.

Infection/Sepsis

Blood poisoning due to failure of the immune system to respond to infection.

Sepsis

- Also known as Blood Poisoning
- Caused by an infection or its toxin spreading through the bloodstream
- Occurs when large numbers of infections agents invade the bloodstream leading to bacteremia
- Initial infection often comes from:
    - Burn, ulcer or open wound
    - Pneumonia
    - Urinary Tract Infection (UTI)

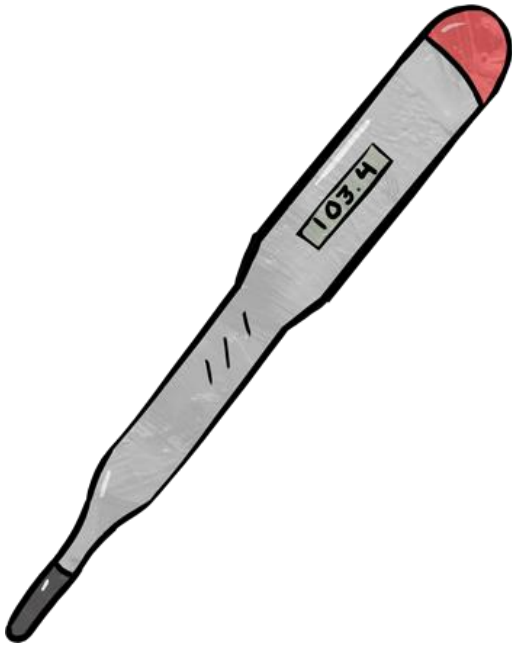


Sepsis is a Silent Killer

- A “silent killer” whose early diagnosis could save thousands of lives each year
- Should be treated aggressively
- Very prevalent, costly disease with a high in-hospital mortality rate

Sepsis Signs and Symptoms

- High temperature
- Rapid pulse
- Chills
- Low blood pressure
- Mottling of the skin
- Confusion and lightheadedness



Gastroesophageal Reflux disease (GERD)

Back flow of partially digested food and acid into the esophagus causing pain and inflammation

Gastroesophageal Reflux Disease (GERD)

- Multiple causes of death
  - Massive GI bleed
  - Esophageal cancer
  - Aspiration of stomach contents

Common Signs Not Recognized

- Pica
- Hands in mouth
- Agitation within 30 minutes of eating
- Refusing meals
- Agitation and restlessness in the middle of the night
- Clinical signs: eroding hemoglobin, hematocrit and albumin (blood protein)
- Unplanned weight loss regardless of intake

Diagnosis

- PH monitor
- Barium Swallow
- Endoscopy
- Oxygen Saturation decreasing at any time during or after mealtime

MEALTIME
PULSE OXYMETER STUDY

HRS

GENERAL GUIDELINES

1 BASELINE
SpO2 and pulse normals outside of eating. This is best done for one minute just before mealtime.

2 MEALTIME RANGE
Impact of eating on SpO2 and pulse once coordination of respiration and swallowing has begun. This is compared to the baseline.

SIGNIFICANT IF
SpO2 drops into 80's. SpO2 does not rebound into 90's (best if 93% plus.) Values decline steadily over course of meal. Pulse rate increases and stays excessively elevated without returning close to baseline rate.

3 LENGTH OF MEALTIME
Mealtimes which require longer than 30 minutes to complete place the person at risk for fatigue leading to further problems with coordination of respiration and swallowing.

4 COUGHING EPISODES
Observe amount of coughing during mealtime and its effects on SpO2 and pulse. A good clearing cough should result in a rise in SpO2 to 95% or greater, facilitating 02/CO2 exchange.

Generally, a poor or inadequate clearing cough will not affect the SpO2or cause it to drop even further. Excessive coughing during mealtime can increase fatigue and increase the risk of aspiration.

5 COUGHS WITH COLOR CHANGES
Generally indicates aspiration of mucus/food/fluids in significant amounts. If either wheezing or apnea episodes are also present, the overall seriousness of the aspiration episode increases.

6 DECLINE OF SpO2 DURING AND/OR SHORTLY FOLLOWING MEALTIME
Answer "yes" or "no" by comparing the average SpO2 during the meal to the average baseline. Many individuals are experiencing "silent aspiration". Decline of SpO2 values into the 80's can indicate aspiration even if coughing is not present. Decline of SpO2 values after mealtime may be indicative of the onset of reflux with aspiration. Readings are observed at 5 minutes and 30 minutes after the meal.

7 OXYGEN SATURATION
SpO2 during eating and drinking is also recorded in terms of the highest, lowest, and most common value. If SpO2 values are below normal limits (95%), they are further evaluated according to what percentage of time is spent below 90%, 85%, 80%. Many individuals with chronic respiratory diseases (COPD, ARDS) have lower baseline SpO2 values. These individuals may normally run between 80-85%.

8 INADEQUATE SpO2 DURING MEALTIMES
Decreases alertness and general CNS function, which includes movement in the oral structures. Hinders the efficiency of coordination of respiration and swallowing.

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MEALTIME
PULSE OXYMETER STUDY

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GENERAL GUIDELINES

Name Jim Jones **Date** 2/2/17

Assessed by K. Green, RN

Time Start: 12:15pm

Time End: 12:45pm

Baseline SpO2 95% Pulse 90

Mealtime Range SpO2 91–98 Pulse 89–108

Length of Mealtime 22 min.

Coughing Episodes 3

Single Coughs 0

Coughs with Color Change 0

Decline of SpO2 During none Following none

Five Minutes Post Meal

SpO2 92 for 2 min, then 93–98 Pulse 99

Thirty Minutes Post Meal

SpO2: 95 steady Pulse 99

Oxygen Saturation (SpO2)

Highest 98 Lowest 91 Avg. 94–99

Percent of Time Below

90% 0 85% 0 80% 0

Interpretation

1) Minimal fluctuation in SpO2/pulse during meal.

2) SpO2/pulse minimally changes from baseline during meal.

3) Three single coughs w/l 30 minute post-meal period. SpO2 and pulse not significantly affected.

4) No "wet" respirations noted during or after the meal.

5) Position upright in wheelchair with head in midline and neutral position.

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THE FATAL FIVE + eLearn Series

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- Bowel Obstruction
- Dehydration
- Seizures
- Sepsis

PLUS

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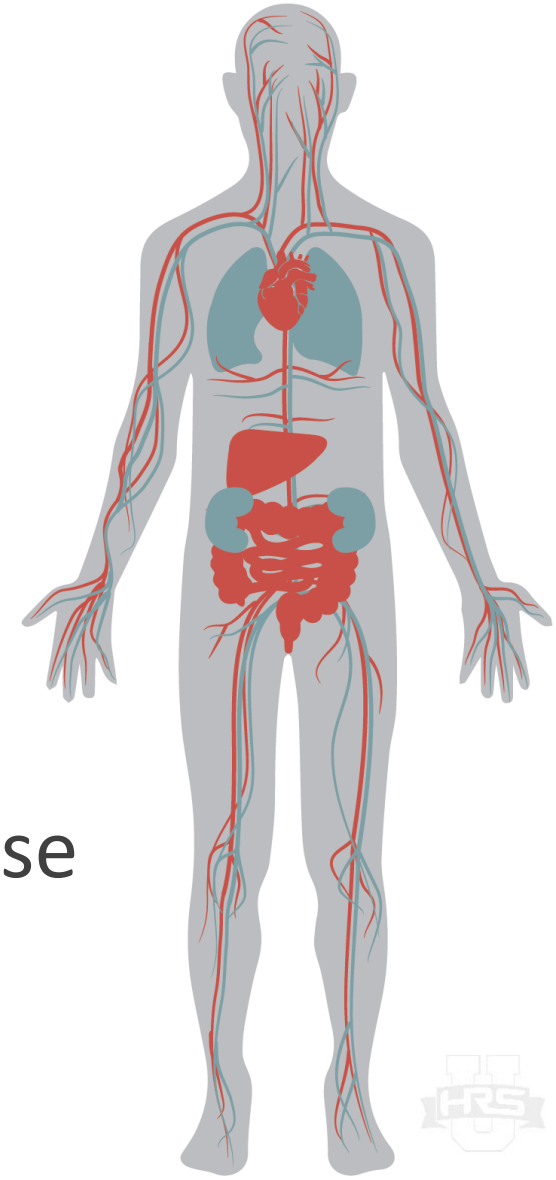
- Knowing when to act!



To get started contact: Irwin Siegel Risk Management

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INSURANCE PROGRAMS & RISK MANAGEMENT

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Thank You!

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