Dysphagia and Oral Care Issues at the End of Life

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Dysphagia

Definition: Difficulty chewing or swallowing which may be the result of reduced muscle strength, sensation, anatomical abnormalities, or the awareness of “how to swallow”.

Associated Causes:
- Stroke
- Dementia
- Head injury
- Tracheostomy
- Progressive neurological conditions (PD, MS, ALS)
Other Symptoms Associated With Dysphagia

- Reluctance or refusal to eat
- Reduced appetite

- In palliative patients, these are common physical signs associated with approaching death

Swallowing and Nutrition Goals at End of Life

- Assess for signs/symptoms of dysphagia
- Promote safe intake of food and liquids as desired
- Safe chewing and swallowing through:
  - Increased use of texture modifications
  - Feeding/swallowing strategies
- Reduce risk of aspiration/choking
- Maximize nutrition and hydration when possible
- Unsafe for oral intake
  - possible NPO recommendation
  - may not be able to meet nutrition and hydration needs orally → determine wishes with respect to feeding
Educating Families

- Fears of “starvation” and “dehydration”
- Ensure they understand the dying process
- Careful feeding can reduce the risk of aspiration and aspiration pneumonia
- Artificial feeding and hydration will not cure the underlying problem, and will not improve quality of life in progressive disease processes.
- No evidence that natural dying (in the absence of TF) causes discomfort (Post, 2001).

Comfort Care

- Offer food and fluid for pleasure and comfort, while minimizing aspiration/choking risk
- Follow the direction of the patient on how much food/liquid is taken
- Provide favourite items
- Maintain excellent oral hygiene and treat complaints of dry mouth (xerostomia)
Secretion Management

**Xerostomia** (dry mouth)

- **Causes:** reduced oral intake, dehydration, medications, mouth breathing, reduced saliva production

- **Management:**
  - medication review (opioids – i.e. morphine)
  - frequent oral hygiene
  - ice chips, fluids
  - MoiStir spray

*Excess Secretions*

- **Causes:** mainly secondary to impaired control of swallow reflex
  - we swallow reflexively up to 1000x/day

- **Management:**
  - medications (Scopolamine, Glycopyrrolate)
  - suctioning
  - oral hygiene

Oral Care

- **Dehydration** causes dry mouth and the sense of thirst
- **We** can alleviate this through good mouth care, offering ice chips and/or fluids
- **The condition of the mouth depends on oral care** provided, not on the state of hydration
Oral Care

“Despite being an essential element of caring for palliative care patients, oral care may still be deemed insignificant or of minor importance when considering overall disease load.”

(Rohr et al, 2010)

What Are The Barriers?

<table>
<thead>
<tr>
<th>PERCEIVED</th>
<th>MEASURABLE</th>
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<tbody>
<tr>
<td>Priority level</td>
<td>Lack of supplies</td>
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<tr>
<td>Gross/unpleasant task</td>
<td>Lack of time/staff</td>
</tr>
<tr>
<td>Lack of caregiver knowledge</td>
<td>Resistant patient</td>
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<tr>
<td>Swallowing problems</td>
<td>Decreased LOC and/or ability to participate</td>
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<td></td>
<td>Patients choose to be independent</td>
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</table>
Oral Care

- Why is it important?
  - maintains comfort
  - improves communication
  - easier chewing/swallowing
  - decreases sensation of dry mouth, dehydration
  - enhances quality of life

- What does it involve?
  - keep mouth and lips clean, moist
  - remove debris, dried secretions
  - clean the tongue

- Frequency?
  - minimum every 2 hours
  - during last days/hours, every 15-30 minutes
Involving the Family

- Proper training from SLP and/or Nursing staff
- Get them to bring in supplies recommended
- Change the focus
  - oral care for comfort, not food for comfort
- Sense of being involved and helping
Oral Care Supplies

- Soft bristled toothbrush
- Non-foaming toothpaste
  - helps remove debris from teeth, tongue, gums, buccal cavities
  - avoid Sodium Lauryl Sulfate – drying effect
  - specialized products - Biotene toothpaste
- Non-alcohol based mouthwash
  - dip toothette in mouthwash, squeeze excess off, and clean oral cavity
- Avoid glycerine-based products → more drying

Oral Care Supplies

- Suction toothettes – help apply lubricating/cleaning products, and suction out excess material/debris
- Bite blocks
- Brush/clean dentures
- Moistened toothettes to remove dried secretions from the palate
- Tongue depressor
- Flashlight
- Mouth moisturizer, lip balm
What’s Happening at Concordia?

Oral Care in the ICU…
“Back to BASICS”

ICU began a Patient Centered Improvement Campaign called Back to BASICS
Plan

- Roll out every 6-8 weeks.
- Empower, Support, Provide Resources (ESP) to Bedside staff
- Improve overall Outcomes for patients, families and staff

How is Oral Care Palliative Care in the ICU?

WHO definition of Palliative Care:

“...an approach that improves the quality of life of patients and their families facing the problems associated with life threatening illness, through prevention and relief of suffering....”
How will we improve quality of life for our clients?

- ICU specific quality care markers:
  - Ventilator days
  - Length of stay
  - Hospital Acquired Pneumonia (HAP)
  - Ventilator Associated Pneumonia (VAP)
  - Central Line Infection (CLI)

Oral care is part of a quality bundle shown to decrease Ventilator days, HAP and VAP.

Concordia’s ICU Baseline

- Mean Ventilator Days: 3.2
- Mean Length Of Stay: 3.9
- CLI = 0 in 1991 Central line days (2 years) as of February 13th 2013
- VAP = 5.6/1000 ventilator days in 2012 (double the regional average)
- In Canada, a VAP represents $11,000/case in avoidable costs.
- $61,600 (estimated) avoidable costs in 2012 calendar year.
Agreed upon ICU standards

- Teeth should be brushed twice daily.
- Oral Care should be performed at least every 4 hours and as needed (prn).
- Assumption was we were at a 75% compliance rate.

The Facts

- ICU oral care comes in a 24 hour kit.
- One (1) kit should be used for every ventilator day.
- Concordia ICU had 632 ventilator days in 2011-2012 fiscal year.
- Concordia ICU used 80 kits in the same time frame.
- Teeth brushing was roughly at a 15% compliance rate!
Regional ICU Program Component

- Regional directive to change to a chlorhexidine oral rinse/toothbrush
- Regional directive to try to reduce VAP to a goal of 1.8 cases/1000 ventilator days in 2013
- Concordia’s immediate goal is to reduce VAP rates by 50% to 2.8/1000 vent days

Other factors

- Increased cost = roughly $15,000 per year in oral care supplies.
- Reviewed the literature found this was not a unique problem.
- Contacted researchers in the USA and Canada.
The Plan

- Complex problem with a simple solution…
- Place oral care on the Medication Administration Record (MAR).

The Plan (continued…)

- Initiated December 3rd, 2012
- Oral care written as a physician’s order:
  - Schedule teeth brushing times 0800 and 2000.
- Oral care schedule every 6 hours in between teeth brushing and PRN.
- Compliance
  - Began tracking weekly ventilator days and product usage.
Getting Buy-In

- Transparency
- ICU staff shown our data and agreed change required.
- Staff embraced the change.
- Staff wanted to be accountable for this.

The Early Results

![Bar chart showing percent time teeth brushed over different months.]

- Baseline
- Goal
- Dec
- Jan 1-15

Percent time teeth brushed:

<table>
<thead>
<tr>
<th>Month</th>
<th>Percent time</th>
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<tbody>
<tr>
<td>Baseline</td>
<td>0%</td>
</tr>
<tr>
<td>Goal</td>
<td>70%</td>
</tr>
<tr>
<td>Dec</td>
<td>60%</td>
</tr>
<tr>
<td>Jan 1-15</td>
<td>80%</td>
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As of February - 75% compliance

![Bar chart showing compliance percentages over time.]

Ongoing Challenges

- Product changes/Switch to chlorhexidine.
- Ongoing education.
- Physicians forgetting to write orders.
  - Solution 1: Standing orders updated.
  - Solution 2: Preprinted MAR’s developed.
- Continued auditing.
- Maintaining momentum.
Questions - Outside of the ICU

- Should oral care be on the MAR be hospital wide?
- Are there certain groups (i.e. end of life) where using the MAR would be an option?
- Limited equipment - suction toothettes and toothbrushes in ICU only.
- Should we provide toothbrushes to all patients?
- Finances - cost effective vs. cost neutral vs. cost deficit?

References


