Oral Care & VAP: BACCN Consensus paper

Dr Tim Collins,
BACCN National Board,
Professional Advisor
Different presentation from last year!

“Sepsis without the weightloss”
Aims

• Why have a BACCN consensus paper relating to oral care with VAP reduction?

• Present the scope of this proposed document.

• Review the methodology & design of the VAP Oral Care consensus.

• Time line for completion and dissemination.
Scientific show of hands:

• 1. How often do you perform oral care on pts?

• 2. Who uses a manual tooth brush?

• 3. Who uses pink swabs for moistening?

• 4. Do you use chlorhexidine?

Great diversity in practices!
(High level evidence) Endorsed by Simpson et al
Google search

• Wealth of material present – confusing!

• “Oral Care ICU” 18,700 hits
• “Oral Care patients” 237,000 hits
• “Oral Care dogs” 288,000 hits
Oral Care can be daunting!

Reference: Barnes-Jewish Hospital (Oral Care Protocol Presentation)
Acknowledging Sage/Stryker

Research grant applied for and awarded by Sage/Stryker.

Funds provided for travel for meetings & expenses & publication costs.

Collaboration with Sage/Stryker but final document and recommendations lie with consensus group/BACCN.
Aim of consensus group

• **AIM:** BACCN to provide a consensus evidence-based paper for best practice for oral care with intention of reducing VAP for level 1-3 critically ill patients.

• **PURPOSE:** To give direction to HCPs as used a part of VAP prevention strategy with ventilator care bundle
VAP definition

“New onset pneumonia that has developed in patients who have been mechanically ventilated for more than 48hrs via ETT or Tracheostomy”


Diagnosis by clinical signs, x-ray, microbiology but literature provides no consensus for VAP diagnosis (not essential for this oral care document)
Pathogenesis for Pneumonia in critically ill

• The oral cavity has a vast number of microorganisms. Dental plaque provides microhabitat.

• Bacteria replicate 5 times in 24hrs.

• Aspiration of pathogenic microbes into the lungs is the most common cause of pneumonia.
Why do this consensus?

- VAP increases mortality, complications, LOS & costs.
- 10-28% of ventilated patients acquire VAP (Wagh & Acharya 2009 & Urli 2002)
- VAP increases ICU LOS by 6 days & generate extra costs of £6000-£22000 per VAP episode (Safdar et al 2005, Wagh & Acharya 2009, Speck et al 2016)
- Care bundles state “effective oral hygiene”

What does this actually mean?
Prevention is the cure!

Springfield General Hospital
“Come for the surgery,
Stay for the complications”
Consensus meeting in London

• Via social media invitation for nurses to attend.

• 15 people attended from across U.K.

• Variety of nurses from junior front line to managers, academics, educators, consultant nurses.
Scope & Methodology of the consensus document
Methodology

AIM:
BACCN to provide a consensus evidence-based paper for best practice for oral care with intention of reducing VAP for level 1-3 critically ill patients.
Methodology

Design:
15 critical care & subject matter experts with a professional or academic interest in oral care/VAP.

Scope and round table discussion chaired by Dr Tim Collins (BACCN National Board)
Methodology

Methods: Focused upon 5 oral care practices for L1-3 Critical care patients within the context of reducing VAP/HAP.

1. Frequency of oral care
2. Tools for oral care
3. Oral care technique in ventilated patient
4. Solutions
5. Oral care technique in level 1-2 patient
Methods 2

• Extensive literature review

• Literature evaluated as a group

• Literature evaluated using GRADE criteria (Grading of recommendations Assessment, Development & Evaluation)

• Generating recommendations as strong, weak or best practice consensus when applicable.
## GRADE Criteria

### Underlying research methodology:

1. **High evidence**  
   Randomised Controlled Trial (RCT)

2. **Moderate evidence**  
   Downgraded RCT or upgraded observation studies

3. **Low evidence**  
   Good quality observational studies with randomization

4. **Very low evidence**  
   Downgraded controlled studies or expert opinion

### Factors that may decrease strength of evidence from GRADE criteria

a. Methodology issues of RCTs that suggest high likelihood of bias

b. Inconsistency of results, including problems with subgroup analysis

c. Indirectness & variability of evidence (e.g. variation in population, intervention, control, outcomes, comparisons, sample size)

d. Imprecision of results, data and subsequent conclusions

e. High likelihood of reporting bias

(Guyat el al 2008 & Rhodes et al 2017)
Strong versus weak recommendation (Guyat el al 2008 & Rhodes et al 2017)

<table>
<thead>
<tr>
<th>What should be considered?</th>
<th>Recommended process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is there high or moderate evidence?</td>
<td>The more higher quality the evidence and publications then the more likelihood a “strong recommendation” for the best practice statement</td>
</tr>
<tr>
<td>Is there certainty about the balance of benefits versus harm/burdens?</td>
<td>The larger the difference between the desirable and undesirable consequences and the certainty around that difference, the more likely a strong recommendation. The smaller the net benefit and the lower the certainty for that benefit, the more likely a weak recommendation.</td>
</tr>
<tr>
<td>Is there certainty or similarity?</td>
<td>The more certainty or similarity in values and preferences, the more likely a strong recommendation.</td>
</tr>
<tr>
<td>Ae resources worth the expected benefits?</td>
<td>The lower the cost of an intervention compared to the alternative and other costs related to the decision (i.e., fewer resources consumed, staff manpower), the more likely a strong recommendation.</td>
</tr>
</tbody>
</table>
Results

• Results are still be compiled for publication.
• Aim is for publication by end of 2017.
• Publication will be in journal, website and disseminated via our communication channels.
• Learn zone e-learning package
• Acknowledgement to Sage/Stryker

• Thank you to consensus group members:
Catherine Plowright, Sarah Leyland, Michelle Scallon, Emily Hodges, Gill Leaver, Sarah Clarke, Julie Platten, Sara Millin, Kirsty Martin, Linda Mccready, Claire Harcourt, Jo Caisley, Gabby Rowley-Conwy, Patsy Tipene, Eric Farrell, Dustin Lake.
Learn Zone-
Chest Drain Management
• Following focus group meeting at 2016 conference/social media communications calling for future topics

• Chest drain management chosen.

• Board supported financial commission in addition to tracheostomy course
Will consist of following modules including simulation video and interactivity

- insertion of a chest drain
- securing and cleaning the chest drain site
- care and management
- flushing and maintaining patency
- changing a chest drain bottle
- removal of a chest drain
• Will provide CPD accreditation for revalidation
• Aiming for release early 2018
Thank you

Any questions?