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Members of the review committee,

Please find within our application for a quality grant. With this proposal, we are respectfully requesting the sum of $14,981.54 to implement a new process in an attempt to increase adherence to recommendations for regular completion of oral care for patients at high risk for contracting hospital acquired pneumonia. The objectives specified within this research plan are aligned with the Shirley Ryan AbilityLab's mission of translational research, in that we have identified a clear opportunity to enhance the care we provide on a daily basis on our inpatient units, and suggested a plan that is supported by current research with the ultimate goal of improved patient outcomes. This proposal aims to initiate a collaborative approach to improving patient care and safety, in addition to increasing efficiency through a new documentation practice. This initiative includes a component of staff education in order to better equip our clinicians and nurses to meet our patients' needs, supporting our tradition of excellence in patient care. We believe that implementing the methods described in this research plan will deliver a more knowledgeable staff, improved communication between nursing and allied health, and improved patient care.

We are incredibly grateful and excited at the opportunity to apply for this grant. Thank you for your consideration of this proposal.

Sincerely,

Anne Galvin, MS, CCC-SLP
Amy Skapek, RN
Elissa Conlon, MS, CCC-SLP

Background and Description:

It is documented within the current literature that good oral health and hygiene is associated with a decrease in hospital acquired pneumonias across a variety of healthcare settings (hospitals, long term care facilities, skilled nursing facilities). The CDC estimates the average added cost to treat a single pneumonia to be $22,875, with an incidence of 157,500 hospital associated pneumonias in the year 2011. At the Shirley Ryan AbilityLab, our nursing staff is educated regarding basic oral hygiene practices during orientation; however, in practice, there is inconsistency in ensuring all patients are receiving oral care regularly. This team theorizes that a large component of this breakdown is related to a failure to identify patients who are in need of assistance with oral care, in addition to the absence of documentation to indicate that oral care has been provided.

Speech pathologists (SLPs) are specially equipped with knowledge to identify patients who would be considered at high risk for contracting a pneumonia, and who are in need of assistance to complete oral care due to extensive knowledge in the areas of both dysphagia and communication disorders. Communication disorders are relevant in this context as these challenges may impact a patient's awareness of the need for basic oral care, and/or the ability to request assistance if unable to complete oral care independently.

In our current practice on the inpatient rehabilitation unit, many patients who would be considered at high risk are not receiving regular oral care. In addition, unless an SLP speaks directly to a nurse, it is unknown to that SLP whether or not a patient has received oral care. This becomes important before feeding a patient, or upon initiation of dysphagia intervention, as it is best practice to ensure that the patient has received oral care very recently prior to initiating dysphagia exercises, or eating/drinking. Because there is no documentation method for oral care, the SLP then must contact a nurse to learn whether or not oral care has been provided, which is sometimes known but sometimes not (for example, at shift change it is not always passed along in report). Additionally, the absence of documentation of oral care could result in unnecessary healthcare costs, as an SLP who is unable to speak directly to a nurse may provide oral care to a patient who has already received it, but is unable to communicate that. In this situation, two oral care kits are being used instead of one.

The goals of this grant proposal include: implement of a tool for SLPs to identify these high risk patients and communicate this to nursing via a power order; review and enhance of educational content regarding oral care provided at orientation; create a simple documentation form to be completed and entered into the electronic medical chart upon completion of oral care.

Methods:

Step 1: Develop identification tool for high risk patients

- Review current literature for existing methods of identification of high risk patients (i.e. the Oral Health Assessment Tool). Generate a checklist to recommend for use by clinician to more objectively identify high risk patients based on existing literature

Step 2: Collect pre-implementation data

- Begin utilizing checklist to identify high risk patients. After identification of high risk patients with oral care orders from admitting MD, track consistency of oral care via direct communication with nursing (consistent with current practice)
- Track incidence of hospital acquired pneumonia

Step 3: Work with Cerner leaders to create Powerchart form to track completion of oral care

Step 4: Collect information related to current knowledge and practice of SLPs and nursing

- Create survey for both nursing and SLPs regarding consistency that oral care is being completed, knowledge of importance of oral care, and ability to identify high risk patients, to be completed pre/post roll out; gather and summarize results at both points

Step 5: Collaborate with nursing to prepare for implementation and create orientation materials
- Meetings with identified roll-out floor nursing lead, estimated 2-4x over 1 month to prepare
- Create educational materials to be utilized in orientation to ensure materials fit seamlessly within current orientation procedures
- Educate nursing staff on Cerner changes prior to roll out
Step 6: Implementation phase
- Investigator utilizes identification tool to mark patients as high risk; fires power order; nursing is responsible for completion.
- Control group data is also collected: high risk patients are identified by investigator using same tool; but, no power order is fired (consistent with current practice). Investigator will track consistency that oral care is being provided via direct communication with nursing
- Investigator performs chart reviews as patients are admitted to identify potential candidates for experimental and control groups
Step 7: Data collection and analysis
- Compare pre-implementation data to control and experimental groups; compare control and experimental groups
- Compare survey results from SLPs and nursing pre/post implementation

Outcomes measured:

1. Incidence of hospital acquired pneumonia pre/post implementation
2. Survey results from nursing and SLPs as described above
3. Compliance with completion of oral care as measured by power chart forms
4. Experimental group data compared to a control group and pre-implementation

Timeline:

Months 0-6 are pre-implementation (steps 1-5)
- Identification tool (step 1) created by end of 1st month
- Steps 2-5 begin upon completion of step 1; pre-implementation data collection lasts 3-6 months, depending on time needed for Cerner leadership to create form and roll out for use. During this time, steps 2, 4, and 5 will be completed as described above

Months 6-12 are implementation phase
- Data collected for experimental, control groups; investigator continues to identify candidates

Months 12-14 are data analysis, interpretation, implications for potential organizational adoption

Deliverables:

1. Educational materials related to the importance of and rationale for providing oral care will be created to be reviewed as a part of orientation for every nurse and inpatient SLP. These materials will also be made available in shared folders for respective disciplines to allow for review as needed following orientation.
2. Inservices will be provided for current staff reviewing the educational materials described above, as well as implementation of identification process and Cerner changes.
3. A new process for identification of high risk patients will be implemented by inpatient SLPs using an objective checklist based on current literature.
4. A new Cerner form will be created to document oral care. It will be designed to fire at regular or recommended intervals (i.e. 3x/day).
5. Presentation of findings during at least one external conference
6. Ultimately, this proposal would achieve a change in a daily process based on literature which supports regular oral care for patients considered at high risk, with improved patient outcomes as a result. This will also contribute to internal staff development for both nursing and SLPs, increasing our knowledge and our ability to serve our patients.

Literature References

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