Safe and Efficient Placement of Small Bore Feeding Tubes on the Medicine Floor

The Problem
There are multiple clinical indications for nasogastric tube placement (i.e. treatment of ileus, administration of medications, enteral nutrition, and gastric lavage), and yet this procedure is not without risk of adverse gastrointestinal and pulmonary complications. Over the 2013-14 calendar year, 1086 Dobhoff enteric feeding tubes were distributed to various BIDMC floors (our best surrogate for number of tubes placed). During this period, there were 3 pneumothoraces (“PTX”) reported, a 0.27% event rate for the year. While this rate is similar to that seen at other tertiary care centers, it represents an opportunity for improvement.

Currently, our ICUs have initiated a 2-step imaging protocol to confirm appropriate placement outside the airway. Other institutions have adopted a similar 2-step process that has led to a significant reduction in this adverse event. There is no protocol in place yet for Dobhoff tube placement outside the ICU, and implementation will require coordination between inpatient providers and radiology operations.

Aim/Goal
Our goal is to implement a time-efficient and safe protocol on the general medical floors to decrease the rate of post procedural pneumothoraces. We expect that a 6-month interval will be adequate to assess the success of this intervention based on prior literature.

The Team
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The Intervention
We propose establishing a pilot protocol for Dobhoff placement on medicine floors based on the current ICU policy (CC # 42), which utilizes the 2-step method.
- Implement 2-step protocol for Dobhoff placement on general medical floor (either one floor or all general medical wards)
- Monitor adverse events related to Dobhoff placement via the RL6 Incident Reporting System
- Collect verbal feedback from medical house staff and Radiology Operations

The Results/Progress to Date
We met with Radiology Operations to develop a specific protocol for medical house staff to use when performing the 2-step method of Dobhoff insertion outside of the ICU. This protocol involves communication between house staff and radiology technicians in order to minimize wait time and improve work flow. It also involves creation of a new prompt in POE for “Feeding Tube Series.” Please see example flow chart to the right.

Lessons Learned
Implementation of the 2-step method on the medicine floors is a multi-disciplinary process requiring enhanced, real-time communication between departments.

Next Steps/What Should Happen Next
We will solicit feedback from medical house staff regarding the ease/utility of the new protocol. We plan to meet with Radiology Operations to find out how the new protocol affects work flow and the allocation of resources. We will monitor adverse events through the RL6 Incident Reporting System.

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