Improving Continuity of Care: A New Tool to Follow Inpatients with Radiology-Placed Catheters
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Purpose

- Our body division rounds on all inpatients with radiology-placed catheters
- Residents rotate weekly through the body division making consistent follow-up difficult
- We implemented a new electronic handoff tool to facilitate communication between radiology residents and attendings covering inpatients with catheters
- We also created a linked reporting tool that allows long-term electronic cataloging of procedures and analysis of outcomes

Methods

Radiology Signout: radiology template within hospital EMR (LifeLinks, Siemens Invision)

- Automatically populated fields:
  1. Patient demographics
  2. Medications
  3. Laboratory values, including: blood count, chemistries and 5-day lab trends
- Free text fields for manual input:
  1. Diagnosis: procedure and date performed
  2. HPI: pertinent patient history, resultant microbiology or pathology
  3. Events: daily catheter output
  4. To-Do: specific follow-up recommendations (i.e., pending pathology) to communicate at handoff times between residents (weekends and service change)

Radiology Report: linked online cache

- Automatically populates with most recent Signout patient census and respective free text fields
- Date of admission, date of addition to Signout and date of discharge are imported from hospital EMR for each patient encounter
- Patients remain on Report after catheter removal or automatically after hospital discharge
- Data exportable to Microsoft Excel
  - Overview of all procedures performed
  - Targeted analysis of documented outcomes

Example of usage over 17 weeks

Patient demographics:
- Average age: 53.8 years (range 4-85 years), with 13.7% (7/51) under 18 years
- Male: 68.6% (35/51)
- Female: 31.3% (16/51)

Catheter Details:
- Number of catheters/tubes: 55 (for 51 unique hospitalizations)
  - >1 catheter: 4/51 patients (7.8%)
  - Required replacement: 2/55 catheters (3.6%)
  - Required upsizing: 5/55 catheters (9.1%)

Results

- Current pilot has been in place for 1 year and has been used by 37 residents and 11 attendings
- Signout and Report are both accessible anywhere within the hospital or remotely via a secure VPN

Example: CT-Guided Drainage

- Doe, Jane, 52-year-old female on IWR, MTH #2, admitted 05/20/2013 at 1:17 PM
- Indication for Procedure: CT-Guided percutaneous abscess drain placed at 10:30 AM
- Type of Imaging Guidance: CT
- Indication for Procedure: CT-Guided percutaneous abscess drain placed at 10:30 AM

Conclusion

- Radiology Signout is easy to use and provides an efficient mechanism to improve continuity of care for inpatients with radiology-placed catheters
- Implementation of Radiology Report has allowed for a centralized and organized format to review all procedures performed and analyze outcomes achieved
- Radiology Signout and Radiology Report have been easily integrated into the workflow of our body division