UNIVERSITY RADIOLOGY

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RUTGERS
Robert Wood Johnson Medical School

IMPROVING COMPLIANCE OF POST-PROCEDURAL DOCUMENTATION IN THE ELECTRONIC HEALTH RECORD AT A MEDIUM-SIZED COMMUNITY HOSPITAL

David Berezovsky DO, Sumit Baral MD, and Albert C. Li MD MBA

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BACKGROUND

- The Joint Commission (TJC), an American regulatory agency, mandates "when a full operative or other high-risk procedure report cannot be entered immediately into the patient's medical record after the operation or procedure, a progress note is entered in the medical record before the patient is transferred to the next level of care. This progress note includes the name(s) of the primary surgeon(s) and his or her assistant(s), procedure performed and a description of each procedure finding, estimated blood loss, specimens removed, and postoperative diagnosis" (TJC, 2020).
- Centers for Medicare & Medicaid Services (CMS) requires an operative report be written or dictated immediately following surgery and signed by the surgeon (42 CFR § 482.51(b)(6)).
- American College of Radiology (2019), Society of Interventional Radiology and Society of Pediatric Radiology have guidelines suggesting routine post-procedural inpatient documentation to improve patient care.

The Joint Commission. (2020, September 13). RC.02.01.03 EP 7. E-dition. http://e-dition.jcrinc.com/
42 C.F.R. § 482.51
American College of Radiology. (2019). *ACR–SIR–SPR practice parameter for the reporting and archiving of interventional radiology procedures*. Retrieved December 4, 2020 from https://www.acr.org/-/media/ACR/Files/Practice-Parameters/Reporting-Archiv.pdf

BACKGROUND AND GOALS

At our hospital:

- Interventional Radiologists (IRads) at our hospital routinely documented their procedure via voice recognition transcription that is integrated with the electronic health record (EHR) after the procedure. However, sometimes the post-procedural documentation was not done until the IRad returned to their workstation after finishing a series of a procedures, all as a batch at the end of the day, or the next day if the case was a case towards the end of the day or an on-call case.

- Providers are 10 IRads and 3 PA-Cs

- EHR is Paragon (Allscripts Healthcare, LLC)

- **Baseline 27% compliance in January 2021**

Goals:

- Improve timeliness and compliance of post-procedural documentation in the electronic health record (EHR) after interventional radiology (IR) procedures with a target 85% compliance by 8 weeks

- Emphasize the post-procedural documentation improves interdisciplinary communication, which is a component of patient safety

BARRIERS TO COMPLIANCE

Barrier:

- Access to computer immediately after procedure
- Using the EHR to write the note
- Including required information in the note

Solution:

- Made sure there was a computer available in each procedure room
- Cheat sheets were attached to each computer with instructions on how to write the post-procedure note
- Created a standardized post-procedure note template

METHODS

- QI Team
  - Authors, IR physicians, IR nurses, Medical and Administrative Directors of Radiology
- Worked with hospital IT to design and test a new TJC and CMS compliant post-procedural note
- Retrospective and Prospective data were collected
  - A data-mining tool, Montage (Nuance Communications, Inc.), determined all IR procedures during the retrospective periods
  - All prospective IR procedures were collected weekly (Monday-Sunday)
  - Compliance determined by manual review of each IR case in EHR
- Weekly Plan-Do-Check-Act (PDCA) cycles
  - List of cases and compliance data were analyzed weekly
  - Weekly feedback, along with a run chart, were sent to the QI team via email
  - Scorecards were privately sent to physicians with the most contributions to highlight their compliance or their non-compliance

RESULTS

BASELINE RESULTS

- Baseline collection periods
  - 1/4/2021-1/31/2021 and 11/29/2021-1/23/2022

	Week	# Patients w/Completed Notes	Total # Patients	% Completed Notes
2021	1/4	10	34	29%
	1/11	13	48	27%
	1/18	12	58	21%
	1/25	15	43	35%
2021-22	11/29	38	46	83%
	12/6	25	44	57%
	12/13	29	45	64%
	12/20	40	43	93%
	12/27	18	39	46%
	1/3	26	39	67%
	1/10	44	49	90%
	1/17	29	40	73%

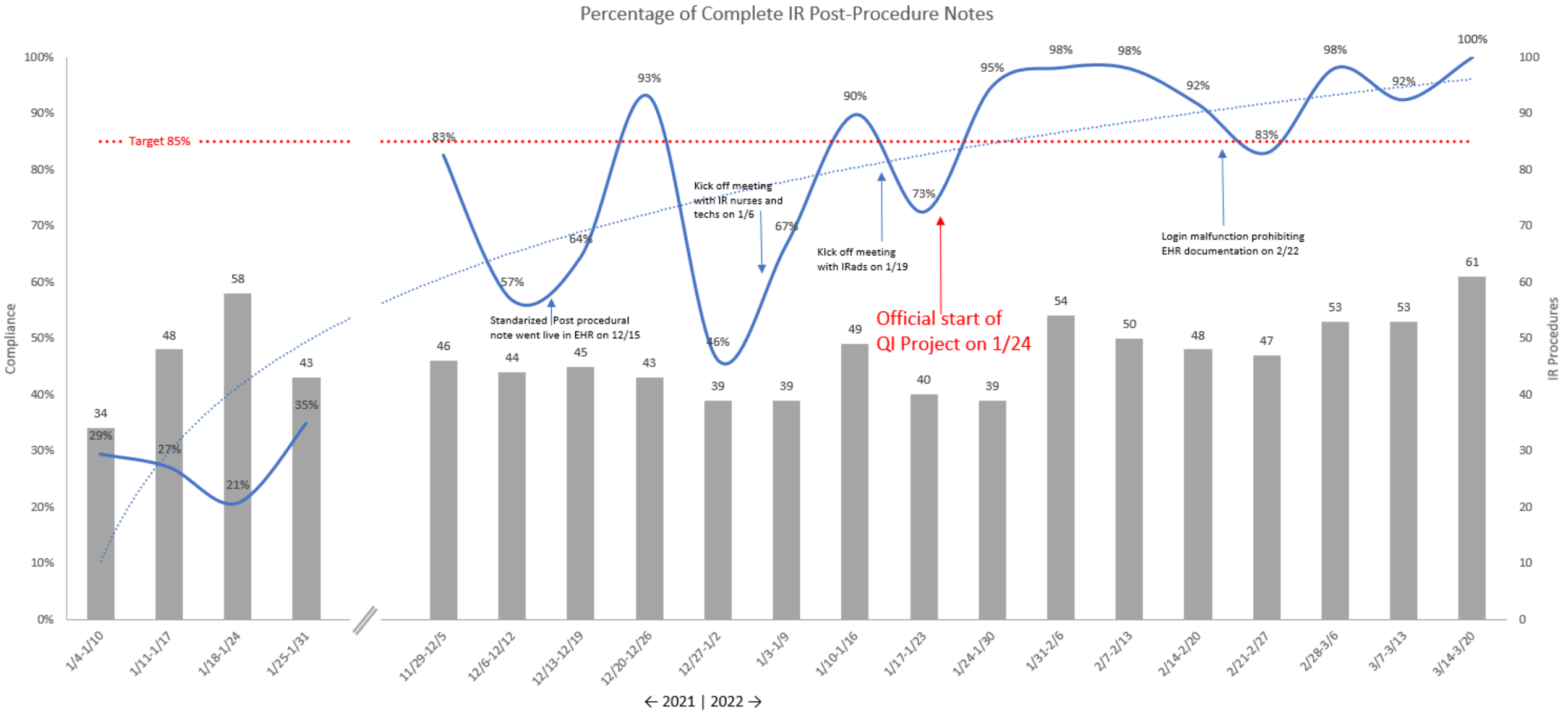
IMPLEMENTATION RESULTS

- Prospective data collection period
  - 1/24/2022 - 3/20/2022 (8 weeks)

	Week	# Patients w/Completed Notes	Total # Patients	% Completed Notes
2022	1/24	37	39	95%
	1/31	53	54	98%
	2/7	49	50	98%
	2/14	44	48	92%
	2/21	39	47	83%
	2/28	52	53	98%
	3/7	49	53	92%
	3/14	61	61	100%

- Aim: Obtain 85% compliance of pre-procedural documentation in the EHR within 8 weeks.
- **95% compliance rate during implementation phase**
  - Total post-procedural notes documented in EHR: 384
  - Total IR encounters: 405

RESULTS


Percentage of Complete IR Post-Procedure Notes
Compliance
IR Procedures
Target 85%
Standarized Post procedural note went live in EHR on 12/15
Kick off meeting with IR nurses and techs on 1/6
Klck off meeting with IRads on 1/19
Official start of QI Project on 1/24
Login malfunction prohibiting EHR documentation on 2/22
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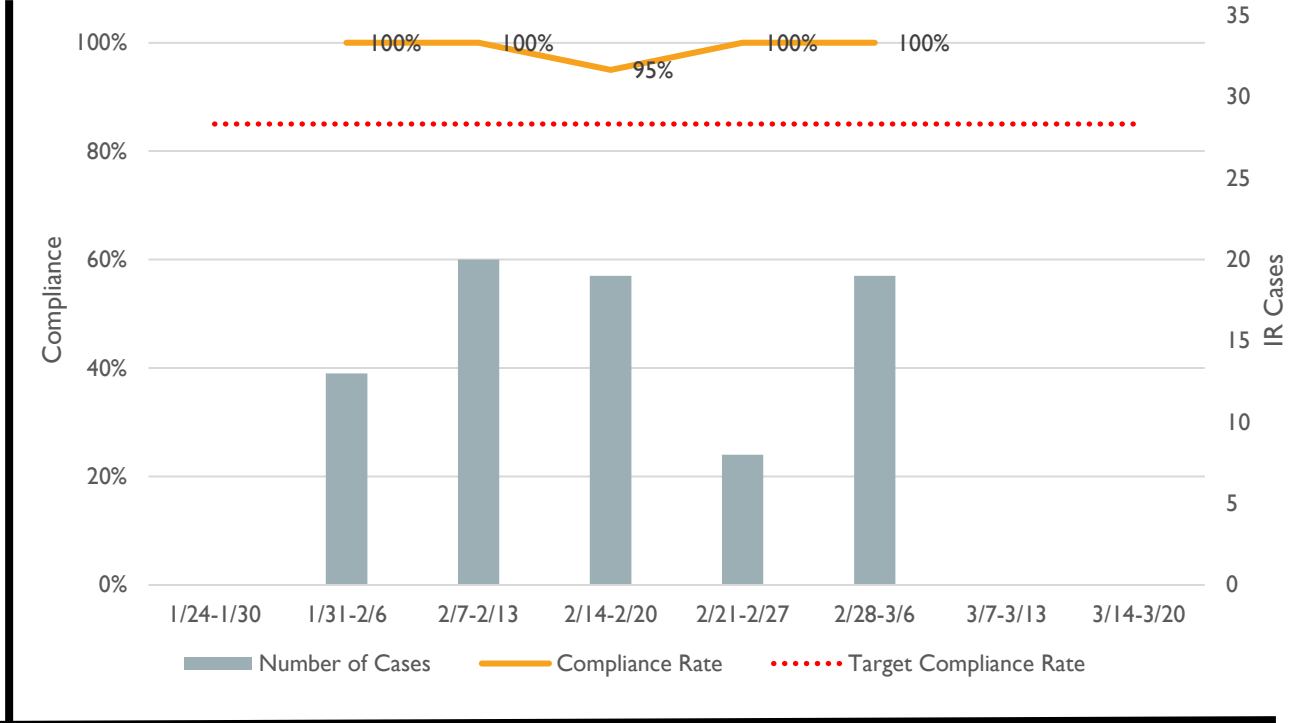
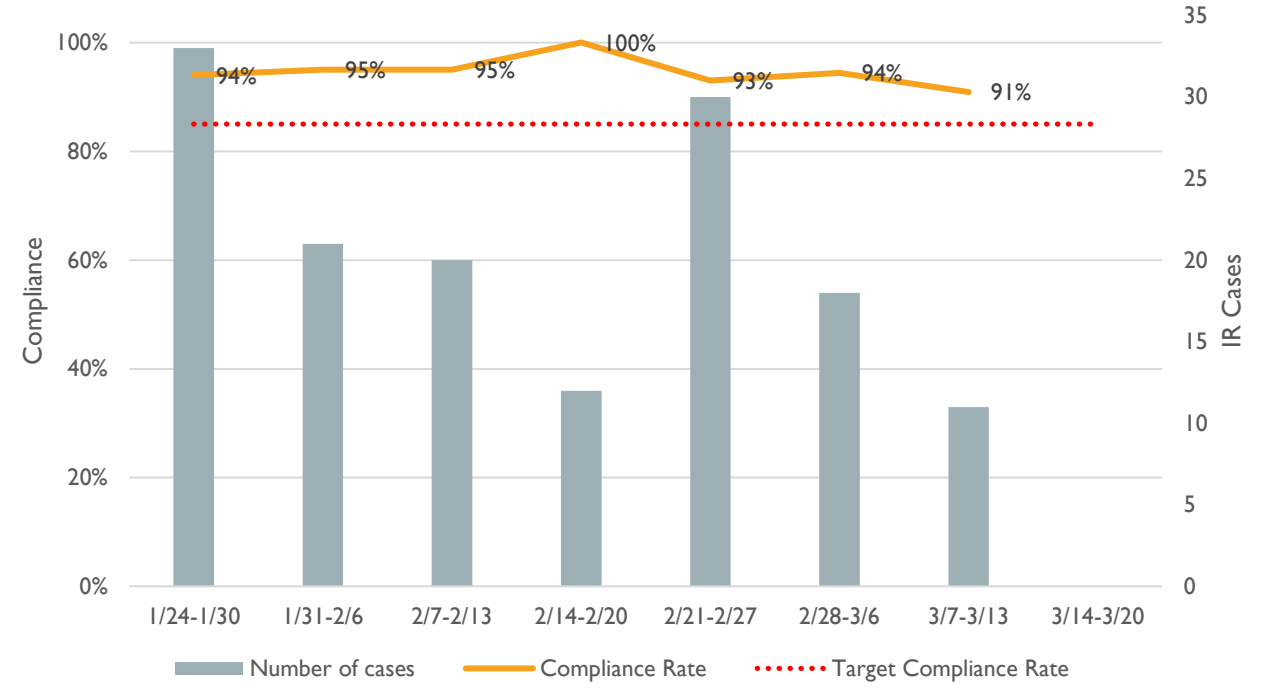
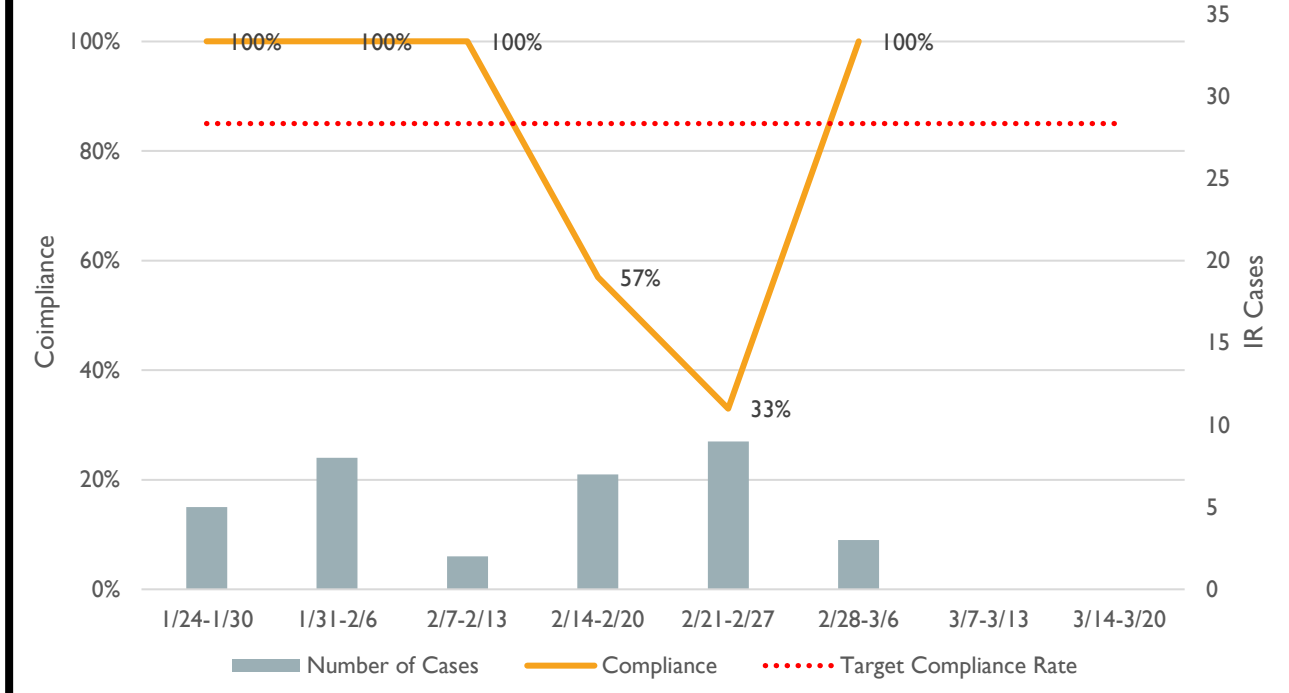
1/11-1/17
1/18-1/24
1/25-1/31
11/29-12/5
12/6-12/12
12/13-12/19
12/20-12/26
12/27-1/2
1/3-1/9
1/10-1/16
1/17-1/23
1/24-1/30
1/31-2/6
2/7-2/13
2/14-2/20
2/21-2/27
2/28-3/6
3/7-3/13
3/14-3/20
← 2021 | 2022 →

INDIVIDUAL PROVIDER SCORECARDS

- Individual scorecards were sent to select providers to highlight their compliance or non-compliance for encouragement







CONTINUOUS QUALITY IMPROVEMENT (CQI)

- As QI is continuous, assessment for continued compliance was planned at 3 months and every 6 months thereafter
- At 3 months post implementation, sampled 50 random cases from 492 IR cases over a 3 month period
- 49 of 50 cases (98%) were compliant
- Next audit in December 2022

CONCLUSIONS

- Post-procedural documentation is a communication tool for patient care and assuring patient safety
- Improvement of IR post-procedural documentation compliance requires planning; obtaining buy-in; clear and simple workflow, and reassessment
- Success was attributed to:
  - Input and collaboration among all major stakeholders
  - Leadership support and staff engagement
  - Presence of a physician champion
  - Usage of EHR templates
  - Simplicity of process changes promotes understanding and adoption
- Focus on a smaller sample size, which allows subsequent upscaling to hospitals/departments with larger volumes and more providers