

Enhancing Perioperative Workflow: Developing a Formalized Handoff between Acute Pain and Intraoperative Anesthesiology Team

JENNIFER MIN M.D., LEE BRAKE M.D., SARAH GROND M.D., NASSIM LASHKARI M.D., NIKKI THOMASIAN M.D., NICO SALVATIERRA M.D., MICHELLE TIANGCO M.S., JUSTIN CHUNG M.D., TIFFANY TEDORE M.D.

Department of Anesthesiology, Weill Cornell Medicine, New York-Presbyterian Hospital, New York, NY

INTRODUCTION

- Transitions in patient care have been shown to contribute to a higher risk for adverse events due to breakdowns in communication (1, 2).
- Our team identified the absence of a formal handoff system between the acute pain/regional anesthesiology team and the intraoperative anesthesiology team after patients receive preoperative regional anesthesia procedures.
- Lack of standardized communication can result in negative patient outcomes.

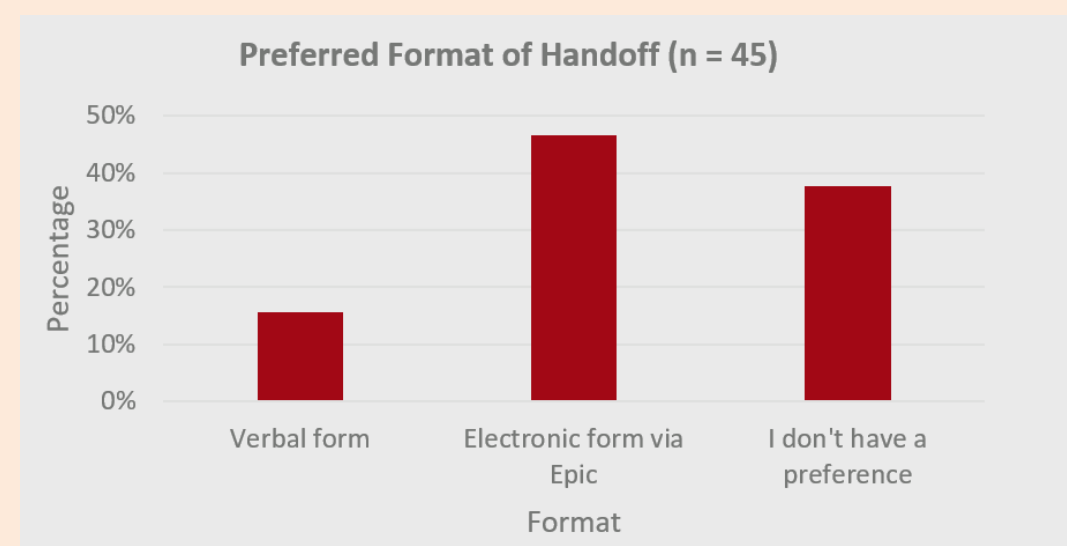
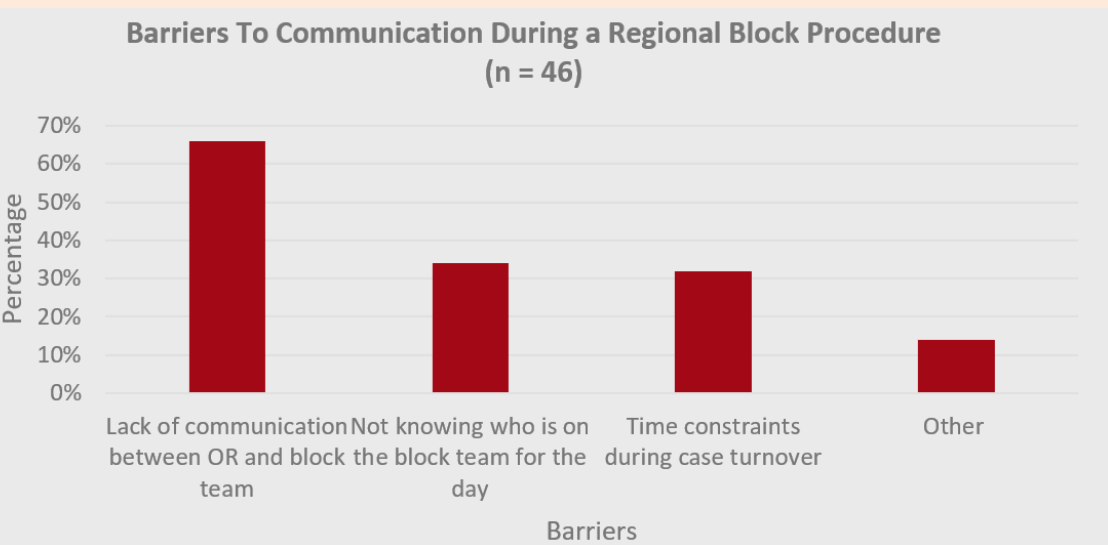
PURPOSE

- Identify the essential information needed in handoff documentation
- Develop standardized EMR handoff macro
- Primary outcome: implement a new handoff system between perioperative and intraoperative team to achieve a minimum 75% completion rate during a 6-month period

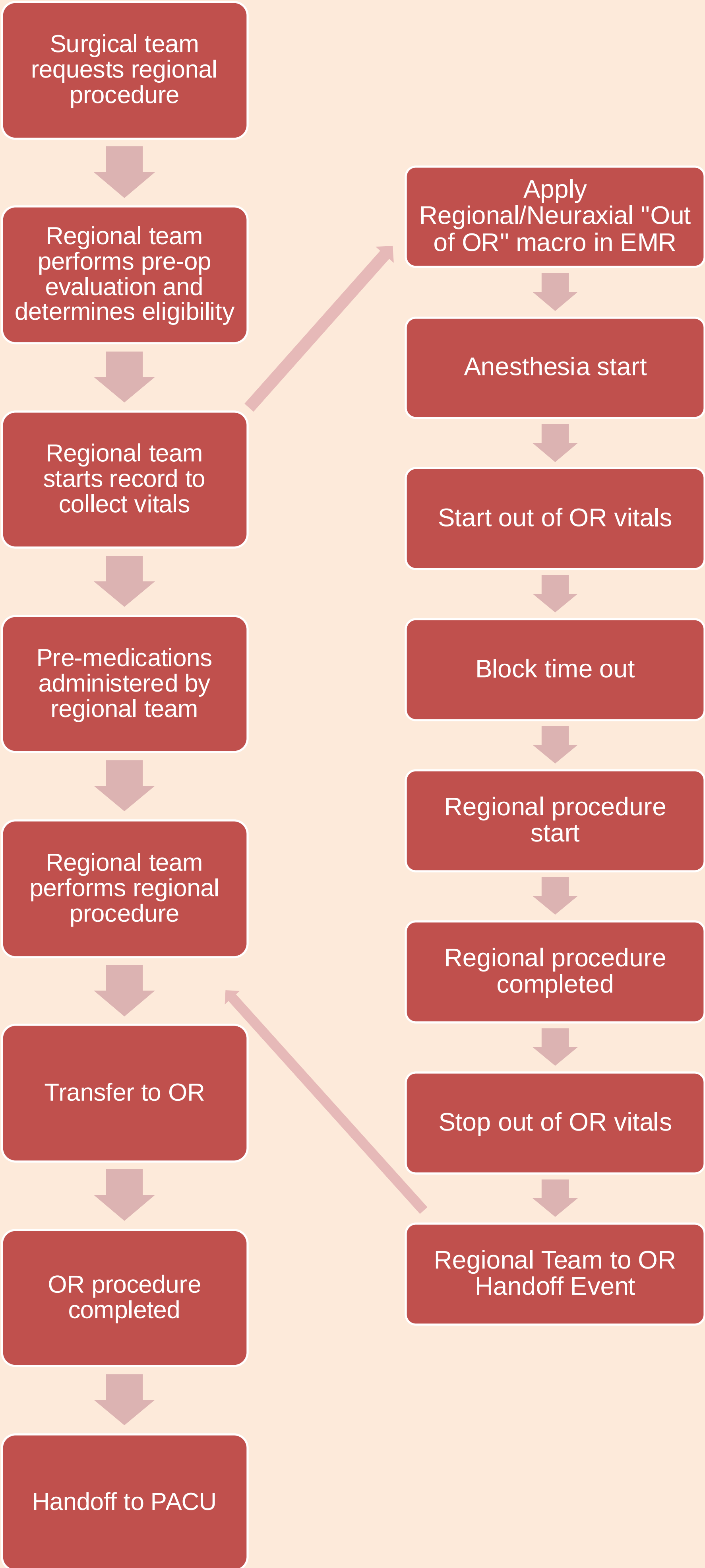
METHODS

Baseline Pre-Implementation Survey

- Sent to all anesthesiology attendings, residents, CRNAs, and regional anesthesiology fellows
- Assessed preferred format of and barriers to handoff
- Identified key information to be included in the handoff



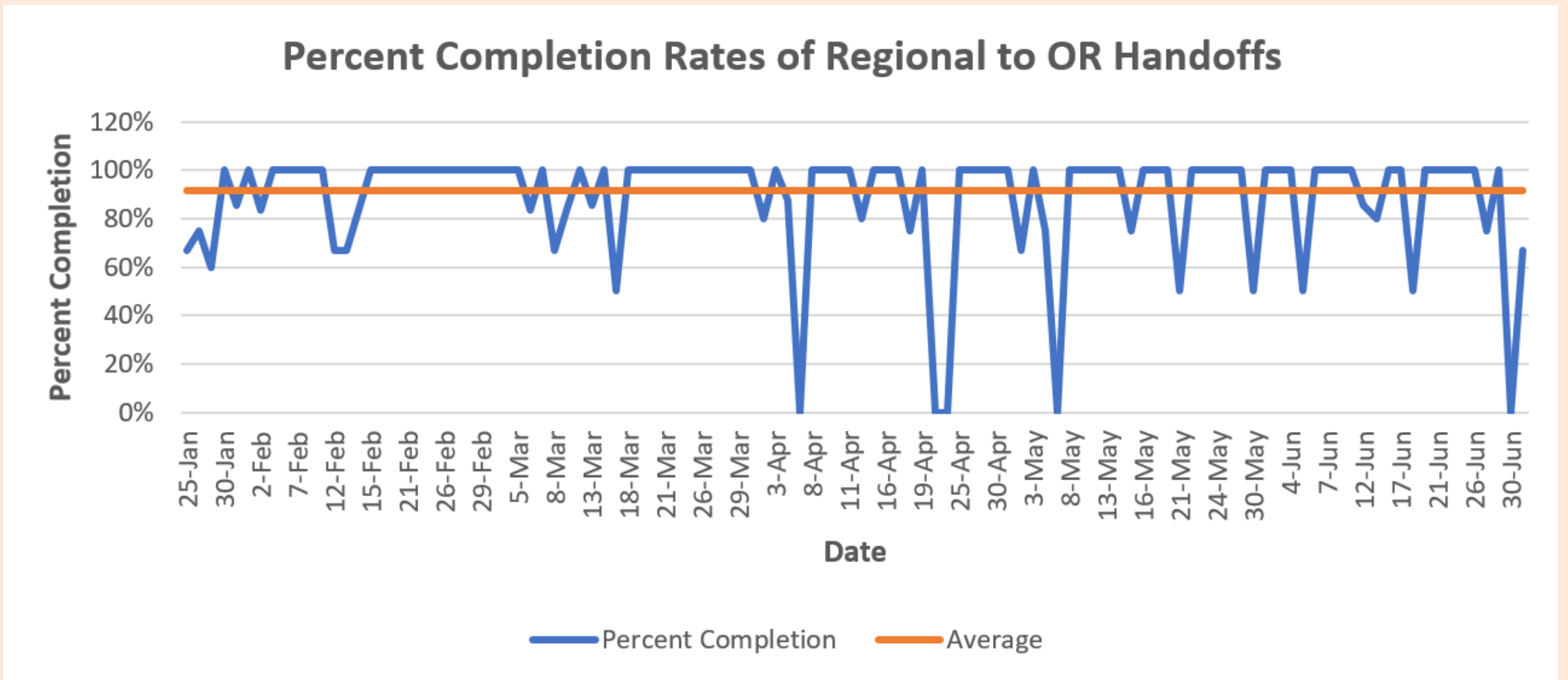
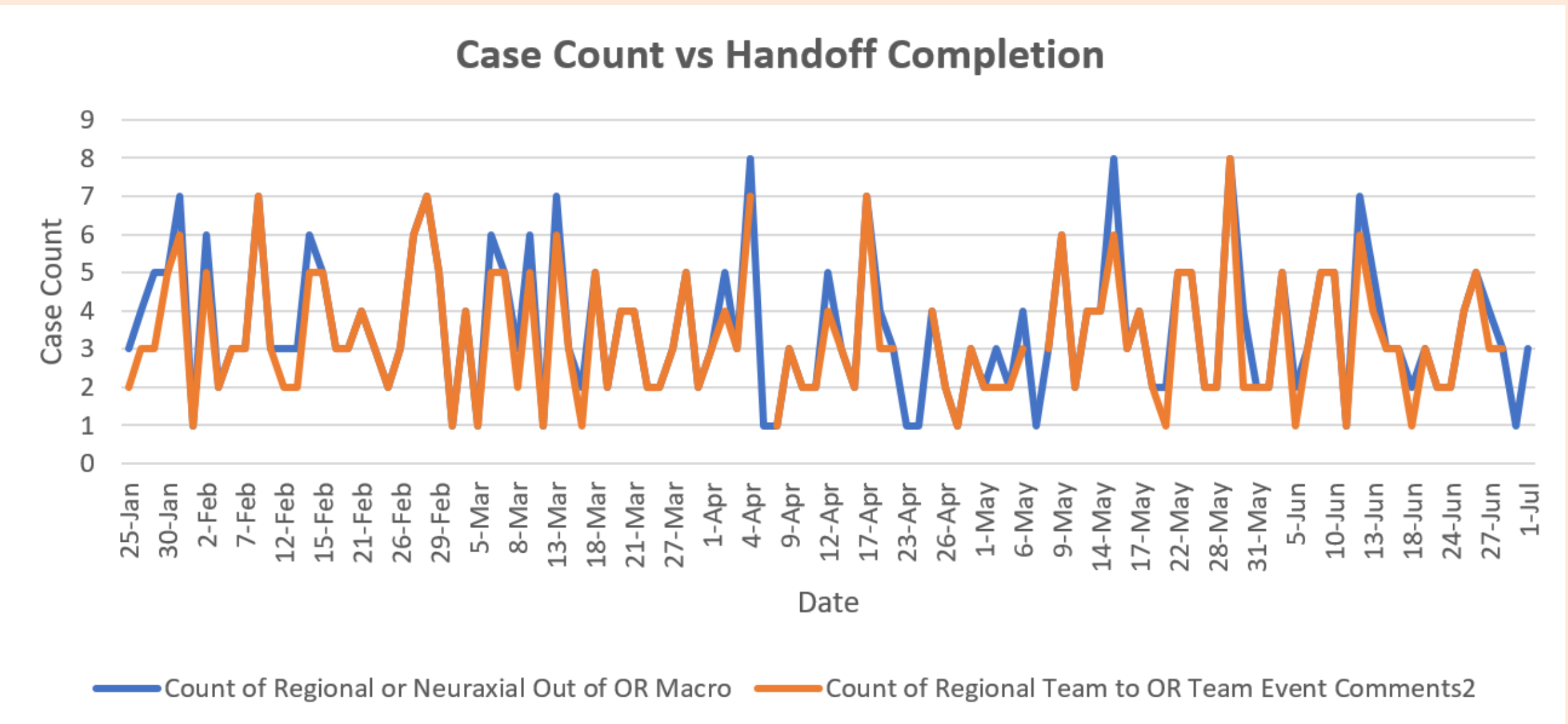
In an ideal world, what information would you like to be included in the handoff (select all that apply): (n = 46)		
Item	Percentage	Count
Baseline Vitals	41%	19
Baseline Mental Status	50%	23
Fluids Administered	30%	14
Indication: Surgical Anesthesia or Postoperative Analgesia	65%	30
Expected duration of the block, additives in the block, dosage of meds administered	80%	37
Plan for in-situ catheters	59%	27
Type of procedure	43%	20
Medications administered	80%	37
Adverse events	65%	30
Initial assessment of procedure	22%	10
DVT prophylaxis	11%	5
Test dose	35%	16
Additional history	13%	6
Other	11%	5



Regional Team to OR Team Handoff:

- Block Type and Indication: ***
- Duration of Block: ***
- Medications Administered: ***
- Catheter Plan: ***
- Patient Disposition: ***

Go-Live Date	1/24/24 @ 5PM
Data Period	1/25/2024– 2/1/2024
Total Cases with Macros	382
Total Cases with Event Comments	346
Completion Rate	91%



METHODS

Epic Handoff Documentation

- Automatically included as part of required “event” when regional procedure is performed outside of OR
- Macro must be applied for required event to occur
- Regional anesthesia team educated on macro use

RESULTS

- Only 35% (N=16) indicated they were somewhat satisfied or extremely satisfied with the preexisting informal handoff system.
- Most cited barrier to an effective handoff was the lack of communication between the operating room and regional anesthesiology teams (66%).
- New handoff system was implemented on January 24, 2024, and completion data was collected until July 1, 2024.
- 91% handoff completion rate was documented.
- Post-intervention survey (N=31) was conducted that demonstrated 84% were extremely and somewhat satisfied.

DISCUSSION

Overall compliance with the new handoff system exceeded the goal completion rate. Data collection was terminated due to excellent compliance and general satisfaction with the system. However, review of completion data did show that completion rates decreased in April and May coinciding with new residents and visiting fellows. Considering this data, the next steps to this project would be to ensure new residents and fellows understand the workflow of implementing the new handoff system.

REFERENCES

- Intraoperative transitions of anesthesia care and postoperative adverse outcomes. Anesthesiology. 2014;121(4):695-706. doi: 10.1097/ALN.0000000000000401
- Association between handover of anesthesia care and adverse postoperative outcomes among patients undergoing major surgery. JAMA. 2018;319(2):143-153. doi: 10.1001/jama.2017.20040