

# Improving Stroke Documentation for Perioperative Nursing

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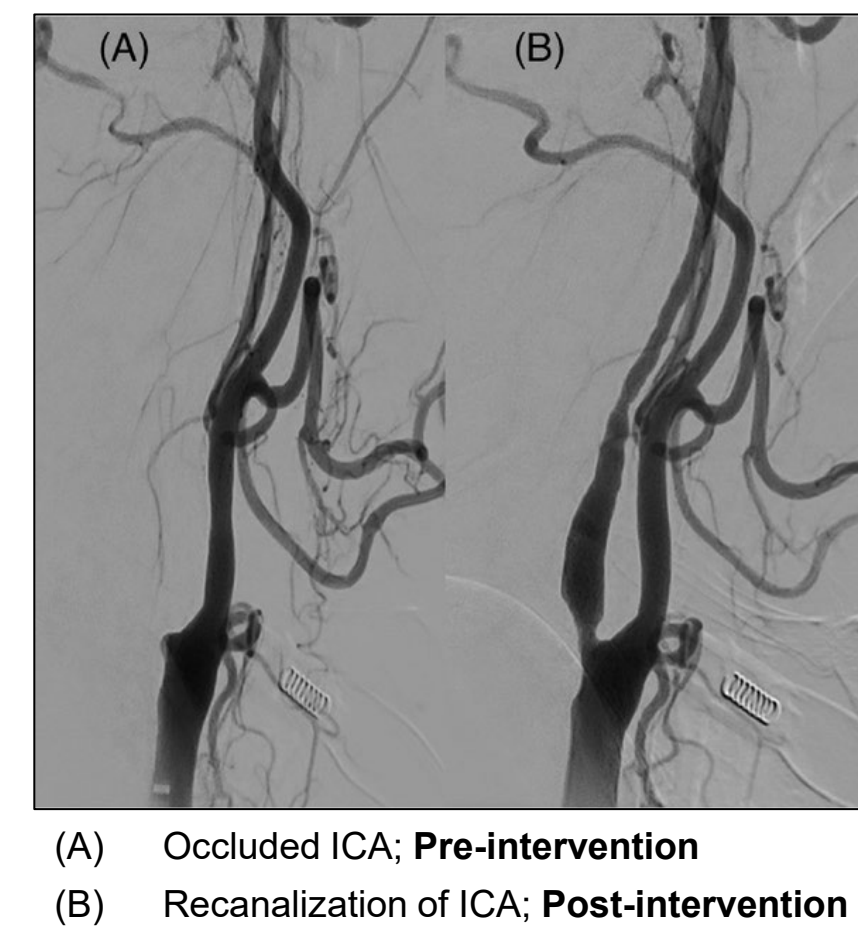
## Introduction/Background

### Immediate Intervention for Ischemic Stroke Patients

Patients who are diagnosed with an ischemic stroke and meet specific criteria are candidates for immediate **neurovascular intervention**. Neurovascular intervention uses microcatheters inserted into the blood clot from the groin or arm to either remove them (thrombectomy) or dissolve them using thrombolytic drugs (thrombolysis).

### Patient Criteria:

- Last Known Well (LKW) less than 24 hours
- Large Vessel Occlusion (LVO) in:
  - Internal Carotid Artery (ICA)
  - M1
  - Basilar LVO
  - Other LVOs (ACA, M2, M3 &/or vertebral artery are decided on case-by-case basis)



### Recognition as a Level One Stroke Center

- To meet the accreditation standards as a Joint Commission Designated Level One Stroke Center, it is important for clinical staff members to document critical timing events during procedural intervention.

### ❖ Required critical timing events include:

- Time that hemostasis is achieved
- Placement of neurovascular access LDA
  - Time hemostasis was achieved
  - Device used for hemostasis
- Neurovascular access device LDA
- Peripheral pulse checks from puncture site (q15 min)

### Opportunities to Improve

- Important documentation was getting omitted from both intraoperative and postoperative nursing
  - Documentation is **only** required for this specific patient population; however, nurses are cross-trained for up to 12 different surgical specialties
- A multidisciplinary team was brought into review documentation requirements and to leverage Epic to increase the visibility of required documentation for stroke patients.

## Assessment

### Multidisciplinary Team

Team Member (by role)	Area of expertise
Stroke Coordinator	Accreditation standards needed to maintain status as a Joint Commission Level One Stroke Center
Neurosurgery Charge RN	Subject matter expert on neurovascular case, supplies, equipment, documentation
Nurse educator(s)	Perioperative and perianesthesia representation; provide ongoing training and education to current staff and oversee orientation of new staff members
Nurse manager(s)	Oversees unit and staff member performance
Epic trainer	OpTime focused; owns/manages documentation training materials and Tip Sheets
Epic builder	OpTime focused; owns/manages build capabilities for surgical areas

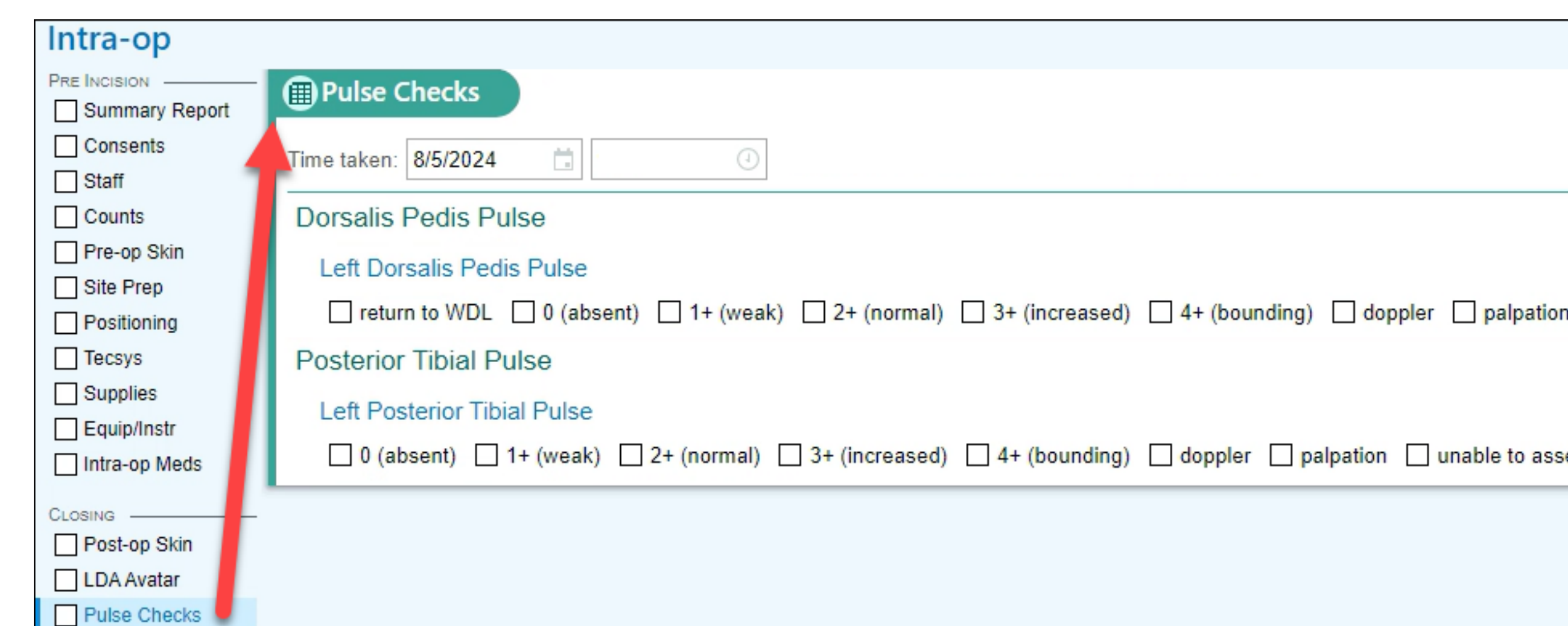
## Recommendation

### Applying Rule Logic to Endovascular Location

- Rule logic was built into Epic to automatically populate specific intraoperative documentation sections for surgical cases scheduled in endovascular suite locations
- Goal was to increase visibility to improve performance

### Two New Conditionally Appearing Documentation Sections

#### ❖ Pulse Checks:



- Section embedded into the **Intra-op Nursing Navigator** is a unique section for frequent peripheral pulse assessments for groin punctures
- Enables comparison from intra-op to post-op assessments

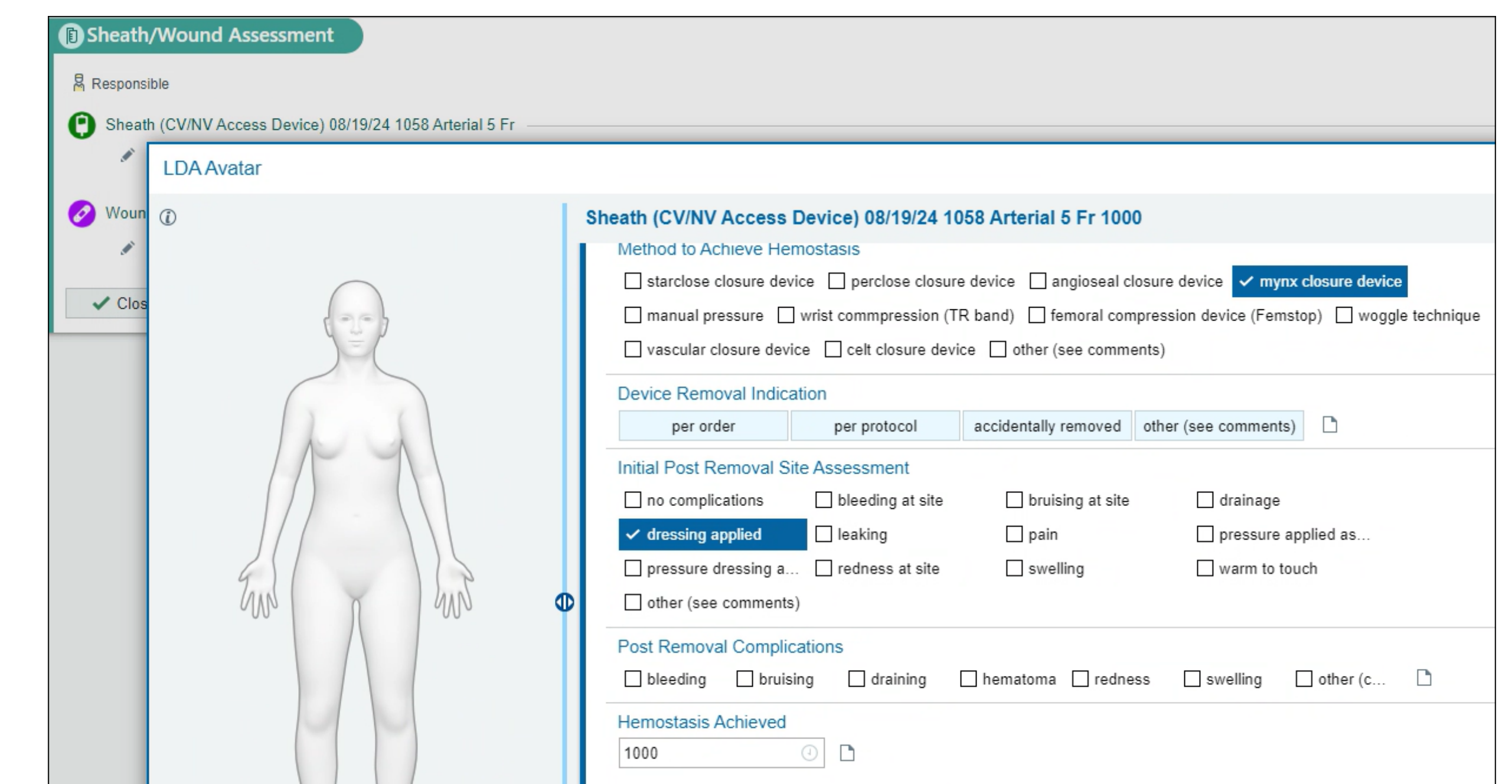
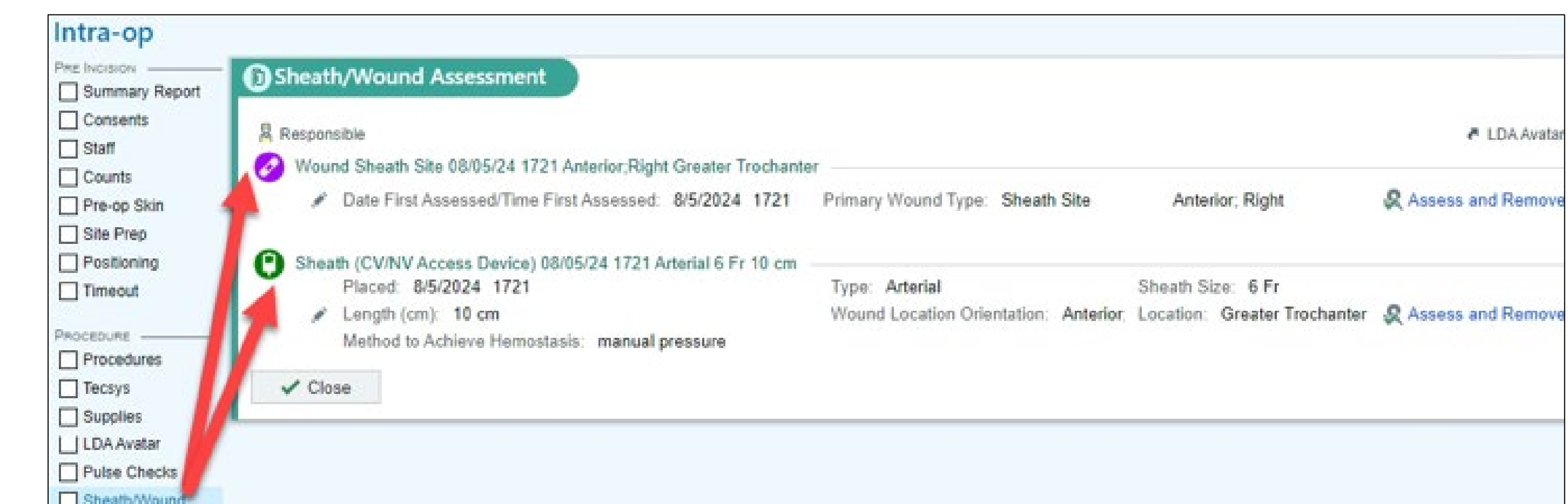
#### References:

American Heart Association. 2024. Endovascular therapy for isolated cervical internal carotid artery occlusion. [Endovascular Therapy for Isolated Cervical Internal Carotid Artery Occlusion | Stroke, Vascular and Interventional Neurology \(ahajournals.org\)](https://www.ahajournals.org/doi/10.1161/STROKEAHA.123.414444)

CIRSE. 2024. Endovascular treatment of stroke. <https://www.cirse.org/patients/general-information/ir-procedures/endovascular-treatment-of-stroke/>

## Recommendation, Ctd.

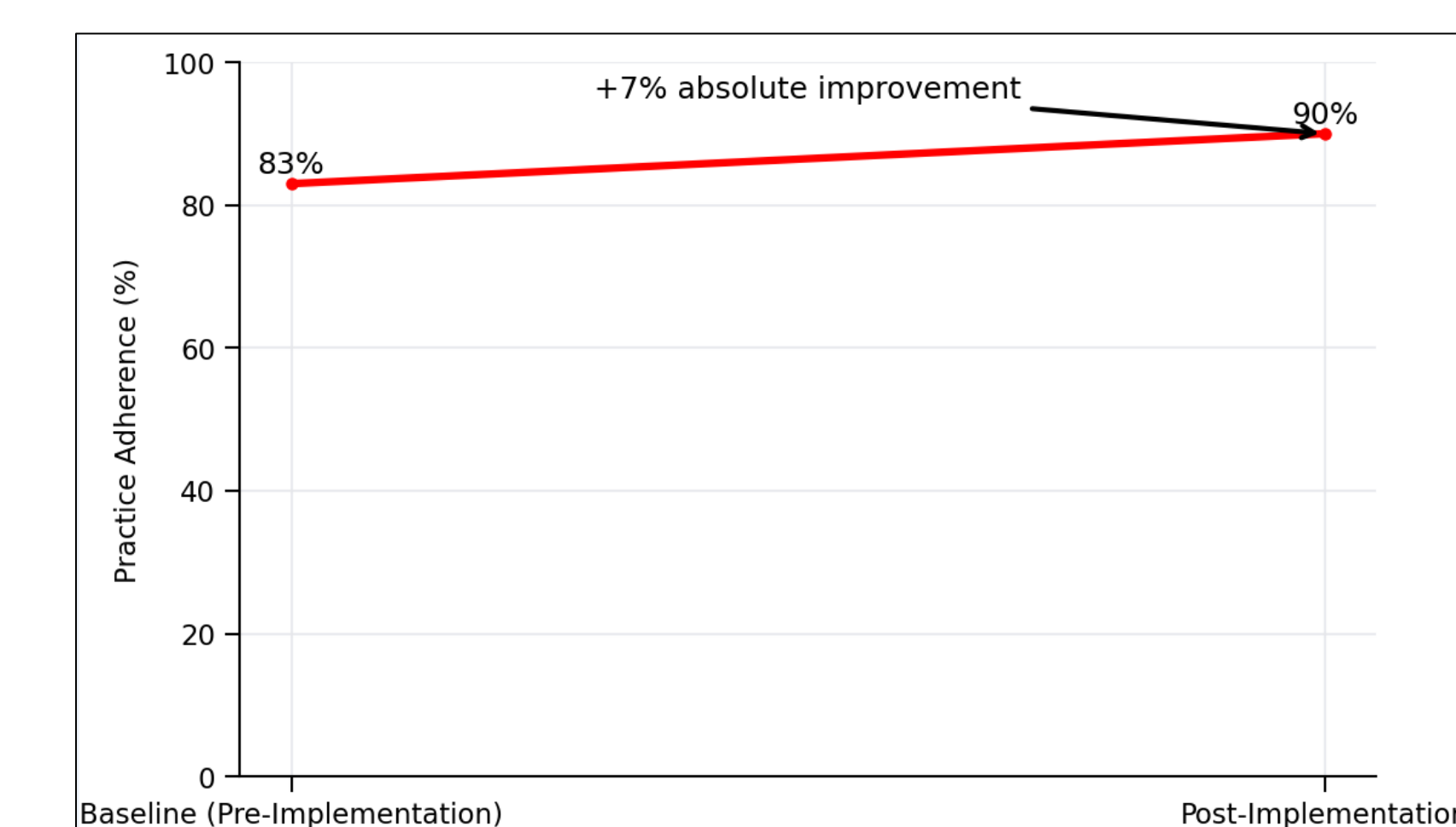
### ❖ Sheath/Wound LDA:



- Section embedded into the Intra-op Nursing Navigator is a unique section for documenting and assessing LDAs
- Lists both LDAs that are required: **Wound Sheath Site** and **Sheath (CV/NV Access Device)**
- Opens LDA Avatar to quickly document **Method to Achieve Hemostasis** and **Hemostasis Achieved** time

## Results

### Improvement in Perioperative Nursing Documentation Compliance



- Compliance was audited as a Pass/Fail for required:
  - Hemostasis time
  - Pulse checks (q15 min)