

# POST-RADIAL CARDIAC CATH CARE ON MED SURG UNITS: A SYSTEM TRANS-RADIAL BAND PILOT



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## INTRODUCTION

### BACKGROUND

- Transradial access reduces site bleeding and vascular complications, compared to transfemoral access. It is the preferred access route for most Cardiac Cath Procedures (SCAI, 2020)
- No standard radial band protocol recommended by professional organizations however, the Society for Coronary Angiography and Intervention (SCAI) recommends organizations adopt band management approaches that ensure patent hemostasis
- 2 Separate protocols for radial band management existed at Virtua prior to 2024
- After extensive literature and Best Practice review a new protocol that aligned with band Instructions for Use (IFU) was developed by Cardiovascular Practice Council
- Critical Care Council approved and implemented new protocol
- Med-Surg Practice council expressed concern for increase bleeding and increase nurse workload with frequency of assessments required in new protocol
- Cath Labs identified extended recovery in PCCL and PACU instead of patient return to Med/surg units led to Procedural Backlog and increased burden on staffing resources for the Cath Lab

### PURPOSE

- Med/Surg and Cardiac Cath collaborated to Develop and Implement Radial Pilot to evaluate Feasibility, Patient Safety, and Workflow impact of managing radial bands on Non-ICU Units

### FRAMEWORK:

- QI(PDSA)

### POSTER OBJECTIVES:

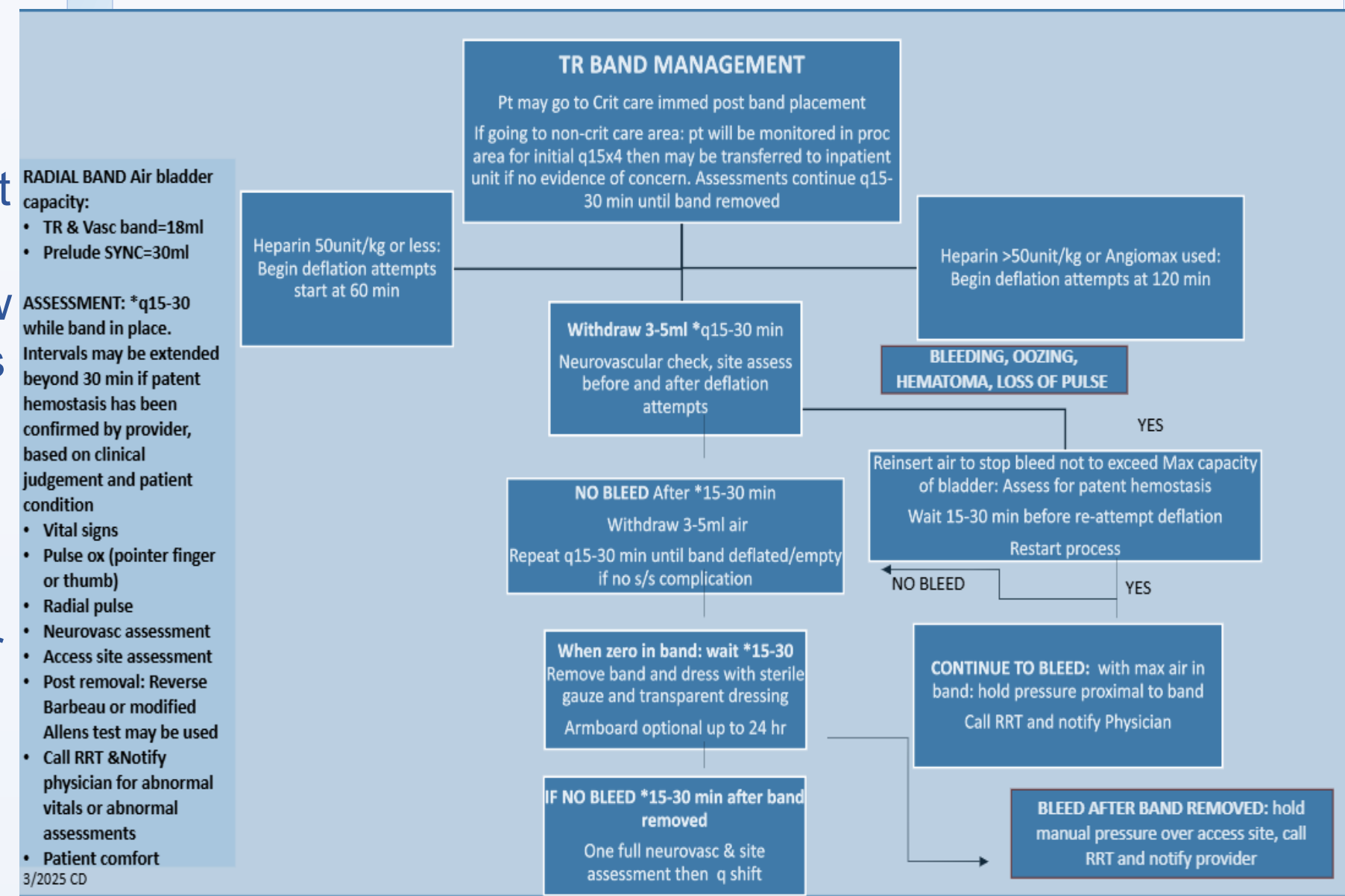
After Viewing poster the learner will:

- List 2 components of Nursing Assessment when managing a radial band post Cardiac Cath
- Identify where to locate Radial Band management resources at Virtua

## METHODS

### SETTING & PARTICIPANTS:

- Non-ICU Med/Surg Units: OLOL 3E/W, PCU: MH 7 Stokes, 2 North: Marlton 3 North, 3 South
- Clinical ANC's and Cath Lab Staff conducted education sessions on identified units using Radial SOP, Handoff tool, and Radial Management Competency Checklist



### DATA COLLECTION & ANALYSIS:

- Pilot period September 2024-January 2025
- Weekly chart audits:
  - Track episodes of bleeding
  - Monitor documenting and compliance to new protocol
- Goal to audit 30 charts from Mt Holly, 30 from Marlton, and 100 from VOLOL

### INTERIM RESULTS

- Integration issues between CCL and Inpatient EPIC views identified and adjustments made to improve interoperability and cross-talk
- Variability in CCL documenting across the system identified and standardization occurred
- VOLOL Med/Surg data collection paused to reinforce new protocol and documentation expected. After re-education, audits resumed.

## RESULTS

TOTAL n=195: OLOL n=101;MH n=58; Marlton n=36

### BLEEDING FINDINGS

- Minor bleeding observed /most bleeding occurred during 1<sup>st</sup> deflation attempt/ all bleeding controlled with adjustments in radial band air volume
- Zero reportable NCDR bleeding events during pilot period

CAMPUS	BLEED ON 1ST ATTEMPT	BLEED 2ND ATTEMPT	BLEED AFTER REMOVAL
OLOL	7%	5%	0
MH	9%	5%	7%
MARLTON	8%	0%	0%
TOTAL AVE BLEED	8%	3.33%	2.3%

### NURSING WORKLOAD AND TOTAL BAND TIME FINDINGS

- Average total time for recovery Diagnostic 3.7 hr: Interventions=4 hr with most following conservative 1-2cc removal of air with each deflation (policy allows 3-5)
- Diagnostic: range of 3-10 attempts to get band to zero with Mode=4 attempts
- Intervention: range of 3-11 attempts to get band to zero. Mode differed by campus: 3, 4 or 5 attempts. mode

### TOTAL BAND TIME AND AMOUNT DEFLATION ATTEMPTS

N OR EACH CAMPUS TOTAL=195	AVE AIR IN BAND	AVE TOTAL TIME BAND ON= HOUR RECOVERY	DEFLATIONS ATTEMPTS TO GET TO ZERO AND MODE	AVE TOTAL TIME BAND ON= HR RECOVERY	DEFLATION ATTEMPTS TO GET TO ZERO
OLOL n=101	12CC	2.9	3-6: MODE 4	4	3-11: MODE 3
MH n=58	12CC	4	3-10: MODE 4	3.6	3-10: MODE 4
MARL n=36	12CC	4.3	4-7: MODE 5	5.4	4-10: MODE 5
Ave overall	12cc	3.7	4	4.3	

## CONCLUSIONS

### INTERPRETATION

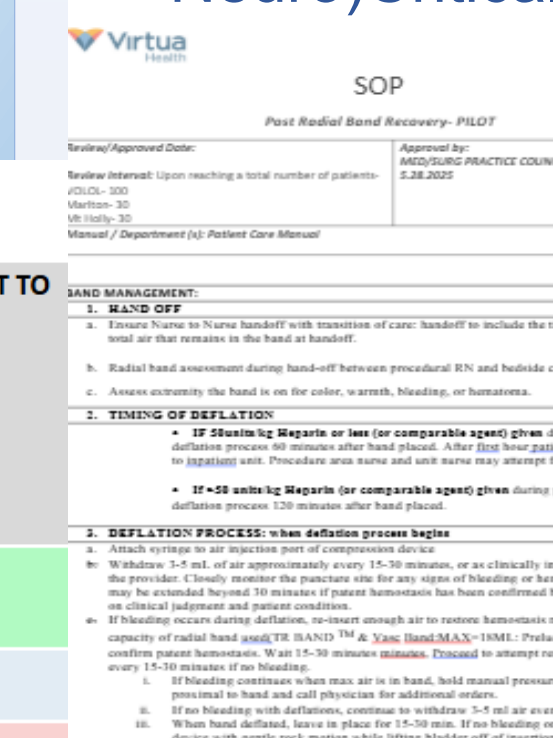
- New protocol safe to follow on Non-ICU units- no significant bleeding episodes
- Ave time for both Diagnostic and Intervention recovery around 4 hours however during pilot volume of air during deflation attempts was conservative 1-3ml at a time but new protocol (following IFU) offer that 3-5ml air removal is safe as long as no bleeding observed and patent hemostasis maintained
- Documentation accuracy by CCL and nursing units improved during pilot but areas of opportunity remain and will require continued audits

### LIMITATIONS AND FUTURE DIRECTION

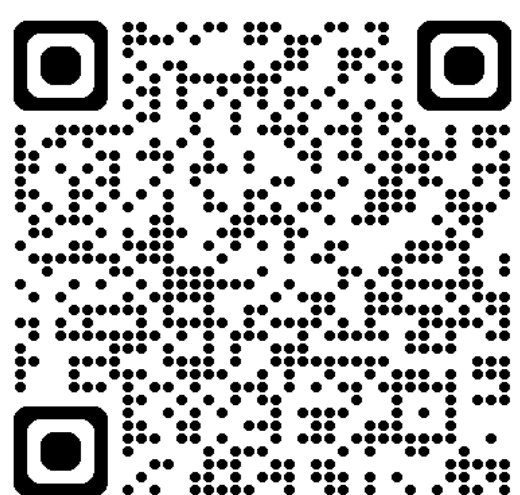
- CCL Quality team continue to track radial complications and report major complications to NCDR
- Expand radial band management to other Med/Surg units
- Perform periodic chart audits to monitor for safety, adherence to protocol, and address adverse documenting findings

### RADIAL BAND RESOURCES

- Handoff tool
- Colleague Corner->Nursing Resources Tab ->Cardiovascular->Radial Band Care folder-> in Cath Lab Section
- Patient care Manual: SOP Radial Band
- Critical Care Manual: Care of the Patient Post Endovascular Procedure (Cardiac Cath and Neuro)Critical Care Units



### REFERENCES



Thank you to all the Clinical Nurses who provide excellent care to Cardiac Cath Lab Patients!