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Bedrest Reduction Post Electrophysiology Population

A joint clinical inquiry project between EP and Short Stay Unit

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Swedish Learning & Celebration Days 2024

Bedrest Reduction Post Electrophysiology Population

A joint clinical inquiry project between EP and Short Stay Unit
June 03, 2024

Background and Problem Statement

- ❑ Post EP and cardiac intervention procedures require bedrest to minimize serious complications.
- ❑ Advances in technology help minimize complications
- ❑ Literature does not provide clear guidelines on what is optimal bedrest & impact sheath size has on bedrest time
- ❑ Patient complaints of back pain, physician use of new technology led us to the question our current practice.

Imagine it's you in that post procedure bed?

This is taking longer than I thought, I'm going to have to find someone to pick up the kids

Why aren't they treating his pain?



Ugg, my back hurts, I want out of this bed

Im hungry but when I try to drink or eat I cough and feel like I will choke

If I just wait 30 minutes, I can get up and use the toilet

Risk Factors for Potential Complications When Removing Sheath

- Age > 80
- Female Sex
- Diabetes or Renal Disease
- BMI > 35
- Sheath Size > 5 Fr
- Anticoagulation
- Site of stick and Multiple Sticks

Nov. 2023 Study out of New York

BED REST REDUCTION

FOLLOWING CARDIAC

CATHETERIZATIONS USING

VASCULAR CLOSURE DEVICES

By Kristin A. Tuozzo, DNP, RN-BC, Reena Morris, BSN, RN, PCCN, CV-BC, Nicole Moskowitz, BSN, RN, CCRN, PCCN, Kathleen McCauley, PhD, RN, Anvar Babaev, MD, PhD, and Michael Attubato, MD

Current Practice

CHART; BEDREST PERIOD FOLLOWING VENOUS SHEATH REMOVAL

- The bedrest period following femoral **venous** sheath removal is as follows in the table below. These times may vary dependent on the LIP order.

Anticoagulation Use During The Procedure:	Femoral Venous Sheath Considerations	Bedrest Period
With or Without Anticoagulation	4-10 Fr Venous Sheath (regardless of how hemostasis was achieved)	3 hours
	11 Fr or larger Venous Sheath (regardless of how hemostasis was achieved)	4 hours

Clinical Question and Project Aim(s)

Among adult patients undergoing an EP procedure with a femoral access and a closure device; does raising the HOB 30 degrees immediately and reducing bedrest time post procedure impact length of stay, and patient satisfaction without increasing complications?

List the project aims

aim 1: Closure device used; safely reduce bedrest to 1 hour after hemostasis after venous catheter removed regardless of size of sheath

aim 2: Figure out used with sheath size of 14 or less; safely reduce bedrest to 2 hours after hemostasis

METHODS

Yes, closure device used

HOB elevated 30 degrees after hemostasis time

Bedrest x 1 hour

Restart here if bleeding or hematoma present

If no bleeding or hematoma, assist in ambulation at 1 hour mark

Recheck site after ambulation, if no bleeding or hematoma wait 30 minutes and then recheck site, if hemostasis discharge home after voiding, eating

If bleeding or hematoma at any point, return to bedrest for an hour

Figure 8 placed or no closure device used

Bedrest based on sheath size:
LARGER THAN 14 F= 4 HOURS
14 F or smaller with Figure 8= 2 hours
14 F or smaller without Figure 8 =**Standard Work**

With 1 hour of bedrest remaining, HOB elevated 60 degrees

Restart here if bleeding or hematoma present

If no bleeding or hematoma, assist in ambulation at end bedrest (4 or 2 hours)

Recheck site after ambulation, if no bleeding or hematoma remove the figure 8

Recheck site after removal, if no bleeding or hematoma ready for discharge home after voiding, eating

Exclusion Criteria

- ❑ Exclusion Criteria:
 - No Figure 8 or closure device used
 - Sheath size > 14
 - Procedures without sheaths

Preliminary Results

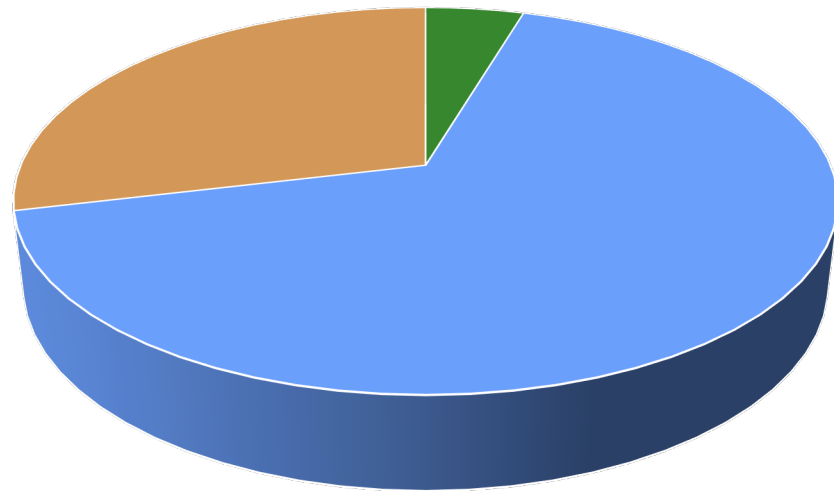
N = 87 cases with Sheaths over 8 weeks
Average Age= 65 yo (25-90 years old)

Procedures Completed

<u>Procedures With Sheaths</u>	<u>Volume</u>
Afib ablation	47
Aflutter ablation	9
Afib/Aflutter Ablation	3
PVC Ablation	2
SVT ablation	15
AV Nodal Ablation	5
Left Atrial Appendage Device	6

Preliminary Data

Closure Device



- Perclose Closure Device
- Figure 8
- Manual Pressue

Complications

- Bleeding < 1%
- Code Bart 1/87
- Admit overnight 12/87

Findings

List each objective and the supporting results

aim 1: Closure device used; safely reduce bedrest to 1 hour after hemostasis after venous catheter removed regardless of size of sheath. Closure device used 4/87 cases, 0/4 cases with bleeding or other complications after early ambulation.

aim 2: Figure out used with sheath size of 14 or less; safely reduce bedrest to 2 hours after hemostasis. Figure 8 sutures used commonly (sheath sizes 8,8.5, 9,12) =58/87 cases with 5/58 with bleeding or other complications

Discussion

No increase in complications

Surprise: Some LOS 2.5 to 3 hours post ambulation

Clinical/Research Implications

Clinical Implications:

It is safe to reduce our bedrest post EP procedure
Potential to create space for increased procedures

Next Steps:

Meet with practice committee: adjust PDSA
Hold update policy change until PDSA complete
Look at cardiac cath lab population for PDSA

Thank you!
Questions
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