

Interventional Radiology: Radial Compression Device Application and Removal (Post-Procedure)

Site Applicability:

Interventional Radiology SPH

Practice Level: Specialized

Registered Nurses who have completed the required education and provide nursing care in the Interventional Radiology Department

Requirements

1. The Interventional Radiology (IR) nurse is **not** responsible for removing the radial sheath.
2. The IR nurse may apply the radial compression device as instructed by the Interventional Radiologist.
3. The Interventional Radiologist must perform a post-procedure Allen's test on the affected arm
4. The radial compression device must be removed in Interventional Radiology prior to sending the patient to a recovery area (e.g.: Medical Short Stay or 6B short stay).
5. There should be no bleeding on the radial site once the compression device is removed.

Practice Guideline

Post-Procedure Assessment

Initial and Ongoing

1. Monitor VS, CWMS of affected arm, and puncture site for any excessive bleeding, bruising or blanching.
2. Assess and treat patient's pain as per orders.

Intervention

1. Notify Interventional Radiologist immediately for uncontrolled bleeding to site, hematoma to affected arm, no palpable pulse/coolness/blanching on affected arm, or any significant changes to VS or GCS.

Steps

POST-PROCEDURE:

1. APPLYING THE BAND

The Interventional Radiologist or delegate is responsible for removing the radial sheath.

This material has been prepared solely for use at Providence Health Care (PHC), Provincial Health Services Authority (PHSA) and Vancouver Coastal Health (VCH). PHC, PHSA and VCH accept no responsibility for use of this material by any person or organization not associated with PHC, PHSA and VCH. A printed copy of this document may not reflect the current electronic version.

Choose Regular or Large size of Prelude Sync Radial Band™ device appropriate for patient's wrist. The size refers to the length of the band only.

- The Interventional Radiologist will withdraw the radial sheath from the radial artery by 2 to 3 cm.
- Ensure the curved section of the clear plate is on the thumb side of the wrist.
- Place the "crosshairs" over the arterial puncture site (about 1 to 2 mm proximal to the site)
- Fasten the band securely (snug to tight) around the wrist without any slack; DO NOT overtighten
- Inject air accordingly, up to 20 mL (based on post-procedure Allen's test result) into the tubing line labeled "AIR"; ensure syringe is connected well to tubing (Luer lock system).
- Interventional Radiologist or delegate will slowly inflate the balloon while IR simultaneously removes the sheath
- Once the sheath is completely removed, Interventional Radiologist or delegate will continue to inject air until the bleeding has stopped
- Slowly withdraw air from the balloon until oozing is observed from the access site
- Once oozing is observed, re-inject 2 mL of air into the balloon until oozing has stopped
- Detach syringe from the tubing
- Instruct and assist patient to immobilize affected arm.

2. REMOVING THE RADIAL COMPRESSION DEVICE (Radiology only)

- Remove 2 mL of air after 30 minutes; observe site for bleeding
- If bleeding occurs, re-inject air until the bleeding stops; wait 30 minutes and repeat previous step
- If no bleeding present, continue removing 2 mL of air every 15 minutes until balloon is deflated
- Once hemostasis and radial patency is confirmed, remove the band and apply sterile 2 x 2 gauze to site; cover with non-occlusive dressing (e.g. Tegaderm)
- Send patient to recovery area (Medical Short Stay or 6B short stay) for further observation and discharge

Documentation

1. Documentation is completed in PowerChart.
2. Document VS every 15 minutes while monitoring patient with the radial band inflated.
3. Record amount of air removed every 15 minutes until balloon is deflated.
4. If bleeding observed from site, record amount of air re-inserted.
5. Repeat documentation steps 3-4 (if necessary) until band fully is fully deflated.
6. Document name of nurse who removed the radial artery band.
7. During downtime, complete documentation in the Vascular Angiogram Intra Procedure Documentation found in the downtime toolkit in the office.

Patient and Family Education

1. Inform patient of length of bed rest and activity restrictions. Instruct re: proper positioning (keep affected arm or wrist straight for 6 hours)
2. Patients may eat/drink one hour following removal of compression device.
3. Instruct patient to avoid any lifting, sports or heavy work with the affected arm for 2 days.
4. Instruct patient to keep the dressing on for 24 hours and to keep it dry.
5. Provide patient with Radial Artery Sheath pamphlet prior to transfer to recovery area

Related Documents

- [B-00-12-10146](#) – Uterine Fibroid Embolization (UFE)

References

Prelude Sync Compression Radial Device. (2018). Retrieved from <https://www.merit.com/cardiac-intervention/hemostasis/compression-devices/preludesync-radial-compression-device/>

Persons/Groups Consulted:

Interventional Radiologists, SPH

Developed by:

Nurse Educator/Clinical Nurse Leader Interventional Radiology SPH

First Released Date:	09-JUN-2020
Posted Date:	09-JUN-2020
Last Revised:	
Last Reviewed:	
Approved By:	PHC
	Professional Practice Standards Committee
Owners:	PHC
	Interventional Radiology

This material has been prepared solely for use at Providence Health Care (PHC), Provincial Health Services Authority (PHSA) and Vancouver Coastal Health (VCH). PHC, PHSA and VCH accept no responsibility for use of this material by any person or organization not associated with PHC, PHSA and VCH. A printed copy of this document may not reflect the current electronic version.