### JULY 12TH, 2021

# WISE UP "WEDNESDAY"

CVICU"s Weekly Clinical Practice Newsletter



# **YOU DOWN WITH IABP?** YEA YOU KNOW ME

Balloon pumps. Love them or hate them, they're in your patient's aorta. While we see them frequently, IABP remain a high-risk intervention that requires the skills, attention, & expertise of a bedside CVICU nurse. In the very near future you can anticipate a multidisciplinary SOP that specifically pertains to IABP, but for now there are important safety checks we perform at shift handover with the off-going nurse present at the bedside and whenever a patient returns to the unit from the CCL or OR. If you're into badge buddies, we have the following safety checklist printed in that format if you would like!

- a. Console Type (Arrow or Maguet)
- afety Checklis b. Operating Mode (Auto, Semi-Auto, or Manual/Operator)
  - c. Console plugged in and battery light indicates full charge
  - d. Trigger (EKG, AP, Pacer)
  - e. Frequency (1:1 or 1:2)
  - f. Timing assessment completed
  - g. Central lumen pressure bag is at least three feet above patient and fully inflated
  - h. Central lumen is transduced with 2 units/ml heparinized saline
  - i. Central lumen transducer is leveled and zeroed to phlebostatic axis
  - j. Central lumen tubing has occlusive redcaps on all ports
  - k. Helium Lumen waveform quality does not indicate kink in catheter
  - I. IAB Inflation >70%
  - m. Balloon Plateau Pressure (BPP) within 25 mmHg of Augmentation pressure (Arrow consoles only)
  - n. Helium tubing free of blood, flecks, or condensation
  - o. Peripheral vascular assessment completed
  - p. Insertion site assessment completed

As seen on the CVICU Website!

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### **RN SCOPE OF PRACTICE WITH IABP**

#### IABP-Trained RNs can independently...

- Assess and adjust the timing of a balloon
- Change the Mode of Operation of an IABP (ie. auto v. semi-auto)
- Change the Trigger source of an IABP (ie. EKG v. Pressure)
- Change the transducer tubing and pressure bag (every 96hrs)
- Take out extra tubing on the central lumen pressure tubing
- Transduce the side-arm of a sheath
- Draw back on central lumen to assess patency when clot is suspected (never power flush an IABP central lumen)
- Discontinue transducer tubing and place occlusive cap on clotted central lumen if no blood return obtained
- Change the dressing on the insertion site
- Turn off the balloon if there's confirmed blood in the helium tubing (immediately alert provider to let them know of suspected rupture)
- Switch the IABP to pressure trigger whenever CPR is initiated
- Change helium tanks (if trained)

#### RNs should get an order for...

- Changing the frequency of the IABP (1:1 v. 1:2 v. 1:3)
- Adjusting augmentation (the bars on the Maquet consoles)
- Whenever the frequency is 1:3 for longer than 30 minutes (order must come from an attending)
- Ambulating with a femoral IABP (order must come from an attending)

#### RNs should never...

- Turn off a balloon without a provider present at bedside or immediate notification to a provider
- Reposition a balloon
- Allow a pt with an IABP to ambulate independently
- "Power flush" the side-arm of the sheath or the central lumen



"Regardless of what is in the RN's scope of practice, if you are uncomfortable doing something on your own or are unsure if it's the right thing to do - ASK!"

> KAELA CRAVEN (CVICU INTERIM NURSE EDUCATION SPECIALIST)

# **STANDARD CONSOLE SETTINGS** WHEN TO ASK "WHY?"

There may a perfectly good clinical reason why we vary at times from the following standard console settings, but when you see anything different from the following, it's fair to professionally ask "why?"

	ARROW	MAQUET cs-300	R-Trac on when your patient is in a regular rhythm?
MODE	AUTOPILOT	SEMI-AUTO	
TRIGGER	EKG	EKG	Cre A
FREQUENCY	1:1	1:1	y tho
AUGMENTATION	>70%	>70%	

## SIDE ARMS: TO TRANSDUCE OR NOT TO TRANSDUCE

#### Bottom line up front: Transduce unless clotted.

Transduce knowing that the pressure waveform off of a side-arm of a sheath is likely not going to be reliable or accurate. **However**, we can trend the pressure it offers, it also provides an audible alarm, and if you've ever clotted off your central lumen and needed to transduce the side arm of the sheath – you understand it's importance as a back-up when it's patent!

#### Heres what to do if your waveform is dampened and you think it clotted:

- 1. Start with least-invasive prior to progressing to most-invasive methods.
- 2.Ensure
  - a. Transducer is level with phlebostatic axis and zeroed
  - b.Pressure bag is inflated to 300mmHg
  - c.Adequate amount of fluid is in the pressurized bag
  - d.Excess tubing is removed from the transduced line
  - e.Pressure bag is at least 3ft above the insertion site, if possible
  - f. The line is flushed with the pigtail of the transducer
- 3. Once the above is confirmed attach a 10mL syringe to the port or stopcock of the line you are trouble-shooting that is most-proximal to the patient.
- 4. Good blood return? Pigtail flush the line. Continue to transduce.
- 5. Absent or sluggish blood return? waste any blood in the 10mL syringe, turn the stopcock off to the patient and red cap the line. Do not transduce. This is to ensure other clinicians do not continue to flush the line that has already been determined to have clotting.
- 6. If the line being addressed is the central lumen of the IAB and it is found to be clotted, secondary arterial access should be transduced to the IABP console.
- 7. Ensure provider awareness
- 8. The RN may not power-flush the central lumen or sheath.

#### IABP ANATOMY SNAPSHOT

We often hear people confuse the central lumen with the side arm of the sheath. It's important that we are using standard communication to describe what we are seeing.

Want to become an IABP Super User? Email Jess or Kaela! "Side-Arm" of the Sheath

Central Lumen of the IABP



The IABP is inserted *through* 

a sheath

introducer for this patient

This cloi assessment and intervention suidance applies fo the central lumen, fooj