Script for Zoll R Series Defibrillator Competency

VALIDATOR NOTE: Please remember that you will be asking for return demonstration ONLY; no teaching should be involved with competency verification

Validator is ready with:

- ✓ A Zoll R series defibrillator (with power cable, therapy cable, 3 lead monitoring cable and end tidal CO2 module attached) – patient pads are connected to the therapy cable. Defibrillator should be plugged in to power.
- ✓ Adult, pediatric, neonatal & procedural pads
- ✓ Cardiac simulator with extra 9 volt batteries; have 3 lead monitoring cable attached to side of simulator. Simulator is plugged in to the training pads
- ✓ Chest torso with defibrillator training pads applied
- ✓ Position machine so that staff member can see the face of it when performing CPR on the mannequin
    - BCLS staff must complete #1-5-AED only (do not continue the competency past this point for them)
    - ACLS staff must complete #1-12

1. How do you know that the defibrillator is ready to be used? (Section A1 on Competency Validation Record (CVR))
    - Green check mark is present
    - 3 cables are attached (ET CO2, 3 lead monitoring cable and therapy cable)
    - Charging indicator is illuminated and battery indicator is lit
    - Defibrillator pads and monitoring electrodes (if stocked) are not expired
    - Adult Defibrillator pads are connected to the therapy cable and package is intact
2. When should pads be connected to the therapy cable? (Section 1A of CVR)
    - Adult Pads in all areas at all times – allows daily self-check to occur, used for weekly shock test.
    - Pediatric/neonatal areas: pediatric/neonatal defibrillator pads should NOT be connected to the therapy cable unless they are being placed on a pediatric/neonatal patient.
    - Procedural Pads are attached as needed immediately before the procedure
3. What is the correct pad placement? (Section 1B of CVR)
    - Adults: anterior/anterior placement
    - Pediatric and neonatal patients: anterior posterior placement
    - Procedural pad placement may vary depending on procedure.

****Validator now connects the training defibrillator pads to the therapy cable, making sure that the simulator is also connected to the training pads; set simulator to "VF-CPR artifact"**

4. How would you set the AED mode for your patient? (Sections 1C and D on CVR)
    - Staff member turns dial to "Defib"

****After the staff member turns the dial to "Defib", if beeping is heard, validator touches the "Options" soft key (lower left of the machine) and then "QRS Volume" to OFF, then touches "Return" (lower right of machine)**

    - Staff member now selects "ANALYZE"
    - Assures that no one is touching the patient or the bed
    - Selects "SHOCK" when voice prompt indicate that this is needed
5. Demonstrate CPR until indicators show correct compressions (Section 1E on CVR)

****Validator confirms that the "CPR PPI" and "Release" indicators are full of purple color (see picture provided). Rate and depth indicators should not have yellow highlight.**

BCLS finish here

****Validator turns machine off, then turns dial to "Monitor" mode.**

Set simulator to "VT-HI". (If beeping is heard, touches the "Options" soft key (lower left of the machine)and ten turns "QRS volume" to OFF, then touches "Return").

State "The physician wants you to defibrillate at a setting that they choose"

6. How would you manually defibrillate your patient at a dose of 100 (or 50 joules for pediatric patient, 8 joules for NICU patient)? (Section 2A on CVR)
   - Turn dial to "Defib", touch "Energy Select" arrows to choose 100 (50 or 8), touch "CHARGE", clear the patient, touch "SHOCK" button when it becomes illuminated

****Validator now states "The physician wants you to defibrillate a second time at 100 joules (or 50 for pediatric patient, 8 for NICU)." Staff person sets joules, then touches "Charge". At this point validator stops the staff member, changes the simulator to "NSR" and says,**

7. "Now the physician says that we don't need to defibrillate again, how would you "dump" the charge?"(Section 2B on CVR)
   - Options: turn dial to "Monitor" mode ***OR*** decrease the joules ***OR*** wait 90 seconds (any one of these answers is correct)

8. Please identify where the "Lead", "Size", "Alarm Suspend" and "Recorder" buttons are and describe what they are used for (Section 2C on CVR)
   - All 4 buttons are in the gray "Monitor" section of the defibrillator
   - "Lead" is used to change the lead setting (shows in the top right box of the screen; Pads/Lead 1, 2 or 3)
   - "Size" is used to change the size of the rhythm strip (size shows in the same box; 0.5/1/2/3)
   - "Alarm Suspend" is used to silence alarms.
   - "Recorder" is used to activate the paper recorder. Press to start recording, press again to stop recording

****Validator now sets simulator to "AFLTR"**

9. How would you set the defibrillator to cardiovert at 100 joules? (Section 2D on CVR)
   - Turns machine dial to "Defib",
   - Presses the "Synch On/Off" soft key at the bottom right of the machine
   - Uses "Energy Select" button to set 100 joules.

****Validator sets simulator on "3RD" and ensures that 3 leads are attached to the simulator**

10. How would you turn on the pacer function and can you show me where the "Output" and "Rate" dials are? (Section 2E on CVR)
    - Turns dial to "Pacer", identifies where "Output" dial and "Rate" dials are on the machine (lower left)

11. Please show me the location of the 4:1 button and the Asynch soft key (Section 2F on CVR)
    - Points to green 4:1 button on bottom left of machine and "ASynch" that shows on bottom right of screen

12. Please show me where the capnography module is on the machine (Section 2G on CVR)
    - Points to the module attached to the right back side of the defibrillator
    - Which disposable products are compatible with the R monitor capnography? (Adult/Pediatric Airway Adapter Kit-clear end piece for ET tubes > 4.0, Pediatric/Infant Kit-purple end piece for ET tube sizes ≤ 4.0)

Select staff only:

13. Do you have weekly device check responsibility? If yes, describe when you do it and demonstrate how to complete a weekly device check (Section 2H on CVR)

****If the answer is "yes", validator removes the therapy cable from the training pads and attaches the closed adult patient pads to the cable**

- States that device should not be in clinical use when performing the device check
- Procedure:
    - Turn dial to "Monitor" mode
    - Check that a closed set of defibrillator pads are connected to the therapy cable
    - Turn dial to "Defib"
    - Use "Energy Select" button to select 30 joules
    - Touch "Charge"
    - Once the screen shows "Defib 30J Ready", decrease the energy to 20 joules
    - Then increase to 30 joules
    - Touch "Charge"
    - Touch "Shock" to deliver the dose
    - Screen should state "Defib Pad Short" and "30 Joule Test OK"
    - Turn machine off

14. Do you work in an area which serves pediatric/neonatal patients? If so, what joules setting do your defibrillators default to and how would you adjust this for a pediatric/neonatal patient? (Section 3** on CVR)
    - All defibrillators are configured in standard adult mode: energy must be adjusted for pediatric/neonatal patients.
    - **OneStep Pediatric Multifunction pads are for < 25 kg and anterior/posterior placement only**.
    - When pediatric pads are plugged in, the energy defaults to 20j, if not manually adjusted will increase to 30 j & 50 j with subsequent defibrillations. Please use PALS guidelines/Broselow tape for weight based energy selection for pediatric patients.
    - When neonatal pads are plugged in, the energy defaults to 1j & does not escalate. Please use NRP guidelines for appropriate energy selection.