



Suggestions for Performance Evaluation

with the LIFEPAK® 20 Defibrillator/Monitor

Noninvasive Pacing

Name: _____ Unit: _____

Reviewer: _____ Date: _____

This Performance Evaluation is a suggested assessment of one's ability to perform Noninvasive Pacing with the LIFEPAK 20 defibrillator/monitor series. This evaluation does not cover all information and skills required to operate the device safely and effectively. This evaluation is designed to be completed after viewing the appropriate inservice video or observing an equipment demonstration given by a qualified instructor. For complete information, review the Operating Instructions. References to buttons are indicated in **bold** and screen display messages are indicated in *italics*. Performance Checklist requires a patient simulator with pacing simulation.

PERFORMANCE EVALUATION	COMPLETE	INCOMPLETE	COMMENTS
1. Identifies cardiac rhythms and patient symptoms that may require pacing			
2. Describes potential adverse events during noninvasive pacing: interruption of therapy, inability to pace due to high impedance and patient skin burns and irritations, etc.			
3. Differentiates between demand and non-demand pacing modes			
4. Prepares patient: <ul style="list-style-type: none"> • Explains procedure • Considers sedation • Bares patient's chest • Clips excessive chest hair • Wipes all electrode sites clean and dry, does not use alcohol, benzoin or an antiperspirant on pacing electrode sites 			
5. Presses ON			
6. Applies ECG electrodes and connects to ECG cable, ensuring there is adequate space between the ECG electrodes and the therapy electrodes			
7. Selects ECG lead (I, II or III) with greatest QRS complex amplitude			
8. Applies QUIK-COMBO® therapy electrodes by smoothing from one end to the other firmly pressing to remove all air			
9. Describes or demonstrates anterior-posterior placement: <ul style="list-style-type: none"> • Anterior electrode on left precordium between xiphoid process and left nipple at apex of the heart, avoiding nipple and diaphragm • Posterior electrode below left scapula, lateral to spine at heart level • Avoids dressings, ECG electrodes and wounds 			
10. Describes or demonstrates anterior-lateral placement: <ul style="list-style-type: none"> • Lateral (apex) electrode lateral to left nipple with the center of the electrode on the midaxillary line • Anterior electrode below the right clavicle lateral to sternum 			
11. Connects QUIK-COMBO electrode tightly into therapy cable			
12. Presses PACER			
13. Observes monitor screen for ECG rhythm and sense marker (▼) on each QRS			
14. Adjusts ECG size for optimal QRS sensing or selects a different lead			
15. Presses RATE or rotates SPEED DIAL to select pacing rate			
16. Presses CURRENT or rotates SPEED DIAL to increase pacing current			

PERFORMANCE EVALUATION	COMPLETE	INCOMPLETE	COMMENTS
17. Observes monitor and identifies electrical capture/mechanical capture by: <ul style="list-style-type: none"> • Palpating patient's pulse • Checking blood pressure • Observing capture on monitor Note: decrease in pacing rate of 25% of set rate while pause button is pressed			
18. Presses and holds PAUSE button to determine patient's underlying rhythm <ul style="list-style-type: none"> • Observes pulse oximeter (pleth) waveform for adequate waveforms if pulse oximetry is available 			
19. Describe pacing behavior when active ECG lead becomes disconnected during demand pacing. <ul style="list-style-type: none"> • Dashed line appears across screen • Nondemand pacing message appears on screen (note: re-establish nondemand pacing by reattaching ECG lead and replacing ECG electrode) 			
20. Discontinues pacing by: <ul style="list-style-type: none"> • Pressing PACER • Reducing CURRENT to zero • Pressing ENERGY SELECT or CHARGE to initiate defibrillation 			
21. Turns POWER off			
22. Describes proper care of ECG records			
23. Removes electrodes by slowly peeling at 180 degree angle while maintaining support on the skin			

Evaluation and Action Plan

Advanced Performance Scenarios

Identifies possible cause and corrective action for the following observations:

- Device does not function when **PACER** is pressed
- **PACER LED** on, **CURRENT** (MA) >0, but pace markers absent (not pacing)
- Pacing stops spontaneously
- Monitor screen displays ECG distortion while pacing
- Capture does not occur with pacing stimulus
- **CONNECT ELECTRODES** message appears
- Pacing stops spontaneously and **PACER FAULT** message appears
- Intrinsic QRS complexes not sensed when pacing
- Set pacing rate (PPM) and ECG paced rate do not appear to match
- Improper sensing (e.g., sense marker is on T-waves)



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