THE STUDY VAULT

Clinical Chaos

Pacemaker Care

SKILL SNAPSHOT

Purpose
- Monitors pacing function, incision/lead integrity, perfusion, and patient safety for temporary or permanent cardiac pacing.

When to use
- After pacemaker insertion and whenever pacing, rhythm, symptoms, wound, or device function requires assessment.

Supplies needed
- ECG monitor; pacemaker programmer/emergency pacing equipment; sterile site supplies; pulse/SpO2/BP equipment; device ID information.

PREP + PATIENT SETUP

- Identify device type, mode, lower rate, output, sensitivity, indication, dependency, and temporary/permanent status.
- Assess rhythm, pulse, symptoms, hemodynamics, insertion/incision site, and lead

VAULT TIP

- For every pacing spike, ask two questions: did the heart depolarize, and did the patient perfuse?

STEP-BY-STEP

1. Hand hygiene; identify patient; compare monitor rhythm and ordered pacemaker settings.
2. Assess patient perfusion: pulse, BP, mentation, skin, dyspnea, chest pain, dizziness, syncope, and heart-failure signs.
3. Identify pacing spikes and evaluate electrical capture: each appropriate spike should be followed by expected P wave and/or QRS.
4. Verify mechanical capture by matching paced complexes with palpable pulse/arterial waveform and perfusion.
5. Assess sensing: spikes should occur only when intrinsic rhythm is absent/too slow according to mode.
6. For temporary systems, inspect generator power, battery, cables, lead connections, securement, and protective dressing.
7. Keep temporary-pacing connections insulated and visible; never handle exposed connectors with unprotected hands.
8. For transvenous leads, monitor insertion site, bleeding, infection, migration, and arrhythmias; restrict movement only as ordered.
9. For new permanent pacemaker, assess incision/pocket, dressing, swelling, drainage, pain, and ipsilateral arm restrictions per implanting team.
10. If failure to capture, sensing abnormality, bradycardia, hypotension, or syncope occurs, assess patient, connections/settings, call for help, and prepare backup pacing.
11. Avoid placing magnets over device unless directed. Confirm procedure/equipment electromagnetic precautions with device team.
12. Teach device ID card, incision care, activity restrictions, symptom reporting, follow-up/interrogation, and manufacturer-specific precautions.

SAFETY REMINDERS

- Electrical capture must be confirmed by mechanical perfusion.
- Pacemaker spikes do not guarantee a pulse.
- Dependent patients need immediate backup pacing capability.
- Magnets affect devices differently—use only by protocol.

COMMON MISTAKES

- Documenting capture from ECG alone.
- Ignoring undersensing/oversensing.
- Loose temporary leads.
- Generic arm restrictions instead of implant orders.

DOCUMENTATION

- Device type/mode/settings.
- Rhythm, sensing, electrical/mechanical capture.
- Perfusion and symptoms.
- Site/lead/generator assessment.
- Teaching, interrogation, complications.