Toolkit & Workflow Guide for Telemedicine Carts

Toolkit & workflow guide for healthcare providers and clinical teams on effectively operating telemedicine carts for virtual patient care

> This comprehensive guide outlines standard clinical encounter steps, coding frameworks, infection control practices, and cart fleet storage protocols to ensure seamless care delivery and compliance across care settings.

Clinical Encounter Workflow Steps

STEP 1

Pre-Visit Preparation & Cart Inspection (10–15 Mins Prior)

- **Power Check:** Verify that the cart's onboard battery is fully charged or that it is plugged into a reliable power source.
- **Hardware & Peripherals Test:** Power on system, test HD camera pan/tilt/zoom functions, and ensure microphones and speakers are clear without feedback. Check peripheral connections (e.g., digital stethoscopes, otoscopes, or ultrasound probes).
- **Software Log-In:** Launch telehealth platform, log into electronic medical record (EMR) system, and confirm network/Wi-Fi stability.

STEP 2

Patient Setup & Positioning At Bedside

- **Positioning the Cart:** Place cart near foot or side of bed or near ambulatory patient so remote specialist and local care team have a clear, unobstructed line of sight.
- **Adjusting Height & Lighting:** Use cart height adjustment to align camera at eye level with patient. Ensure room lighting illuminates patient's face and body clearly without harsh backlighting from windows behind cart.

STEP 3

Start of Encounter

- **Introduce All Parties:** Clearly introduce yourself as remote provider, and ask local bedside nurse/assistant to introduce anyone else present in room.
- **Verify Patient Identity:** Confirm patient identity using two standard identifiers (e.g., full name and date of birth) per facility protocol.
- **Establish Informed Consent:** Document that verbal or electronic consent for telehealth services has been obtained and recorded.

STEP 4

Executing the Virtual Examination

- **Collaborate with On-Site Staff:** Guide bedside nurse or Advanced Practice Provider through physical exam maneuvers. Direct where peripherals (e.g., digital stethoscopes) should be placed while monitoring live telemetry and audio feeds.
- **Maintain Eye Contact:** Look directly into cart camera lens when speaking to patient rather than at screen to foster personal connection.

STEP 5

Post-Visit Wrap-Up & Documentation

- **Summarize the Care Plan:** Review diagnoses, medication changes, and next steps clearly with both patient and on-site support team.
- **EMR Documentation:** Document encounter immediately in EMR, explicitly noting telemedicine modality used, physical locations of provider and patient, and collaborative staff involved.
- **Sanitization:** Clean and disinfect all cart surfaces, touchscreens, and diagnostic peripherals according to institutional policies before moving cart to next location.

Billing & Coding Guidelines

Billing and coding for telemedicine cart encounters, particularly when using physical hardware, on-site clinical staff, and a remote specialist, involve specific guidelines for distant site providers and originating site facilities. Please verify with your billing and regulatory teams.

1. Distant Site Provider Billing (The Remote Physician/Practitioner)

The provider conducting the virtual visit bills for professional services. Coding depends on Medicare Fee-for-Service vs. Commercial/Medicaid Payers:

Standard E/M Codes (99202–99215)

Medicare Track: Medicare and many fee-for-service plans require standard office/outpatient E/M codes (99202–99205 for new; 99211–99215 for established).

Selection Criteria: Code levels are determined either by Medical Decision-Making (MDM) or total time on date of encounter, exactly like an in-person visit.

Alternative Telehealth E/M Codes (98000–98015)

AMA provides dedicated telehealth code range (98000–98007 for audio-video). While adopted by various commercial payers, Medicare assigns these status indicators "I" (invalid) and will deny them, requiring standard 99202–99215 codes instead.

Required Modifiers & Place of Service (POS) Codes for Claims:

- **Place of Service (POS) 10 (Home):** Use if patient is connecting from their private residence.
- **Place of Service (POS) 02 (Telehealth Provided Other than in Home):** Use if patient is in a clinic, facility, or hospital setting.
- **Modifier 95:** Real-time audio-video telemetry (widely used with standard E/M codes).
- **Modifier 93:** Synchronous telemedicine service rendered via telephone or interactive audio-only system (if video fails).

2. Originating Site Facility Fee Billing (HCPCS Q3014)

When a telemedicine cart is deployed within an institutional setting (rural clinic, hospital, skilled nursing facility, or FQHC) and patient is physically present with local support staff, the facility hosting cart can bill for overhead, equipment, and staff assistance.

- **HCPCS Code Q3014:** *"Telehealth originating site facility fee"*
- **Usage Rules:** Reimburses facility for providing room, secure telecommunications infrastructure, and on-site clinical assistance (e.g., nurse positioning cart or handling digital stethoscopes).
- **Restrictions:** Cannot be billed if patient is calling from home. Geographic and facility type restrictions apply under Medicare guidelines (favoring rural/shortage areas, though flexibilities evolve).

3. Documentation Checklist for Clean Claims

Required Component	Specific Documentation Requirement
Telehealth Modality	Explicitly state that real-time audio-video interactive technology (via telemedicine cart) was utilized.
Exact Locations	Record both distant site provider's location and patient's originating site location.
Collaborative Staff	Note presence and active participation of any on-site clinical staff assisting with cart or physical exam peripherals.
Time or MDM	Clearly document total encounter time or elements of medical decision-making supporting chosen E/M code level.

Infection Control Best Practices

Telemedicine carts house non-critical medical equipment and sensitive, high-touch electronics (touchscreens, cameras, cabling, keyboards). These CDC-aligned practices outline structured sanitation steps:

PROTOCOL 1

Pre-Cleaning Safety & Surface Preparation

- **Power Down & Unplug:** Power off cart monitor/computer and disconnect main power cord from wall before applying liquids or wipes.
- **Wear PPE:** Wear disposable gloves (and additional PPE like gowns/face protection if under contact precautions).
- **Two-Step Process:** Clean visible dirt/dust with detergent wipe or damp microfiber cloth first (disinfectants cannot penetrate physical debris). Then apply EPA-registered healthcare disinfectant wipe across non-porous surfaces.

PROTOCOL 2

Disinfection of Carts & Electronics

- **Approved Wipes:** Use wipes compatible with medical plastics & displays (quaternary ammonium or 70% isopropyl alcohol). Avoid harsh bleach/acetone on monitors unless manufacturer approved.
- **Never Spray Directly:** Do not spray liquids directly onto monitors, cameras, touchscreens, or keyboard keys. Spray onto cloth first if wipes unavailable.
- **Wet Contact Time:** Allow disinfectant to remain visibly wet for full manufacturer contact time (1–4 mins) before air drying.

PROTOCOL 3 & 4

Cleaning Diagnostic Peripherals & Workflow Direction

- **High-Touch Focus:** Prioritize touchscreens, cameras, keyboards, mice, barcode scanners, handles, height levers, work surfaces, coiled cords, and cart wheels/casters.
- **Diagnostic Devices:** Digital stethoscopes, otoscopes, examination cameras, and ultrasound probes must be thoroughly disinfected between every patient encounter. Clean probe heads and optical lenses strictly per manufacturer instructions.
- **Clean Top-to-Bottom:** Clean upper, cleaner components (PTZ camera, monitor) first, proceeding downward to higher-contamination areas (work surfaces, handles, cabling, casters). Perform standard disinfection between every room. Use EPA-approved sporicidal wipes (bleach/hydrogen peroxide) for *C. difficile* or enteric precautions.

Best Practices for Cart Storage & Security

Storage Focus Area	Protocol & Security Guidelines
Parking Locations	Never store in narrow clinical corridors or public areas where carts block egress routes or invite tampering. Store in dedicated, clean equipment holding rooms or clinical engineering bays locked when unsupervised. Never store in "dirty utility" rooms.
Power Management	Plug carts into wall outlets immediately upon returning to storage to prevent deep battery discharge. Neatly wrap cords using integrated hooks. Use hospital-grade surge protection strips.
Physical Anti-Theft	Equip storage alcoves with electronic proximity badge locks. Use built-in physical/electronic locking drawers for high-value peripherals (digital stethoscopes, otoscopes). Use heavy-duty security cables or wall-mounted tethers in semi-open clinic settings.
Data Privacy (HIPAA)	Configure software/EMR to automatically log off or lock after brief inactivity. Keep operating systems and patches updated via centralized IT. Equip displays with privacy filters to minimize visual hacking in busy hallways.
Fleet Maintenance	Apply RFID, barcode, or GPS asset tags to monitor inventory and service schedules. Implement routine biomedical engineering checks for casters, wheel locks, joints, and handles. Tag cleaned equipment for clinical readiness.

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