

Acute-Care Telemedicine — Reliability & Readiness Checklist

Fora Soft Learn

Run this on a tele-stroke or tele-ICU build before launch. Engineering guidance, not legal advice — confirm specifics with counsel.

LATENCY & RELIABILITY ENGINEERING

- ☐ **Conversational latency budget met.** One-way latency stays under ~150 ms (ITU-T G.114) and the remote pan-tilt-zoom camera control is responsive — a neurologist can score an NIHSS exam over video, not just see a static picture.
- ☐ **Redundancy at every layer.** Dual network paths from the bedside cart (hospital network + cellular), media servers in more than one region with failover, and a backup route to the on-call specialist. No single failure can silence the link during a code.
- ☐ **Graceful degradation, not freeze.** The session auto-reconnects, survives a Wi-Fi-to-cellular switch, and falls back to audio-only rather than freezing. Reconnection is tested, not assumed.
- ☐ **Surge capacity planned.** Peak concurrent-consult load is modeled (flu season, mass-casualty, regional disaster) and the media layer scales to meet it. You have load-tested the surge, not just the happy path.
- ☐ **HIPAA availability built in.** Contingency plan with data backup and disaster recovery (45 CFR §164.308(a)(7)) and an emergency-access procedure (45 CFR §164.312(a)(2)(ii)). Availability is a security requirement here, not an aspiration.
- ☐ **One-touch cart-side start.** The local nurse powers on, the right specialist is already being paged, the call connects. Every extra step is friction at the worst possible moment.

THE ONE TEST BEFORE LAUNCH

Simulate a 3 a.m. stroke code and prove the hard parts work inside the clock: the cart starts near one-touch and connects fast; the remote neurologist gets responsive camera control, low-latency conversational video, and the CT image quickly enough to decide inside the 60-minute door-to-needle window; kill one network path, one media region, and confirm the link survives; the NIHSS score and note write back to the EHR; and every party that touched PHI is under a BAA. If any of those fails, the product is not ready — in acute care the failure is a missed treatment window, measured in brain cells.

CLINICAL FIT, INTEGRATION & COMPLIANCE

- ☐ **Cart is inside the HIPAA boundary.** The bedside cart is a hospital device handling PHI — same encryption, access control, audit logging, and BAA coverage as your servers. Encrypted is not the same as compliant.
- ☐ **Imaging path is first-class.** The remote neurologist can view the CT fast via the hospital PACS / a DICOM viewer, with FDA-approved teleradiology in time for the treatment decision. Imaging is scoped from day one, not bolted on.
- ☐ **Record write-back works.** The consult — who joined, the NIHSS score, the recommendation — lands in the EHR over FHIR so the local team can act and the record is complete.
- ☐ **FDA line on triage AI is held.** Any stroke-detection / large-vessel-occlusion alerting feature is treated as a regulated device (computer-aided triage, FDA De Novo class). Notify-a-human is support; state-the-diagnosis crosses the line. The pathway is in scope.
- ☐ **Reimbursement framed correctly.** The acute-stroke originating-site exception is PERMANENT (SSA §1834(m)(6), BBA 2018 §50325, since 2019-01-01) — distinct from the temporary general flexibilities. Claims carry the G0 + synchronous modifier.
- ☐ **Certification documentation ready.** Reliability and audit trails support your hospital customer's Joint Commission stroke certification (Acute Stroke Ready / Primary / Thrombectomy-Capable / Comprehensive).