LOGUARON COMPANION TOOL

Cognitive Ergonomics Facility Audit

A structured walk-through for a clinician or quality lead to assess how well a unit's space, information flow, and team structure support attention, memory, and decision making, rather than adding to overload.

Unit / service audited: _____ **Date:** _____

Auditor(s): _____ **Shift type (day / evening / night):** _____

Clinical focus (ED / ICU / outpatient / ward): _____

Scoring scale for each item: **3** = In order (supports cognition well) · **2** = Partially in order · **1** = Not in order (clear problem)

1. Visual, auditory, and sensory ergonomics

Direct question: Does the environment make it easy to see, hear, and notice what matters, without excess noise or visual clutter?

1.1 Lighting supports a clear view of patients, monitors, and charts, without glare or dark spots.
Score (circle one): 1 2 3 Notes:

1.2 Critical visual information (monitors, whiteboards, signs) is easy to find and read from typical working positions.
Score (circle one): 1 2 3 Notes:

1.3 Noise levels are managed; alarms are calibrated so that only truly critical alarms are loud and frequent.
Score (circle one): 1 2 3 Notes:

1.4 Background sounds (telephones, conversations, doors) do not routinely interfere with concentration during critical tasks.
Score (circle one): 1 2 3 Notes:

2. Memory load and information organization

Direct question: Do clinicians have to hold too much in working memory, or does the workspace externalize the big picture clearly?

2.1 The unit has a clear, up-to-date status display (board or digital) showing patient list, acuity, location, and key tasks.
Score (circle one): 1 2 3 Notes:

2.2 Patients' key data (diagnoses, active issues, recent labs, critical alerts) are summarized in a problem-oriented view rather than scattered.
Score (circle one): 1 2 3 Notes:

2.3 Checklists, protocols, and pathways for common high-risk conditions (sepsis, stroke, STEMI) are visible and easy to access at the point of care.
Score (circle one): 1 2 3 Notes:

2.4 Clinicians report they do not need to remember everything themselves; they can rely on visible lists and aids for tasks and priorities.
Score (circle one): 1 2 3 Notes:

3. Communication, interruptions, and multitasking

Direct question: Is communication structured to support safe decisions, with interruptions managed rather than constant and random?

3.1 Handoff areas and processes are designed as cognitively protected spaces (quiet, minimal cross-traffic, a clear structure such as SBAR).
Score (circle one): 1 2 3 Notes:

3.2 There are agreed rules about when to interrupt clinicians and when to wait, especially during prescribing, procedures, or critical decisions.
Score (circle one): 1 2 3 Notes:

3.3 Non-urgent messages are routed through status boards or electronic systems, not random verbal interruptions.
Score (circle one): 1 2 3 Notes:

3.4 Clinicians report multitasking is expected only where safe; they are supported in finishing high-risk cognitive tasks before switching.
Score (circle one): 1 2 3 Notes:

4. Decision support, tools, and EHR usability

Direct question: Do tools and systems support clinical reasoning, or do they add clicks, searches, and confusion?

4.1 EHR layouts and workstation screens are consistent across rooms, with key panels (vitals, meds, labs, notes) reachable in a few clicks.
Score (circle one): 1 2 3 Notes:

4.2 Alerts and reminders are pruned to those with clear clinical value; low-value alerts are minimized to avoid alert fatigue.
Score (circle one): 1 2 3 Notes:

4.3 Common tasks (admissions, discharges, standard orders) use templates or order sets that match real workflows rather than forcing workarounds.
Score (circle one): 1 2 3 Notes:

4.4 Clinicians report tools help them see trends and big-picture status (timelines, summarized data) rather than only raw values.
Score (circle one): 1 2 3 Notes:

5. Team roles and distribution of cognitive load

Direct question: Is cognitive load shared across the team, or concentrated in one or two people?

5.1 The unit uses clear role definitions (flow coordinator, charge clinician, triage lead) to distribute monitoring and coordination.
Score (circle one): 1 2 3 Notes:

5.2 Pharmacists, pharmacy technicians, or nurses are engaged in medication reconciliation and dosing support for high-risk patients.
Score (circle one): 1 2 3 Notes:

5.3 Scribes or documentation support are available in high-intensity areas, or documentation expectations are realistically matched to staffing.
Score (circle one): 1 2 3 Notes:

5.4 The team uses regular micro-huddles to align on priorities and share situational awareness.
Score (circle one): 1 2 3 Notes:

6. Learning, competence, and adaptation

Direct question: Are staff trained and supported to use cognitive aids and workspace design effectively?

6.1 Staff have received training on cognitive load, interruptions, and human factors, including why workspace design matters for safety.
Score (circle one): 1 2 3 Notes:

6.2 New tools or layouts are introduced with user involvement and feedback loops (pilots, surveys, debriefs).
Score (circle one): 1 2 3 Notes:

6.3 The unit periodically reviews incidents or near-misses for cognitive-load contributors and adjusts the workspace accordingly.
Score (circle one): 1 2 3 Notes:

6.4 Staff report that changes over the past year have improved their ability to think clearly and safely under pressure.
Score (circle one): 1 2 3 Notes:

7. Information overload and multitasking requirements

Direct question: Is information overload actively managed, or simply tolerated?

7.1 Clinicians have simple, reliable ways to signal when they are overloaded and need support or redistribution of tasks.
Score (circle one): 1 2 3 Notes:

7.2 The number of simultaneous information streams (monitors, phones, pages, chats) is limited and structured to avoid constant switching.
Score (circle one): 1 2 3 Notes:

7.3 Cognitive offloading strategies (lists, prioritized action boards, standardized protocols) are routinely used in high-acuity situations.
Score (circle one): 1 2 3 Notes:

7.4 Residents and junior staff report peak-time staffing and supervision are adequate to keep cognitive load manageable.
Score (circle one): 1 2 3 Notes:

8. Overall rating and action plan

Total score (sum of all items): _____ **Average score per item:** _____

Overall rating: **2.5–3.0** generally supportive of cognition (fine-tune) · **1.8–2.4** mixed; targeted improvement needed · **<1.8** high cognitive-risk; priority redesign.

Top three strengths:

Top three priority issues:

Immediate (0–3 month) actions:

Medium-term (3–12 month) redesign actions: