

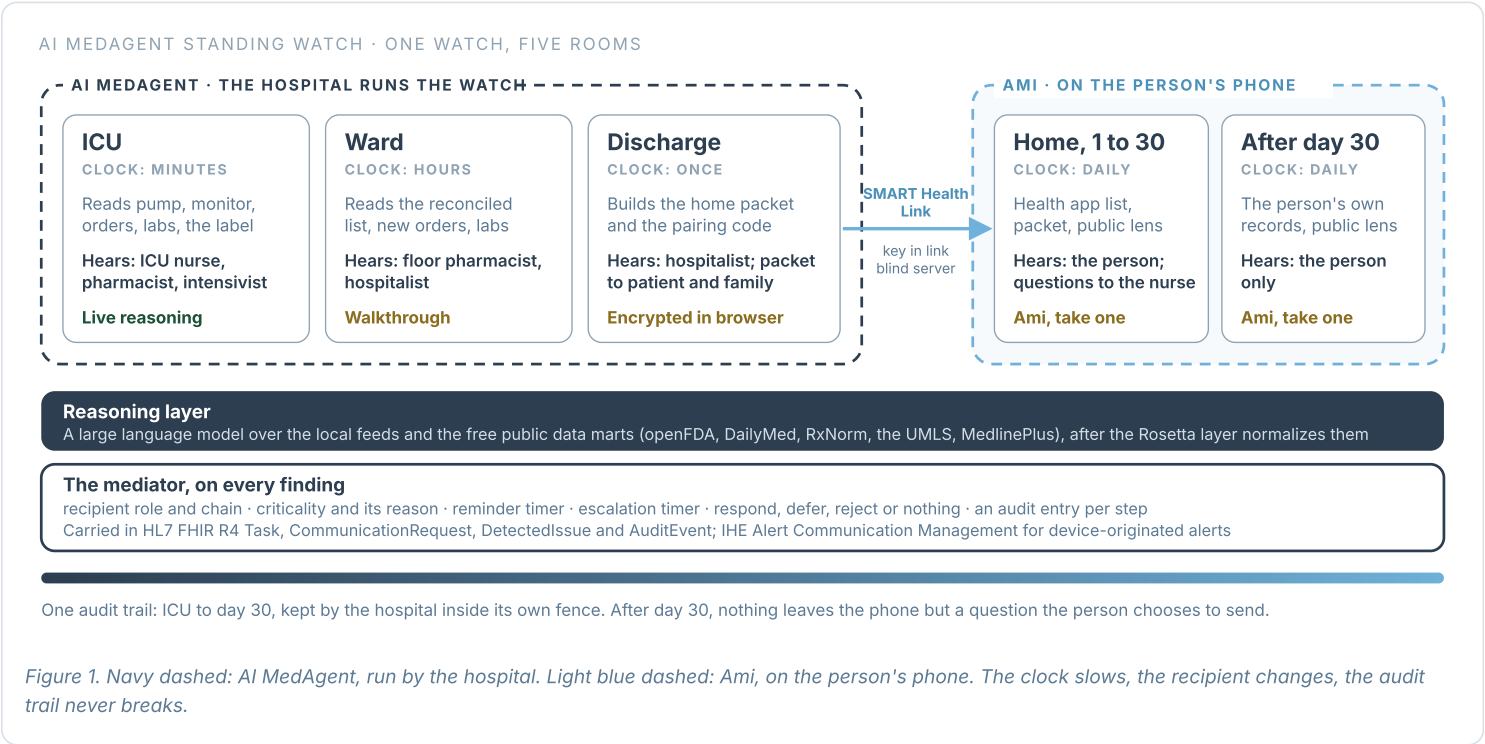
AI MedAgent Standing Watch

One reasoning layer from the ICU to the kitchen table

A research demonstration of a patent-pending method. Synthetic patients only. Not a medical device. Not FDA cleared.

What it is

Between the rooms, nobody is watching. A patient leaves the ICU, then the ward, then the hospital, and every hand-off drops something. Standing Watch is AI MedAgent stretched across the whole stay and the first 30 days at home: the same reasoning layer in every room, a mediator on every finding so it reaches a person and gets an answer, and an encrypted bridge to the person's own phone, where the consumer app, Ami, takes over. The hospital runs the watch through day 30 inside its own security boundary. After that, it is the person's own.



The mediator, field by field

FIELD	CARRIED IN (HL7 FHIR R4)	DEMONSTRATED
The finding and its evidence	DetectedIssue: code, severity, detail, evidence	Yes
Who hears it, and who is next	Task.owner (PractitionerRole); CommunicationRequest.recipient; the chain in Task.input	Yes
Criticality, and why	Task.priority (routine, urgent, stat); the reason in Task.input; from the CDS Hooks card indicator when the live reasoning writes it	Yes
Reminder and escalation timers	Task.restriction.period.end; minutes in Task.input	Yes, on a simulated clock
Respond, defer, reject, or nothing	Task.status: completed, on-hold, rejected; Task.statusReason; Task.note	Yes
The trail	AuditEvent, one per step; downloadable as a FHIR Bundle	Yes
Device-originated alerts	IHE Alert Communication Management, PCD-04 to PCD-07	Mapped, not yet wired
Delivery channel	CDS Hooks card first; secure chat where an API exists	Named, not yet wired

The bridge, discharge to home

- **The packet:** a FHIR document Bundle with the reconciled list, what changed, the one thing to watch, and how to ask a question. Its Patient resource carries a pseudonymous watch ID and nothing else.
- **The pairing code:** a SMART Health Link, as a QR code or a link. The packet is encrypted as JWE compact serialization (alg "dir", enc "A256GCM") with a fresh 256-bit key that travels only inside the link. The server in the middle stores ciphertext and never sees the key. Flag L lets the hospital update the packet behind the same link.
- **The mapping:** the watch ID resolves to the patient only inside the hospital. A question from Ami arrives addressed to the watch ID and is routed through the same mediator to the transitional care nurse.
- **Demonstration limit:** on aimedagent.net the blind server is the visitor's own browser storage, so a link opens only in the browser that issued it. A hosted blind server, with a passcode and the manifest request, is the next build.

What runs on aimedagent.net

DEMONSTRATION	ADDRESS	WHAT IS REAL
Reasoning Demo	aimedagent.net/reasoning	Live reasoning on a synthetic critically ill patient, with the federal evidence it read
ICU watch board	aimedagent.net/watch-icu.html	The mediator on five synthetic beds; any bed's chart can be sent to the live reasoning
One patient, five rooms	aimedagent.net/watch-journey.html	The mediator and one audit trail across the continuum; scenario findings
The bridge	aimedagent.net/watch-bridge.html	Real SMART Health Link construction and AES-256-GCM encryption in the browser; Ami side simulated
Ami	iPhone, take one	Built and running on the developer's own phone; not yet distributed

Standards and sources

- HL7 FHIR R4 (4.0.1): DetectedIssue, Task, CommunicationRequest, AuditEvent, Bundle, Composition, MedicationStatement. HL7 CDS Hooks.
- IHE Devices Technical Framework Rev 10.0, Final Text, 4 November 2024: PCD-01 (device data), Alert Communication Management (PCD-04 to PCD-07), Rosetta Terminology Mapping.
- SMART Health Links Protocol, SMART Health IT (docs.smarthealthit.org/smart-health-links/spec).
- RxNorm and the UMLS (National Library of Medicine); LOINC (Regenstrief Institute); ISO/IEEE 11073-10101 nomenclature; openFDA and DailyMed (FDA and NLM); MedlinePlus (NLM).

Status and limits

AI MedAgent is covered by multiple pending U.S. patent applications, in which AI reasoning over a patient's local data together with public data marts is the central claim. Standing Watch is a research demonstration on synthetic patients, built and funded by one person. It is not a medical device, is not FDA cleared, and is not for clinical use. A hospital that ran the watch for real would set its own recipients, timers and escalation chains, run it inside its own security boundary, and validate it before anyone relied on it.

Working with me. I work with device makers, health systems and health IT companies one at a time: licensing the method, a pilot partner for the first real watch, or advisory work.

For additional information, contact Daniel Pettus at dan@aimedagent.net or through aimedagent.net/contact.