

Standing Watch

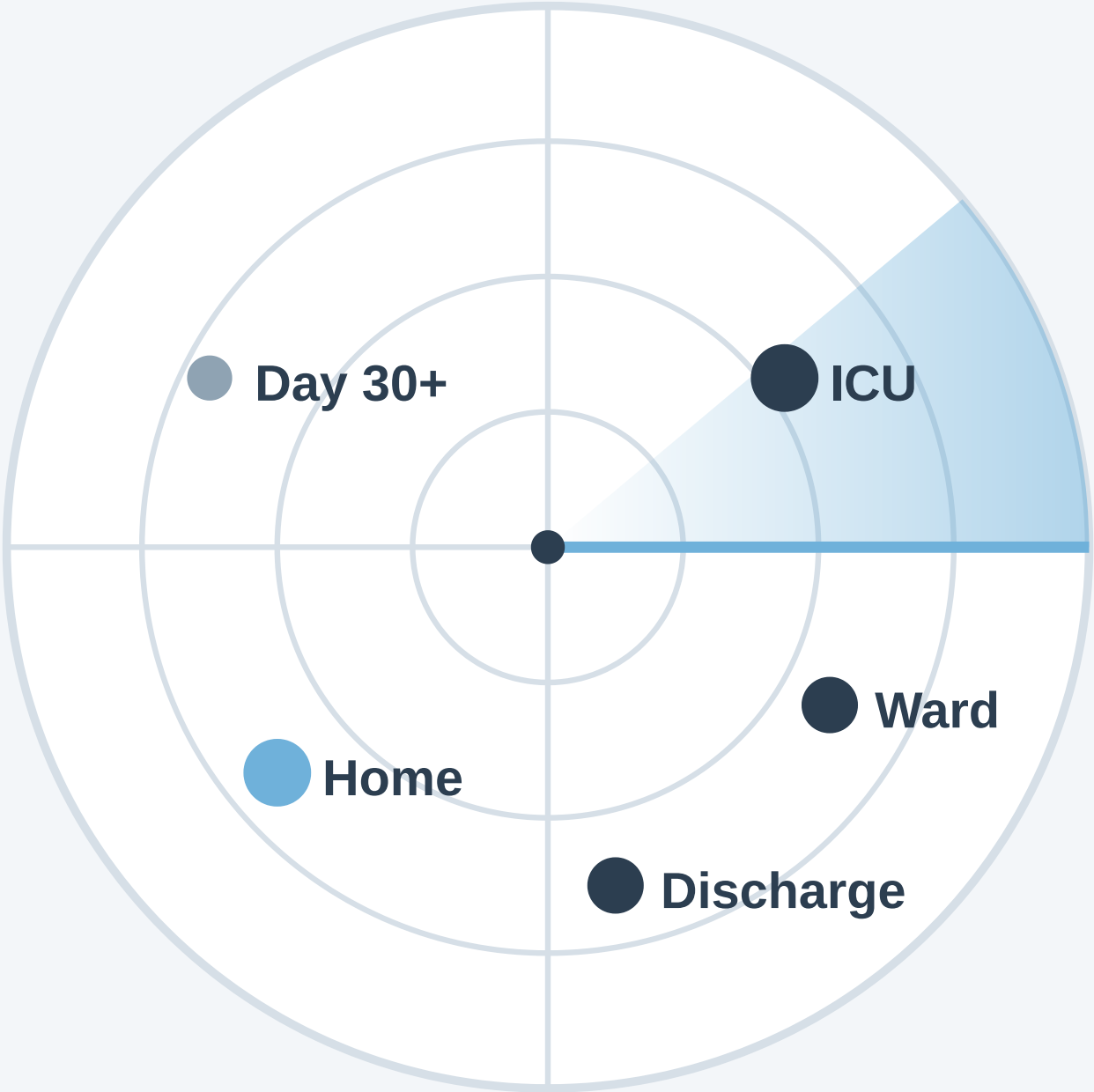
The AI reasoning layer over the whole encounter: ICU, ward, discharge, and the thirty days at home. Same method. Different user.

Ai MedAgent™ in the hospital · Ami at home · one watch

Daniel C. Pettus · formerly Alaris, CareFusion and BD · IHE Patient Care Device standards · five provisional patent applications on this method

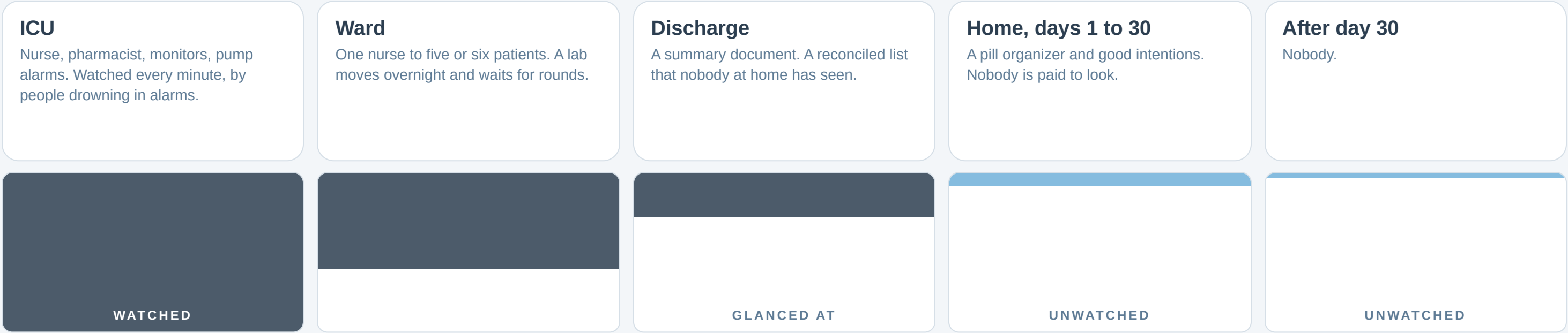
Try the live demo

aimedagent.net



Between the rooms, nobody is watching

A patient moves through five rooms. The watch gets thinner in each one, and the record follows as documents, not as a feed.



How much of the time someone is actually watching. The shape is the point, not the numbers.

19%

of patients had an adverse event in the weeks after discharge; two thirds of those were drug events; most were preventable or ameliorable. Forster and colleagues, Annals of Internal Medicine, 2003.

80%

of eligible hospitals are penalized for readmissions in fiscal 2027. The watch stops at the door, and the bill comes back through it.

Three tries at the same bridge

Right problem. Real value in quality and cost. Wrong tools, wrong time, twice. The third try uses a different lens.

1999 to 2002 · iMetrikus

Consumer and clinician site for chronic disease. First use of the UMLS, loaded off CDs. Devices phoned in on 192 modems. Sixteen servers and two disk arrays in a cage at AboveNet. A room of programmers.

What was right

Acquire from providers and consumers, normalize with public dictionaries, give knowledge back over the internet.

What killed it

The plumbing cost more than the people. Consumers were hard to win. The walls did not move.

2009 to 2011 · the wireless era

A care-team mediation concept I saw up close: a finding carries who should hear it, how urgent, when to remind, when to escalate, and what happened. Then a hub, a network, a platform, and a disease-management pitch from CareFusion to Qualcomm, August 2010.

What was right

The mediator. Routing by the person's preference. The finding follows the patient across settings.

What killed it

Connectivity became the company; the intelligence never arrived. Reimbursement never cleared. Sold for parts, 2019 and 2021.

2025 to 2026 · Ai MedAgent and Ami

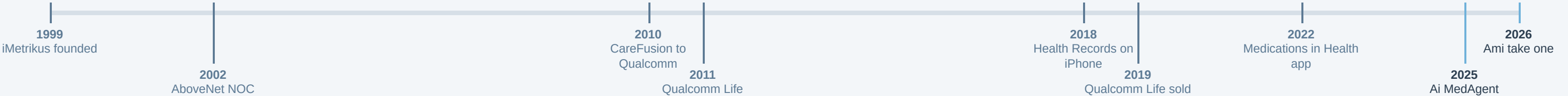
One retired engineer and an AI that writes the code. The hospital feeds are standard. The phone already holds the home record. The public library is free and machine-readable. And for the first time the machine can reason.

What is different

We build only the reasoning layer. Everything else already exists or is somebody else's business.

What could kill it

The same walls. The data is still the barrier. It is a lower wall than 2009, and the real value runs outside it.



The ledger

The money went into plumbing inside the walls. The reasoning layer, the part that produces the value, was never built.

\$34.7B

HITECH meaningful-use incentive payments through May 2016, by CMS's own count. The silos are still standing.

~\$4B

What IBM reportedly spent assembling Watson Health. Sold in January 2022 for an undisclosed sum reported near one billion.

3 yrs

Haven, the Amazon, Berkshire Hathaway and JPMorgan venture. Founded 2018, dissolved February 2021.

\$635M

What Philips paid in 2021 for Capsule, the remains of Qualcomm Life, which Qualcomm had sold in 2019 for an undisclosed sum.

And iMetrikus, 1999 to 2002, which I will not put a number on

I was in that building, and in the 2010 room. None of these failed on value. They failed trying to integrate deep inside a walled, siloed system, with tools that were not ready. The reasoning layer was never built, by anyone.

Four things changed, and the fourth changes everything

The hospital feeds are standard

The pump speaks IHE PCD-01. The record speaks FHIR. Decision support rides on CDS Hooks. In 2009 every one of these was a custom project; in 2026 they are doors with handles.

The phone already holds the home record

Hospital records in the Health app since 2018, in FHIR. Medications with label scanning and interaction alerts since 2022. The ring and the watch write sleep and heart rate beside them. Nobody has to install a modem.

The public library is free and machine-readable

PubMed, forty million citations. ClinicalTrials.gov, close to half a million studies. MedlinePlus, DailyMed, RxNorm refreshed weekly, FDA recalls and shortages, CMS pricing and coverage, the CDC schedule. Your tax dollars paid for it. Nobody at the bedside or the kitchen table reads it.

A machine can reason, for pennies a question

A large language model reads the pump, the labs, the order and the public record at once and reasons over them in real time. A question of twenty thousand tokens costs about five cents on a large model and under a cent on a small one. Access, normalize, reason: the three steps that took a building in 2002 fit in a weekend.

Think of Radar

Corporal Walter O'Reilly, the company clerk in *M*A*S*H*, the field hospital of the television series that ran from 1972 to 1983. Everyone called him Radar.

He hears the choppers before anyone else. He hands the colonel the form before the colonel knows he needs it. He never raises his voice, and he does it in a hospital.

He does not operate. He does not decide. He anticipates, and he brings the right thing to the right person a minute early.

The hospital has always had someone on watch. The home never has.

“Someone is on watch. You will only hear from it when something changes, and it will tell you why.”



Ai MedAgent is the clerk at the desk for every patient, in the ICU and at the kitchen table.

Acquire. Normalize. Reason. Connect to a human.

The second step is where every earlier try drowned. We call it the Rosetta layer, and it is invisible on purpose.

1 · Acquire

Pump (PCD-01), monitor, orders, labs, allergies (FHIR). At home: the Health app, the ring, the watch, the hospital's discharge packet.

2 · Normalize: the Rosetta layer

Whatever the EHR, whatever brand of pump, whatever the device at home, one meaning comes out the other side: RxNorm for drugs, LOINC for labs, the MDC nomenclature for devices, the UMLS over all of it. The same job IHE's Rosetta Terminology Mapping does for pumps, done for the whole encounter. Like the translator under a Mac that runs old software on a new chip: the user never sees it.

3 · Reason

A large language model, continuous, over the local feeds and the public data marts. Proposes act, hold or escalate, inside bounds clinicians set and the server enforces. Says why.

4 · Human

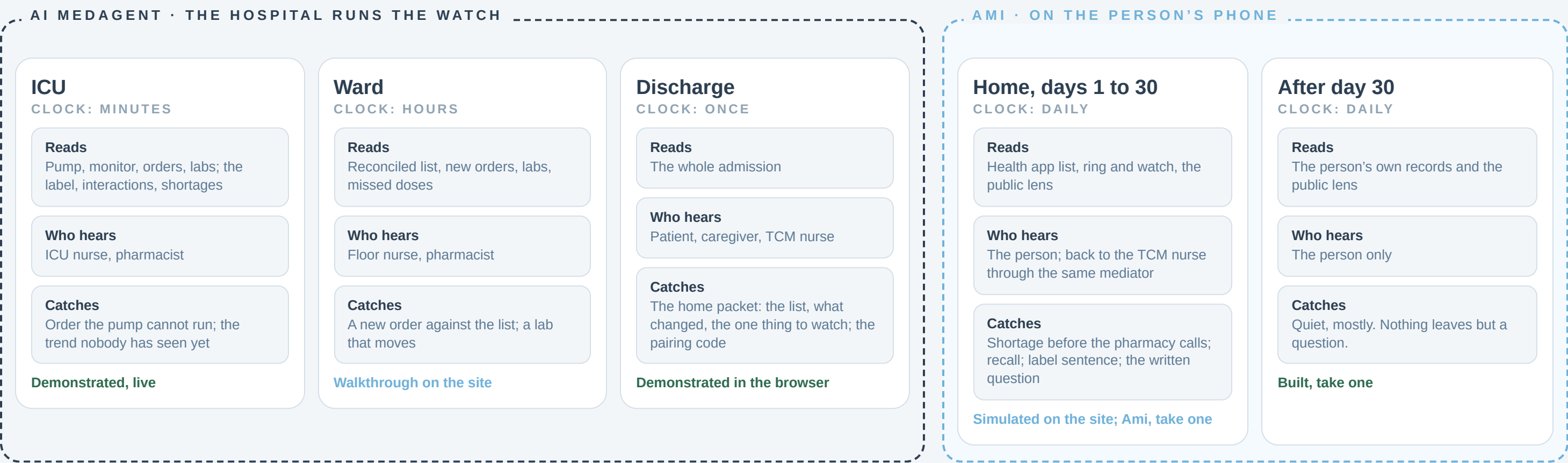
In the ICU the nurse and the pharmacist approve every change. At home the person reads one sentence and sends one question. Nothing happens without a human.

The mediator, carried with every finding

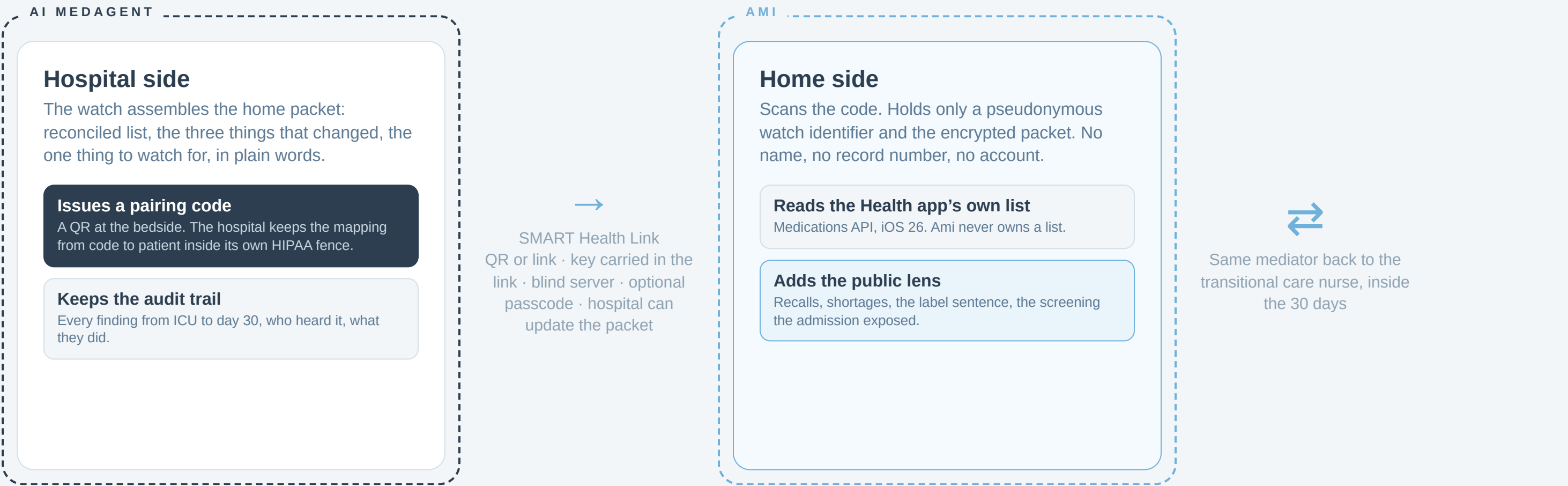
Who should hear it (by role and by that person's preference) · the patient · the finding · a criticality the model sets and explains · a reminder timer · an escalation timer · what the recipient did: respond, defer, reject, or nothing · and an audit trail of every step. On FHIR Task, CommunicationRequest and AuditEvent; IHE ACM for device-originated alerts. Delivered through whatever the site already has.

One watch, five rooms

The same reasoning layer. The clock slows, the recipient changes, the audit trail never breaks.



The bridge: discharge to kitchen table, with nothing about the person in the clear



The identity we never needed in the ICU, codified. The standard exists; nobody has put a reasoning layer on both ends of it.

Cross the bridge: encrypt a packet and open it in Ami

Working today, and anyone can press the buttons

A real run of the live reasoning demo on aimedagent.net: a simulated patient, real AI reasoning, generated on the spot. Ami take one runs on an iPhone. Both built from one desk.

1

gateway · ingesting real-time patient data
864^MDC_DIM_BEAT_PER_MIN^MDC
[lab · HL7] OBX|2|NM|2823-3^Potassium^LN||5.0|mmol/L|3.5-5.0|H|
[PCD-01 DEC] OBX|1|NM|150456^MDC_PULS_OXIM_SAT_02^MDC||96|262688^MDC_DIM_PERCENT^MDC
[PCD-10 IPEC] OBX|1|ST|MDC_EVT_PROGRAM_CHANGE|norepinephrine rate updated

2

AI MedAgent
Claude · cloud reasoning

3

HIGH · Step 2 of 2 · AI MedAgent Consult Note · Triple Hyperkalemia Risk: Spironolactone Addition Unsafe Now · generated live

STEP 2 OF 2 · RECOMMENDATION

RISK
Potassium is 5.0 mmol/L at 90 minutes into the encounter with eGFR 68, creatinine 1.8 mg/dL, bicarbonate 21 mmol/L, and reduced urine output of 35 mL/hr in a vasopressor-dependent patient; adding spironolactone (aldosterone antagonist) on top of active lisinopril (ACE inhibitor) creates dual potassium-retaining blockade with impaired renal clearance, predicting a clinically dangerous acute rise.

REACTIVE VS PREDICTIVE
A reactive workflow would act only after potassium exceeds a hard threshold (e.g., 5.5–6.0 mmol/L) or after an ECG change appears; this assessment flags trajectory now—potassium at 5.0 mmol/L is already above normal, renal clearance is reduced, and the spironolactone order has not yet been administered, making this the actionable window to prevent the rise rather than respond to it.

REASONING
• Potassium is 5.0 mmol/L with eGFR 68 and creatinine 1.8 mg/dL, indicating

Potassium	5.0 mmol/L ↑
Creatinine	1.8 mg/dL ↑
eGFR	68 mL/min ↓
Bicarbonate	21 mmol/L
Lactate	2.4 mmol/L ↑

Heart rate	93 bpm ↑
MAP	72 mmHg ↓
SpO2	96 % ↓
Norepinephrine	6 mcg/min ↑
Urine output	35 mL/hr ↓

Labs and vitals for the simulated patient, as the reasoning layer sees them: potassium 5.0 and rising, eGFR 68 and falling, on norepinephrine.

4

07:30
MedAgent alerts
PATIENT IN SCOPE
78F · septic shock, AKI on CKD3
CRITICAL 07:30
Triple Hyperkalemia Risk: Spironolactone Addition Unsafe Now
AI MedAgent · 60/140 chars
Open the full consult note >
Alerts Chart Sign

- 1 · **Raw feeds in.** HL7 lab results and IHE PCD pump and monitor messages, exactly as a hospital sends them.
- 2 · **Reasoning.** Claude, a large language model, reads them together and reasons over the trend, not a single threshold.
- 3 · **The consult note.** Risk, reactive versus predictive, reasoning. Written live, before the order is given.
- 4 · **The nurse's phone.** Under 140 characters reaches whoever is covering. The note sits behind it.

▶ Watch the four-minute film

Try the live reasoning demo

Standing Watch demos

aimedagent.net

Built from one desk in about a year

Everything on aimedagent.net runs on synthetic patients. The reasoning layer is real and anyone can press the buttons.

Reasoning demo
synthetic patient, live reasoning, four public sources queried live; act, hold or escalate inside server-enforced bounds
[aimedagent.net/reasoning](#)

Standing Watch
ICU watch board with the mediator in FHIR; one patient across five rooms; the bridge as a SMART Health Link
[aimedagent.net/watch](#)

CDS Hooks service
order-select and patient-view cards with a coverage statement
[aimedagent.net/cds-services](#)

PCD-E sandbox
a public door for pump data in IHE PCD-01
[aimedagent.net/device](#)

EHR lab
FHIR connectors to Epic, Oracle Health and MEDITECH sandboxes
[private](#)

One Formulary
formulary readiness checker, Apache 2.0
[aimedagent.net](#)

OpenBedside
open device gateway, 36 tests
[github](#)

Open MedPass
barcode med pass against VistA, programs a simulated pump
[video](#)

Simulated Oracle hospital
sandbox events and device feeds in one view
[aimedagent.net/oracle](#)

Smart Formulary and Orders
live: formulary alignment tools and an individualized IV order from published models
[aimedagent.net/formulary](#)

Ami, take one
iPhone, Health app, ring and watch, no network code
[on the bench](#)

The paper trail
five provisionals, a trademark filing, a film, a book, 25 issues of Inside the Loop
[public](#)

The thirty days nobody stands watch over

80%

of eligible hospitals, 2,334 of them, are penalized for readmissions in fiscal 2027, effective 1 October 2026. Up to three percent of Medicare payments.

2013

Transitional care management has been billable since January 2013: a contact after discharge and a visit within seven or fourteen days. Thin, underused, and almost nothing intelligent fills the slot.

30 days

The one stretch of the home market where a hospital already has a reason to pay attention. The watch walks out of the ICU and hands off to Ami here. After day 30, Ami is the person's own.

Why it keeps failing, so we do not repeat it

Hospitals are fenced. The discharge summary is a document, not a feed. The home has had no watch because nobody was paid to stand it. And every attempt built the plumbing first and ran out of money before the intelligence. We are not building plumbing. We have the hospital feeds and the home feeds in hand; the reasoning layer is the only new part.

One person behind a desk

What one desk can do

A working method on synthetic patients, live. The standards done correctly. The public data marts wired in. Ami on a real phone. Films, articles, a book, provisional filings. A demonstration that makes the method undeniable.

What it cannot do

Real patient data. A production service. A 24-hour operation. A clinical validation study. A sales force. An FDA submission. A hospital contract. This is a method, patent pending, not a product, and nobody is being sold anything today.

Has the time finally arrived? Yes, in a big way. The demonstration is the argument.

Three ways in: license the method · stand the first real watch with us as a pilot partner · advise. Nobody is being sold anything today.

Start a conversation · aimedagent.net/contact