KEYNOTE BRIEFING

The AI-Native Hospital: what healthcare could look like in 2035

My question for the room: what should a patient notice first in a better hospital?

I am an emergency physician. When I picture a better hospital, I start with the patient, not the model. Does she get a clearer plan, a human she can reach, and a clinician with time to listen? This is a patient-centered scenario, not a forecast and not a TUM plan. People own clinical decisions. AI earns each next step with evidence.

WHEN	**Friday, November 27, 2026 17:20 CET · 11:20 AM ET · 10:20 AM CT**
WHERE	**NIM, New Ideas for Medicine, 15th Virtual Symposium, TUM Munich. Online via MS Teams.**
ACCESS	**Free. Register at redcap.link/NIM15**

Scan for the full guide, the graphics and every source: **harveycastromd.com/blog-posts/nim-2026-ai-native-hospital-2035**



Illustrative scenario. Anna is a fictional patient.

Five ideas in sixteen slides

1. **The patient journey.** Care before arrival, access without an app, protected attention, owned handoffs.
2. **The evidence.** What a randomised trial shows, and what it does not.
3. **The working hospital.** Visible gaps, bounded agents, confirmed actions, simulation first.
4. **Trust.** A control room, a tested off switch, Germany's guardrails.
5. **What to do next.** One safe workflow in ninety days.

THE EVIDENCE

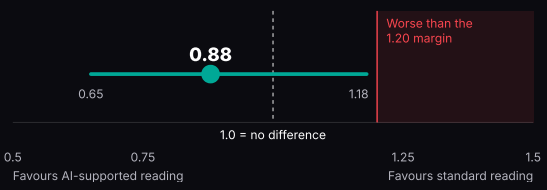
Evidence earns the next step

More cancers found, radiologists still read



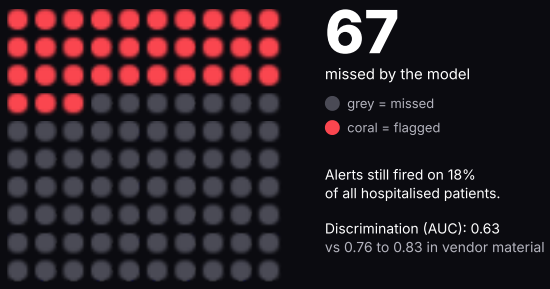
Hernström et al., Lancet Digital Health 2025. Randomised trial, about 105,000 women, one AI system. Detection is not fewer deaths.

Non-inferior, not yet proof of fewer missed cancers



Gommers et al., Lancet 2026. Interval cancers 1.55 vs 1.76 per 1,000. Interval crosses 1.0. Mortality not measured.

Validate locally before you scale



Wong et al., JAMA Internal Medicine 2021. Retrospective, one academic system, one model version.

A promising signal, not proof



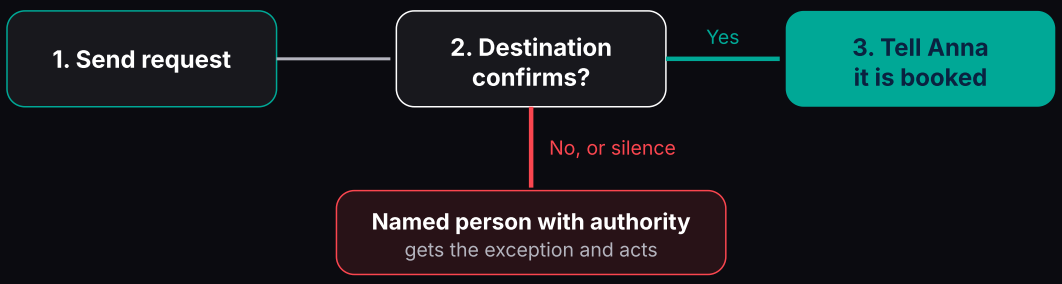
Olson et al., JAMA Network Open 2025. 263 clinicians, voluntary surveys, no control group.

The question I leave with the room: what evidence would justify expansion at your hospital? Name the outcome, the comparison group and the local validation before the contract, not after.

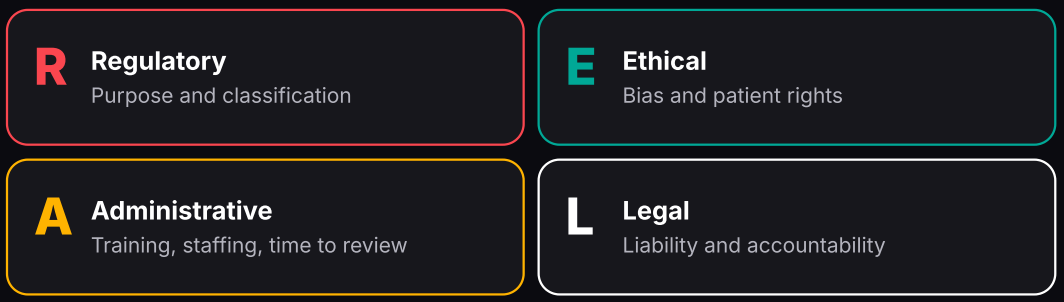
GUARDRAILS

Agents act within boundaries

A permitted agent may book Anna's follow-up. It may not infer permission to change her medication or discharge her. Narrow tool access, approval points, audit logs, stop conditions and a named owner come first.

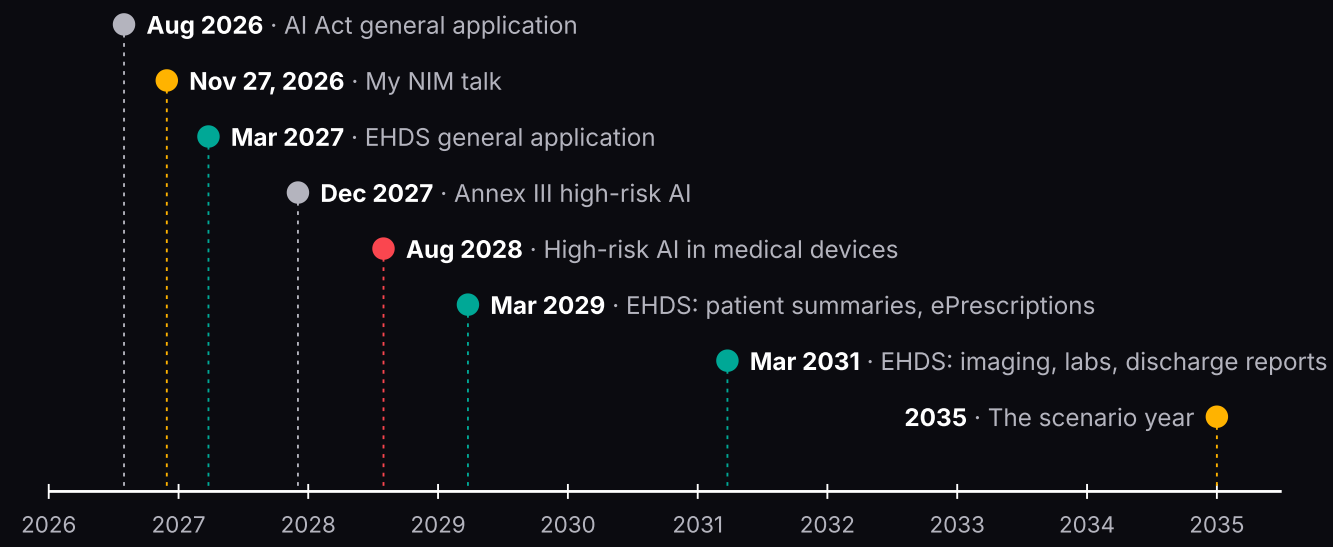


Completion comes from the destination system, never from a confident model reply.



Named owner. Monitor safety. Rehearse the fallback.

REAL is the governance checklist I use with hospital teams, not a legal standard.

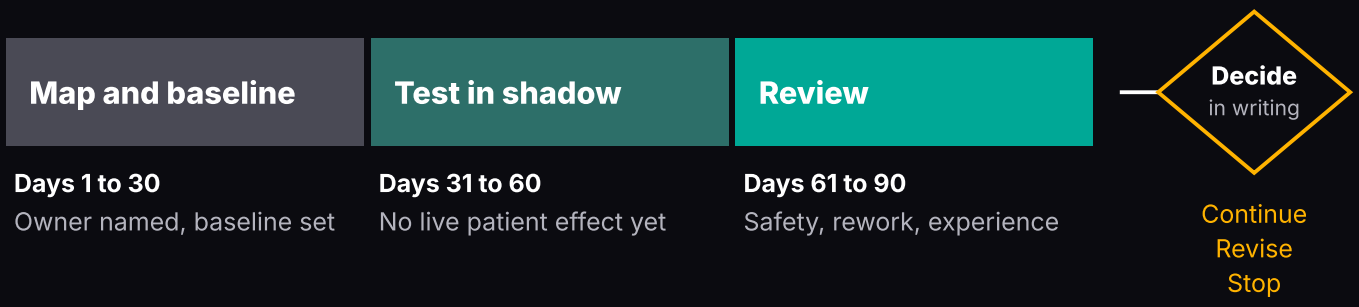


Coral: AI Act product rules for medical devices. Teal: EHDS. Gold: talk and scenario. Grey: other AI Act dates.

EU AI Act as amended by the 2026 Omnibus; EHDS Regulation (EU) 2025/327. Checked November 23, 2026. Education, not legal advice.

WHAT TO DO NEXT

Start with one safe workflow



A proposed pilot rhythm, not regulatory permission.

Five questions before a pilot

1. **Who owns it clinically?** One named person who reviews errors.
2. **Which action always needs a human?** Write the list before tool access.
3. **What if the patient says no?** A staffed, tested, equal route.
4. **Who can pause it today?** And does care survive the pause?
5. **What evidence moves it forward?** Agree the measure before you start.

Good first candidates

1. Draft discharge instructions a nurse reviews
2. Booking with destination confirmation
3. Note drafting with clinician sign-off
4. Bed and staffing simulation, no patient effect

Sources

1. Hernström V, et al. Lancet Digit Health. 2025. pubmed.ncbi.nlm.nih.gov/39904652
2. Gommers J, et al. Lancet. 2026. pubmed.ncbi.nlm.nih.gov/41620232
3. Wong A, et al. JAMA Intern Med. 2021;181(8):1065-1070.
4. Olson KD, et al. JAMA Netw Open. 2025. pubmed.ncbi.nlm.nih.gov/41037268
5. Regulation (EU) 2026/1744 amending the AI Act (AI Omnibus). EUR-Lex.
6. Regulation (EU) 2025/327, European Health Data Space. European Commission.
7. WHO. Ethics and governance of AI for health: guidance on large multi-modal models. 2024.

Planning a 2027 event?

Keynotes on AI in care from an emergency physician who still works shifts.
https://www.harveycastromd.com/speaker