AI Should Fit the Nurse — Not the Other Way Around

A design framework for AI-enhanced EHRs shaped by nurses' lived experience, not vendor assumptions.

EXPERIENCE-BASED CO-DESIGN | NURSING HANDOVER | HEALTHCARE AI

AI Tools Are Solving the Wrong Problems

Technical-first design

AI features built before understanding real clinical workflows

Vendor-driven priorities

Systems optimized for efficiency metrics, not patient safety

Late-stage feedback

Nurses asked to validate pre-made tools, not shape them

The Real Cost of Misaligned Design

Information overload

Dense notes, fragmented data, hard to find what matters

Time pressure

Shift transitions leave no room for careful review

Workarounds

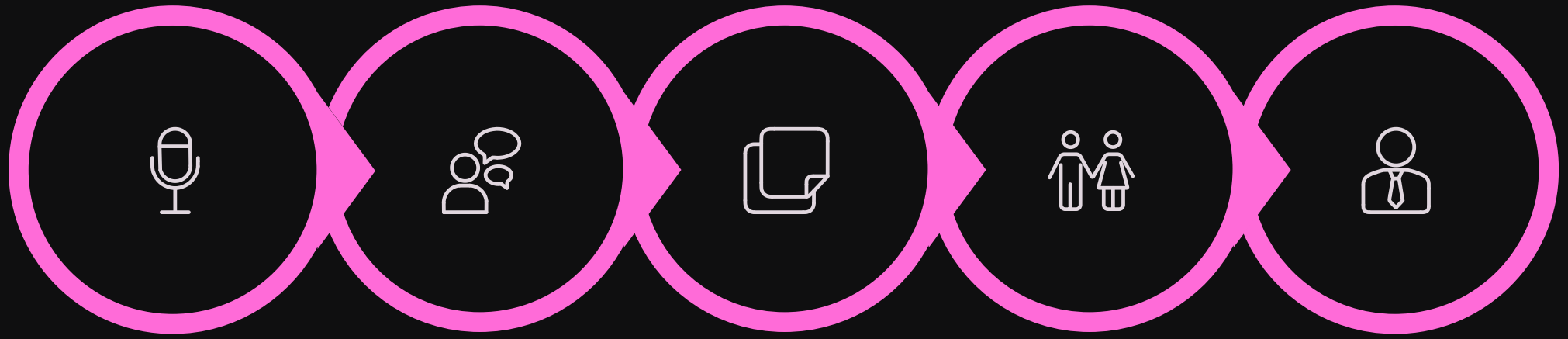
Nurses create informal systems to compensate for EHR gaps

What Is Experience-Based Co-Design?

EBCD starts from **real stories** — not requirements documents. It identifies critical touchpoints and redesigns services *with* the people who live them.

Key shift: Nurses don't validate pre-made AI. They help define the problems, priorities, and design directions from the start.

Study Design: Two Phases, One Goal



Phase 1 Interviews Insights Phase 2 Co-design

Nurses' experiences came **first**. AI features came **later**. This sequence is the point.

Three Handover Challenges Uncovered

Information Overload

Too much data, too little signal

Documentation Under Pressure

Accurate care plans created in minutes, not hours

Transfer of Responsibility

Handover is accountability — not just information exchange

AI Features Co-Designed with Nurses

Design principle

AI should **assist** clinical judgment — not replace it. Nurses retain control at every step.

Explainable

AI shows its reasoning

Correctable

Nurses can override suggestions

Minimal

Reduces burden, doesn't add to it

Five Elements of EBCD for AI Design

01

Scenario Co-Construction

Shared videos and workflow examples build common ground

02

Experience-Based Facilitation

Nurses' stories before technology

03

Technical Feasibility Alignment

AI experts engaged early

04

Design Integration

Sketches and prototypes make ideas concrete

05

Collaborative Prioritization

Clinical value, safety, feasibility — balanced together

A Necessary Warning

> AI should not dominate nursing work, automate professional judgment, or add burden to already complex workflows.

- Serve clinical practice
- Protect autonomy
- Support patient safety
- Earn trust

From AI *added to* healthcare — to AI *co-designed with* the people who deliver care.

The vision: frontline clinicians as **equal partners** in design, so AI tools are carefully integrated into clinical work — not imposed on it.

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