



CASE STUDY: PHARMA

## How Supervised AI Reduced Manual Safety Review by 90% in Pharmacovigilance

### The Back Story

As a global pharmaceutical manufacturer expanded its use of AI-powered chatbots and voicebots, the goal was clear: deliver faster, always-on patient support while diverting high-volume questions away from live agents.

But in pharmacovigilance (PV), scale comes with responsibility. Regulatory policy required every AI interaction to be monitored for potential safety events. As volumes increased, this meant highly trained agents were manually pulling transcripts, reviewing conversations, and routing findings downstream.

The challenge wasn't just inefficiency—it was feasibility. The team did not have the capacity to manually monitor the growing volume of AI interactions, and the work itself was not the best use of internal expertise. Without a scalable way to oversee safety, the organization could not confidently launch or expand chatbot and voicebot programs at all.

AI was ready to grow—but without supervision, scale wasn't possible.



## The A-Ha Moment

Listening across conversations with Authenticix revealed a critical insight: reviewing every interaction manually did not improve patient safety.

During a proof of concept, the team found that agents were labeling safety events incorrectly nearly 40% of the time, skewed toward false positives. That caution was understandable—call center agents are trained to err on the side of safety— but it also created unnecessary noise and downstream workload.

The insight clarified the real challenge. The goal wasn't just to reduce manual effort; it was to establish a **more consistent, unbiased, and standardized approach to identifying true safety risk.**

That's where supervised AI came in.

Using supervised AI with **human-in-the-loop validation focused on continuous improvement**, Authenticix automatically flagged potential adverse events and product complaints—allowing agents to focus their review on interactions that truly mattered.

Behind the scenes, data scientists and data labelers continuously monitored model performance, applying a rubric developed in collaboration with the manufacturer to ensure consistency, reduce false positives, and identify opportunities for ongoing model refinement.

**THE IMPACT WAS IMMEDIATE:**

**AI alone wasn't the answer. Supervised, continuously improving AI was.**



## The Intervention

By combining automated detection with human review, the manufacturer established a process trusted by PV, legal, and regulators alike:

- AI surfaced potential safety signals at scale
- Humans validated edge cases and false negatives
- Full transcripts and audit trails were preserved
- PII was securely redacted and routed downstream

The result was a system the organization felt firmly in control of—even as AI adoption accelerated.

## The Impact

WITH SUPERVISION IN PLACE, RESULTS FOLLOWED QUICKLY:

**~90% reduction** in manual AE/PC review immediately, with 100% elimination following validated model performance

**~20 FTEs** of monitoring effort eliminated at full scale

**99% accuracy** over 372k+ interactions

The chatbot and voicebot review processes yielded favorable regulatory audit findings due to the safeguards built into the review framework.

The supervised approach not only improved efficiency, but also strengthened audit readiness—earning praise during a regulatory audit by authorities for the rigor and control of the AI review process.

What began in patient services expanded across PV and regulatory compliance teams, becoming a trusted part of the manufacturer's compliance infrastructure.

## The New Normal

**AI could now scale without sacrificing safety.**

Instead of choosing between innovation and control, the manufacturer established a model where **every AI interaction was visible, accountable, and supervised**—before issues impacted patients or inaccurately reported events.

In pharmacovigilance, autonomy requires supervision to remain safe and compliant and Authenticix serves as the supervision layer that makes safe scale possible.

