

Modernizing Safety Operations with AI: How Bristol Myers Squibb Achieved 25% Efficiency Gains in PV Case Intake and Processing

Bristol Myers Squibb Navigates Pharmacovigilance Transformation Across Processes, Technology, and Partnerships

In this era of digital transformation in pharmacovigilance (PV), rapid advancements in data science, automation, and digital infrastructure are reshaping how safety information is collected, processed, and interpreted. Digital transformation in PV is enhancing the value delivered by pharmacovigilance. It enables Patient Safety departments to shift resources from transactional activities in case management towards enhancing data quality while generating fast insights from increasingly integrated data sources with the help of Generative and Agentic AI. Artificial Intelligence has finally matured to the point that it is becoming the engine of transformation in pharmacovigilance operations, allowing process improvements that are freeing up valuable human resources to focus on the highest-value work.

Bristol Myers Squibb's (BMS) Patient Safety team embarked on an evolution journey, embracing advanced AI technologies and re-engineering core business processes. To support this transition, they partnered with ArisGlobal as their technology provider and Accenture as their business process outsourcing partner, working collaboratively to optimize their Safety environment and workflows. Legacy workflows and operational structures offered opportunities to redesign processes, while the digital shift introduced new risks around system integration, data quality, and regulatory compliance. As BMS expanded outsourcing of its adverse event management process, engaging Accenture in testing and validation ensured process changes were grounded in deep expertise across

BMS Initial 9-Month Pharmacovigilance Digital Transformation Performance Summary:



BMS-specific case scenarios. Careful oversight, clear accountability, and seamless data exchange were requirements to ensure success.

These factors prompted BMS to craft a thoughtful and unified strategy to align internal teams, modernize technology and infrastructure, and foster ongoing seamless collaboration across its end-to-end ecosystem. This strategic approach illustrates BMS's industry leadership and commitment to building a resilient, future-ready PV framework that balances innovation, compliance, and cost control, while further enhancing patient safety.

"One of the smoothest launches of major technology changes I have seen in my career."

– Head, PV Operations, BMS

Notable NavaX-Triggered Transformations:

- 1 Workflow optimization to streamline intake and reporting
- 2 Change management to align global stakeholders
- 3 Introduction of scalable, AI-powered innovation

BMS Selects ArisGlobal's NavaX to Solve Case Intake and Processing Challenges

In December 2023, NavaX, the next-generation cognitive computing engine to expedite R&D digitization for Life Sciences, was announced to the industry, marking a step change in the availability of AI-powered life sciences technology. NavaX introduced Dynamic Data Extraction and Narrative Generation capabilities with the goal to significantly boost efficiency and enhance the consistency of extracted information and narrative outputs, designed to integrate seamlessly with existing safety systems, automating key pharmacovigilance activities while improving data quality, compliance, and overall scalability.

BMS made the strategic decision to adopt NavaX-powered Dynamic Data Extraction and Narrative Generation, further solidifying their industry-leading voice in the pharmaceutical industry.

The decision for NavaX-triggered notable transformation in key areas, including workflow optimization to streamline end-to-end case processing and change management to align global stakeholders, in preparation for the introduction of scalable, AI-powered innovation on the LifeSphere Safety platform. From the start, NavaX was used for 60% of the BMS Adverse Events, the roll-out focusing on the higher-effort cases, i.e. those that were not already pre-structured through E2B or electronic gateway. Guided by values of trust, collaboration, perseverance, and commitment, several co-development workshops between BMS PV Operations and IT, Accenture, and ArisGlobal ensured "One of the smoothest launches of major technology changes I have seen in my career." (Head PV Operations and Systems, BMS).

Transforming Pharmacovigilance Excellence at BMS

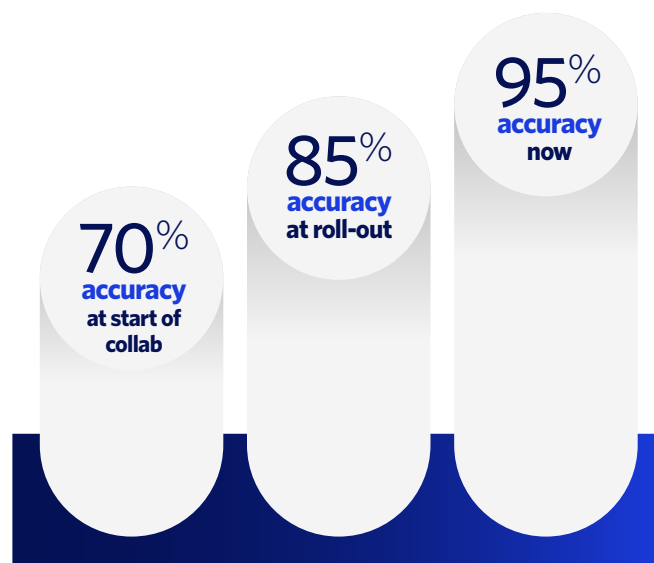
With the stacked impact of optimizing organization, process and technology, BMS instantly achieved a 13.6% efficiency increase at roll-out, reached 18% within the first six months, and accelerated to over 25% productivity gain within the third quarter.

While process changes initially drove most of the efficiency gains, the impact of AI has since become more prominent and is now driving the progress. ArisGlobal's hyper-care approach in this co-development, with fast ticket remediation through high-frequency releases, ensured a continuous productivity improvement that is ongoing at just over a year in production. This is reflected, for example, in the F1 accuracy score for Dynamic Data Extraction, which was 70% at the start of collaboration, 85% at roll-out and has now reached close to 95% extraction accuracy/completeness. These advances were shown to be sustained in the NavaX introduction for Japanese cases in January of 2026. Here, 95% F1 accuracy score was achieved within less than two months, indicating a potential benefit of the BMS experience for all future NavaX clients.

In the narrative co-development, the similarity score of over 90% for the majority of cases signified the accuracy and completeness of automated narrative generation achieved to date with reduced modification effort. The collaboration between BMS, Accenture, and ArisGlobal has set an example of how to successfully approach the introduction of AI in large-scale core processes.

In just nine months, BMS achieved over 25% efficiency gains from introducing Dynamic Data Extraction and Narrative Generation with an optimized end-to-end Adverse Event process for close to 400,000 cases per year. "This success reflects the power of ArisGlobal's integrated AI technology when introduced into an optimized process through disciplined, collaborative execution by all relevant stakeholders." (Head PV Operations and Systems, BMS).

F1 Accuracy Score for Dynamic Data Extraction:



Where AI Meets Operational Excellence: Engineering the Next Generation of Pharmacovigilance Operations

Keys to Success:

- 1 Face-to-face workshops
- 2 Process redesign
- 3 Clear quality measures
- 4 Strong hyper-care
- 5 Defined success measures

The partnership between BMS, ArisGlobal, and Accenture has set a new benchmark for pharmacovigilance transformation. By aligning AI technologies powered by NavaX with disciplined execution, transparent governance, and deep collaboration across stakeholders, the initiative has already delivered significant efficiency gains while maintaining high standards of quality and compliance. This was not just a successful project; it has become a scalable blueprint for the industry.

Key pillars such as end-to-end automation, agile delivery, and measurable ROI have proven essential in building a future-ready safety ecosystem. With new NavaX solutions on the horizon and continued innovation underway, the collaboration is poised to further automate workflows, enhance data accuracy, and redefine how pharmaceutical organizations manage Safety at scale.



"This initiative represents a significant leap forward. After a decade of anticipating AI to make an impact in our field of work, NavaX has made this a reality. A 25% efficiency gain is the new baseline, as we continue to refine our AI-enabled workflows and drive scalability, speed and quality in our mission to transform operational pharmacovigilance."

– Head, PV Operations, BMS

By embracing a shared vision and operational rigor, BMS, ArisGlobal, and Accenture have demonstrated how trust, accountability, and AI-powered innovation can redefine what's possible in pharmacovigilance, delivering excellence and leadership across the global Safety landscape.

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