Pharmacovigilance Under Pressure:
Why the Workflows Surrounding Case Management Can No Longer Be Left to Chance

Despite significant investment in safety database technology, much of the operational work surrounding pharmacovigilance case management aggregate report scheduling, PSMF governance, PV agreement management, medical dictionary upgrade and query management as well as affiliate oversight remains heavily manual.

The pharmaceutical industry has made considerable investments in digital safety infrastructure over the past two decades and the results in individual case management are tangible. Safety databases have transformed how individual case safety reports (ICSRs) are received, processed and submitted bringing rigour, speed and scalability to a function that previously resisted both. Yet for all that progress, a significant proportion of the operational work surrounding those systems has not changed in any meaningful way. Aggregate report scheduling, pharmacovigilance system master file (PSMF) management, PV agreement maintenance, medical term query management and affiliate oversight are still largely managed through spreadsheets, shared drives and email.

The consequence, measured in expert time, is more significant than it might appear on paper. Across large pharmaceutical companies, between 40 and 50 per cent of expert PV time is currently consumed by administrative coordination rather than active safety assessment. That proportion represents a structural problem that has built up over years, absorbed into the operating costs of running a PV function without ever being properly addressed. Experienced scientists who trained to identify safety signals are spending a disproportionate share of their time chasing approvals, reconciling document versions and managing schedules through tools that were never intended for these tasks.

Most PV teams have been living with this for years. They know exactly where the time goes and why it has been so difficult to claw back. Other priorities have always taken precedence and the assumption has always been that any lasting solution would involve replacing the core safety database, a daunting and unthinkable prospect. Yet doing nothing risks leaves companies exposed, for example in the event of a difficult inspection.

The Hours Lost by Science

The workflows bearing the brunt of persistent inertia are those that are document-intensive and dependent on contributions from multiple people and that recur on a defined cycle and demand a traceable record (one that can't be reliably produced via ad-hoc systems). For a large pharma organisation with a broad marketed portfolio, aggregate reporting alone can mean hundreds of Periodic Benefit-Risk Evaluation Report (PBRER)), Periodic Adverse Drug Experience Reports (PADERs), Development Safety Update Reports (DSURs) and annual safety reports due across the year. Coordinating those schedules, assigning contributors, tracking versions and monitoring submissions is a substantial overhead in its own right and one that compounds as portfolios expand without a corresponding growth in headcount.

The PSMF adds an ongoing governance challenge. The PV Master File is both a regulatory requirement and a living document, one that must accurately reflect the current state of a company's PV system at all times. For companies managing multiple PSMFs across EU and local variations, that means structured review cycles, version control



and clear records of who approved what and when. Companies managing this through shared drives typically have no structured review process and no reliable way to establish who made a given change before a document was issued. The practical consequences are far from abstract: a PSMF submitted for inspection containing a duplicated chapter or inconsistent annex data, with no illuminating audit trail, is the inevitable consequence of a process not designed to fulfil that standard.

PV agreement management and dictionary upgrade processes present their own versions of the same problem. As affiliate and partner structures expand through licensing arrangements, co-promotion agreements and growing distributor networks the volume of agreements requiring authoring, review, approval and exchange grows accordingly. Email-based management produces untracked document versions and fragmented oversight, with compliance exposure that tends to surface only at inspection. Medical and product dictionary management tooling has always been a weak point; available solutions have not kept pace with what modern PV requires and the workarounds most companies have constructed struggle to keep up with bi-annual MedDRA updates, without the data integrity that signal detection work depends on.

Where Manual Process Meets Regulatory Scrutiny

Regulatory expectations around PV documentation have increased substantially in recent years. EU GVP Module II sets out detailed requirements for PSMF governance; FDA guidance on pharmacovigilance practice and inspection expectations has similarly raised the bar on what organisations must be able to demonstrate not just in what they submit, but in how they can account for the processes that produced it. This shift is important. It means regulators are no longer simply checking outputs. They are asking organisations to reconstruct the governance and decision trail that led to those outputs, and in many cases to do so at short notice.

For organisations managing their surrounding PV workflows manually, that reconstruction is a significant undertaking. Piecing together an audit trail is not only time-consuming, it also carries genuine risk of incompleteness. Version histories will not have been reliably maintained, sign-off records are informal, while approval sequences have to be inferred from email timestamps, having not been formally documented. The end result may be a plausible account of what happened, but it is unlikely to be a definitive one, and in an inspection context that distinction matters. Heightened expectations by regulators around responsiveness magnify the risk.

Affiliate Networks and the Limits of Reconstructed Oversight

For large organisations running PV through local affiliates, a further layer of risk exists, largely outside the central system. Local affiliates handle their own ICSR processing, submissions and agreement management through locally maintained tools and central PV functions piece together their oversight from periodic reports and email exchanges. In many cases, central teams will be working from a picture that is less current and less complete than they assume, because the information reaching them is only as timely as the last scheduled update from a given affiliate.

That gap can matter gravely. When an inspection requires a precise and concurrent account of both central and local activity, the limitations of that reconstructed picture typically surface quite quickly. The same is true when a serious adverse event demands rapid escalation across territories: a central function that can't immediately account for what its affiliates are handling is in a compromised position. Incomplete oversight also affects day-to-day decision-making in ways that are harder to quantify if the data informing a central safety review is only as current as the last email update from a local affiliate, the quality of that review reflects it, often without those involved realising it.

The Case for Building Around What Already Works

Safety databases are good at what they were built to do. But beyond case management, those same platforms offer little: other essential activities generally fall outside their scope. Replacing an embedded safety database is not something most large organisations would seriously contemplate, however. The validation burden, combined with the disruption to live PV operations, makes this an inconceivable proposition in all but exceptional circumstances. The practical path, for most organisations, is to address the surrounding workflows as a separate problem, building capabilities that integrate with the existing safety database rather than seek to replace or overlap with it.

This supplementary approach also resolves the business case problem that has historically kept these workflows unaddressed. A full-platform procurement is a significant commitment that can seem hard to justify. Starting with a single, high-impact process changes tends to be more palatable. If an experienced PV professional is spending up to half of their working time coordinating aggregate reports, that cost is directly quantifiable. Add the harder-to-measure cost of inspection preparation, the days spent reconstructing email threads and file versions to demonstrate a governance trail that should have been produced automatically and the case for addressing it specifically becomes straightforward.

Demonstrating Compliance Should Not Require Reconstruction

For critical PV workflows there is a straightforward test of whether a company's current approach is adequate and that is to ask: if a regulatory authority requested documentation of how a specific report was prepared, who approved the most recent version of a key PV agreement, or what changes were made to a PSMF before submission, could that information be produced without manually reconstructing it from emails and file histories? In organisations relying on shared drives and email to manage these processes, the answer will probably be no, or not in a form that would satisfy an inspector.

Increasingly, there will have to be a shift to more formal, GxP-validated systems with audit trails built in by design, that log every action, every approval and every change in a way that can be retrieved on demand. This would give rise to a fundamentally different kind of compliance record: one that exists continuously rather than being assembled after the fact, and that can be interrogated rather than reconstructed. As drug portfolios continue to grow in complexity and as the regulatory bar for documentation and traceability is raised further, a more systematic approach to the workflows surrounding case management is an overdue response to pressures that have been accumulating, unaddressed, for years.

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