MDForLives

THE GLOBAL PULSE OF HEALTHCARE · RADIOLOGY INSIGHT REPORT

Structured Reporting in Radiology: Why Radiologists Prefer a Hybrid Workflow

A radiologist-focused analysis of where structured reporting improves communication and throughput, where templates introduce cognitive and visual friction, how standardized terminology connects to AI-ready data, and why a hybrid workflow dominates the preferred future state.

Images → Interpretation → Structure → Communication → Reusable data

18	5	77.8%
Survey records	Countries represented USA · UK · Canada · Italy · Germany	Completion rate

WHY THIS REPORT

Structured reporting is becoming part of radiology infrastructure, but the reading room still decides whether that structure feels useful or intrusive.

Radiology reports increasingly need to satisfy several audiences at once. Referring clinicians need a clear interpretation and actionable recommendations. Quality programs and registries may need standardized categories. Patients increasingly see radiology language through portals. Informatics teams want data that can be extracted and compared. AI systems work best when findings, measurements, and terminology can be reliably located and reused.

Professional frameworks already demonstrate the value of standardization. RSNA's RadReport library provides reporting templates designed to improve consistency and create reports that are readable by humans and machines. RSNA's RadLex supplies a common radiology terminology for reporting, decision support, registries, research, and data mining. ACR Reporting and Data Systems use standardized terminology and categories to improve communication, with BI-RADS, LI-RADS, PI-RADS, Lung-RADS, and other frameworks embedding structure into specific clinical pathways.

Yet the radiologist experiences structured reporting at a very different level: the cursor, the dictation microphone, the second monitor, the mandatory field, the prompt that needs confirmation, the unexpected incidental finding that does not fit, and the pressure to keep reading without losing visual concentration. The MDForLives survey examines that practical layer. It asks how much reporting is already structured, where standardization creates the most clinical value, whether templates improve communication and speed, how they behave in complex cases, whether they distract from images, how well standardized lexicons are integrated, whether structured data matters for AI, and what radiologists actually want their future workflow to look like.

> **Methodology and data note.** Audience: radiologists. Survey ID 8954718. The source export contains 18 survey records, a 77.8% completion rate, and country metadata from the USA, UK, Canada, Italy, and Germany. Question-level response bases vary across the substantive items. The hidden country-punching item is used only for geography metadata. Administrative tracking, bad-ID, required-text, after-question, and honeypot fields are excluded from interpretation. Open-ended responses are analysed thematically without assigning percentages.

EXECUTIVE SUMMARY

What radiologists are saying about structured reporting

01

Hybrid structure wins

78.6% prefer standardized headings with full free-text freedom under each section, far ahead of fully itemized reporting.

02

Communication is the clearest benefit

60.0% say structured reporting substantially reduces clarification calls or addendum requests.

03

Efficiency generally improves

57.1% say pre-populated templates and drop-downs speed dictation, although some still report delay.

04

Complex cases need an escape route

71.4% say templates handle core findings adequately but complex incidental findings still require manual workaround.

05

The terminology layer remains inconsistent

50.0% report minimal standardized-lexicon integration, with reporting built mainly around local custom macros.

06

AI should reduce structure work, not add to it

64.3% call standardized data important, while open-ended responses repeatedly ask for context-aware speech and AI that structures natural dictation automatically.

01

CURRENT ADOPTION

Structured reporting is already routine for many radiologists, but adoption is not uniform across practices

40.0% say more than 80% of their diagnostic reading volume is generated using structured reporting templates.

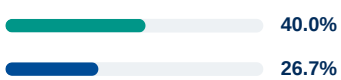
CONTEXT

The debate over structured versus narrative reporting can sound theoretical, but the survey starts from a different reality: for many respondents, structured reporting already accounts for most of daily work. That means the important question is no longer whether templates belong in radiology. It is whether the systems around those templates are mature enough to support high-volume interpretation without adding unnecessary friction.

WHAT THE DATA SHOWS

More than 80% structured reporting is the largest response at 40.0%. Another 26.7% place structured reporting at 50%–80% of volume. 13.3% report 20%–49% structured reporting, and 20.0% remain below 20%, describing their practice as primarily free-text. The distribution therefore spans highly standardized environments and practices where narrative dictation still dominates.

Share of diagnostic reading volume using structured reporting templates



THE INSIGHT

Adoption is already substantial, but it is not a single end state. One radiologist may be working inside deeply templated subspecialty workflows while another relies mainly on free-text macros. This variation matters because the benefits and frustrations reported later in the survey may reflect very different levels of template maturity and software integration.

WHY IT MATTERS

As reporting becomes more structured, implementation quality becomes a clinical workflow issue. A template that performs well in a mature breast-imaging pathway may not transfer directly to emergency, oncologic, or complex cross-sectional imaging. Standardization therefore needs to be designed around the examination and the reporting task rather than imposed as one generic interface.

20%–49%	13.3%
<20% structured	20.0%

02

SUBSPECIALTY VALUE

Breast imaging shows what structured reporting can achieve when terminology, categories, and management are tightly linked

73.3% identify breast imaging and BI-RADS as the subspecialty where structured reporting delivers the highest clinical value.

CONTEXT

Breast imaging is a natural test case for structured reporting because BI-RADS does more than standardize wording. The ACR BI-RADS v2025 Manual provides standardized terminology, report organization, assessment structure, and a classification system, with management recommendations and outcome monitoring embedded into the framework. The report therefore becomes part of a broader clinical and quality pathway.

WHAT THE DATA SHOWS

Breast imaging / BI-RADS leads at 73.3%. Abdominal or prostate imaging using LI-RADS or PI-RADS accounts for 13.3%, and thoracic or oncologic imaging using Lung-RADS or RECIST accounts for 13.3%. No other category approaches the breast-imaging response.

Subspecialty where standardized reporting delivers the highest clinical value

THE INSIGHT

The dominance of BI-RADS suggests that structured reporting is most persuasive when radiologists and referring clinicians share a mature language and understand what each category means downstream. The value is not simply that every report looks similar. It is that the structure carries an agreed clinical interpretation and next step.

WHY IT MATTERS

This has implications beyond breast imaging. New reporting frameworks are more likely to gain trust when the terminology, assessment category, recommended action, and quality measurement all reinforce one another. Structure without a clear clinical consequence risks becoming documentation overhead.

03

COMMUNICATION

Structured reports appear to reduce ambiguity at the handoff to referring clinicians

60.0% say structured reporting has substantially improved communication, with significantly fewer calls or addendum requests for clarification.

CONTEXT

A radiology report succeeds only when the next clinician can understand what matters and act on it. Structured sections, standardized impressions, and explicit recommendations can make the report easier to scan, especially when the examination includes multiple findings or follow-up advice. RSNA describes consistent, comprehensive reporting as a way to improve communication with both patients and care providers.

WHAT THE DATA SHOWS

Substantial improvement is the leading response at 60.0%. Another 20.0% say communication has slightly improved because standardized impressions make actionable recommendations clearer. The remaining 20.0% see no noticeable change and say referring clinicians still focus mainly on the impression section.

THE INSIGHT

The data suggests that the value of structure is most visible after the report leaves the reading room. A well-structured report can reduce the need for clarification without changing the underlying diagnosis. That is a meaningful operational benefit because every phone call, addendum, or ambiguous recommendation creates additional work for both radiology and the referring team.

WHY IT MATTERS

Communication becomes even more important for incidental findings and recommended follow-up. ACR quality-improvement programs now focus not only on including actionable recommendations in radiology reports but also on whether the recommended follow-up is completed. Clear report structure is therefore one part of a larger closed-loop system.

Impact of structured reporting on communication with referring clinicians

04

THROUGHPUT

Templates usually make reporting faster, but a poorly designed interface can reverse the benefit

57.1% say pre-populated templates and drop-downs increase efficiency and significantly speed dictation.

CONTEXT

In a high-volume reading room, reporting efficiency is inseparable from diagnostic workflow. A template can save time by pre-populating expected sections, making common normal statements available, and reducing repetitive dictation. But the same template can slow the radiologist if required fields, drop-down menus, or navigation interrupt the sequence of image interpretation.

WHAT THE DATA SHOWS

57.1% report an efficiency gain. 21.4% say reading speed is roughly equivalent to free-text dictation. 14.3% report a moderate delay from menu navigation and mandatory fields, and 7.1% report severe delay because rigid interfaces create cognitive friction and slow high-volume work.

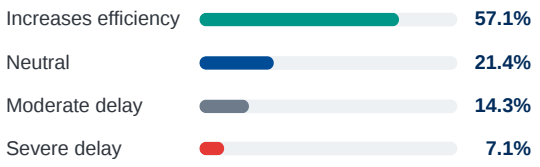
THE INSIGHT

The distribution shows that structured reporting itself is not inherently fast or slow. The implementation determines the result. More than half experience a clear productivity benefit, while roughly one in five experience some degree of delay. That is a design signal rather than a reason to abandon standardization.

WHY IT MATTERS

The practical target should be structured capture with minimal interaction cost. Defaults, auto-population, voice control, and context-sensitive fields can preserve the benefits of a consistent report while reducing the number of deliberate interface actions required from the radiologist.

Effect of structured reporting tools on throughput and turnaround time



05

COMPLEX CASES AND INCIDENTAL FINDINGS

The template works until the case stops behaving like the template

71.4% say structured templates handle core findings adequately but complex incidental notes still require manual workaround.

CONTEXT

The most difficult imaging studies are rarely difficult because one expected field is missing. They are difficult because the findings interact, the clinical history changes interpretation, the differential remains uncertain, or an incidental abnormality creates a new management question. Those situations require a reporting system that can preserve structure without flattening nuance.

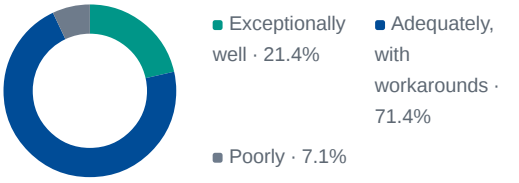
WHAT THE DATA SHOWS

71.4% choose the middle position: templates handle the core findings, but complex incidental notes require manual workaround. 21.4% say templates accommodate nuance exceptionally well because they allow sufficient free-text customization. Only 7.1% say rigid drop-downs and constrained fields poorly accommodate complex pathology.

THE INSIGHT

The majority is not asking to remove templates. They are asking for flexible boundaries. The report needs predictable organization for the reader and enough narrative freedom for the radiologist to explain what the template did not anticipate.

How well templates accommodate nuance in complex or incidental findings



WHY IT MATTERS

This is especially important for actionable incidental findings. A recommendation may need modality, interval, risk context, and sometimes a statement that no follow-up is required. If the template cannot accommodate that reasoning naturally, the radiologist will work around it, and the structured data may become less reliable precisely where follow-up matters most.

06

VISUAL ATTENTION

Most radiologists tolerate the interface, but even small gaze shifts matter when the primary task is image interpretation

42.9% report slight eye-gaze drift between the images and reporting monitor, while 35.7% say templates do not interrupt image review at all.

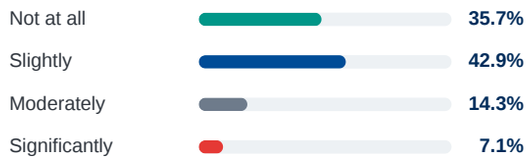
CONTEXT

Radiology is unusual among documentation-heavy specialties because the central cognitive task is visual. The radiologist may be comparing priors, measuring lesions, scrolling through multiple series, and integrating the clinical history while dictating. Every prompt that requires visual confirmation competes with that task, even when the interruption lasts only a few seconds.

WHAT THE DATA SHOWS

Slight distraction is the most common response at 42.9%. 35.7% report no interruption, 14.3% report moderate distraction from checking template field alignment or auto-populated text, and 7.1% report significant distraction and visual fatigue.

Extent to which structured fields distract from visual focus on images



THE INSIGHT

The strongest signal is not severe dissatisfaction. It is low-grade friction. That matters because small interruptions can accumulate over dozens or hundreds of studies. A reporting tool can still be net efficient while generating avoidable micro-distractions that radiologists feel throughout the day.

WHY IT MATTERS

The design goal should be to minimize the need to look away from images. Voice-first navigation, automatic placement of dictated content, reliable auto-population, and fewer required confirmations could make the structured report feel more like an extension of interpretation and less like a second task.

07

STANDARDIZED TERMINOLOGY AND AI

Radiologists see value in standardized data, but many reporting environments still rely on local language and custom macros

50.0% report minimal standardized-lexicon integration, while 64.3% say structured standardized data is important for registries and research but secondary to clinical workflow.

CONTEXT

RSNA created RadLex so radiologists can use a common language across reporting, decision support, data mining, registries, education, and research. RadReport templates can incorporate RadLex terminology and common data elements. These resources create a foundation for machine-readable radiology data, but that foundation only helps if the reporting software actually exposes it in daily practice.

WHAT THE DATA SHOWS

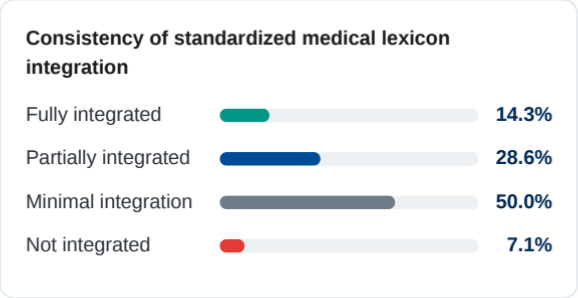
For lexicon integration, 14.3% report full integration across all subspecialty templates, 28.6% partial integration, 50.0% minimal integration relying mainly on local macros, and 7.1% no integration. On AI readiness, 64.3% say standardized data is important, 7.1% call it essential, 21.4% believe current AI should extract meaning directly from free text, and 7.1% are unsure or do not currently use AI or EHR reporting analytics.

THE INSIGHT

The survey highlights a mismatch between aspiration and infrastructure. Most respondents recognize the secondary value of structured data, but half still work in environments where standardized lexicons have minimal integration. That means the burden of creating consistent data may still fall on templates and local conventions rather than a shared terminology layer.

WHY IT MATTERS

AI can reduce that burden, but only if it improves the reporting experience. Standardization is more likely to scale when the system maps natural radiologist language to standardized terms behind the scenes, rather than asking the radiologist to manually encode every observation.



08

PREFERRED FUTURE WORKFLOW

The preferred endpoint is a hybrid report: standardized enough for consistency, flexible enough for radiology

78.6% choose standardized headings with full free-text freedom under each section as their ideal routine reporting model.

CONTEXT

The final workflow question brings the earlier tensions together. Radiologists want the communication benefit of predictable structure, the speed of well-designed templates, and the data value of standardized terminology. They also want enough freedom to describe findings in the order and language that make sense for the case.

WHAT THE DATA SHOWS

The hybrid model leads at 78.6%. A structured-impression-only model is selected by 14.3%, while only 7.1% prefer fully structured mandatory itemized organ lists with standardized drop-down categories. This is the strongest single directional preference in the survey.

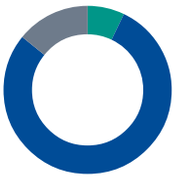
THE INSIGHT

The hybrid preference can be read as a design requirement. The report should have a stable skeleton, but the radiologist should not have to fight the skeleton to explain the case. Standardized headings and terminology can coexist with narrative freedom if the software does more of the mapping automatically.

WHY IT MATTERS

That is also where the open-ended feedback points. Respondents ask for fewer clicks, context-aware NLP, automatic placement of findings, voice-controlled population, RIS measurement transfer, portable templates, better speech recognition, and language-model support for summarizing or refining findings. The future workflow they describe is structured at the data layer and natural at the interaction layer.

Preferred ideal reporting model for routine practice



OPEN-ENDED WORKFLOW PERSPECTIVE

Radiologists are not asking AI to write a different report. They are asking it to make structured reporting feel like normal dictation.

The open-ended question asked for the single most critical innovation needed in speech-recognition and reporting software to make structured reporting seamless for radiologists. The responses are short, but they converge on a consistent interaction problem: radiologists want the system to understand what they are saying, know where that information belongs, and populate the report without forcing them to navigate the template manually.

Context-aware dictation

Several responses ask for NLP or AI that converts natural free-form speech into the correct structured fields while preserving radiology context, measurements, findings, and impressions.

Fewer clicks and less navigation

Respondents explicitly ask for fewer clicks and for findings to move into the correct report location without manual field selection or repeated visual interaction with the voice-recognition screen.

Automatic data population

Ideas include pulling key measurements from the RIS and automatically placing organ-specific findings into the relevant section of the structured report.

Better speech recognition

Responses in English and Italian call for stronger voice-recognition accuracy and voice-controlled filling of report fields.

Portable templates and macros

One radiologist describes the burden of manually transferring more than 100 auto-texts after changing jobs, highlighting interoperability and portability as a practical adoption issue.

Language-model refinement

Another response points to summarizing and refining findings with language-model AI, while a separate response emphasizes accuracy and subspecialty relevance for the clinician ordering the scan.

What the qualitative feedback adds: The preferred innovation is not more mandatory structure. It is invisible structure: natural speech in, correctly organized and standardized report data out.

RADIOLOGY DECISION LENS

What a lower-friction structured reporting workflow could look like in the reading room

The survey does not prescribe a single reporting system. It identifies a design direction: keep the report consistent for the reader while reducing the amount of structure the radiologist has to manage explicitly.

Standardize the skeleton, not every sentence

Use consistent headings, assessment categories, terminology, and recommendations while preserving free-text space for nuance, uncertainty, and unexpected findings.

Make dictation context-aware

Let speech recognition identify the relevant organ, finding, measurement, and report section so the radiologist does not need to navigate field by field.

Keep visual attention on the images

Reduce clicks, prompts, and confirmation steps that require the radiologist to shift gaze away from the examination during interpretation.

Build standard terminology underneath the workflow

Map natural reporting language to RadLex, common data elements, or appropriate RADS terminology in the background so structured data is created without turning the radiologist into a data-entry operator.

PEOPLE ALSO ASK

Frequently asked questions about structured reporting in radiology

What is structured reporting in radiology?

Structured reporting organizes radiology findings into a consistent format using predefined headings, fields, terminology, or templates. The degree of structure can range from standardized section headings to fully itemized data entry.

What are the benefits of structured radiology reports?

Structured reports can improve consistency, make key findings easier to locate, support clearer communication with referring clinicians, and create more standardized data for quality improvement, registries, research, and selected AI workflows.

Does structured reporting make radiologists faster?

It can improve efficiency when templates are well designed, pre-populated, and matched to the examination. Poorly designed templates can add clicks, mandatory fields, navigation, or visual interruption, so the workflow design matters as much as the template itself.

What is RadLex in radiology reporting?

RadLex is an RSNA-developed standardized radiology terminology used in reporting, decision support, data mining, registries, education, and research. It can also be incorporated into structured reporting templates and common data elements.

Why are BI-RADS and other RADS systems useful in radiology?

RADS frameworks use standardized terminology, assessment categories, and reporting structures to improve consistency and communication. Examples include BI-RADS for breast imaging, LI-RADS for liver imaging, PI-RADS for prostate imaging, and Lung-RADS for lung cancer screening.

Can AI use structured radiology reports?

Structured terminology and standardized data can make information easier for software to identify, compare, and reuse. AI can also help populate or summarize reports, but clinical accuracy, workflow integration, and radiologist oversight remain essential.

CLOSING PERSPECTIVE

Radiology does not need to choose between standardized reports and natural interpretation. The harder task is designing systems that can support both.

The MDForLives survey describes a reporting environment that has already moved substantially toward structure. For the largest group, more than 80% of diagnostic reading volume is structured. Breast imaging and BI-RADS stand out as the clearest example of clinical value. Communication improves for most respondents, and more than half say templates speed reporting rather than slow it.

That would be a simple story if structure were only beneficial. It is not. The same respondents who value templates also describe the places where the interface becomes visible: complex incidental findings that need manual workaround, small but repeated shifts in gaze between images and reporting fields, inconsistent standardized terminology, and the friction of navigating fields that do not match the natural sequence of interpretation.

The preferred workflow therefore matters more than any single benefit or barrier. Nearly eight in ten respondents choose a hybrid model with standardized headings and unrestricted free text within each section. Only a small minority want fully itemized mandatory reporting. The survey is not asking for a return to completely unstructured dictation. It is asking for a reporting system that separates the needs of the reader and the data layer from the interaction burden placed on the radiologist.

The open-ended feedback makes the desired direction concrete. Radiologists want fewer clicks, stronger speech recognition, automatic placement of findings, automatic transfer of measurements, AI that understands organ context, and portable templates that survive a change of institution or platform. In other words, the next generation of structured reporting may depend less on adding more fields and more on making the software smart enough that the radiologist no longer has to manage those fields directly.

This matters for AI as well. Most respondents say standardized reporting data is important for registries and research, but secondary to clinical workflow. That ordering is instructive. AI adoption will be more credible when it reduces reporting friction first and produces standardized data as a consequence. If AI requires radiologists to perform more explicit coding, more checking, or more screen navigation, it risks reproducing the same problem that rigid templates already create.

Professional standards point in the same direction. RSNA's RadReport, RadLex, and common data elements provide a foundation for consistent and machine-readable reporting. ACR RADS frameworks demonstrate the clinical value of standardized terminology and assessment categories when those standards are linked to management. ACR follow-up initiatives show that actionable recommendations need a workflow beyond the signed report. The opportunity is to connect these pieces without making the radiologist consciously operate every layer.

The future reading room may therefore be more structured than today's while feeling less structured to the person doing the reading. The report can have consistent sections, standardized terminology, coded data, and actionable recommendations. The radiologist can still speak naturally, stay focused on the images, and use free text when the case demands nuance. Context-aware speech recognition and AI could sit between those two needs, translating the radiologist's clinical language into the structured output that downstream systems require.

1 · Standardize what the reader needs

Keep report sections, key terminology, assessments, and recommendations consistent where they improve interpretation and follow-through.

2 · Preserve narrative freedom for complex cases

Make free text easy to use when incidental findings, uncertainty, or multi-organ complexity exceed the template.

3 · Reduce visual interruption

Design reporting tools so prompts and fields require less gaze switching and fewer manual confirmation steps.

4 · Make speech recognition context-aware

Let the system understand what is being dictated and place the content into the correct section automatically.

5 · Build terminology into the background

Map natural language to RadLex, RADS terms, or common data elements without forcing explicit coding during interpretation.

6 · Make templates portable and interoperable

Reduce the burden of rebuilding macros and auto-text when radiologists move between institutions, vendors, or reporting platforms.

Help future radiology insights reflect what really happens between the images and the signed report.

Share your perspective with MDForLives and help build a clearer view of reporting workflow, structured templates, speech recognition, AI, incidental findings, and communication with referring clinicians.

Join the Panel

Sources used for this report

1. **MDForLives Radiology Insight Survey_Aug, SGID 8954718.** Source survey report: 18 survey records, 77.8% completion rate, five countries

in the available country metadata, and question-level values used exactly as reported. Internal operational and validation fields were excluded from interpretation.

2. **Radiological Society of North America.** RadReport reporting templates. RSNA describes standardized reporting as a way to improve consistency, communication, diagnostic quality, and reports that are readable by humans and machines. https://www.rsna.org/practice-tools/data-tools-and-standards/radreport-reporting-templates
3. **Radiological Society of North America.** RadLex radiology lexicon. RadLex provides standardized radiology terminology for reporting, decision support, data mining, registries, education, and research. https://www.rsna.org/practice-tools/data-tools-and-standards/radlex-radiology-lexicon
4. **American College of Radiology.** Reporting and Data Systems (RADS). ACR RADS frameworks use standard terminology to improve reporting and communication between radiologists and referring physicians. https://www.acr.org/Clinical-Resources/Clinical-Tools-and-Reference/Reporting-and-Data-Systems
5. **American College of Radiology.** BI-RADS v2025. The current manual provides standardized breast-imaging terminology, report organization, assessment structure, classification, and management recommendations. https://www.acr.org/Clinical-Resources/Clinical-Tools-and-Reference/Reporting-and-Data-Systems/BI-RADS
6. **American College of Radiology.** Recommendations Follow-up Improvement Collaborative. ACR focuses on making recommendations for incidental pulmonary nodules appropriate, actionable, and more reliably completed. https://www.acr.org/Clinical-Resources/Clinical-Tools-and-Reference/Learning-Network/Recommendations-Follow-up-Improvement
7. **Radiological Society of North America.** AI tools for radiology. RSNA highlights standard terminology, structured data, and templates as infrastructure for efficient, interoperable AI-enabled imaging workflows. https://www.rsna.org/artificial-intelligence/tools

MDForLives

The Global Pulse of Healthcare

MDForLives is a global healthcare insights platform where healthcare professionals, patients, and caregivers discover, share, and shape the future of healthcare. This report presents aggregated perspectives for professional insight and discussion. It is not clinical guidance, treatment advice, or a substitute for patient-specific judgement, approved product information, or local practice standards.

© 2026 MDForLives

A Borderless Access platform

Real Opinions to Insights. Validated by Data.