How to Evaluate AI Vendors for Cancer Registry

A Practical Framework for ODS Professionals & Health System Decision-Makers

Executive Summary

The cancer registry AI market is growing rapidly — and so is the number of vendors making claims they cannot deliver. At the June 2026 Inspirata webinar, ODS professionals shared a troubling pattern: vendors pitching AI-powered cancer registry solutions with no oncology domain knowledge, no NAACCR or SEER expertise, and no proven results.

This white paper summarizes those real-world experiences into a structured evaluation framework — the questions you must ask, the answers that reveal true capability, and the red flags that signal a vendor is not ready to solve your cancer registry automated, AI enabled clinical data casefinding and abstraction.

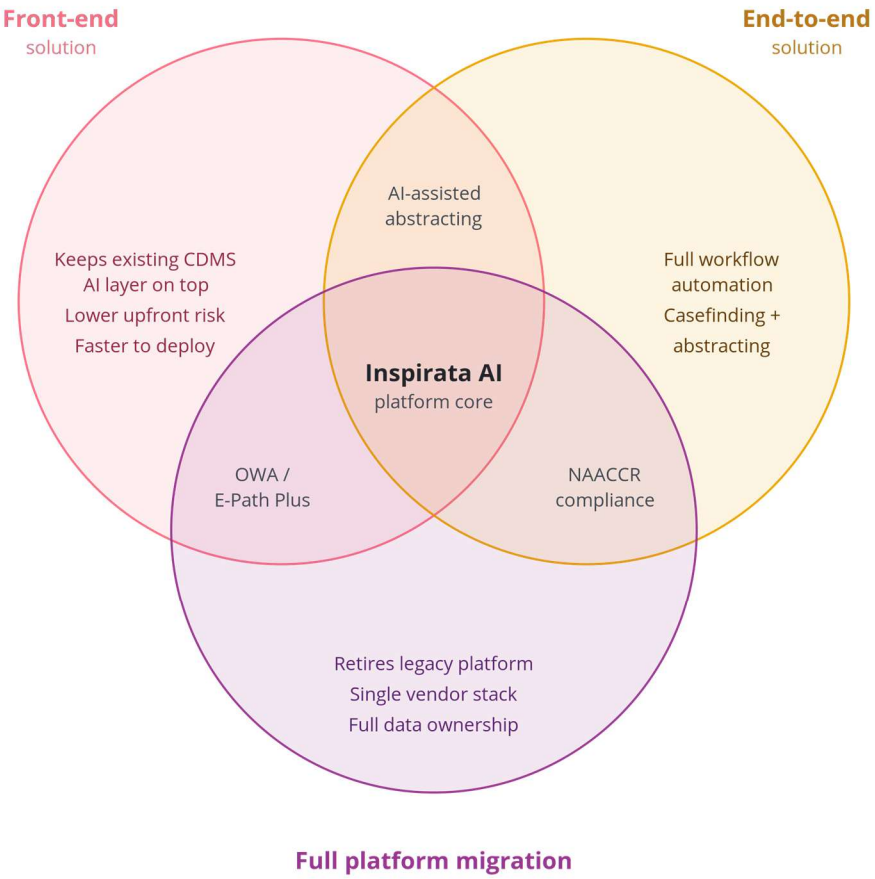
> *"We had a company that said they did Cancer Registry AI — but did not have a clue. It was a waste of our time and not a help at all."*
>
> — ODS COMMENT IN THE CONVERSAITON CHAT , JUNE 2026 INSPIRATA AI WEBINAR

The Problem: AI Hype Without The Cancer Registry Knowledge

Artificial Intelligence (AI) is the most overused term in healthcare IT today. For cancer registry professionals, this creates a genuine evaluation challenge: distinguishing platforms that were built specifically for oncology data casefinding and abstraction from general document-extraction tools using AI models rebranded as "cancer registry AI."

Attendees described vendors who *"decided to start with Cancer Registry first but had no oncology understanding whatsoever"* — calling AI a *"fancy mask to attract attention."*

The stakes are real: a poorly chosen platform disrupts operations, degrades case quality, risks compliance failures, and harms the health system's ability to produce accurate oncology outcomes data. Webinar attendees and the general cancer registry market feedback does solidify that the market is ready for one of the following solutions:



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Five Domains of Rigorous Vendor Evaluation

A thorough AI enabled vendor solution evaluation for cancer registry must examine five distinct domains. Each contains must-ask questions, acceptable answers, and disqualifying responses.

01

ONCOLOGY DOMAIN EXPERTISE

Oncology domain knowledge is the single most important differentiator. A vendor without deep oncology knowledge and expertise cannot build a reliable cancer registry solution by just using AI models, simply not feasible.

QUESTION

Can your team walk through how your solution can perform automated cancer data case finding and abstraction of a complex case — multiple primaries, ambiguous histology, ICD-O-3 lookup, AJCC approved staging?

✓ ACCEPTABLE ANSWER	✗ RED FLAG
✓ Fluent with AJCC staging, ICD-O-3 coding, SEER abstracting guidelines, CoC/NAPBC standards. Training data labeled by certified CTRs. Specific answers to edge cases.	✗ Vague answers, redirection to demos, no mention of NAACCR/SEER specifics.

QUESTION

Who built your cancer data casefinding and abstraction logic — certified CTRs, oncologists, or software engineers?

✓ ACCEPTABLE ANSWER	✗ RED FLAG
✓ Active CTR involvement in workflow logic and training data labeling. Ideally the company employs certified cancer registrars.	✗ Logic built entirely by software engineers using AI models without clinical knowledge or input.

02

DATA SECURITY & PHI PROTECTION

Every cancer registry platform handles Protected Health Information. These questions establish whether a vendor meets baseline HIPAA requirements.

QUESTION

Is patient PHI ever used to train shared or public AI models?

✓ ACCEPTABLE ANSWER	✗ RED FLAG
✓ Categorical no, with documentation. PHI de-identified before AI processing. SOC 2 Type II certified. Tenant-isolated, encrypted storage.	✗ Evasive answers, vague "anonymization" references, or PHI in shared model training.

QUESTION

What is your SOC 2 Type II status? Can we review your BAA?

✓ ACCEPTABLE ANSWER	✗ RED FLAG
✓ Current SOC 2 Type II certification, readily available BAA, role-based access controls.	✗ No SOC 2 certification or reluctance to produce BAA documentation.

03

ACCURACY, QUALITY & COMPLIANCE

Validating accuracy claims requires specific, measurable evidence — not marketing narratives. Some AI solutions produce inaccurate case finding and reporting.

QUESTION

What are your concordance rates against gold-standard human abstraction per NAACCR/SEER?

✓ ACCEPTABLE ANSWER	✗ RED FLAG
✓ >95% agreement on discrete fields, independent third-party validation, built-in EDITS checks, confidence scoring on AI-suggested values.	✗ Vague "high accuracy" claims, no independent validation, binary accept/reject with no confidence indicators.

QUESTION

Does your platform include built-in EDITS validation before case submission?

✓ ACCEPTABLE ANSWER	✗ RED FLAG
✓ Yes — integrated EDITS checks that prevent non-compliant cases from submission, with flagging for human review.	✗ No EDITS integration, or validation only after submission.

04

EHR INTEGRATION & INTEROPERABILITY

Integration failures are the most common source of implementation delays. Cancer registry AI enabled solution is only as good as its ability to ingest clinical data directly from your HER, impute the missing data, structure the unstructured data and surface that data in a human readable form.

QUESTION

How does your platform integrate with Epic — is it Epic-certified?

✓ ACCEPTABLE ANSWER	✗ RED FLAG
✓ Native HL7 FHIR R4 or v2 integration. Epic App Orchard certified. NAACCR XML for state registry export. Clear go-live timeline.	✗ Screen-scraping, manual CSV exports, or "we can build a custom integration" without documented methodology.

QUESTION

Does your platform support NAACCR XML for state registry data exchange?

✓ ACCEPTABLE ANSWER	✗ RED FLAG
✓ Yes — NAACCR XML as the standard downstream export format with version compatibility.	✗ Proprietary export formats requiring manual transformation before state submission.

05

PROVEN RESULTS & REFERENCE VALIDATION

Vendor claims are easy to make. Proven results with real ODS teams is what matters.

QUESTION

Can you provide customer references using this platform in production — not pilots?

✓ ACCEPTABLE ANSWER	✗ RED FLAG
✓ Customers willing to take reference calls and provide positive feedback for systems in production for 12+ months and Quantified metrics for operational efficiency and productivity: time-per-case, QC pass rate, backlog clearance rate and finding missing cases.	✗ Only pilot customers, NDA-protected references, or metrics from small facilities only.

QUESTION

Can you run a Proof of Concept (POC) using our actual case mix — not a pre-selected demo dataset?

✓ ACCEPTABLE ANSWER	✗ RED FLAG
✓ Yes, with willingness to test on your registry's specific case types including complex cases with multiple primaries and ambiguous histology –"Try before you buy".	✗ POC limited to vendor-selected cases, or refusal to run POC on complex case types.

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Structuring the Procurement Process

The business case for rigorous vendor and solution evaluation is important : because the cost of a wrong vendor and a poor solution decision can result in — disrupted operations, inaccurate data, degraded data quality, and wasted implementation time and money — far exceeds the cost of thorough up-front solution evaluation and proper due diligence.

01

INTERNAL ALIGNMENT FIRST

Define ODS pain points, case volumes, EHR environment, and state registry requirements. Set measurable success criteria in writing before issuing any RFP or solution selection criteria.

02

DOMAIN COMPETENCY ASSESSMENT

Require written answers to the 5 evaluation domains mentioned above before any product demo. This step alone eliminates vendors who cannot demonstrate oncology domain knowledge and their depth of understanding the cancer registry business.

03

LIVE COMPLEX CASE TEST

Ask shortlisted vendors to walk you through a real complex case from your registry — not a pre-selected demo case. Include multiple primaries and ambiguous histology.

04

SPEAK WITH CUTOMERS AND ODS USING THEIR SOLUTION

Contact references directly. Ask: time-per-case before/after, QC pass rate, most painful part of implementation. Would you choose this vendor again?

05

PILOT AND A POC WITH YOUR OWN DATA

Before contracting, run a structured POC using your actual case mix. Define expected results and success criteria in

writing first. The right vendor will welcome this requirement — not resist it.

A Final Note

> The right Partner and a native AI solution vendor will welcome every question in this framework. They will have specific answers, documented evidence, proven and successful customers who will take reference calls, and the humility to acknowledge what their platform does not yet meet your requirements. Vendors who deflect, over-promise, or resist rigorous evaluation are telling you exactly what you need to know.

Ready to evaluate a vendor who welcomes every question?

Connect with the **Inspirata AI** team: BCurtis@inspirata.com