QuantumRise

COMMERCIAL STRATEGY

The prescribers you’re missing

How predictive AI collapsed the panel expansion timeline for a restricted immunology drug

Ruy Castelli

Managing Director

Visit www.quantumrise.com to learn more.

QuantumRise

The prescribers you're missing

There is a version of the pharma commercial challenge that gets discussed constantly, and it centers on physician access. Reps struggle to get time with doctors, in-person meetings per HCP are declining, and digital channels keep multiplying without a clear conversion payoff.

That version is real, but it is not the most expensive problem in specialty pharma.

The most expensive problem is the one that happens before the rep ever shows up. A field force working a panel of physicians identified through legacy targeting logic, historical call patterns, and accumulated gut feel will keep visiting the wrong people regardless of how efficient the execution becomes. In restricted indication drugs, where the addressable universe is already structurally small, that misalignment does not produce marginal losses. It produces a commercial ceiling with no obvious exit.

EXTERNAL BENCHMARK

~60% Physician access rate in the US

Rebounded from a pandemic low of ~20% through the addition of video channels, but in-person meetings per accessible HCP have since declined 7% year-over-year. Volume alone does not solve the problem.

Source: Veeva Pulse Field Trends Report, 2022 & 2024

EXTERNAL BENCHMARK

65% HCP engagements not synchronized

Disconnected activity means most commercial interactions don't compound into behavior change because the activity is fragmented, not because the product is wrong.

Source: Veeva Pulse Field Trends Report, November 2024

The access problem and the synchronization problem together describe an industry investing enormous resources in execution while under-investing in targeting intelligence. The question worth asking is not how to get more visits. It is how to ensure those visits reach the physicians who are actually ready to prescribe.

A drug that almost no one could prescribe

The commercial challenge in this case was simple to state and genuinely difficult to solve. A large pharmaceutical company needed to grow the prescriber base for an immunology drug with restricted prescription status, a product that, due to its clinical profile and regulatory requirements, required a court order for dispensation. That constraint meant the universe of potential prescribers was not merely small. It was difficult to identify and historically resistant to growth through conventional commercial approaches.

The existing panel had been built the way most specialty panels are built, through accumulated relationships, historical prescribing data, and years of field experience. It had worked to a point, but the ceiling was visible and the path beyond it was not.

The underlying question was whether there existed physicians in the broader HCP population, outside the active list, who already carried the clinical profile, the prescribing patterns, and the engagement history that made adoption genuinely likely. Not physicians who might eventually be persuaded over many commercial cycles, but physicians who were, in some substantive sense, already aligned with the indication and waiting to be found.

What the model actually did

A machine learning model was built to answer that question directly. It analyzed each physician across four signal clusters: the therapeutic classes they were actively treating, their specialty and its documented relationship to the indication, prescription patterns for clinically adjacent products, and historical engagement with scientific campaigns and content relevant to the drug's therapeutic area.

The output was a probability score for each physician in the broader HCP universe, representing the estimated likelihood of prescribing the drug. The team concentrated the expansion effort on physicians above a 60% probability threshold.

The immediate results were meaningful.

OUR RESULT

+15% New potential prescribers mapped

Physicians with greater than 60% model-estimated probability of prescribing, identified from the broader HCP universe outside the active base.

Source: Quantum Rise case, major pharmaceutical company

OUR RESULT

+25% Increase in total addressable pool

Expansion of the full addressable HCP universe through predictive scoring, completed prior to field deployment.

Source: Quantum Rise case, major pharmaceutical company

Those numbers were the expected output of the exercise. The more significant finding came several commercial cycles later.

The insight that changed how we read the results

After the model had been in operation for some time, the client observed something that had not appeared in the original brief and was not part of the initial success metrics. The physicians identified by the model, once they began prescribing, did not behave like newly acquired prescribers. They activated at volumes that would normally represent years of relationship-building through traditional field effort. The ramp that the conventional commercial model typically requires twelve to eighteen months to complete was, in these cases, effectively absent.

The algorithm had not found new leads in the conventional sense of that term. It had found physicians with deep clinical affinity to the indication who were already oriented toward adoption. There was no relationship to build from scratch because the clinical logic of the relationship already existed. What had been missing was the introduction.

What had been missing was the introduction.

This distinction carries real commercial weight. A prescriber who starts at minimal volume and requires a sustained investment of field time before reaching meaningful prescription frequency represents a fundamentally different asset than one who activates at scale from the opening cycle. The model did not simply expand the panel. It changed the quality profile of the expansion in a way that only became visible once the physicians had actually started prescribing.

What makes this kind of project succeed

Across more than a decade of applying AI and mathematical models to commercial problems, one pattern has emerged consistently: the projects that deliver outsized results are the ones that begin with a specific commercial question rather than a technology decision. Not a desire to apply AI to the sales force, but a clearly defined problem with a known cost and a hypothesis about where the answer lives.

In this case, the question was precise. There is a drug with a restricted prescriber base, a growth ceiling the field force cannot break through traditional methods, and a need to identify which physicians outside the active panel have the highest probability of adopting it. The model was built to answer that question. The commercial team had a reason to trust and act on the output because the output was designed around a decision they already needed to make.

That sequence, problem before model, is rarer in practice than it should be. Organizations that reverse it tend to produce technically sound outputs that change no behavior, because the output was never designed to drive a decision. It was designed to exist.

EXTERNAL BENCHMARK

$18B–$30B Annual AI value potential in pharma commercial functions

Part of a McKinsey estimate of $60B–$110B in total pharma and medtech AI value, identifying commercial as one of the largest near-term opportunity areas for generative and predictive AI.

Source: McKinsey Global Institute, "Early adoption of generative AI in commercial life sciences," 2024

The market context that makes this urgent

The US immunology market reached $108 billion in 2024, with North America accounting for more than half of global immunology revenues. Specialty drugs are dominating the economic landscape, demanding entirely new commercial architectures.

$108.4 billion
US immunology market size (2024). North America accounts for ~53% of global revenues.

Source: Precedence Research / Grand View Research, 2024–2025

~40%
Specialty drugs' share of total US pharmacy dispensing revenues.

Source: Drug Channels Institute, 2024

This is a segment defined structurally by small prescriber bases, high per-prescription value, and commercial models where targeting intelligence is the primary lever available.

In that environment, the companies that sustain growth will not be the ones with the most disciplined execution against the wrong list. They will be the ones that invest the analytical effort required to build the right one.

Most commercial organizations already hold the data needed to do this. The CRM data exists. The engagement history exists. The prescription pattern signals for adjacent products exist. The question is whether the organization has built the capability to ask the right question of that data before the field force goes out to answer the wrong one.

Ruy Castelli

Managing Director

Ruy Castelli is a senior data, analytics, and AI executive with nearly 30 years of experience driving data driven business transformation. He is the co founder of DHAUZ, an analytics and AI consulting firm acquired by Quantum Rise, where he now serves as Managing Director, helping organizations convert data and AI into tangible business impact. Ruy believes that advanced analytics and AI are essential for companies to remain competitive and grow sustainably.

References

Veeva Pulse Field Trends Report, November 2024
veeva.com/resources/veeva-pulse-field-trends-report

Veeva Pulse Field Trends Report, Q3 2022
veeva.com/resources/veeva-pulse-field-trends-report-3q22

MM+M, "The return of rep access," 2022
mmm-online.com

McKinsey, "Early adoption of generative AI in commercial life sciences," May 2024

McKinsey Global Institute, "The economic potential of generative AI," June 2023

Precedence Research, Immunology Market Report, 2024

Drug Channels Institute, 2024 Economic Report on US Pharmacies and Pharmacy Benefit Managers