

White Paper

## Reach Next-Level Prior Authorizations in Laboratory Using AI and Automation



# Reach Next-Level Prior Authorizations in Laboratory Using AI and Automation



Laboratories are now able to expertly navigate the prior authorizations landscape using automation, and AI-driven software with machine learning capabilities that are proven to increase revenue while significantly reducing the cost and time required to expedite. As healthcare continues to evolve and scientific advancements become more commonplace, today's laboratories are suffocating under the insurance-mandated prior authorization requirements for molecular and genetic diagnostics testing.

With technology that is bi-directional and integrated, prior authorizations can be identified both proactively and, most important, reactively, processed, and submitted, with follow-up streamlined and success attained in real-time.

## Artificial Intelligence is Bringing Real Change in Healthcare

Uses for artificial intelligence (AI) are being explored and implemented throughout the healthcare industry, as new and exacting ways are developed to support the clinical decision process. Simultaneously, AI is being introduced into the patient access and revenue cycle management (RCM) arenas with the promise of enhanced revenue, reduced denials, and far less burdensome workflows.

AI-driven technology represents a disruptive opportunity to revisit and transform the way we do business, bringing both apprehension and enthusiasm in equal parts. As we begin to imagine the possibilities, there is a sense of trepidation that AI-driven software will replace jobs and make human intellect obsolete. However, on the flip side, few changes have offered such beneficial reimbursement opportunities to patients, clinicians, laboratory entities, and insurance payers at the same time.

While there are solutions to many of healthcare's challenges underway, the bottom line is that total electronic processing, including the use of automation and artificial intelligence, is an incomplete answer. There needs to be a symbiotic interdependence between machine and human intelligence to fully realize [the goal of efficient prior authorizations](#).

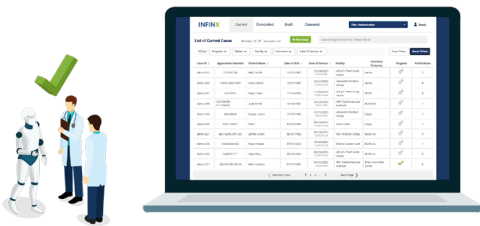
## The Growing Complexities of Laboratory Testing

While traditional chemistry continues to be the foundational pillar in laboratory testing workloads, molecular and genetic diagnostics are the rising stars becoming more common with new and better tests being developed every day. Today, molecular and genetic testing is responsible for an estimated \$8.7 billion in laboratory revenue and is expected to grow to \$12.9 billion in 2024.<sup>1</sup>

This creates a healthcare reimbursement conundrum that is growing exponentially unmanageable. Today, there are approximately 75,000 genetic tests available on the market.<sup>2</sup> Providers, seeking to improve patient care and outcomes, are finding more and more opportunities to use molecular testing in their diagnosing process. This, in turn, creates growing problems for insurance payers who are trying to contain costs and ensure medically sound and appropriate patient care is being delivered.



## Insurance Payers' Preferred Management Tool: Prior Authorization



To balance the promising (and growing) diagnostic testing choices with existing levels of contractual obligation, insurance payers are using prior authorization to manage physician behaviors and patient expectations. With an aging population that will be requiring more disease identification, as well as younger clinicians entering the system that wants increasingly advanced diagnostics, the use of prior authorizations will become more, not less, prevalent.

In 2018 and 2019, insurance payers responded by requiring prior authorizations for CPT codes reflecting molecular and genetic testing. This encompasses Tier 1 & 2 molecular pathology procedures (common and increasing complexities, respectively), genomic sequencing procedures, multianalyte assays with algorithmic analyses that include molecular pathology testing, and tests requiring the use of HCPCS U and M modifier codes.<sup>3, 4, 5</sup>

## How Prior Authorizations are Pressuring Business Operations Industry-Wide

Clinical laboratories, whether diagnostic or hospital-based, continue to experience the administrative burdens placed on them by their increasing prior authorization obligations. In the macro sense, the industry continues to absorb an aging population that’s living longer and requires more care, along with the increasing use of high deductible healthcare plans that transfer additional costs to patients,<sup>6</sup> and the perpetual decline in reimbursement due to the Protecting Access to Medicare Act of 2014 (PAMA).<sup>7</sup>



Starting as a utilization review technique, prior authorization mandates issued by insurance payers have evolved into a time-consuming administrative burden directly affecting a clinical lab’s bottom line. Affecting the entire industry, adverse clinical implications were detailed in the American Medical Association’s (AMA) 2018 Prior Authorization Physician Survey where 91% of respondents reported care delays and 28% reported that the often delayed process led to a patient having a serious adverse event (i.e., death, hospitalization, or a life-threatening event).<sup>8</sup>

## Specific Pain Points for Clinical Labs

As an ancillary service, clinical laboratories find themselves in a unique situation where they don’t have direct contact with the patient. This workflow creates a dependency on referring sources, whether hospital or physician, to provide patient demographic and insurance information when forwarding specimens and testing materials. In this situation where the laboratory is one step removed from data collection, they are reliant on another entity for accurate information to properly bill insurance payers or process successful prior authorizations.

Additionally, when the ordering provider does not initiate the prior authorization, it becomes the lab’s responsibility to seek approval from the patient’s insurance company with the information available. Since insurance companies recognize the collection date as the date of service for billing purposes, labs find themselves submitting prior authorization requests after the fact.

These “retroactive” prior authorization requests are becoming less viable with United Healthcare and Anthem, two of the country’s largest payers, no longer granting appeals.<sup>9</sup> This significantly impacts a long-used technique in laboratory billing to secure reimbursement and necessitates more write-offs from denied claims as overall revenue continues to decline.

With significant reform campaigns underway through the American Medical Association,<sup>10</sup> and Congress,<sup>11,12</sup> little change has been forthcoming and 79% of participants industry-wide<sup>13</sup> are still manually processing prior authorizations using labor-intensive methods (i.e., phone and fax) that require several hours to several weeks to complete.<sup>14</sup>

## Bringing AI-driven Technology to the Clinical Laboratory Billing Equation

We hear so much about AI today, but what does it really mean in terms of improving workflow and reducing time-consuming, repetitious tasks currently being performed manually?

Explaining how AI works can be a daunting task, and without diminishing its prospective future, this explanation is suitable for our purposes: with AI-driven software, a pre-defined set of algorithms uses statistical analysis to unlock data insights and then supports data-driven decisions that improve the timeliness and accuracy of targeted outcomes. AI programming can combine large chunks of data through iterative processing allowing the software to “learn” by memorizing patterns in the data.<sup>15</sup>



To explain this through a lens of prior authorizations, AI-driven software, through cloud-based technology, would be integrated bi-directionally with the facility's Laboratory Information System (LIS) being used for accessioning and client management. As patients' orders arrive, tests requiring prior authorizations would be electronically identified, provider/facility detail, patient demographics, and test/diagnosis information would be collected, and an approval request submitted in real-time to the insurance payer electronically.

With thousands of insurance groups and plans, each with unique guidelines, AI-driven software with machine learning using constantly updated insurance information clearinghouses automatically determines the prior authorization parameters and routes the request to the appropriate insurance payer portal. Prior authorization approvals that used to take several hours to several days or weeks can now be accomplished in seconds with a 99% accuracy rate.<sup>16</sup>

## Can a Cloud-Based Solution be Secure?

The Infix Prior Authorization Software creates a seamless and scalable prior authorization solution that uses Health Level 7 (HL7) or Application Program Interface (API) based bi-directional integration and is compatible with all leading EHR/EMR and LIS systems. The Prior Authorization Software embeds all Patient Health Information (PHI) in layers of security that is Electronic Data Interchange (EDI) compliant and stores the data on the cloud using 64-bit and 256-bit encryption that guarantees 100% HIPAA compliance.<sup>17,18</sup>

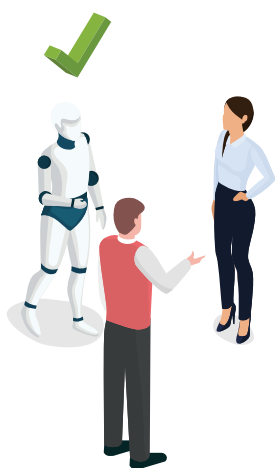


## Follow-Up, Appeals, and Changes



With this leap forward, prior authorizations can be tracked using real-time analytics, followed-up continuously, with the status reported back to the lab upon completion. When appeals are needed, the laboratory can define how they are to be handled, and the system can seamlessly execute their protocol. This eliminates the need for personnel to spend countless hours on hold or faxing information to the many different insurance payers, each with their own set of guidelines.

When unexpected changes are reported, including procedure level, service level, or demographics, the information is critical to the prior authorization process. With an AI-driven solution, unexpected changes can be accommodated and retransmitted in real-time directly to the impacted insurance payer.



## AI Simply Can't Do It All

While AI-driven software is capable of doing amazing things in the prior authorization process, having a support team of highly trained specialists is required. AI must be supplemented with human intelligence to handle emergent or complex requests and exceptions. It's through a team of trained specialists that a laboratory is ensured complete coverage of their prior authorization process.

## Efficient Prior Authorization Workflow Ushers in Increased Revenue

Without a doubt, clinical laboratories are under severe pressure from changes in fee schedules and reduced reimbursement models that are being implemented industry-wide. With future healthcare outcomes reliant on more and better diagnostic tools, labs find themselves in a financial vice grip that's only going to get worse.<sup>19</sup>

LabCorp and Quest Labs, both publicly traded, have announced significant fee schedule reductions due to PAMA, with LabCorp announcing publicly that they had a fourth-quarter, year-over-year decline of 4% in 2018.<sup>20</sup> With the continuing reductions scheduled each year through at least 2023 through PAMA, labs are looking for creative ways to strengthen their bottom lines.<sup>21</sup>

One way to make a strong impact; AI-driven automation software solutions for prior authorizations. The 2020 CAQH Index, a widely-respected bellwether, recently released estimates that the current potential industry-wide savings for automating prior authorizations would be \$13.30 for each occurrence.<sup>22</sup> While their methodology uses a lot of variables, like salary costs, insurance company variants, and procedure/test mix that can vary from region to region, the cost savings is without a doubt significant and worth consideration.

While their methodology uses a lot of variables, like salary costs, insurance company variants, and procedure/test mix that can vary from region to region, the cost savings is without a doubt significant and worth consideration.

Coupling the Infix Prior Authorization Software solution with XIFIN's fully optimized RCM powerhouse financial system, it creates a machine learning-enabled system that is capable of integrating with a laboratory's LIS and providing state-of-the-art automated workflow. By integrating with strategic partners with core competencies like XIFIN, financial management is enhanced end-to-end, delivering maximized revenue and profitability by utilizing AI-driven technology.



## What the Future Holds

The future for AI in the healthcare field and, specifically, clinical laboratories, is only limited by one's imagination. Certainly, in the near term, AI-supported functionality in the healthcare billing lifecycle will evolve into a richer ability to evaluate clinical detail to ensure medical necessity for prior authorizations before they are submitted for approval.

There will also be advances in the patient access area with improvements that will support patients when scheduling and managing their propensity to pay. And starting in 2020, Insurance Discovery software will be able to identify coverage that patients have not communicated to providers for a variety of reasons (emergency admissions, charity care, etc.).<sup>23, 24, 25</sup>

## In Summary

When looking at the overall picture, we see an industry in flux and under the most stringent constraints in terms of reimbursement reduction, increasing paperwork, and administrative headaches. This is causing industry-wide clinician and provider burnout at unprecedented rates.<sup>26</sup> By continuing to create an unsatisfying environment, coupled with rising population growth and an increasing number of seniors seeking care, we're projected to experience an estimated 120,000 physician shortfall by 2030.<sup>27</sup>

Without a doubt, the business of diagnostic testing has grown exponentially complex with new and more elaborate molecular and genetic testing capabilities. Clinicians and providers everywhere are looking for relief as we move into the 2020s. By embracing the paradigm-shifting technology of AI-driven software, coupled with highly trained specialists for outliers, clinical laboratories have the potential to recognize substantial cost savings through decreasing workloads, significantly reduce denials and A/R rework, and improved revenue capture.

To date, waiting for legislative relief has not produced any tangible results and taking a proactive stance by automating the prior authorization process not only improves the current operations of a clinical laboratory but better positions that organization as circumstances continue to evolve in the future.

**To learn more about opportunities to improve prior authorization efficiencies in your lab through AI-driven automation supported by highly trained specialists, visit [www.infix.com](http://www.infix.com) or email [sales@infix.com](mailto:sales@infix.com).**



1. Carlson B. Molecular Diagnostics Market Now Larger than the Economies of 50 Nations, per New Report. Kalorama Information Website. October 30, 2019. <https://kaloramainformation.com/molecular-diagnostics-market-now-larger-than-the-economies-of-50-nations-per-new-report/>. Accessed on January 20, 2020.
2. Phillips KA, Deverka PA, Hooker GW, Douglas MP. Genetic Test Availability and Spending: Where Are We Now? Where Are We Going?. Health Aff (Millwood). 2018;37(5):710–716. doi:10.1377/hlthaff.2017.1427
3. Anderson D, MD, Astion M, MD. More Than a CPT Code – A View on Genetic Testing from Inside a Health Plan. Clinical Laboratory News, American Association for Clinical Chemistry. April 1, 2019. <https://www.aacc.org/publications/cln/articles/2019/april/more-than-a-cpt-code-a-view-on-genetic-testing-from-inside-a-health-plan>. Accessed on January 12, 2020.
4. Genetic and Molecular Lab Testing Notification/Prior Authorization, United Healthcare, Resources for Physicians, Administrators and Healthcare Professionals. 2020. <https://www.uhcprovider.com/en/prior-auth-advance-notification/genetic-molecular-lab.html>. Accessed on January 10, 2020.
5. Prior Authorization for Genetic Testing, Anthem Blue Cross Blue Shield, Provider Communications. Released October 1, 2018. <https://providernews.anthem.com/virginia/article/prior-authorization-for-genetic-testing>. Accessed on January 10, 2020.
6. Cohen R, Zammit E. High-deductible Health Plan Enrollment Among Adults Aged 18-64 with Employment-based Insurance Coverage. Centers for Disease Control and Prevention NCHS Data Brief No. 317. August 2018. <https://www.cdc.gov/nchs/products/databriefs/db317.htm>. Accessed on January 24, 2020.
7. PAMA Regulations, Important Update. CMS.gov, Centers for Medicare and Medicaid Services. <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/ClinicalLabFeeSched/PAMA-Regulations> Accessed on January 28, 2020.
8. 2018 AMA Prior Authorization (PA) Physician Survey. American Medical Association, Prior Authorization Research & Reports. 2019. <https://www.ama-assn.org/system/files/2020-06/prior-authorization-survey-2019.pdf> Accessed on November 23, 2019.
9. Quadax. Strategies for Managing Genetic and Molecular Test Preauthorization. Quadax Blog. September 13, 2017. <https://blog.quadax.com/strategies-for-managing-genetic-and-molecular-test-preauthorization>. Accessed on January 26, 2020.
10. Joint Authorship. Consensus Statement on Improving the Prior Authorization Process. American Medical Association. 2018. <https://www.ama-assn.org/sites/ama-assn.org/files/corp/media-browser/public/arc-public/prior-authorization-consensus-statement.pdf>. Accessed on January 22, 2020.
11. Letter to the House of Representatives in support of Improving Seniors' Timely Access to Care Act 2019 (H.R. 3107) from 370 Associations. September 9, 2019. <https://www.rheumatology.org/Portals/0/Files/Coalition-Letter-HR3107-Prior-Authorization-Reform.pdf>. Accessed on January 30, 2020.
12. Livingston S, Luthi S. House Committee Throws Spotlight on Prior Authorization Burden, Modern Healthcare. September 11, 2019. <https://www.modernhealthcare.com/politics-policy/house-committee-throws-spotlight-prior-authorization-burden>. Accessed on February 3, 2020.
13. 2020 CAQH Index – Closing the Gap: The Industry Continues to Improve, But Opportunities for Automation Remain. Published by CAQH Explorations, 2021. Retrieved 2/2/21 from <https://www.caqh.org/sites/default/files/explorations/index/2020-caqh-index.pdf>
14. Industry Checkup: Measuring Progress in Improving Prior Authorization. American Medical Association. 2019. <https://www.ama-assn.org/system/files/2019-03/prior-auth-survey.pdf>. Accessed on February 2, 2020.
15. Artificial Intelligence – What it is and Why it Matters. SAS Insights. 2020. [https://www.sas.com/en\\_us/insights/analytics/what-is-artificial-intelligence.html](https://www.sas.com/en_us/insights/analytics/what-is-artificial-intelligence.html). Accessed on February 1, 2020.
16. Siwicki B. At RadNet, AI-fueled Prior Authorization Tech Shows Promise, Healthcare IT News, Global Edition. May 6, 2019. <https://www.healthcareitnews.com/news/radnet-ai-fueled-prior-authorization-tech-99-accurate> Accessed on January 6, 2020.
17. Napco's iBridge Technology Named Top Innovation of 2014 by Security Sales & Integration Magazine – Recurring Revenue Model Makes iBridge a Top Choice for Security Dealers. January 13, 2015. <http://investor.napcosecurity.com/2015-01-13-NAPCOs-iBridge-Technology-Named-Top-Innovation-of-2014-by-Security-Sales-Integration-Magazine>. Accessed on February 3, 2020.
18. Integrating Prior Authorization Solution with Epic PMS While Protecting PHI at a Pennsylvania Hospital Group, Infix Case Study. 2018. <https://www.infix.com/resource-casestudy/integrating-preauthorization-solution-with-epic-pms-1/>. Accessed on February 2, 2020.
19. Burns, J. PAMA Price Cuts Reduce Revenue at LabCorp, Quest. The Dark Intelligence Group, The Dark Report, Vol. XXVI No. 3. February 25, 2019, updated March 27, 2019. <https://www.darkintelligencegroup.com/the-dark-report/laboratory-management/pama-price-cuts-reduce-revenue-at-labcorp-quest/>. Accessed on February 2, 2020.
20. Ibid. 19.
21. Ibid. 7.
22. Ibid. 13, p. 6
23. Chhaltralia V. What Does the Future Hold for Artificial Intelligence? Industry Analysis and Graphic, AI Business. March 22, 2018. <https://aibusiness.com/industry-graphic-artificial-intelligence/>. Accessed on February 2, 2020.
24. Maximize Hospital Revenue with a Holistic Insurance Discovery Strategy. January 7, 2019. <https://revcycleintelligence.com/news/maximize-hospital-revenue-with-a-holistic-insurance-discovery-strategy>. Accessed on January 20, 2020.
25. How Using Insurance Discovery Can Significantly Improve A/R, Infix Blog. January 23, 2020. <https://www.infix.com/blog/how-using-insurance-discovery-can-significantly-improve-a-r/>. Accessed on January 23, 2020.
26. 2018 Survey of America's Physicians: Practice Patterns and Perspectives. The Physicians Foundation, Empowering Physicians/Improving Healthcare. 2019. <https://physiciansfoundation.org/wp-content/uploads/2018/09/physicians-survey-results-final-2018.pdf>. Accessed on January 30, 2020.
27. New Findings Confirm Predictions on Physician Shortage. Association for American Medical Colleges. April 23, 2019. <https://www.aamc.org/news-insights/press-releases/new-findings-confirm-predictions-physician-shortage>. Accessed on February 1, 2020.