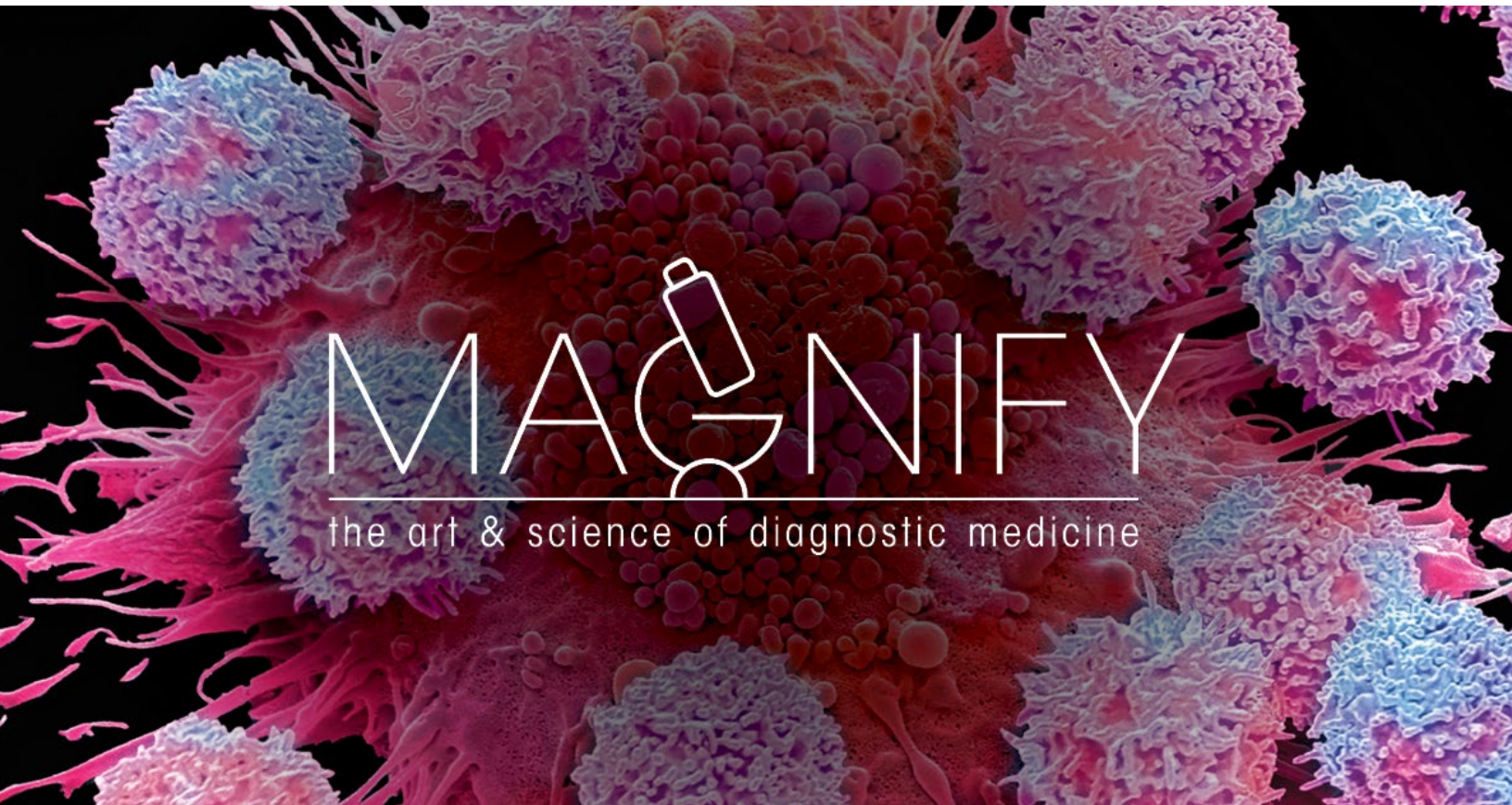


In Magnify, we share stories that bring laboratory medicine to life.



## **New Name, Expanded Offerings for Healthcare Advisory Services**

Hospitals and healthcare systems feel enormous pressure to cut costs. ARUP Healthcare Advisory Services and its team of 15 expert consultants offer solutions in lab stewardship, revenue cycle and quality management, lab operations, and more to help boost labs' value to their systems' bottom lines.

Laboratories have few problems that ARUP healthcare consultants have not seen and cannot solve. Meet our team and consider how you can draw on their expertise and experience for solutions.

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# ARUP Healthcare Advisory Services Expands to Help Hospital Labs Define Value Within Health Systems



## Starting Small and Proving Its Value

Healthcare Advisory Services began as a small department that had a couple of engagements each year, which were focused on helping a client expand testing services in its community. Consultants offered only one service, which was not promoted by the Sales team, and they were at risk of having their small department cut from ARUP's budget entirely. Enter Richman, who, at the time, was a senior business analyst working on group purchasing organization (GPO) contracts and sales forecasts. He had a master's of business administration (MBA) and experience in revenue cycle management consulting, but he had set his sights on more.

"The senior vice president of Sales came to me and said, 'You want to be a manager? Here's a department that's going to be cut if you don't turn it around,'" Richman recalled. "It was a lot of pressure."

Expanding the program from that starting point of one to two consultations a year and only one offering was going to be a hard sell to ARUP's Sales team because account executives

didn't see the value in offering consulting help to clients. But with a small team of three consultants and one business analyst, Richman began to work on building what would become one of ARUP's most valuable resources.

"We revamped and expanded our offerings, and then we had to convince the Sales team that we knew what we were doing," Richman said. "Pretty soon, we got so busy we could barely keep up."

That growth hasn't slowed. Since Richman took over in 2008, the department has expanded exponentially, and there are plenty of plans to keep its growth in motion.

## Expanding Into Operations

As a national reference lab that also provides laboratory services for University of Utah Health, a large regional health system, ARUP knew it could expand its offerings to clients by including operations assessments. Utilizing expertise from the lab, the team approaches each project as an opportunity to partner with a client to identify the root causes of whatever problems may be present.

Health systems are feeling more pressure to maximize efficiencies and cut costs. Multiply this pressure by the weight of an unprecedented pandemic and all of its associated costs, and the task can feel insurmountable at times.

Too often, laboratory services are among the first to be targeted when budget cuts are discussed. So how can lab leaders demonstrate to executives that careful management practices and innovative partnerships with their service line can significantly improve the health system's bottom line?

That's where ARUP Laboratories' Healthcare Advisory Services team (formerly ARUP Consultative Services) can help.

Since its inception in the mid-1990s, this team has made it a mission to help labs demonstrate the value they bring to the system as a whole—from revenue generation to quality assurance and patient care.

"It's disappointing, really, because [administrators] just don't see the value or the revenue potential when it comes to the lab," said Sandy Richman, MBA, C(ASCP), Healthcare Advisory Services director. "So it's our job to not only help labs become the best they can be, but also to help lab leaders speak about the value they can bring to the health system."



ARUP Senior Healthcare Consultants Leigh Huynh, MBA (far left), and Ben Chacon, MBA (second from right), observing a lab tech as she performs standard processes.



To help provide real-time insights, ARUP data analysts—from left to right, Erik Forsman, BS, Bryan Lawlor, C(ASCP)<sup>CM</sup>, and Kouver Bingham, BS—are constantly working on solutions to improve our dashboard offering, AnalyticsDx™.

“A lot of what we do is bring to light things the client already knew, but didn’t have the time to fully assess,” said Leigh Huynh, MBA, a senior healthcare consultant who has been on the team since the beginning.

But Healthcare Advisory Services does more than spotlight issues clients might already suspect. By approaching the engagement as a true partnership, and with a thorough understanding of the complicated nature of lab operations, ARUP is able to recommend solutions based on ease of implementation and impact after implementation, and the team can demonstrate how each recommendation will help with space planning or workflow, for example.

“It can help give a little more teeth to something [the client lab] may have already been recommending but weren’t getting the resources for,” Huynh said.

## Bringing on Laboratory Stewardship

While proper test utilization is something that ARUP has always promoted, the Healthcare Advisory Services team saw the opportunity to help clients improve how they use tests by offering full-service utilization analysis programs and solutions.

“We really want to be looking at ways we can control costs and improve revenue for our clients,” said Andrew Fletcher, MD, MBA, CPE, CHCQM, FCAP, Healthcare Advisory Services medical director. “And I feel that it’s my job to help with that by bringing at least one new idea to the table each month.”

Since joining the team in 2016, Fletcher has expanded the stewardship program beyond the laboratory and into pharmacies, blood utilization programs, and Centers for Medicare and Medicaid Services (CMS) quality metrics. Extending into these areas has enabled clients to bridge the laboratory-clinical gap to work toward better stewardship while realizing a better return on investment for their health systems.

David Shiembob, MBA, C(ASCP)<sup>CM</sup>, Healthcare Advisory Services supervisor, emphasized that ARUP’s offerings go beyond analyzing data and cutting costs.

“We’ve evolved it from the typical test utilization management offerings you see in the market,” Shiembob said. “We want to promote this idea of stewardship because it’s about more than just the right test. It’s about the right test for the right reason and actively changing the culture or processes for the benefit of the patient.”

## What’s Next for the Healthcare Advisory Services Team?

Healthcare Advisory Services now offers 24 customizable services and products and will continue to add more as opportunities arise. Anticipating client needs ahead of time remains a top priority.

“Listening to our clients and to our own labs helps us understand what’s needed in the market,” Richman said.

He and Shiembob agree that wherever the offerings lead, the focus will always be on helping clients develop the best labs possible.

“Lab services are really valuable,” Shiembob said. “And we truly believe in the idea that testing should be performed close to the patient, so we support our clients in doing that to whatever extent they’re able to.” ■

“It’s our job to not only help labs become the best they can be, but also to help lab leaders speak about the value they can bring to the health system.”

Sandy Richman, MBA, C(ASCP),  
Healthcare Advisory Services director




# ARUP Healthcare Advisory Services


## 1 Laboratory and Pharmacy Stewardship Solutions

Avoid **10–30%** of lab tests that are unnecessarily or inappropriately ordered with our 5 comprehensive, customizable offerings.

 Identify usage patterns with a 12-month **Utilization Analysis**.

Optimize **Order Sets** with evidence-based guidelines.

 Implement **Pharmacogenetics** into your practice.


 Stop excessive transfusion ordering by 20–30% with a **Blood Utilization program**.


Take **5** steps to a successful **Laboratory Stewardship Program**.

## 2 Laboratory Outreach Solutions

The average outreach program generates **~\$12M annually**. Build your outreach with our 4 solutions.

Demonstrate profitability in excess of **30%** with a solid **Outreach Business Plan**.

 Make sure you're getting the most out of your ROI with an **Outreach Operations Assessment**.

 Use a **Preliminary Market Assessment** to show executives the potential revenue gain.

Capture losses and gain new business with a **Market Opportunity Assessment**.




## 3 Revenue Cycle Management Solutions

Is your organization effectively managing its revenue cycle? We have 3 offerings to help you drive optimal reimbursements.

- 1 Get a break-even **Reimbursement Analysis** on your lab data.
- 2 Develop the right **Pricing Strategy** in this time of declining reimbursements.
- 3 Quantify income through a **Revenue Cycle Assessment**.

## 4 System Laboratory Alignment Solutions

A fully customizable solution, our **System Laboratory Alignment** engagements help health systems do the following:




-  Select the optimal lab model.
-  Identify opportunities to integrate and consolidate services.
-  Build financial models that quantify the impact of a consolidated services line.

## 6 Quality Management Solutions

Our **3** **Quality Management Solutions** help clients run patient-centered, cost-efficient labs.

Reduce costs up to **4.8%** with a **Quality Management System**.

Impact hospital **CMS Quality Metric** reimbursements by helping identify utilization management trends related to:

-  Length of stay
-  Hospital-associated infections
-  Tests pending at discharge



Prepare for upcoming **CAP Inspections** to address deficiencies.

## 5 Analytics and Reporting Tools

To help labs find actionable opportunities for improvement, we've created 3 analytics tools that capitalize on their data.

 Find key opportunities for improvement in our **Analyzing Test Ordering Patterns™ (ATOP®)** report.

Choose from our 2 **AnalyticsDx™** dashboards:


- 1 View real-time referral lab-testing data with the **Sendout Dashboard**.
- 2 Develop better utilization practices with the **Comprehensive Dashboard**.

## 7 Laboratory Operations Solutions

Create operational efficiencies to help cut costs and improve patient care with our

**4 solutions.**

 Identify opportunities for improvement in our **Total Technical Operations Assessment**.

 Implement **5S Lean** and **Six Sigma workflows**.

 Improve processes through better **Space Planning**.

Keep critical testing in-house with an **Insourcing Evaluation**.

# UC Davis Health Consultation Leads to Improved Staffing, Faster Turnaround Times

## Client: UC Davis Health, Anatomic Pathology Department

The Anatomic Pathology (AP) Department at University of California (UC) Davis Health knew its turnaround times (TATs) were increasing, but its staff members were already over capacity. Even when they worked longer hours, backlogged work was always waiting for the next shift. Leaders eventually learned of the longer TATs during a quarterly quality hub meeting.

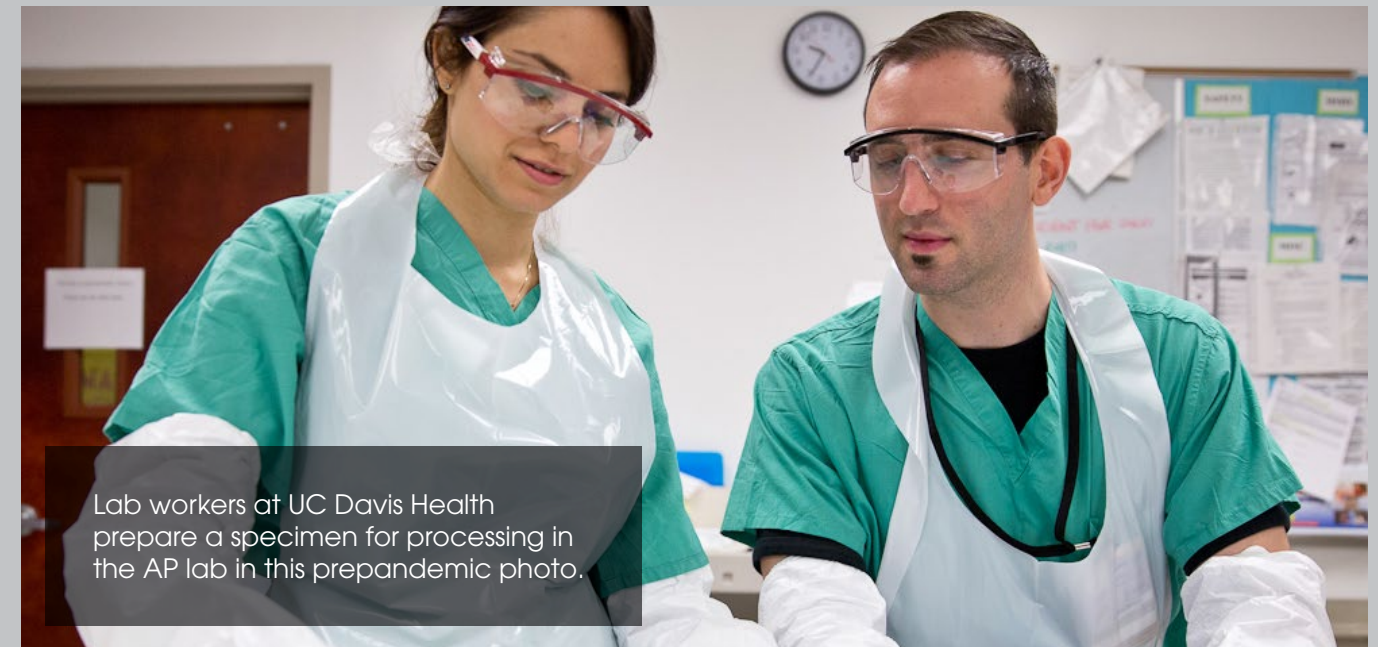
“We were tasked with decreasing our turnaround times,” said Sabrina Okimura, CLS, MLS(ASCP)<sup>CM</sup>, assistant director of Pathology and Laboratory Medicine. “We thought the best way to tackle it was to have some experts come in with fresh eyes and make recommendations.”

Using their partnership with ARUP Laboratories and taking advantage of no-cost consulting through a contractual rebate program, Okimura and her team reached out to ARUP Healthcare Advisory Services to provide that fresh

look. The AP group at UC Davis Health had done a lot of preliminary evaluations that they were able to share with ARUP ahead of time.

With staffing as one of the main focuses, along with TATs and courier issues, ARUP Healthcare Advisory Services Supervisor David Shiembob, MBA, C(ASCP)<sup>CM</sup>, and his team went on site. Over a three-day period, consulting team members interviewed as many UC Davis Health staff members as they could, from bench technicians to supervisors to couriers, to gain an understanding of the workflow intricacies. They also scheduled time to observe how different shifts or areas functioned.

“Something that’s really unique about anatomic pathology is that it’s sort of one big process that’s interconnected,” said Margaret Coppin, HT(ASCP), then-director of Anatomic Pathology at ARUP, who accompanied the group to share her expertise in the area. “It’s really easy to look at what should be the optimal workflow, but sometimes that overlooks the root cause of the problem.”



Lab workers at UC Davis Health prepare a specimen for processing in the AP lab in this pre-pandemic photo.

Photo Credit: Robert Durell

The root cause of slower TATs was exactly what Okimura and her team were hoping to find. Was it staffing issues? Was it courier problems? Was there something wrong with the technology or processes? After a preliminary wrap-up with a high-level overview of some initial findings, the ARUP team headed back to Salt Lake City to prepare their recommendations.

First, ARUP recommended several staffing changes, including adding a grossing room supervisor, hiring additional entry-level cytotechnologists with pay more closely aligned to national standards, and adding dedicated quality assurance support.

“We knew we needed more staff, but the key was determining which staff and where we really needed additional people,” Okimura said. “We basically saw a greater than 30% reduction in the percentage of surgical pathology cases with greater than five days TAT after we were able to get all this staff hired.”

Once staffing was in place, UC Davis Health began to implement additional recommendations, such as improving the delegation of tasks in the grossing room, adding a second processing run, and sending AP specimens directly to the grossing room during business hours.

“Basically, we just gave them a more foolproof way to run their already solid processes,” said Leigh Huynh, MBA, senior healthcare consultant at ARUP.

It’s been two years since the consultation took place, and UC Davis Health has been able to retain the excellent TATs it achieved.

“We’d wanted to make improvements for years but never had the bandwidth,” Okimura said. “But now that we have a full staff of pathologist assistants and a grossing room supervisor and manager, we were able to take on an affiliation for a training program.”

UC Davis Health continues to implement ARUP’s recommendations as it is able to.

“We’re still looking at that report and justifying some of our purchases with that consultation,” said Veloid Cotton, Jr., MHA, MS, PA(ASCP), a pathologist assistant and interim AP manager at UC Davis Health. ■

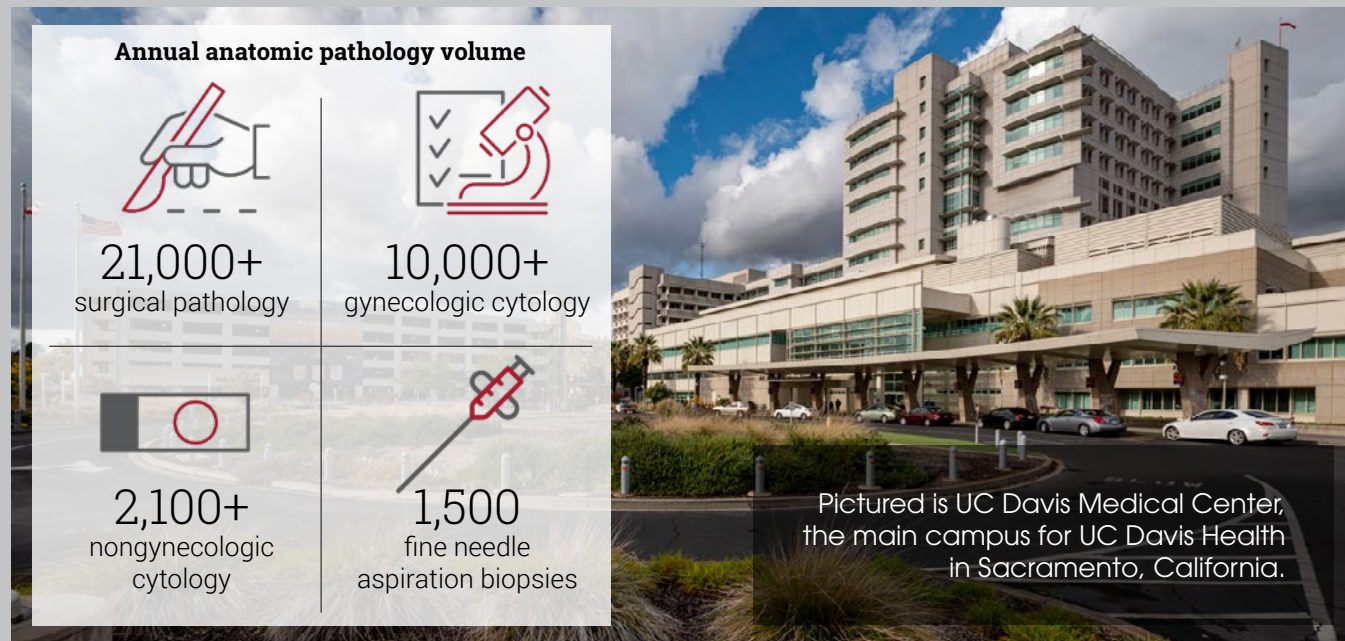


Photo Credit: UC Regents

# ARUP Healthcare Advisory Services Team



**SANDY RICHMAN, MBA,  
C(ASCP)**  
DIRECTOR, HEALTHCARE  
ADVISORY SERVICES

“We’re here as a resource. Regardless of what our clients are looking for, we can usually help. We really are a true partner with a vested interest in their success. We want our clients to stay financially viable and ensure that they can provide the best healthcare.”

**Areas of Focus:** CAP readiness and response evaluation, laboratory space planning, laboratory stewardship program development, insourcing evaluation, market opportunity assessments, outreach business planning, outreach operational assessments, pricing strategy, quality management system assessment, reimbursement analysis, revenue cycle assessment, system laboratory alignment, total technical operations assessment, utilization analysis, workflow and Lean operations evaluation



**ANDREW FLETCHER, MD,  
MBA, CPE, CHCQM, FCAP**  
MEDICAL DIRECTOR,  
HEALTHCARE ADVISORY  
SERVICES

“The trick is figuring out what the next level is—the next step. To be more precise, the better the test, the better the outcome, both cost-wise for the organization and for the patient in terms of diagnosis.”

**Areas of Focus:** AnalyticsDx™ comprehensive dashboard, AnalyticsDx sendout dashboard, ATOP® report, blood utilization analysis, CAP readiness and response evaluation, CMS quality assessment, insourcing evaluation, laboratory stewardship program development, order set analysis, pharmacogenetics advisory services, quality management system assessment, utilization analysis



**DAVID SHIEMBOB, MBA,  
C(ASCP)<sup>CM</sup>**  
SUPERVISOR, HEALTHCARE  
ADVISORY SERVICES

“Every client has a somewhat different problem, and we’re always looking to make sure we’re solving the problem that **this** client has, not the last one.”

**Areas of Focus:** CAP readiness and response evaluation, insourcing evaluation, laboratory space planning, laboratory stewardship program development, market opportunity assessments, outreach business planning, outreach operational assessments, pricing strategy, quality management system assessment, reimbursement analysis, revenue cycle assessment, system laboratory alignment, total technical operations assessment, utilization analysis, workflow and Lean operations evaluation



**KOUVER BINGHAM, BS**  
DATA CONSULTANT

“Data really comes alive when we actually start using it. When we start to understand our clients’ data and can say, ‘Hey, did you know you’re only using this test 10% of the time,’ then they have more information about their own business that they can then translate into doing more for their patients.”

**Areas of Focus:** AnalyticsDx™ comprehensive dashboard, AnalyticsDx sendout dashboard, ATOP® report, data consultation, data pipelines, data visualization, project tracking mechanisms, software and server development, web application development



**LADONNA BRADLEY,  
MT(ASCP)**  
SENIOR HEALTHCARE  
CONSULTANT

“We laboratorians don’t realize how much we have in common as far as challenges within the laboratory and in the work that we do on a daily basis. It’s nice to be able to say, ‘I’ve seen that! Here’s what worked,’ and just provide some solutions. We can assure our clients they’re not alone in facing certain challenges.”

**Areas of Focus:** CAP readiness and response evaluation, laboratory space planning, laboratory stewardship program development, market opportunity assessments, outreach business planning, outreach operational assessments, quality management system assessment, total technical operations assessment, utilization analysis, workflow and Lean operations evaluation



**TODD BULLOCK, MBA,  
I(ASCP), LSSGB**  
SENIOR HEALTHCARE  
CONSULTANT

“We want our clients to know that we have a broad range of offerings, and we often have a hard time saying no. Even if what they need isn’t exactly a direct fit with what we have on paper, we’re going to go out of our way to help find the resources we do have to help meet their needs.”

**Areas of Focus:** Insourcing evaluation, laboratory stewardship program development, preliminary market assessment, quality management system assessment, total technical operations assessment, utilization analysis



**BEN CHACON, MBA**  
SENIOR HEALTHCARE  
CONSULTANT

“You don’t show data to show data. You need to make it actionable, and you need to show the expertise behind it. That’s the advantage we have.”

**Areas of Focus:** AnalyticsDx™ comprehensive dashboard, AnalyticsDx sendout dashboard, ATOP® report, laboratory stewardship program development, outreach business planning, utilization analysis



**BELLA CHURCH, MS,  
C(ASCP)<sup>CM</sup>**  
SENIOR HEALTHCARE  
CONSULTANT

“I love looking at a problem and coming up with a solution. Our clients are very change oriented, and they want to make improvements that make a difference in their operations. I think that’s exciting, and it’s rewarding to see positive change and process improvement.”

**Areas of Focus:** CAP readiness and response evaluation, insourcing evaluation, laboratory space planning, quality management system assessment, total technical operations assessment, workflow and Lean operations evaluation



**ERIK FORSMAN, BS**  
SENIOR DATA  
CONSULTANT

“Hospitals are almost always understaffed; they’re always busy. We save them time by getting the data for them, and in doing so, we hopefully help streamline some of their processes.”

**Areas of Focus:** AnalyticsDx™ comprehensive dashboard, AnalyticsDx sendout dashboard, ATOP® report, data analysis, data automation, data optimization, database development, database management, information technology



**LEIGH HUYNH, MBA**  
SENIOR HEALTHCARE  
CONSULTANT

“Healthcare is a constant work in progress. There are constantly new and better ways of doing things. That’s exciting and really challenging.”

**Areas of Focus:** Laboratory space planning, market opportunity assessments, outreach operational assessments, total technical operations assessment, workflow and Lean operations evaluation



**BRYAN LAWLOR, BS,  
C(ASCP)<sup>CM</sup>**  
DATA CONSULTANT

“The world is all data now, and there’s so much we can learn from it. If it’s not visually digestible, though, it’s hard to get at what the information is. I find it really satisfying to help clients see something in the data that they didn’t see before.”

**Areas of Focus:** AnalyticsDx™ comprehensive dashboard, AnalyticsDx sendout dashboard, ATOP® report, automation, data analysis, information technology, LIS management



**RYAN NELSON, PHARM D**  
SENIOR PHARMACY  
CONSULTANT

“I just feel in my heart that we’re so patient focused and patient centered because we know patients are the end users of all the things that we do.”

**Areas of Focus:** Germline and somatic pharmacogenetics, health economics and outcomes, pharmacy, precision medicine, therapeutic drug monitoring



**RICK PANNING, MBA,  
MLS(ASCP)<sup>CM</sup>**  
SENIOR HEALTHCARE  
CONSULTANT

“Quality, accuracy, and precision in lab services are always the most important things. Turnaround times are also important. Providers don’t want to wait an inordinate amount of time to get results because, depending on why a patient is being served, there may be some very emotional issues, and waiting for lab tests is not something you want to prolong.”

**Areas of Focus:** CAP readiness and response evaluation, laboratory space planning, laboratory stewardship program development, market opportunity assessments, outreach business planning, outreach operational assessments, quality management system assessment, system laboratory alignment, total technical operations assessment, utilization analysis, workflow and Lean operations evaluation



**TONY SMITH, BS(HCM),  
MLT(ASCP)**  
SENIOR HEALTHCARE  
CONSULTANT

“One thing I’ve come to appreciate in my many years of working in lab operations is that if you can appreciate the boots on the ground, the people who are doing that daily work, they’re often the ones who have the best solutions. Making sure that you can give them a voice and an opportunity to really have an impact is beneficial.”

**Areas of Focus:** CMS quality assessment, insourcing evaluation, laboratory stewardship program development, preliminary market assessment, quality management system assessment, total technical operations assessment, utilization analysis



**JENNIFER TINCHER,  
MBA, RRT**  
SENIOR HEALTHCARE  
CONSULTANT

“We’re here to help labs on their journey within the healthcare system. If we can help them become passionate about where they want to be, then I think laboratories can promote themselves beyond where they are now in their organizations.”

**Areas of Focus:** Blood utilization analysis, CMS quality assessment, laboratory stewardship program development, order set analysis, utilization analysis



# Creating an Integrated Laboratory Service Line Can Improve Patient Care, Health System Competitiveness



DAVID SHIEMBOB, MBA, C(ASCP)<sup>CM</sup>, is the supervisor of ARUP Healthcare Advisory Services. Reach him at [david.shiembob@aruplab.com](mailto:david.shiembob@aruplab.com).

Change is a constant in the clinical laboratory industry as well as in the healthcare industry. Although change can present an opportunity for improvement, it can also negatively impact operations and patient care if there is a failure in planning or execution. Having moved from technical operations to business consulting during the course of my career, I have seen a variety of decision-making and risk management approaches to change. For example, it is important to carefully validate and control change in the clinical laboratory; however, requiring the same level of certainty to implement change in a business setting would likely lead to paralysis in the organization.

I see these two worlds colliding as efforts are made to integrate laboratory operations across health systems. Health system leaders are deciding that while their system laboratories may have operated independently in the past, more alignment is needed for them to remain competitive in the future. The ARUP Healthcare Advisory Services team has studied this trend and consulted with a number of health systems seeking to more closely integrate their laboratory operations. A common theme we have discovered while working in this area is that creating an integrated laboratory service line offers an opportunity for significant efficiency gains, but only if there is also an appreciation of the important role the laboratory plays in patient care and clinical decision-making.

First, the good news: The benefits of creating a truly integrated laboratory service line in a health system can be profound, both to the laboratory and the health system.

From the laboratory's perspective:

- Creating centers of excellence for specialty testing can simultaneously relieve staffing shortages and allow for a more comprehensive test menu.
- Standardizing instrumentation platforms enables higher service levels, greater redundancy, and smoother supply chains.
- Utilizing a shared laboratory information system (LIS) can give each site access to more sophisticated clinical systems support and enable seamless test referral between laboratory sites.

From the system's perspective:

- Shared contracting allows for more pricing power.
- Reducing redundant operations can lower costs.
- Aligning test catalogs and naming conventions will allow physicians to operate between facilities more easily.



However, the drive to reduce costs can lead to suboptimal decisions unless there is a lab champion who can communicate the realities of lab operations as well as the importance of the laboratory for patient care. If there is not a complete understanding of how laboratory costs change (or remain the same) when volume is added or removed, a decision to move testing in pursuit of a lower cost per test might ultimately have the opposite effect. Even more importantly, it can be easy to lose sight of how critical timely lab results are to patient care. Pursuing greater "efficiency" (as defined by minimizing testing costs) does not account for the crucial treatment decisions that rely on test results. A negative impact on the clinical decision-making process can cause problems that make a lower cost per test seem trivial in comparison.

My team and I approach these complex consulting projects by combining our understanding of laboratory operations with a data-driven approach that speaks to both our laboratory stakeholders and health system leaders. Although communicating these different perspectives to every stakeholder can be challenging, the end result is a solution that is not just a compromise but a meaningful improvement to laboratory services, patient care, and health system competitiveness. It's not possible to "validate" a new laboratory strategy beforehand, but the chances of success increase dramatically if everyone involved understands the central role the laboratory plays in supporting clinical decisions and patient care. ■

# True Lab Stewardship Embraces Patient Access to Testing, Financial Fairness



BRIAN JACKSON, MD, MS, is medical director of Support Services, IT, and Business Development at ARUP Laboratories. Reach him at [brian.jackson@aruplab.com](mailto:brian.jackson@aruplab.com).

ARUP Laboratories has a long tradition of leadership in laboratory stewardship, namely, promoting the medically responsible and patient-centered use of laboratory tests. In the 1990s, Edward Ashwood, MD (who later served as ARUP's CEO), launched Analyzing Test Ordering Patterns™ (ATOP®), the first program of its kind in the lab industry. Healthcare Advisory Services continues this tradition with dashboards and educational programs for ARUP's hospital and health system clients. These programs provide both financial and medical benefits for patients and health systems.

One question faced by laboratory stewardship programs is how to best incorporate the unique needs and values of individual patients. Stewardship programs tend to draw heavily from industrial quality management, which in turn relies heavily on standardization. Patients, however, are not standardized. They differ greatly in terms of biology, social needs, and personal values and preferences. Stewardship programs need to be sensitive to these differences lest they miss the trees for the forest. Medical ethics provides a useful framework for keeping stewardship programs focused on patients' interests. (See Patient-Centered Laboratory Stewardship table.)

The most basic principle of stewardship is ensuring the right test for the right patient at the right time. This requires ongoing professional assessment of tests' performance characteristics to steer physicians to the most medically

effective and cost-effective testing options. It also includes removing tests from electronic health record menus when evidence indicates that other diagnostic options are superior. One point that stewardship programs need to keep in mind, though, is that there are often exceptions to these rules. Individual patients can sometimes benefit from a test that in most circumstances would be unnecessary or wasteful. For this reason, stewardship programs should emphasize professional education, such as that provided by ARUP Consult, and not rely on rigid rules.





Physical access to laboratory testing is another issue of growing interest to lab stewardship programs. In marginalized communities, in particular, transportation to a hospital or clinic may be difficult or even unrealistic. Some patients have physical limitations that make it hard to travel; others have inflexible work and/or child-care arrangements. For these individuals, bringing phlebotomy into the community can make a huge difference. One recent study by a New York State health system indicated that 20% of lab tests ordered for outpatients are never performed (as described in the LabMind podcast, "Bringing Phlebotomy Services to the Home and Workplace with LabFly," at <https://arup.utah.edu/education/podcasts/labmindEp37.php>). Ensuring that draw centers are close to where people live and work, providing transportation, or even sending phlebotomists into patients' homes and workplaces are all potential solutions.

The financial burden of healthcare bills on patients is a long-standing problem. Patients often forego needed care due to high prices, and medical debt is a common cause of personal bankruptcy. Although laboratory test prices tend to be overshadowed by the prices of pharmaceuticals, medical devices, and hospital and emergency department stays, there have also been newsworthy cases of laboratory pricing abuses by individual laboratories and their associated health systems. Price transparency would be one step in the right direction. Labs and health systems should also commit to not exploiting patients' situational

vulnerability, such as in emergency settings or when a performing laboratory is "out of network."

Laboratories have a responsibility to ensure that patient testing is ethical and responsible. ARUP has a long history of supporting our clients with their lab stewardship programs, in keeping with ARUP's Five Pillars. Expanding these programs to address issues such as financial fairness and access to testing is an important step toward more patient-centered laboratory medicine. ■

## Patient-Centered Laboratory Stewardship

	Ethical Principle			
				
	<b>Beneficence</b>	<b>Nonmaleficence</b>	<b>Autonomy</b>	<b>Justice</b>
<b>Laboratory Stewardship Goal</b>	Ensure testing is matched to the patient's medical and social needs and values	Prevent financial toxicity	Empower patients to understand and act on their laboratory data	Improve access to testing, particularly for underserved populations
<b>Patient-Centered Examples</b>	Pretest genetic counseling  ARUP Consult	Transparent and nonexploitative test pricing	Direct patient access to laboratory results	Draw centers in marginalized communities  Home visits by phlebotomists

This publication contains  
excerpts from ARUP'S  
digital magazine, Magnify:  
The Art and Science of  
Diagnostic Medicine.



**[aruplab.com/magnify-22](https://aruplab.com/magnify-22)**

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*ARUP is a nonprofit enterprise of the University of Utah  
and its Department of Pathology.*

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