

# PBM ROI & Margin Expansion: Building Sustainable Infrastructure

*PBM as a Multidisciplinary Movement and Enduring Health System Strategy*

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## An Interview with Matt Warner, MD, Mayo Clinic

### Building a Multidisciplinary Movement

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*Mayo has a history of PBM implementation spanning nearly two decades. During this time, what was your experience as a PBM leader acting as a champion of the multidisciplinary team?*

**Dr. Warner:** It's really been an honor of mine and really one of the most fulfilling parts of my clinical career to be part of the Patient Blood Management Program at the Mayo Clinic initially as one of the core members and now leading the program for the last about seven years. The biggest thing that I've taken away as a champion of the program is that **Patient Blood Management is really a team sport.**

It's been really fulfilling to see how we bring together all different breadths of expertise across our clinical practice. We have all our clinicians whether it's anesthesiologists like myself, our surgeons, internal medicine colleagues, hematologists, obstetricians, we partner with our nurses, our laboratory professionals, our blood bankers, our pharmacists. It really is one of these programs that involves so many people and it's heartwarming to see that once you bring everyone together – bought into this kind of common notion that **Patient Blood Management is not simply about being better in the way we use blood products, but more importantly, it's about how do we do better for our patients, how do we improve their outcomes by focusing on their health, their blood health specifically** – then it really can fundamentally reshape the whole way in which we care for patients.

We've seen this really dramatic shift in the way that we approach patient care, patient readiness for surgery, management of hematologic abnormalities during hospitalization. And so it's really been fun to witness this from my training all the way to where I am at today.

And so this whole transformation takes time. **All it really needs to get going is a single clinician, or a small group of people that are at the bedside, envisioning a better way to care for their patients by focusing on the blood health of their patients.** That's kind of the story of what's happened at Mayo. It's really organic and it's really grown to be a very successful program. It's been very fun to be part of it.

### Earning Executive Buy-In Through Data and Alignment

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*What was the challenge of engaging the hospital's administrative and executive leadership (the C-suite) to support the implementation of the PBM program and demonstrating the positive results achieved?*

**Dr. Warner:** This is a really common question and one that I hear a lot from people who are just trying to build their programs and say, "Hey, look, I'm interested in this. I'm screaming that this is the right thing to do, but I'm having a hard time reaching people that actually have the power to help us implement this or give us the resources we need to implement it." Mayo Clinic, like many health care systems, is really focused on their clinician champions. We have clinicians in prominent leadership positions throughout the organization. But I would say early on when we were starting, much of what **we had to overcome** to reach the sort of the highest level people, was just this **long-standing inertia around our current clinical culture**, our current practice norms. You know this is a culture that's been very successful. We have some of the best outcomes anywhere in the world, and we can do really

complicated things and sometimes that requires a lot of transfusion supports or that's just the way we do things and we do fine with the way we do them. So what are you telling me that's actually going to improve outcomes?

And so we needed to show that patient blood management was not just something we wanted to do because we think it was the right thing to do, but also that it had benefits on those things that matter really at the highest level. So we **improve resource utilizations, we improve quality metrics, we could reduce complications** and we could actually **measure those**. Really importantly we could **lower cost of care**. So it had this **financial benefit as well as this patient care benefit**. And so the important thing for us was really early on being able to gather the data that we needed to show that this was beneficial not just for patients and not just because it's something that we thought was the right thing to do, but that it clearly had benefits on our resource utilization and those clinical outcomes and really showing how it aligned our sort of core institutional value of putting the patient's needs first, how that really aligned with PBM principles.

Once we were able to kind of make that case – gather the data we needed to show and just keep having these points of contact with our leadership to show that ‘hey this is what we are achieving through this program’, really the **support from the C-suite became very enduring** and now it's really an **established part of our care**.

## What It Takes to Build a Sustainable PBM Program

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*What advice would you give to other champions working on structuring an executive plan for implementing PBM in their hospitals and in ensuring the sustainability of such a program?*

**Dr. Warner:** There are many people that have done this, many programs have been successful. **If you're getting started, a great place to come is through SABM. We have great resources. We have great connections with people that have had success.** Reaching out to those that can help you along your way, align your mission right from the start is the best place to start. So please reach out. I know myself and others in SABM leadership are always happy to have these discussions.

Beyond that, the primary focus at first should be on building a relationship with your clinicians at the bedside. You need clinical champions. And so **your long-term success** is really going to be determined by your ability as a program to **establish trust with clinicians, to bring clinicians in as part of the team, to ensure that the education you're providing actually is meaningful** to them and is delivered in a way that they're able to receive it and use it. By engaging those clinicians, you can make PBM a shared mission amongst a much broader group of shareholders.

Beyond that, the second thing you need to do is prioritizing data collection infrastructure and reporting infrastructure. As I mentioned about how do you get the buy-in from the executives? **You need data** to show them. The good thing is that electronic health records make data collection much more accessible than in years past. So you can have access to low hanging fruit metrics whether it's transfusion utilization, blood product acquisition costs, hospital lengths of stay, readmission rates, complications, a lot of those things you can build in reporting infrastructure based on your current electronic health record environment. And then we've invested in data infrastructure, data visualization sort of expertise and reporting expertise that really has allowed us to show in very accessible ways what are our areas for improvement and how can we measure change and measure success over time.

So beyond the data reporting piece, I think the next thing I would say is you really need to **engage your leadership early. Be prepared to speak their language**. So you need to learn, what are the terms they want you to be able to speak in? And so you can build your data and reporting around that language. So it's centered on quality, value-based care, resource stewardship, and cost reductions. And so really being able to speak that language and having the data to back it up is going to be key for your success.

And then the last thing is that you really have to **be persistent**. If anyone's ever done a quality improvement project, you know it takes a lot of time to define what your objectives are. What are your different things you're going to try? What's the baseline data you need to measure? How do you refine your processes over time? And I think it's the same with Patient Blood Management. Changing the culture really takes time. It takes effort. And to achieve the buy-in that you need from leadership, you need **repeated points of contact**. You need repeated outreach to clinicians. You need to bring in new clinicians as new people come into your system. This takes a lot of time and dedication and energy. So, I would say you need to really be persistent.

**Once those principles do get embedded into your practice, they truly are going to be transformative for you. And so you're going to see this huge return on your investment down the road.**

## A Win-Win Strategy: Improving Outcomes While Expanding Margin

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*In a recent published paper on which you were the lead author amongst a number of experts in this field, you reported on the return on the investment of pre-operative anemia management programs in cardiac surgery. Can you speak more of the compelling financial strength of the comprehensive anemia management model?*

**Dr. Warner:** This was a joint effort between a variety of folks at the Society for the Advancement of Patient Blood Management (SABM) as well as the Society of Cardiovascular Anesthesiologists and hence the focus was on return on investment of pre-operative anemia management in cardiac surgery, but these same principles are relevant for essentially any population whether it's the surgical population, non-cardiac surgery, or even for patients with anemia, for example, during obstetric care. The same sort of principles, some of these financial models are applicable across different types of care. In that paper we model a couple scenarios.

In the first model, we do a simple focusing on cost savings by implementing anemia management before cardiac surgery. What **cost savings** could we expect to incur from transfusion reductions only? We don't assume that there's any sort of revenue generation, that there's any other cost savings down the road. It's just by reducing transfusion rates, this is how much we can save an institution.

The second model, we focus not on transfusion reductions, we then focus on what sort of revenue can you actually generate from a clinic program? There's some **revenue generation** from the clinical consults themselves, from laboratory testing those sort of things, but what is the sort of the revenue generation of a standalone clinic and then, most importantly, and this is where we need to move, is if you move to a more comprehensive Patient Management Program, what does that look like and what is the the financial return on a more comprehensive program so that includes not only cost savings from things like lower transfusion utilization, but also cost savings from things like shorter hospitalizations for our patients, reductions in complications and readmissions to the hospital.

Fortunately, we now have pretty good data from our literature about what we can expect to see in those reductions with implementation of anemia management. So we can make some reasonable estimates about cost savings. We also now have more detail about revenue generation that goes beyond just the clinic visit, just the actual consultation, but you can also generate revenue through a comprehensive program because we're doing other things that patients might need in their care. They might need an infusion and so what are the sort of the infusion therapy costs and revenue generation associated with treating someone for iron deficiency, for example? Patients might need a workup to figure out why they might be iron deficient. So that might include endoscopy or another procedure that they might not have ever received in their care.

**Not only are you increasing value for the patient by providing them with care that they've been missing, but also it's a new point of revenue generation for your institution.** And so this comprehensive model which is really **following the patients not just from the clinic but all through their hospitalization and their post-operative course has very favorable margins.** And so this is

something very important for people to look at when they're building programs is that in the **most conservative scenario**, you're still going to have an annual **margin of about 10 to 15%** whereas in a more **robust program** that's been performed at many other hospitals you can have **margins exceeding 70%**.

Programs can be very financially favorable as well as doing the right thing for our patients, improving quality, reducing complications, and just improving patient outcomes. So I think it's really one of these things that's a win-win, not just for the patients, not just for myself as a leader of a program, but also for the broader healthcare environment in our institution.