Speaker 1:
Welcome to the *ASHPOfficial Podcast*, your guide to issues related to medication use, public health and the profession of pharmacy.

Rachel Root:
Thank you for joining us for today's podcast. We're going to be talking about clinically analyzing clinical services to maximize impact and improve efficiency. Now, most of us are familiar with applying process improvement techniques to pharmacy operations, but what about clinical services? Can these really be applied to clinical services? Well, today we're going to answer that question.

Rachel Root:
In this episode, we'll be talking about one health system's journey in systematically modifying workflows and electronic health record functionality to maximize their clinical services. My name is Rachel Root and I am a pharmacy manager and a PGY1 residency program director at Abbott Northwestern Hospital in Minneapolis, Minnesota. I will be your host for today's episode, here with me also hailing from the Twin Cities I have, Becky Zeccardi, clinical pharmacy manager and PGY1 residency program director at MHealth Fairview St. John's Hospital. And I also have Leah Frantzen, clinical pharmacy manager, PGY1 residency program director, and PGY2 health system pharmacy and administration leadership program director at MHealth Fairview St. Joseph's Hospital. Thank you, Becky and Leah for joining me today.

Rachel Root:
I'd like to start our conversation by taking us back a little bit in time, starting with Leah. Leah, I know there've been a lot of changes with MHealth Fairview Health System since you completed this process improvement initiative. Can you take us back in time to the start of this work and describe your health system's structure and tell us what your clinical pharmacy practice model looked like?

Leah Frantzen:
Thanks for having us on Rachel. To talk a little bit about our health system, when we completed this project we were a four hospital, 14 primary care clinic system. We did have integrated decentralized pharmacy services at that point and roughly served one to 30, one to 40 patient to pharmacist ratio. We were roughly four years into our Lean journey as a health system at this point. And if I pivot from a little bit of information about our health system to the discussion at

hand. I do want to introduce, our journey began through some strategic planning that our leadership team had done, and through this planning we identified that we needed to improve our transitions of care. With that we sought to implement discharge medication reconciliation review all without adding any additional FTEs. To achieve this we had some baseline foundational work to do. As we know, we can't continue to add work without evaluating what work we can remove.

Rachel Root:
That sounds like a great approach to strategic planning, Leah. And as we're thinking about how to move that forward, that really moves us into our topic for today. And I'm going to pivot to Becky now and Becky, can you share a little background on the charter for this work and also share, how did you decide what was in and out of scope? Certainly clinical services is a broad term, so help us understand how you narrowed the scope.

Becky Zeccardi:
Absolutely. And yes, thanks for having us on this podcast. We're excited to share the learnings that we've had over these years. One thing that I want to go back to what Leah mentioned is our Lean journey in our health system. So as Leah noted, we were four years into our Lean journey and really utilized a lot of the concepts that we learned in approaching this topic. And so a few of the items that we focused on were reducing non value added work or waste, that's one of the key concepts in Lean, and also improving processes. So as Leah noted, how can we get a new value added process such as doing discharge med review incorporated into our normal pharmacist practice without having to add any [inaudible 00:04:22] FTE?

Becky Zeccardi:
Another concept of Lean is also utilizing the frontline team as the experts, so although we as leaders, managers, coordinators sometimes are seen traditionally as the experts in a specific field, really the frontline team members are the experts as they're the ones that are doing the work. And so that was another concept from Lean that we took to make sure that we were approaching this task of adding discharge med review without adding pharmacists appropriately.

Becky Zeccardi:
So with that, one of the items that we developed using the concepts of Lean was a pharmacy user group. And we borrowed this idea of this group from ideas that we learned at Epic User

Group, and really what it is, is having frontline pharmacists at each site, being part of the decision making process and really evaluating our current workflow and what things could be done more efficiently or what things we could do to incorporate this discharge med review into our process.

Becky Zeccardi:
So the group was composed of a frontline pharmacists, at least one from each site. And these pharmacists were also our Epic credential trainers, so our EHR credential trainers. So they had a better understanding of the electronic health system, maybe had a better idea already of what workflows within our electronic health system could be improved. Also this group, in addition to just looking for efficiencies within the electronic health record also were responsible for identifying gaps and opportunities for improvement within other current workflows, within the pharmacy department, for both pharmacists and technicians.

Becky Zeccardi:
And those two concepts, the concept of Lean and the concept of making sure that the frontline team members are involved in the work that we do and the improvement that we do are the baseline for approaching this clinical improvement and improving efficiencies. How we decided what was in scope and out of scope really was also determined by our frontline staff members and is something that Leah will speak to next is evaluating all the different work that we do and determining how much time it took and how valuable it was for our patient care.

Rachel Root:
That's a great approach to hear Becky. I love how you pull out that you really use the frontline team. I would agree, that's so important to have that perspective when you're trying to make a change of this nature and scope. I know when I was looking at the summary of your work, one of the things that really struck me as a great way to depict this complex system was the use of a time value map and I found that really striking to look at that. And I was hoping, Leah, you could tell us a little bit more about what a time value map is and how you used it to decide what clinical activities to focus on.

Leah Frantzen:
Yeah, so this was actually my first endeavor with a time value map, but it's a relatively simple way to document the work that's completed by the decentralized pharmacists, and then weigh that against the time it takes to accomplish the task and the value it provides to the patient.

Leah Frantzen:
So we took this tool to our frontline staff at each of our hospitals, and we asked the pharmacist to start by documenting each and every task that they perform on a daily basis and write it on a post it note. Additionally, we challenged them to consider maybe some of those strategic priorities that were driving this work and list any activities that they thought that we could do, but maybe because of the burden of time, weren't able to do it at this point. And we said, document those in red.

Leah Frantzen:
From this, we then asked the pharmacist to place each of those sticky notes, representing the tasks that they're performing on a daily basis into a four quadrant time value map where the X axis was defined as the value to the patient moving from left to right meaning low value to high value, and the Y axis where it was the time required to complete the work. So again, moving up the access from low time to high time. From there, we combined the time value maps from all four sites into a single version and evaluated the activities that landed in the upper left quadrant, which would be those taking a high amount of time and providing low value to the patient. We evaluated each of those tasks for elimination, revision, or any common themes that were born out of the collective group falling into that upper left quadrant.

Rachel Root:
As you were looking at some of those activities in that left quadrant, Leah, would you be able to give us a few examples of what were some of those activities that fell in that upper left quadrant?

Leah Frantzen:
Absolutely. At that time, we were relatively moving to a new electronic health record in which the amount of information in the new electronic health record was somewhat overwhelming. So pharmacists found themselves spending more and more time, just simply due to the amount of information that was available to them. So a lot of the similar activities that were high time were spent just clicking through the buttons in the electronic health record. So whether that was reading notes, whether that was reviewing labs, whether that was performing non value added progress note entries, and iEvents to name a few. So a lot of it was related to the implementation of a new electronic health record.

Rachel Root:
That would make a lot of sense. As we are thinking about those other quadrants, Leah, as a part of this project, did those other quadrants, did you look at what was in those quadrants or really, was it just the focus on that low value, high time requirement?

Leah Frantzen:
We did, as a leadership team evaluate all four quadrants. Obviously there were some distribution tasks that shouldn't be performed by pharmacists that were eventually moved to a technician or intern role. But it was important for us to evaluate all four equally, but knew that we would derive the most time and value by focusing our efforts on that upper left quadrant.

Rachel Root:
Thanks for sharing that Leah. I really loved that concept of the time value map and I think it's a great tool to use when you're trying to figure out where to start. You mentioned electronic health record changes, and I think all of us would covet a flexible and dynamic informatics team that could help us to make the most out of our electronic health records. And it sounds like you had a strong partnership with your informatics team. So Becky, I'm going to pivot to you and ask, what were some of the key electronic health record changes that you implemented and how did you work with your informatics team to prioritize and implement those changes?

Becky Zeccardi:
Absolutely, yes. Well, as Leah mentioned, some of the items that were in that upper left corner of the high time, low value were related to documentation and that's something that we felt we wanted to focus on more. And so what we did is we actually developed a team to address the current state of documentation and look at ways that we can improve documentation to increase our efficiencies and those team members did include someone from our informatics team as well.

Becky Zeccardi:
So we developed a team that had frontline team members, as I had noted, that's a key part of making sure that a process improvement or changes is going to be sustainable and really works. And then we just looked at what documentation looked like across the entire organization, the current state, and what we found is that there was a lot of duplicate documentation going on. As Leah mentioned, a lot of this was just because we were utilizing a new system and there's all these great, different places that you can document information in

the electronic health record. There's also a lot of different places you can find that same information. So people were just taking a lot of time documenting in multiple spots. What we found was 75% of our pharmacists spent more than a quarter of their day documenting and only about 40% of the pharmacists were satisfied with the current documentation process.

Becky Zeccardi:
So after gathering that baseline information, and then we brought this information to our team, which included, as I said, frontline staff members and EHR analysts, and then some leaders. We went through the current state information and we established the improvement goals that we wanted to see to reduce duplicate documentation and unnecessary documentation. And so this work took, I would say, probably a month or so, where we made changes and then we'd vet it with frontline staff members and then we make make more changes. Changes to things such as note templates, development of guidelines regarding what type of information is located where and where to document different types of information.

Becky Zeccardi:
And so we utilized our EHR analysts, our informatics team, really just to be there, to be able to make some of these pretty real time changes. So once we revised the note template, he was able to update it and then we were able to utilize it for a week and see if there are any more changes that need to be made so we could respond more actively to the feedback that frontline team members were giving us. And through that process, we're able to reduce the amount of places that information was documented as well as reduce the number of pharmacists that spent a large amount of their day documenting and that also greatly improved pharmacist satisfaction from 40% to 95%.

Becky Zeccardi:
Another thing, just highlighting with a project such as this that we wanted to make sure to do, throughout that month, we did a lot of real time feedback in making changes, but we didn't want to lose that as time went on. So we made sure to check in on how people were doing one month, six months, and then a year after the implementation of this process so we could revisit how things were going if they were small tweaks that we would need to change to the standard work process that we had developed. And also now, since we have a somewhat standard process, we use that information for onboarding new pharmacists and residents.

Becky Zeccardi:

So really throughout that project, we wanted to make sure that we were including frontline team members and also actively making changes as we could to make sure that it was the optimal process for our team members and for the people who were doing that frontline work. Another project that we worked on was looking at patient centered review. And so that was something that was also identified on the time value map as a lot of time and maybe some times, not all that much value. And so patient centered review is essentially redefined as what clinical pharmacists do on their daily basis. They're looking through the patient trying to find items that need to be addressed from a pharmacist standpoint. This includes reading notes and updating our scoring report.

Becky Zeccardi:
So we went through reviewing this process the same way as the documentation process. So we got a team that included frontline staff members and Epic EHR analysts and tried to go through the similar process as we did for the documentation A3. So getting baseline information on how people are doing with patient centered review, as well as identifying some of the challenges.

Becky Zeccardi:
We did lean on our informatics or our EHR analysts more for this one. As what we discovered is that there were things within Epic that we could move around to make it easier for a pharmacist to go from head to toe down a patient. Evaluate their labs, their I's and O's, their glucose, all those types of things in a more efficient manner. And so we relied on our team to adjust some things within the electronic health records and then develop standard work and education for the pharmacists that they could utilize to hopefully go through a patient a little more efficiently. Through this we also identified as we did with the documentation A3 that not only are there multiple places to document information, there's also multiple places to look for the same information. So we made recommendations on what the best place to look for the information would be and make that more front and center for the pharmacist as well.

Rachel Root:
Sounds like there's a lot of moving pieces to that and a big project to manage and hearing you talk through that, Becky, a couple questions came to mind. The first one, as you were getting that feedback from your frontline staff, what methods did you find most helpful or useful? Was it meetings or surveys? Could you tell us a little bit about how you best achieved receiving that feedback or getting that feedback from your frontline staff?

Becky Zeccardi:
Yes, so initially what we did is we did send out a survey and that was to get that baseline information. And we did a few times emphasize the importance of that information while we're using it so I'd say we did get relatively good response. As we went along, we really relied a lot on our frontline staff members that were working on the project to obtain feedback from their team members directly through either going to them specifically explaining, "Hey, we're thinking about changing this process to this. What do you think about that?" Or after we made some changes, having our frontline team members on the project, reach out and say, "Hey, that going, what do you think about this? What can we change?" Less of the leaders going to the frontline team members and asking for that feedback, just to make sure that it was understood what exactly they would want to change and giving maybe a little more honest feedback as well, and were comfortable just sharing it with their peers. And so then those team members would then bring that information back to the team and then we'd make changes.

Becky Zeccardi:
The thing I'll also say is that since there were frontline staff members on each of the sites that were on this project, we made sure to incorporate the feedback from all the different sites, even though our organization worked relatively closely together, the four hospitals did, there's of course still differences in practices between the four sites. So by being able to get feedback from each site, we made sure that we weren't making a change that maybe really suited one site well, but didn't suit the other three sites well.

Rachel Root:
Yeah, collaboration between multiple sites certainly takes a village to make that all work. Once you got that feedback from those sites or from the frontline staff, how did you prioritize this work with IS? I think that's a secret or a solution maybe we would all love to be able to put our projects to the top of the list of everything that's on the informatics plate. How did you work through that with your informatics team to make sure the work you needed to put in place, they had the bandwidth to do that?

Becky Zeccardi:
Prior to doing this project, we made sure to get buy in from our team. So our informatics team at our organization is relatively small and so we made sure that there would be one person that was a part of the team, could attend all the meetings and would be the one contact person that we would have for any changes that we would make. Because early on, we had prioritized this

project with the team and he had an understanding of what it would entail, he was able to respond relatively quickly. And to be honest, the changes that we made, weren't all that work intensive for our informatics person, it was more just understanding that the way it should be built and ensuring that the way that he was building it is the way we were wanting it to be built and then going back and tweaking things as we went along.

Becky Zeccardi:
I think that's part of a benefit of having a smaller organization is that the smaller team we worked with them more closely and were able to come up with an understanding of what the project would entail and what the expectations were for that one person working with us.

Rachel Root:
Yeah, certainly having that close relationship I'm sure is a real benefit and asset when working with that team. One other follow-up question I wanted to ask Becky, you mentioned A3. For our listeners, can you give a quick definition of what an A3 is?

Becky Zeccardi:
So an A3 is basically a template for doing an improvement project. And so we, throughout the years have learned how to utilize this template to ensure that we're understanding what a specific problem is before jumping to solving the problem. And so it's essentially a large piece of paper that on the left and right sides, it basically outlines what you need to do to work through a project. So first it asks you to address, what's the objective of the project? And then have specific measures that are smart goals that you want to address with this project and then takes you through, what is the current state, what is exactly going on now, and then identifying where all the issues are with that current state. Then root causing it, what is the root cause of these issues? And there's usually more than one, and there certainly were more than one in both of these projects that I had outlined.

Becky Zeccardi:
Once you have then a good understanding of the current state within the organization, the root causes of the problem, then you can go to the right side of this paper and figure out some solutions to those problems. And so it's really just a tool that you can use to make sure that you're going through the process of addressing the problem in the right order and you're not skipping steps and then coming up with a solution that possibly doesn't actually answer or resolve the original problem.

Rachel Root:
That makes sense. I know it's a very robust tool and I too, Becky, find myself sliding into using terminology as you become more familiar with it so thanks for taking us through that. As we kind of look towards the end of this project and we all know hindsight is 2020, and I'm sure there are things that you've learned through this process that if you could go back, maybe there would be something you might do a little bit differently. Leah, looking back, if you could change anything in your approach, what would that be?

Leah Frantzen:
When I reflect on our journey of getting to 100% of patient discharges being reviewed by a pharmacist before that list is passed onto the next phase of care, I would say that the biggest change would be engaging key stakeholders earlier. Becky alluded to this in the two projects that she reviewed in that our relationship with our electronic health record analysts and frontline pharmacists was very solid from the beginning and that relationship carried those two projects forward.

Leah Frantzen:
We did engage in a Kaizen event and so yet another Lean term for the group. And this is a rapid improvement cycle where you pull together a larger group of key stakeholders. And we didn't engage in this event until about nine months into this journey. At that time we brought in the group from just our application analysts and frontline pharmacists, along with our pharmacy leaders. And we engaged a staff nurse, it hospitalist, we invited someone from our executive leadership team, so an outside set of eyes who knows nothing about what a clinical pharmacist does on a day to day basis, but has been trained through our Lean promotion office to engage in these Lean principles and can help bring the group back to, like Becky mentioned, that problem solving and defining the current state before jumping to implementing solutions.

Leah Frantzen:
Last but not least pulling in our MTM pharmacists, because really this work that we were trying to achieve would affect the next phase of care. So really in reflecting on our journey, it's really deciding and taking the time to define those key stakeholders early on before just moving ahead with those folks that are easy to engage, but really putting in the effort to maybe delay the project so that you do have the right people at the table to carry the project out.

Rachel Root:
I really love that interdisciplinary approach that you pulled in Leah. All the different clinical roles, as well as nonclinical roles I'm sure, really just elevated the work that you have done in this area. As I'm also thinking about some of these people with different experiences enrich to this project. I'm also thinking about training and the training that you both went through, Becky and Leah, in order to be able to be a part of, or lead this project. And I guess my question really for you is, do you think one needs to have training, whether it be formal or informal in process improvement techniques in order to carry out a project like this? And if someone doesn't have any formal training in process improvement, what sort of resources would you recommend, if any?

Leah Frantzen:
I'd say that we were both fortunate in that our health system began this Lean journey years in advance of us taking on these improvement initiatives. So we did have that per se informal training that was provided through our Lean promotion office. With that, it helped us as leaders build that foundational knowledge, which then we were charged with bringing to our frontline staff. So that leader as teacher format. And with that, we introduced Lean thinking across our organization throughout that time. We have been fortunate, partway through this journey we did combine with a larger health system. And so we have been able to continue that journey and bring this project to six additional hospitals using that informal Lean training that we were given from our health system and begin to build that foundational knowledge for leaders across our entire organization and engage those key stakeholders in bringing this project system wide.

Rachel Root:
I see some parallels in my own journey with that. Leah. I also had received some training through a health system at the time when I worked at Oregon Health and Science University. Went through a training program where we received some didactic material, basic Lean principles and general electrics change acceleration process. And I found this was a great experience, what you've been already highlighting, where I was able to get some didactic content and then I was also assigned a coach and a work group so I could work through a project and have someone helping me at the elbow through that project. And I certainly learned a lot through that process and was able to take that learning with me in several subsequent projects and certainly for anyone listening, I would encourage you to look at your health system or your institution to see if they offer any of this type of training and try to take advantage of it.

Rachel Root:
And certainly if your institution doesn't offer a training program, there are a lot of resources that are independent. Institute for Healthcare Improvement, IHI. They have an open school program where you can take free courses. Also the Agency for Healthcare Research and Quality or AHRQ and just general Google searches. There are tons of online courses today that I think really provide a lot of insight and value in this area.

Rachel Root:
As we get ready to close for today, Becky and Leah, is there one or two key takeaways that you would really want the listeners to take back if they were going to institute this at their own institution?

Becky Zeccardi:
I would say something that I've kind of reiterated a few times throughout this podcast is that it's really important to listen to the frontline team members and those that are doing the work. We've found that in multiple projects across the organization, when we utilize that attitude, it really results in better buy-in in changes that are made and ensuring that what we're putting forward is actually effective and there's less need to make future changes because we find something doesn't work or is dissatisfying to, again, those people who are doing that frontline work.

Rachel Root:
Well, thank you, Becky and Leah, both for your time and your expertise. For our listeners, I hope this discussion gives you some ideas on how you can elevate clinical practice at your institution. Really taking a hard look at your services. And certainly now more than ever, we're being challenged to critically look at our services and determine what's truly needed in an effort to help our institution meet those tough bottom lines that we're facing now and really through the end of the year. Thank you, Becky and Leah for sharing your time and creative insights.

Leah Frantzen:
Thank you.

Becky Zeccardi:
Thank you.

Speaker 1:

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