Achieving Cost Savings through Pharmaceutical Utilization Management (PUMP) July 22, 2020
Answered Questions

What benchmarking resources do you use to better understand how other institutions are utilizing medications?

For internal benchmarking (DUHS trends over time in total utilization, number of patients, days/patient) I use SAP Business Objects Pharmacy-Medication Usage Evaluation to pull data. I am also trying to incorporate SlicerDicer reports within Epic as another tool to describe utilization within DUHS. For comparison purposes, the tool I use is Vizient Clinical Data Base/Resource Manager.

What I have found in some cases to be just as effective is what I referred to as "informal benchmarking" in the presentation, and reaching out to colleagues at other institutions via email. By personally reaching out via email, I have found response rates to be consistently over 50%, and I can get a real-time impression of whether or not a drug is on formulary, what restrictions are around use, dosing guidelines, etc. at similar institutions. To identify places we want to reach out to, I collaborate with our clinical pharmacy specialists and physicians to identify centers of interest. This makes the response data I receive as meaningful as possible.

For IV compounding opportunities, have you encountered anesthesia push-back shifting from vial to RTA syringe? If so, how did you overcome this to implement the change?

Actually, from working with the attending physician who is our health-system P&T representative from that area and serves as the FET co-chair, our group of physicians are historically interested in pharmacy's ability to provide RTA syringes, either via our compounding facility, or, in the past, 503B facilities.

The two main challenges we have encountered in the past include physical space to store the syringes in OR ADCs since they are larger than the vials, and medication safety concerns that different medications in syringes may be mistaken for one another in this setting.

Is it essential to have a PUMP Committee or could the tasks be assigned to various subcommittees of your P&T committee?

I think PUMP is essential since it encompasses areas beyond the formulary management process, specifically contracting and operations/waste minimization opportunities. Since these items are not discussed at the Formulary Evaluation Team or health-system P&T level, having this pharmacy-based committee allows for analysis of these types of initiatives as well. PUMP also serves as a forum to identify potential opportunities from a formulary management perspective and align the pharmacy department around a common perspective prior to discussing with multidisciplinary groups at the FET.

Is the Revenue Cycle Management team ever involved in PUMP decision making? Especially when it comes to biosimilar selection?

That is an excellent question. The main focus of the PUMP Committee has historically been on inpatient drug expenditures. As a result, the main focus within PUMP when evaluating initiatives (including biosimilars) has been acquisition cost.

If PUMP continues developing to the point where we get more involved with initiatives in the outpatient setting, I think it will be important to involve Revenue Cycle Management in our discussions.

Do you auto-substitute all orders to a singular biosimilar agent, even if patient has started therapy with different agent? Eg, will you give inflectra inpatient to a person who was on remicade outpatient?

We only have one formulary agent for each biologic "molecule" that we stock for use in the inpatient setting. The product we select is communicated to physicians upon decision at the health system P&T. For the most part, we have been successful. Any requests for a non-stocked originator or biosimilar must go through our non-formulary process.

How do you use analytics to identify repackaging opportunities? Is there a data driven approach using wholesaler catalogs and velocity reports?

The approach I take when looking for these products is fairly straightforward. I use Cardinal purchasing for a given period of time (say, one year) to identify which medications we repackage. These reports will also give me the following information: how much we purchase (volume) and total drug spend on individual medications we receive from vendors already in unit-dose. If our spend is above a certain threshold, comparisons are made on a cost/year basis (assuming same volume) to other options supplied as bulk bottles. Agents with the largest discrepancy are targeted as "priority" repackaging opportunities

Who does the bulk of MUE work? Do you utilize mostly pharmacy residents and students? or do your clinical pharmacists participate in the work load?

The vast majority of MUEs are done by pharmacy residents and students, with Center for Medication Policy pharmacists serving as preceptors. Our clinical pharmacists request MUEs for the Center for Med Policy to do, but our group is responsible for conducting and presenting them.

Are there "low hanging fruit" or specific cost savings initiatives which can broadly apply to multiple hospitals regardless of size?

In general, there are few that come to mind: therapeutic interchange (standardization to one drug within a class to leverage contracting opportunities), pharmacist-directed IV-to-PO route conversion, and "site of care" for drug administration (does the patient have to receive this dose while admitted, or can he/she get this in the outpatient setting?). Also, depending on your patient population, use of biosimilar "supportive care" agents (filgrastim, epoetin alfa).

For the outpatient initiatives, how do you calculate the impact of different payments for different products? Do you calculate actual reimbursement and/or revenue for each product? A couple examples are with biosimilars where the originator is the only one covered or better revenue/reimbursement for the more expensive option. So, drug costs might go up, but reimbursement for the system is better. Just wondering how to calculate this and how to monitor going forward.

That is an excellent point/question. Traditionally, PUMP has evaluated cost savings initiatives within the inpatient setting. As a result, when it comes to selection of which product to use when required inpatient, the decision-making process is much more straight-forward for us. Right now, we are having discussions around this very issue in the outpatient setting since we are in the process of writing and reviewing our health system policy on biosimilars.

I will say that, at this time in the outpatient setting, we have "preferred" biologic agent – typically the one we select inpatient – with the caveat that patients can receive alternatives in the outpatient setting based on insurance mandate.

The tracking document showed only seems to show cost/time. Do you track expenditures changes in addition to volume of usage to identify if savings are related to the change in product or if the savings are more attributed to changes in drug selection?

Yes. While the tracking document only shows cost and time, because that is what the goal for PUMP has historically been from Senior Leadership/Finance (savings of "x" amount of dollars from initiatives during the fiscal year). However, I do track how much we are purchasing and average price/unit.

I track both purchasing volume and spend for our initiatives, but depending on what type of initiative is where I anticipate the changes. There may be some overlap, but typically it falls into these categories:

-Purchasing/Pricing: Cost per unit
-Operations/Waste Minimization: Total units purchased
-Formulary: May end up being either (a therapeutic interchange results in decreasing cost/unit; while a change from TBW-based to IBW-based dosing will result in decreasing total units purchased)

The projects and initiatives your department leads takes a lot of work/time... how many medication policy pharmacists/staff are on your team in order to handle this work load?

Across the health system, we have 4.75 pharmacist FTEs within the Center for Medication Policy (1 director, 2.75 medication policy pharmacists, and 1 medication stewardship pharmacist).

How do you dictate your biosimilar of choice in outpatient space? Or do you only do so inpatient? We have issues with insurance mandates outpatient.

We only dictate biologic/biosimilar agent of choice in the inpatient space. Typically, whichever agent we select as "formulary" in the inpatient setting ends up being the preferred outpatient agent. However, with insurance mandates present in the outpatient setting, we usually end up making non-preferred biosimilars or the originator the following: Formulary, restricted to the outpatient setting for patients with insurance that does not cover (preferred biologic agent).

What do you present back to your system P&T with regards to these initiatives?

The following is presented during our quarterly progress updates to both the health system and hospital P&T committees:

-Progress for the current fiscal year (where we stand vs. our goal for savings from PUMP projects)
-The tracking document (list of all projects and attributed savings thus far)
-Highlight 3 utilization projects with the highest amount of savings
-Recently implemented initiatives (via Formulary/Informatics Subcommittee or Health System P&T)

Finally, I like to use this forum to introduce projects we have just started to evaluate, and potential cost savings. It serves as a way to briefly introduce usage projects they could see in the next few months.

Does your formulary process take into account Hazardous Drug status and disposal recommendations? With NIOSH 2020 list updated to 2015 there is a 5 year gap that will continue to grow and waste segregation management continues to remain a challenge.

Yes, there is a specific place in our monograph template for each medication reviewed by the FETs and health system P&T where we address hazardous drug status and disposal recommendations.

What is the process to "course correct" on a decision possibly due to new pricing or a generic entering the market?

Tracking each initiative on a monthly basis allows us identify additional opportunities within current initiatives. Typically, each initiative is tracked for 12 months. However, if during the tracking period it is identified that additional savings can be achieved through a different pathway (in the case you mentioned, something we had maybe done an operations or formulary management initiative on becomes generic), we would add it separately as a line item under our "Purchasing" group and have it as a new line item on the tracking document (making sure we are not "double counting" our savings).

I think the other thing to take into consideration is that operations projects should be monitored after go-live since they involve a labor/resource commitment from the department. If the medication decreases in price or more manufacturers hit the market, it may no longer be worth it to compound, repackage, batch, etc.

What is the size of the Duke policy group? Have you been able to use some of this tracking to justify additional FTE staff?

For the health system, we have 4.75 pharmacist FTEs within the Center for Medication Policy (1 director, 2.75 medication policy pharmacists, and 1 medication stewardship pharmacist). Before I stepped into this role, the Medication Stewardship Pharmacist reported to the CPO and worked in the Pharmacy Administration Office. When I became the Medication Stewardship Pharmacist, it transferred into the Center for Medication Policy, and I continued reporting to the Director of Med Policy. In this case, there was not an additional FTE hired, just a transfer within the department.

I know that our Center for Medication Policy has grown by an FTE because of that. In the past, the team grew when Duke became a system incorporating 3 different hospitals within formulary decisions made at the health-system level. Paul could speak to this better than myself, but I think the outcomes from a robust Medication Policy Program has produced results, among them savings achieved through the PUMP program and overall control on drug expenditures, which have justified this investment.

[Paul Bush: The Duke Center for Medication Policy (CMP) has evolved from responsibility for medication policy at Duke University Hospital to the entire Duke University Health System. The CMP is highly regarded and is key to successful medication management within the health system.

The savings generated through PUMP are just one example of the benefit of having a well-developed and highly functioning Center. The CMP provides the following services: Formulary Management, Medication Utilization Evaluations, Medication Policy Oversight, Research and Teaching, the DI Consult Service, REMS Program Management, oversight and development of Medication Clinical Decision Support including order set management, and a lead role in Drug Shortage Management, the DUHS Clinical Review Board – High Impact Drugs, and oversight of Expanded Access Program for Drugs.

Centralizing resources for medication policy oversight and leadership has driven standardization and a very efficient and cost-effective use of resources for the three hospital health system.]

Are all new medication to formulary addressed through PUMP, or how do you predict if a medication is eligible to be addressed though PUMP?

Since requests for formulary addition come to the Center of Medication Policy (all monographs and class reviews for the health system come from our area), we can assess on a case-by-case basis when each request comes in. Not all medication requests are addressed through PUMP (in fact, the vast majority are not). What we are working on is a process to estimate inpatient drug spend impact (through anticipated number of patients/doses and difference in cost per patient/dose with existing treatment options). This information would be a part of the FET review process and the presentation to health system P&T. If a medication anticipated to have significant impact on drug expenditures is added to formulary, we note it at PUMP so it can be accounted for and a medication use evaluation is scheduled.

How to do convey formulary restrictions in Epic to the ordering provider?

Formulary restrictions are conveyed primary through the use of "alternative alerts" when the prescriber selects a medication that is restricted or non-formulary. If we have a therapeutic interchange or some other alternative, the prescriber is directed to select the desired orderable or order panel through the link in the alert.

If the provider continues with his or her initial order, mandatory prompts within the orderable require him or her to provide rationale for prescribing the restricted medication (approving attending, clinical indication, registration with REMS program, etc.)

Do you have a medication use analytics dashboard to decrease the need to manually pull information to identify adherence to approved restrictions?

We do not have at this time have a dashboard specifically designed to evaluate adherence to medications with health system P&T-approved formulary restrictions. Incorporating/leveraging analytics to a greater extent within PUMP Committee processes is a goal of mine.

What tools (e.g. database systems, spreadsheets etc) are used to communicate decisions to drive workflows to curb spend?

Primarily, I use two main tools. On the purchasing/pricing side, I use reports from our wholesaler (Cardinal) to identify trends in volume, spend, cost, and potential contracting opportunities. For operations and formulary management, where I usually need more granular data, I use a tool from SAP called Business Objects, specifically the Pharmacy-Medication Usage Evaluation Universe to run data queries. Both of these sources can display to me results in the form of Excel spreadsheets to identify opportunities, analyze trends over time, and track/display progress.

When considering a repackaging initiative, what do you use as your labor/equipment cost to determine if/how much savings will occur?

Overall, when we are evaluating a repackaging initiative, we try and "replace" the volume of whatever we are adding on to repackaging (in terms of doses) by moving an equal amount of volume of a less-lucrative opportunity away from repackaging and purchasing in unit-dose form from the vendor.

That way, our net savings is the money we are savings from repackaging = the new savings opportunity – additional cost we incur by moving to unit dose for the other medication. This system allows us to keep the labor/equipment variable consistent.

If the initiative will involve extra labor, then I will work with our Operations Manager to determine how many additional tech hours are required given the volume, and then we can estimate cost in labor.

Doug referenced a method to compare purchase history to billed doses or utilization. Is there a tool used for this? I can envision a very complex process to link many products, various package sizes, etc. to EHR charge codes. Is the effort worth the results?

The process that I use is simple, and requires use of two different tools: a purchasing history on inpatient accounts from our wholesaler (Cardinal). I also have access to a tool called Business Objects from SAP. I run reports from the Pharmacy-Medication Usage Evaluation Universe for the same period of time, and can get a report of how many doses and mg from each dose were documented as "given" on the MAR. This report is provided in Excel, so I can quickly figure out the total amount of mg.

From there, I calculate a ratio for "mg purchased : mg used" to get a "waste factor" for the drug. When it comes to selecting medications, I focus on drugs within our Top 100/200, and medications where I am seeing a lot of purchasing on WAC contracts – a potential indicator that we are seeing waste with these specific medications.

This process is not a perfect one, but it can give me rough estimates and is not very time-consuming.

Can you address implementing this process in small systems or stand-alone hospitals that do not have infrastructure for the committees, personnel, etc...

I think this process is feasible on a different scale for smaller institutions/systems. The main thing that I think is important is that you have a person who is in charge of and responsible for identifying, presenting, and tracking opportunities. Within DUHS, the PUMP Committee is not 100% of what I do. I participate in other components of the Center for Medication Policy, including our MUE program, new drug reviews, and optimization of medication alerts.

All this is to say that I think, for smaller centers, it may not be multiple pharmacists or even a full FTE, but identifying an individual and process to integrate medication stewardship into formulary management, contracting, and operations. Since Medication Policy interfaces with all these different groups, it made sense for have someone in this area coordinate PUMP.

Do you have a change management process that is standard for system for each change?

Yes, for the health-system, we have a standard implementation process for each change:

-For pricing/purchasing initiatives, all that needs to happen is communication to the Pharmacy buyers at each institution to change the vendor flagged as "formulary" for a particular medication in Cardinal.

-All operations initiatives are approved as line-item extensions or informatics optimizations at our DUHS Pharmacy Formulary and Informatics Subcommittee. Approved items are submitted as tickets to our Pharmacy Informatics team, and I work with them and Operations group to coordinate a "go-live" date.

-Any PUMP initiatives related to formulary management must be vetted at the Formulary Evaluation Team level, and presented as recommendations from that FET to our health-system P&T committee for final approval. If approved, the Center for Medication Policy submits the request to our Pharmacy Informatics team and coordinates a "go-live" date with them and Clinical Pharmacy/Physician leadership