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# As the Pharmacy Assumes a Lead Role in Strategic Initiatives, Hospitals Find Remote Pharmacy Services an Effective Solution to Ensure Patient Safety and the Bottom Line

**R**emote pharmacy services (RPS) have generally been overlooked by large hospitals and health systems, which until recently maintained highly efficient pharmacy departments on their own. This is changing, and for good reason.

As pharmacy takes on an increasingly important role in system-wide clinical and strategic initiatives, and as reimbursements and patient satisfaction become top priorities, hospitals of all sizes are beginning to recognize the value of supplementing their pharmacies with remote clinical personnel.

The types of hospitals that traditionally depended on RPS include rural and smaller facilities with limited pharmacy resources. Now, regardless of size or hours of operation, essentially all hospitals are realizing the need for additional pharmacy support.

The shift is largely due to changes stemming from the Affordable Care Act, which places greater demands on pharmacists and expands their influence; including becoming an integral resource with the clinical care teams. While pharmacists have played an essential role implementing meaningful use technologies such as computerized physician order entry or medication reconciliation programs, they are also becoming highly involved in executing transitions of care programs to help reduce readmissions, among other strategic initiatives.

As pharmacists emerge as critical players in several new areas, it is imperative to ensure their participation in system-wide initiatives doesn't compromise effective medication order review. Under guidelines from CMS, state boards and accreditation organizations, hospital pharmacists

must clinically review all non-emergent medication orders prospectively before they are administered to patients to maximize patient safety and reduce adverse drug events.

Failure to clinically review every medication order can lead to negative outcomes, ranging from delays in administration, patient dissatisfaction, medication errors, adverse events and patient harm. On top of the safety risks, medication-related errors impact hospitals' bottom line, including but not limited to extended length of stay, readmission and the cost of additional drugs to offset contraindications. According to the Institute of Medicine, each preventable adverse drug event that takes place in a hospital adds an estimated \$8,750<sup>1</sup> to the cost of the hospital stay. Hospitals with inadequate pharmacy support staff, where PADEs are more likely to occur, stand to incur a negative financial impact.

### **Why Partner with Remote Pharmacy Services?**

As the responsibilities of the pharmacist expand, RPS enables hospitals to maintain a thorough clinical review of all medication orders. Although some hospital

systems elect to hire additional FTE pharmacists to manage the workload, for most, outsourcing these services is the most practical and cost-effective solution.

Cardinal Health, a healthcare services company based in Dublin, Ohio, leads the industry in providing remote pharmacy services, employing over 200 pharmacists with licensure coverage in 49 states, as well as Bermuda and Guam. Cardinal Health pharmacists are trained across a variety of pharmacy systems and are equipped through proprietary technology to ensure compliance with individual hospital policies and procedures. As a direct extension of the pharmacy staff, the Cardinal Health Remote Pharmacy Services solution can be scaled up and down as needed and can be contracted to work with a facility for both short-term projects and long-term support, with coverage hours that align with the facility's need, according to Kelly Morrison, Director of Remote Pharmacy Services at Cardinal Health.

“Remote pharmacy staff have access to all of the same systems that an onsite pharmacist would,” says Ms. Morrison. “Once the pharmacist approves and enters a medication into the pharmacy system, the medication is approved to

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<sup>1</sup> *Patient Safety Applications of Barcode and RFID Technologies, Zebra Technologies*

be dispensed and administered by the nurse.”

Alternatively, hospitals could supplement their onsite pharmacies with pharmacists from a staffing agency, but this is often more costly and less reliable, according to Ms. Morrison. Even though agency pharmacists are hired on a temporary basis, a hospital still must train them as thoroughly as full-time employees. With the RPS solution, hospital administrators and full-time pharmacists can rest assured that remote pharmacists are already highly trained across a variety of pharmacy systems and consult with pharmacies on best practice system configurations as needed.

What’s more, because RPS staff are not onsite at the hospital, they are free from the demands and distractions that often interrupt a pharmacist’s workflow.

“Because the pharmacists are remote, we don’t have the usual distractions of onsite pharmacists. Our pharmacists can focus completely on clinically reviewing and processing orders and working with nursing and physicians to intervene when necessary,” says Ms. Morrison.

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Despite their off-site location, remote pharmacy staff still provide much needed assistance and support to nurses and physicians regarding drug information, clarifications, etc. Caregivers can access Cardinal Health pharmacists by phone and videoconferencing. This is especially helpful in hospitals that do not staff pharmacists around the clock, by which Cardinal Health remote pharmacists can remotely assist nurses and technicians. To ensure they are retrieving and administering the correct medications, nurses can initiate a quick video call with a Cardinal Health pharmacist and verify the correct medication was manually retrieved.

Of the 11 million orders processed by Cardinal Health remote pharmacists

in 2015, on average 4 percent resulted in clinical interventions; 49 percent of which were related to patient safety issues. Without those interventions, the given hospitals could have experienced a significantly higher rate of preventable adverse drug events.

Outsourcing RPS also helps improve patient safety by reducing the percentage of automation overrides. An override occurs when nursing dispenses a medication that has not been clinically reviewed, entered and approved by pharmacy. When CMS and accreditation bodies survey hospitals, the percentage of nursing overrides is one metric they assess to determine the percent of medications being dispensed without prior pharmacist review.

Overrides can occur when there is delay in pharmacy entering and approving the medication. These delays can be a result of an imbalance

between pharmacist availability and order volume — whether pharmacy is open or closed. However, regardless of the reason behind delays that result in automation overrides, by enlisting a remote pharmacy staff to supplement and cover for the onsite pharmacy, nurses can be confident each medication order is reviewed and approved by a pharmacist in a timely manner.

## **How Hospitals Benefit With a Pharmacy Ally**

Outsourcing RPS enables hospital pharmacists to take a larger role in strategic projects, such as the implementations of CPOE, Medication Reconciliation and transitions of care programs, some of which are required to meet meaningful use requirements. However, as pharmacists are pulled away from their core duties to train and drive these projects and programs, the pharmacy needs additional help to ensure medication review and entry is not delayed.

Post-CPOE implementation is yet another time when hospitals and health systems can benefit from RPS services. During this phase, pharmacies often see order volume

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increase an average of 30 percent based on the need for pharmacy to now review orders from areas they were not responsible for pre-CPOE, such as ED and procedural areas. This is a reality many pharmacies do not anticipate, according to Ms. Morrison.

“Many of our hospitals maintain a remote supplemental relationship after the actual CPOE system implementation,” she says. “This is due in large part from the time it takes to overcome the learning curve of the new CPOE system by the onsite pharmacy team; in addition to the increased order volume resulting from reviewing orders in ED and procedural areas.”

In addition to supplementing pharmacy staff during the implementation of short-term strategic initiatives, outsourcing RPS also provides long-term support for remote order entry review. This enables hospital pharmacists to help enhance clinical programs and execute on additional strategic objectives.

Medication reconciliation is another key initiative pharmacies are asked to lead.

While physicians lead the care team, pharmacists provide the deepest level of knowledge in identifying patients’ existing medications and understanding potential contraindications with potential new medications that could be prescribed.

A large hospital system based in California enlisted Cardinal Health to support its implementation of a system-wide medication reconciliation program. The system implemented a patient portal, in which prescriptions for each patient would be uploaded upon the patient’s discharge from the hospital. This ensured all providers in the healthcare system, both inpatient and outpatient, were fully aware of all medications the patient had ever been prescribed.

However, according to Ms. Morrison, the hospital system needed to enter approximately 36,000 medication orders per month for six months to transfer all patients’ medications to the portal prior to the final implementation, a task Cardinal Health took on to lessen the burden on the system’s onsite pharmacists. After six months, the medication reconciliation portal was fully integrated with the EMR. Now,

medication orders are uploaded to the portal through automation on a continuous basis.

Another important clinical program that has garnered renewed focus under the ACA is patient discharge counseling by which pharmacists are involved in planning for transitions of care and discharge, and identifying the patients who would most benefit from enhanced support and follow-up care after leaving the hospital. To ensure smooth transitions of care, pharmacists go to the bedside to provide patients counsel about how to adhere to their care programs after they are discharged from the hospital, and in some cases provide discharged medications to the patient at their bedside.

“Pharmacists serve a critical role with transitions of care,” says Ms. Morrison. “Discharge counseling is key to ensure patients understand the benefits of and how to comply with their medication and post-discharge care program.”

Discharge planning is especially pertinent for patients who are at high risk for readmission. Patients who take four or more prescribed medications, take high-risk medications, have two or more chronic diseases or have recently

undergone transitions of care are prime candidates for discharge counseling and post discharge medication therapy management (MTM). Ultimately, MTM helps improve medication adherence and management of chronic disease, which directly impacts the hospital bottom line in the form of reduced readmission rates.

### **Additional ROI of Outsourcing RPS**

Outsourcing remote pharmacy services lends hospitals and health systems another important return on investment: increased patient satisfaction.

Hospitals’ bottom lines are increasingly tied to the patient experience. Organizations are rated against the HCAHPS survey, which measures patients’ perspectives of their experience in a hospital, and reimbursed accordingly.

The HCAHPS survey includes questions that address various pharmacy-related topics, such as communication about medication, discharge information and care transitions. Hospitals with high marks on patient satisfaction realize the value of deploying pharmacists to the bedside to prepare patients

for post-discharge medication adherence. While doing so helps promote clinical initiatives like MTM and medication reconciliation, taking the time to sit down and answer questions also positively impacts patients' experience.

Perhaps the only thing more frightening than being sick in the hospital is being discharged without confidence as to how to stay healthy outside of it. When organizations outsource RPS, pharmacists are empowered to invest time in important conversations and educate patients about how to stay safe outside of the hospital. Importantly, they can make the most of these interactions without compromising the time-sensitive medication order review process.

In addition to preparing patients for discharge, supplemental support from RPS staff protects the patient experience throughout the episode of care. It enables pharmacists to become more engaged, make rounds with physicians and build stronger relationships with the rest of the clinical care team. The cumulative effect is lower rates of preventable adverse drug events and medication errors, which can significantly impact both the patient experience and the hospital's reimbursements.

“Reviewing medication orders remotely gives hospital pharmacists the opportunity to do what they enjoy — interacting more with patients,” says Ms. Morrison. “This drives patient satisfaction, which helps protect the hospital's bottom line through securing reimbursements.”

### **RPS Success Story: A Firsthand Account**

As Columbus-based OhioHealth prepared to transition its EMR to EPIC in 2012, the health system's pharmacy leaders realized the pharmacy staff needed support.

“Depending on one's role in pharmacy, they could need between 55 and 75 hours of training,” says Curt L. Passafume Jr., System Vice President of OhioHealth Pharmacy Services. “That was followed-up with more time away from the pharmacy with what we called ‘playground,’ or reinforcement activities every week to keep up new skills before go-live.” Between time spent in training and on the “playground,” it became clear the health system needed to supplement its pharmacy with outside help. “On any given day, 30 percent of our staff was out training,” says Mr. Passafume. “We had to look for help to keep our shops running.”



### *Identifying the best solution*

Initially, OhioHealth's pharmacy leaders considered hiring additional pharmacists on a provisional status to backfill pharmacists who were out training, but Mr. Passafume soon realized that while a provisional model worked well for hiring nurses, the market wasn't as favorable in the pharmacy department. The answer, it became clear, was to identify a RPS solutions provider.

Mr. Passafume had a positive experience working with Cardinal Health at a different health system in Indiana previously. In that situation, he implemented the Cardinal Health RPS Solution to cover the nightshift, which was understaffed and resulted in delayed review of CPOE. At OhioHealth, Mr. Passafume evaluated Cardinal Health against its leading competitors. Ultimately, it became clear that the Cardinal Health RPS Solution was the most efficient and high-value option.

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Mr. Passafume named a few core competencies Cardinal Health possessed that other vendors lacked. For one, the company is both flexible and malleable. While many other vendors constrain clients by forcing them to use the vendor's proprietary system, Cardinal Health allowed OhioHealth to send its medication order entries with its preferred system. Another strength, according to Mr. Passafume, is that Cardinal Health did its homework on OhioHealth's pharmacy so it could tailor its services to the health system's needs.

"They have a strong due diligence process," he said. "They conducted in-depth interviews with our staff and really looked at the way we processed orders. They gathered a lot of information from us and developed a playbook for the Cardinal Health staff that showed them how to function as our own pharmacy staff would."

Finally, Cardinal Health values transparency. They allowed Mr. Passafume and his colleagues to review the credentials of the individuals at Cardinal Health who would support OhioHealth's pharmacists.

*Core responsibilities on the provider side*  
Hospitals and health systems that adopt RPS solutions need to do homework on their end, too. According to Mr. Passafume, this

entailed conducting a thorough analysis of its medication orders and sharing this information with Cardinal Health.

“We had to do a lot of volume and time analysis to identify what orders are coming through and at what time of day,” says Mr. Passafume.

Additionally, OhioHealth’s pharmacy leaders defined certain types of medication orders that would be left to the health system’s pharmacists to review, which accounted for about 30 percent of total orders. With this information, OhioHealth’s pharmacy leaders and Cardinal Health worked together to determine how many remote staff were needed to provide adequate support during the Epic training, as well as how much the Cardinal Health RPS Solution would cost.

*The benefits of the Cardinal Health RPS Solution: Operational, financial and cultural ROI*

Enlisting Cardinal Health to provide RPS enabled OhioHealth’s pharmacists to fully engage in the EPIC training and “playground” practice sessions without being forced to simultaneously balance their core duties of CPOE review.

“Cardinal Health allowed our teams to focus on the new workflow,” says Mr. Passafume. “Rather than trying to be in two worlds at once — working in one and training in the other — our staff could learn to quickly integrate the new EPIC workflows confidently.”

With the support of the Cardinal Health RPS Solution, health system leaders could rest assured all medication orders were reviewed, entered and administered in a timely manner, which helped to prevent pharmacy-related issues and the costs associated with mitigating them.

Along with the operational shift enabled by Cardinal Health’s support, the addition of its services also facilitated a valuable cultural shift, according to Mr. Passafume.

“First, it allowed me to deliver the message to my team that we realized that making this EMR transition is hard, and that we were committed to making it easier by bringing in extra resources,” he said. “We weren’t just telling them to suck it up and do it.”

Contracting with an RPS provider also enabled OhioHealth’s leadership to avoid the potential cultural backlash that would have occurred from hiring

additional pharmacists on a temporary basis. Qualifications and market supply challenges aside, another factor that influenced Mr. Passafume's decision to not more aggressively pursue hiring additional provisional pharmacists was the reality that after the EPIC rollout was complete, those employees would most likely be let go.

"I really wasn't comfortable with the idea of hiring 10 to 12 provisional employees and then firing them after a year or two," says Mr. Passafume. "That would have sent a very bad message to our current team members and cast a shadow on OhioHealth that was not in line with our current culture."

Additionally, working with the Cardinal Health RPS pharmacists showed OhioHealth's pharmacists the possibility of newcomers without prior experience at an OhioHealth hospital to join the system, learn about it and perform at a high level. While adding on RPS solutions initially prompted some apprehension among OhioHealth's staff, eventually they realized the Cardinal Health remote pharmacists were highly equipped to review medication orders in a timely manner and meet OhioHealth's standards. This allowed the OhioHealth pharmacists to more

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rapidly adopt the RPS strategy and more fully leverage the value of the spend.

## **5 Key Tips for Health Systems Seeking an RPS Solution**

Based on OhioHealth's experience with RPS, Mr. Passafume outlined key tips for other health system leaders seeking an RPS partner.

**1. Be active on the front end.** Always compare at least three vendors to identify which will fit best with your organization. Showing your employees that you've taken the time to carefully compare different options demonstrates a true commitment to providing them with the best support possible.

*2. Be prepared to forge a meaningful relationship with the RPS provider.*

“Bringing in an RPS solution cannot be treated as tacking on another vendor agreement,” says Mr. Passafume. “This vendor should be regarded as a strategic partner, not solely a business relationship.”

*3. Get your teams on the frontlines engaged early in the process.* Don’t surprise your pharmacists with this arrangement. Instead, Mr. Passafume suggested letting them help you shape what your partnership with the RPS provider will look like. If your pharmacists aren’t part of the planning stage, they will be more resistant to work with remote staff, and the whole arrangement is likely to fail.

*4. Don’t make decisions based solely on price.* While all health systems have different budgets, Mr. Passafume says, “identifying an RPS solutions provider is not the time to be penny wise, pound foolish. The cheapest partner may not be the best for a long-term fit and strategic relationship.”

*5. Ensure open, two-sided communication throughout the process.* Mike Francis, Regional Director of Pharmacy at Cardinal Health, says his team helped strengthen communication between OhioHealth pharmacists, clinicians and administrators, as well as between the health system and the Cardinal Health remote pharmacists.

“Not only were we able to effectively alleviate many of the hurdles OhioHealth was facing in getting their pharmacists into the proper [EPIC] training, there was continual communication, which is critical,” says Mr. Francis. “There has to be ongoing communication to make sure we are meeting the health system’s needs and helping them reach the pharmacy’s goals, and we led that.”

## **Outsourcing RPS: The Right Choice for Many Hospitals**

The more directions pharmacists are pulled — whether it be assisting with the implementation of new technology systems or guiding strategic clinical initiatives — the greater the need for additional pharmacist support. With strategic partners like Cardinal Health, hospitals can enlist as many or as few pharmacists as needed, with room to scale up or down to meet the demands of various initiatives.

As most hospitals have realized, the ACA poses significant challenges, both in terms of daily operations and reimbursement. As a result, hospitals must seize every opportunity to prevent errors that jeopardize clinical outcomes, threaten reimbursement and simultaneously improve the patient experience. Outsourcing RPS encompasses all of these undertakings.