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The impact of COVID-19 on pharmacy transitions of care services[☆]

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ABSTRACT

COVID-19 has necessitated alterations to the delivery of healthcare services. Modifications include those made to improve patient and healthcare worker safety such as the use of personal protective equipment. Pharmacy services, specifically pharmacy transitions of care services have not been immune to change which have brought along their own set of unique challenges to consider. This paper discusses how COVID-19 has impacted the delivery of pharmacy transitions of care services with real world examples from Sharp Grossmont Hospital and Hoag Memorial Hospital Presbyterian. Procedures implemented to minimize the spread and contraction of COVID-19 such as minimized patient contact and altered visitor policies have made it more challenging to obtain a best possible medication list the patient was taking prior to arrival to the hospital which has led to an increased reliance on secondary sources to complete medication histories. Regarding discharge prescriptions, preference has shifted to the use of electronic vs. hard copy prescriptions, mail order, and utilization of med to bed programs and other hospital medication delivery services to limit patient contact in outpatient pharmacies. An improved effort to resolve medication acquisition issues prior to discharge utilizing patient assistance programs and other hospital programs to cover the cost of medications for COVID positive patients under certain circumstances has been seen. This paper highlights the important role pharmacists can play in providing effective communication, supporting continuity of care, and advocating for patient engagement and empowerment during transitions of care in the COVID-19 pandemic.

Introduction

On March 11, 2020 the World Health Organization declared the novel Coronavirus Disease 2019 (COVID-19) caused by the Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) a pandemic.¹ As of October 26, 2020, there were 43,187,134 confirmed cases worldwide (8,646,085 in the US) including 1,155,653 confirmed deaths (225,282 in the US).² COVID-19 has severely affected the delivery of healthcare worldwide. In the beginning months of the pandemic, Emergency Departments saw a 42% decrease in visits and Ambulatory Care visits dropped 60% in the United States.^{3,4} Public fear of contracting the virus and adhering to government mandated state lock-downs has in large part resulted in this decrease in healthcare utilization. The Centers for Disease Control and Prevention (CDC) recommends patients utilize

virtual visits and triage helplines instead of coming in person to receive care at Acute Care facilities to preserve resources for the predicted influx of COVID-19 positive patients in need of care. As a result, many in-person clinic visits have been converted to telephonic or virtual encounters.⁵ Surgeries have also been affected with many facilities postponing or canceling elective procedures and only performing those that delaying would cause severe patient harm or significantly impact quality of life.⁶

Regarding healthcare operations, most all facilities have made adjustments to improve safety for patients and staff. Modification examples include ramping up cleaning protocols, arranging facilities in such a way to allow for social distancing such as limiting the number of people allowed in waiting rooms, implementing COVID screening procedures, and implementing visitor restrictions.^{7,8} For healthcare worker safety

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specifically, modifications to workflow include the use of personal protective equipment (PPE). Due to nationwide shortages of PPE, most healthcare facilities have developed procedures and protocols to extend the life of PPE, including the limited reuse of N95 respirators.^{9,10}

COVID-19 has also directly impacted the provision of pharmacy services. The CDC has published specific recommendations for the continued operation of community pharmacies that include following social distancing, methods to decrease contact with objects handled by patients, and encouraging the use of alternative prescription delivery methods including home delivery and drive through to limit direct patient contact in the pharmacy.¹¹ Ambulatory Care pharmacy services have also been affected. A study out of Saudi Arabia reported modifications to pharmacy workflow including a large increase in the use of telehealth services and phone calls to provide patient care rather than seeing patients face-to-face in clinic.⁹

Transitions of care (TOC) pharmacy workflow has not been immune to the shifting healthcare landscape caused by COVID-19. Pharmacy TOC services decrease hospital readmissions and acute care utilization, increase patient satisfaction, improve patient safety, and decrease healthcare costs.^{12–23} The nature of performing medication reconciliation, conducting patient interviews, and providing education has changed out of necessity to prevent COVID-19 transmission and spread. Preserving pharmacy TOC services during the pandemic is essential to continuity of care and improving patient outcomes.

Sharp Healthcare System is a not-for-profit integrated regional health care delivery system based in San Diego, California. Sharp Healthcare is comprised of four acute-care hospitals, three specialty hospitals and three affiliated medical groups.²⁴ Sharp Grossmont Hospital has the largest emergency room serving approximately 100,000 patients annually and is the largest healthcare facility in East San Diego County.²⁵

The Hoag Health Network is a nonprofit regional health care delivery network in Orange County, California, consisting of two acute-care hospitals in Newport Beach and Irvine, 13 urgent care centers, nine health centers and a network of more than 1700 physicians. Hoag serves more than 30,000 inpatients and 450,000 outpatients each year and has been named one of the Best Regional Hospitals in the 2019–2020 U.S. News & World Report for an unprecedented 23 years.²⁶

This paper highlights real world examples of how COVID-19 has impacted the delivery of Pharmacy Transitions of Care Services and also discusses the important role pharmacists can play in providing effective communication, supporting continuity of care, and in advocating for patient engagement and empowerment during transitions of care in the COVID-19 pandemic. This paper may serve to assist hospitals that are struggling to provide or continue pharmacy transitions of care services during the COVID-19 pandemic by sharing challenges and successes from two different hospitals in Southern California, Sharp Grossmont Hospital and Hoag Memorial Hospital Presbyterian.

Wearing of personal protective equipment (PPE)

The first change to workflow for healthcare personnel was the use of PPE. Sharp Healthcare and Hoag Hospitals have implemented universal masking to adhere to CDC recommendations in addition to social distancing, respiratory etiquette, and hand hygiene. Anyone entering a Sharp or Hoag health care facility (e.g., health care personnel, patients, visitors) is required to wear a face mask or cloth covering at all times. In July 2020, the CDC recommended all healthcare workers wear universal eye protection when caring for patients in areas of moderate to high COVID-19 transmission risk.²⁷ At Sharp Healthcare, employees who participate in direct patient care are assigned an eye protection, which includes either goggles or a face shield that must be cleaned and reused in between patient encounters. To conserve PPE, pharmacy personnel are prohibited from entering rooms of COVID-positive patients or COVID-persons under investigation (PUI).

Appropriate PPE is provided to all clinical staff to be used in

accordance with policy depending on whether they come in contact with patients during their shift or work in non-clinical areas. Staff are provided education on proper use of PPE and protective measures. Staff also follow hospital PPE and infection prevention policies when in any direct patient care contact. Frequent communication is provided on best practices to protect staff, patients, and visitors.

Admission medication reconciliation

The Joint Commission defines Medication Reconciliation across the continuum of care as the “process of comparing the medications a patient is taking (or should be taking) with newly ordered medications.” It was designated as a National Patient Safety Goal (NPSG) in 2005.^{28,29} The first part of this process is obtaining the best possible list of medications a patient was taking prior to arrival (PTA) to the hospital. Challenges in taking an accurate medication history include a lack of integrated medication history information across care settings and facilities, recall bias from patients, time constraints, documentation errors, and knowledge deficits of the interviewer regarding certain drugs.^{30,31} The Joint Commission recognizes these obstacles and accepts a “good faith effort” to satisfactorily achieve this NPSG.²⁸ Pharmacists and pharmacy technicians who take medication histories in the Emergency Department have shown to reduce errors in admission medication history and orders by 80%.³² As such, many hospitals and health systems utilize pharmacists and pharmacy technicians to perform admission medication reconciliation.

Sharp Grossmont Hospital and Hoag Hospitals primarily utilize pharmacy technicians and interns to gather medication histories for patients admitted through the Emergency Department (ED). Normal workflow includes approaching the patient at bedside and gathering a medication history from a primary source such as the patient themselves or their designee, or with a transferring facility. Secondary sources of information include outpatient pharmacies, physician offices, a previous discharge medication list, a homemade medication list accompanying the patient, or pill bottles. The medication list documented should include all prescription medications, over-the-counter medications, and herbal supplements the patient was taking PTA.

COVID-19 has necessitated several changes to the normal workflow used to obtain a medication history.

Limited patient contact

In the beginning months of the pandemic, pharmacy technicians at Sharp Grossmont Hospital were prohibited from any direct patient interaction in the Emergency Department regardless of COVID status to limit exposure between hospital personnel and patients. Only recently are pharmacy technicians allowed to enter rooms of COVID negative patients. Communication with COVID positive patients or PUI must be done by either calling into the patient’s room through the bed call button and speaking to them over the intercom (in the ED), or speaking to the patient on their cell phone if available. All COVID positive patients or COVID PUI are placed in negative pressure rooms. Anticipated challenges arose during patient communication including issue with cellular reception, patients lacking the dexterity to use a phone, and the patient being hard of hearing, or requiring translator services. However, these challenges were amplified due in part to the noise the negative-pressure rooms produced making an already difficult task that much more complicated. Pharmacy technicians at Hoag were not entering isolation rooms but were still obtaining medication histories at bedside for non-COVID patients. In the ED, Hoag added phones in each isolation room with extensions readily visible. Additional services included 3-way translator service over the phone.

Visitor Policy

Sharp Healthcare and Hoag Hospitals enforced a “No Visitor” policy

at the hospitals consistent with state directive with exceptions for patients who may be facing end of life, maternity patients, neonatal intensive care patients, patients who require assistance or having emergent procedures. Sharp Healthcare and Hoag Hospitals recently updated their policies to a “Limited Visitor” policy, in compliance with state directives.^{33,34} At Sharp Healthcare this includes now allowing non-COVID ICU patients one visitor during a restricted time window and allowing one adult support person when medically necessary for patients with physical, intellectual and/or developmental disabilities and patients with cognitive impairments.³⁴ This was not the case however up until recently as patients who relied on caregivers to provide medical and medication information were disadvantaged during the times of the “No visitor policies” as communication between those caregivers and hospital personnel could not be done face-to-face and instead was done over the phone. This increased the risk for misinformation and errors if these caregivers could not be reached. Hoag will implement changes to their Visitor Policy early November 2020.

Increased reliance on secondary sources to complete medication histories

There has been an increased reliance on secondary sources of information to complete a medication history. Sharp Healthcare utilizes Surescripts®, which is a database that communicates with pharmacies and pharmacy benefit managers, to collate medication fill history from outpatient pharmacies. This source can prove useful in discovering what has been filled recently, but it does not provide information regarding medication compliance or use, which is why confirming with a primary source is so important. Also, pharmacy fill histories do not provide information on OTC or herbal supplements that the patient may be taking or for claims not processed through insurance (cash payers). Additionally, Surescripts® only reports claims from contracted pharmacies and therefore may lack information from small, independent, non-contracted pharmacies. For COVID-positive patients and PUIs at Sharp Grossmont Hospital, medication lists are often unverified with the patient, which have resulted in a number of admission medication order errors.

Discharge medication reconciliation

Pharmacist performed discharge medication reconciliation involves reviewing the physician completed discharge medication reconciliation to ensure appropriateness, safety, and cost effectiveness of medications for the patient. This list is compared to the inpatient orders and to the list of medications the patient was taking PTA. This analysis is done in conjunction with reviewing labs, clinical status, and taking into consideration medication access. Medication access assessment involves identifying any barriers the patient might face in obtaining medications from the insurance plan (or lack thereof), a pharmacy, and financial status.

Pharmacist involvement in the discharge process varies depending on the institution and program. Pharmacist services at discharge include comprehensive medication review, assess for medication adherence and access barriers, provide discharge instructions and education, and coordinating the transmission and filling of discharge prescriptions.³⁵ Discharge workflow has also changed in light of the pandemic.

Discharge prescriptions

Prescribers are encouraged to electronically or telephonically submit prescriptions to community/retail pharmacies to minimize the direct handling of paper prescriptions.^{9,11} The CDC encourages patients to avoid visiting the pharmacy to pick up medications if at all possible (especially those at increased risk such as older adults or those with pre-existing medical conditions). Instead, home delivery, curbside pickup, and drive-through services should be utilized.¹¹ If it is absolutely necessary to visit the pharmacy, it is recommended to send a healthier

family member instead of coming in person. Another option for hospitalized patients is to utilize medication bedside delivery services. Med to bed programs are particularly advantageous during the pandemic as they ensure the patients receive their prescriptions prior to discharge and eliminate the need to visit a community pharmacy. For COVID-positive patients, Sharp Grossmont Hospital does its best to ensure that all discharge prescriptions are filled at their onsite outpatient pharmacy and delivered to the patient by the bedside RN prior to discharge.

Medication acquisition

Medication acquisition was a challenge for many patients prior to the COVID pandemic, and is now a larger issue than previously encountered. More patients are unemployed and hence uninsured and financially vulnerable when it comes to obtaining certain medications. Transitions of Care pharmacists arguably play a more crucial role now during the pandemic to connect patients with discount drug programs, manufacturer coupons, and recommend cheaper therapeutic alternatives.

Sharp Grossmont Hospital has a designated Discharge/Transitions of Care pharmacist whose sole role is to assist patients with medication acquisition issues. Something additionally unique to Sharp Grossmont Hospital is having a dedicated Patient Assistance Program pharmacy specialist who aids in locating prescription drug coverage and submitting prior authorization requests, often prior to patient discharge. This ensures requests are addressed in a timely manner minimizing interruption of drug therapy and reducing hospital readmission resulting from the inability to obtain medications. In addition, the outpatient pharmacy onsite has partnered with inpatient services to cover the cost of diabetic testing supplies (14 days of test strips and lancets, 1 meter, and 1 lancing device) for diabetic COVID positive patients who will be quarantining for 2 weeks post discharge and who have no access to a retail pharmacy (homeless, transportation issues or no family to pick up supplies from another retail pharmacy) to ensure continuation of disease monitoring.

Effective communication: providing patient education/interviews

Effective communication between healthcare providers and patients is foundational to providing safe and effective care transitions. Direct communication with patients is essential to collecting and communicating key pieces of health information.³⁶ When collecting a best possible medication history, we rely on patient reporting to create a comprehensive medication list and identify adherence and access barriers. Clear patient education and counseling is crucial to support accurate medication use and prevent drug related problems.^{37,38} When providing patient education, we utilize teach-back to identify educational deficits and reinforce learning, as well as communicate clear instructions for follow-up and monitoring. The patient is a key player in the healthcare team, and perhaps the greatest challenge of COVID-19 to the provision of care during health transitions is the difficulty in engaging patients from afar.

Telehealth and phone health encounters are increasingly common in the COVID-19 landscape, affecting how healthcare is provided both in the outpatient and inpatient settings. As patients transition between providers and settings of care, pharmacists will have to adapt TOC services to maintain effective communication with patients through various modes of communication. What remains essential is that institutions continue to provide transitions of care services, as the value of pharmacist interventions in reducing readmissions and supporting patient safety has been clearly demonstrated.^{39–44} This may require adapting workflow and resources to ensure pharmacists are able to provide transitions of care services through phone and telehealth encounters, including collecting patient information, reconciling

medications, providing patient education, addressing adherence barriers, and supporting continuity of care.

Unique challenges may arise with the delivery of care via remote strategies, especially in patients who have language barriers, educational deficits, or difficulty seeing or hearing. Similar to an in-person encounter, strategies to improve communication include engaging the patient through open-ended questions and teach-back. If there are concerns about the patient appropriately utilizing technology, it may be valuable to ensure a co-learner or caregiver is present to provide additional support to the patient. Providing printed resources, such as a comprehensive medication list, or supplemental education in the learners preferred language, can further facilitate learning. This may require sharing resources through fax or email, depending on what is feasible for the healthcare institution and the patient.

Communicating relevant information to healthcare providers is an important piece of optimizing patient care, including changes to medication lists, follow-up and monitoring, and access barriers. Depending on the needs of the patient, pharmacists may need to communicate information to physicians, allied health professionals such as physical, occupational, or respiratory therapists, case managers and social work, or community pharmacies. It is important to understand what information needs to be shared and what the best mode of communication is for each member of the healthcare team in the setting of the global pandemic. In a hospital setting, we can access members of the healthcare team who are onsite, but if the patient is at home or another care facility, considerations will need to include what resources are available to the patient and how we can meet their needs remotely.

Supporting continuity of care

Supporting continuity of care after healthcare transitions is a significant challenge, further complicated by the impact of COVID-19. Safe and effective transitions of care should include communication to the patients' healthcare team as well as follow-up with the patient to review and reconcile medications, address questions and concerns, and resolve potential adherence barriers. While follow-up will typically occur through phone calls, clinic visits, or home visits, the current restrictions require adapting workflow. To support continuity of care, and ensure high-risk patients have access to pharmacist interventions during care transitions, Hoag Hospitals have recently implemented a pilot program for post-discharge transitions of care phone calls. A TOC navigator contacts discharged patients within 24–72 hours post discharge to address any medication or follow-up care questions as quickly as possible. The TOC navigator triages to pharmacists for medication related issues or drug information questions.

Home visits should be avoided at this time for patient and provider safety. To ensure resources are being efficiently utilized, and to maximize the impact of available interventions, post encounter phone calls can be utilized to provide continuity of care and support high-risk patients in optimizing management of their disease states. Pharmacists who provide post-discharge phone calls should be well versed in addressing patient needs and questions related to COVID-19. Transitions of care pharmacists should be familiar with up-to-date CDC recommendations, therapy options, and guideline recommendations so that they can comfortably answer patient questions related to COVID-19. They should also be familiar with where to triage patients depending on their symptoms and urgency. Additionally, TOC pharmacists should be able to identify high-risk patients, such as the elderly and patients with multiple co-morbidities, and provide them with resources and information to minimize their risk for contracting COVID-19. This may involve providing information on medication home delivery services, mail order prescription services, or connecting patients with 211 for their social needs, such as food and electricity.

Patient engagement and empowerment

As patients with high risk disease states may avoid healthcare settings due to concerns about COVID-19, it is now more important than ever to engage and educate patients on self-care, identifying red flags, and knowing when to seek emergent care. Additionally, patient involvement in their own care by being a good historian and self-advocate can decrease healthcare errors from occurring.⁴⁵ Pharmacists can play a key role in supporting patient empowerment during transitions of care.

Patients should be able to identify whether or not they are considered high risk and knowledgeable about proper CDC recommendations to follow for disease transmission prevention. Patients with chronic disease states should be educated on signs and symptoms of disease state exacerbation and lifestyle modifications to optimize management of their health. For example, heart failure patients should be educated on salt and fluid restriction and the importance of monitoring daily weights. Asthma and COPD patients should be educated on minimizing exacerbation triggers. Diabetic and hypertensive patients should have proper supplies and training to support monitoring at home, and education on improving diet and exercise.

Patients should also be educated on what red flags to look for and when it is appropriate to seek medical attention. This is key in minimizing excessive acute care utilization to ensure resources are reserved for more acute patients and to minimize unnecessary risk of COVID transmission/infection, especially for higher risk patients.

Conclusion

While the direct impact of COVID-19 may be transient, there will likely be longer-term implications on how we provide patient care. With expanding utilization of telehealth services, and the increasing complexities of navigating the healthcare system, it remains essential to optimize provision of care as patients transition from one provider or setting to the next. Optimizing transitions of care interventions, and implementing strategies to support effective communication and inter-professional collaboration, will support providing continuity of care for patients.

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