



341 Wellness Drive • Myrtle Beach, South Carolina 29579 • (843) 488.5550

Phone. (843) 488-5550 • Web. [www.ce-prn.com](http://www.ce-prn.com) • Email. [info@ce-prn.com](mailto:info@ce-prn.com) • Fax. (843) 488.5554

## All Guidance for Effectively & Safely Continuing Immunization Care in a Community Pharmacy During a Pandemic



Faculty  
Gretchen Kreckel Garofoli, PharmD,  
BCACP, CTTS

During times of pandemic there are many tasks that community pharmacists must complete in order to continue to provide the best care possible for all of their patients all while keeping themselves and their co-workers safe. Many pharmacists have questions regarding the provision of advanced patient care services such as immunizations during a pandemic. Through this monograph we will discuss the importance of adult immunizations and how to administer immunizations effectively and safely in the midst of a pandemic.

### Learning Objectives

#### Pharmacist

- 1 Recognize the potential impact of delaying routine adult immunizations.
- 2 Identify ways to keep both patients and providers safe during immunization administration.
- 3 Describe best practices for continuing immunization administration in the community-based pharmacy setting.

#### Pharmacy Technician

- 1 Recognize the potential impact of delaying routine adult immunizations.
- 2 Identify ways to keep both patients and providers safe during immunization administration.
- 3 Describe best practices for continuing immunization administration in the community-based pharmacy setting.

#### Nurse

- 1 Recognize the potential impact of delaying routine adult immunizations.
- 2 Identify ways to keep both patients and providers safe during immunization administration.
- 3 Describe best practices for continuing immunization administration in the community-based pharmacy setting.

## Accreditation



PharmCon, Inc. is accredited by the Accreditation Council for Pharmacy Education as a provider of continuing pharmacy education.

PharmCon, Inc. reports CPE credits to CPE Monitor automatically after credit is earned. Your NABP ePID and birthdate must be in your online profile for successful credit submission.

PharmCon, Inc. reports CPE credits to CE Broker automatically after credit is earned. Your license number must be in your online professional profile for successful credit submission.

PharmCon, Inc. is approved by the California Board of Registered Nursing (Provider Number CEP 13649) and the Florida Board of Nursing (Provider Number 50-3515). Activities approved by the CA BRN and the FL BN are accepted by most State Boards of Nursing.

CE hours provided by PharmCon, Inc. meet the ANCC criteria for formally approved continuing education hours. The ACPE is listed by the AANP as an acceptable, accredited continuing education organization for applicants seeking renewal through continuing education credit.

## Target Audience

Pharmacists, Pharmacy Technicians, Nurses

## Universal Activity Number

Pharmacist

0798-0000-20-160-H06-P

Pharmacy Technician

0798-0000-20-160-H06-T

Nurse

0798-0000-20-160-H06-N

## Credit Hours

1.0 Hour

## Activity Type

Knowledge-Based

## CE Broker Tracking

Number

20- 705005

## Activity Release Date

October 1, 2020

## Activity Offline Date

September 11, 2021

## ACPE Expiration Date

December 25, 2021

## Educational Support Provided By

Merck & Co., Inc.

All opinions expressed by the author(s) are strictly their own and not necessarily approved or endorsed by PharmCon

Consult full prescribing information on any drugs or devices discussed.

FreeCE is a division of PharmCon



341 Wellness Drive, Myrtle Beach, South Carolina 29579

© 2018 PharmCon

All rights reserved.

None of the contents of this publication may be reproduced in any form without the written permission of the publisher.

## Monograph:

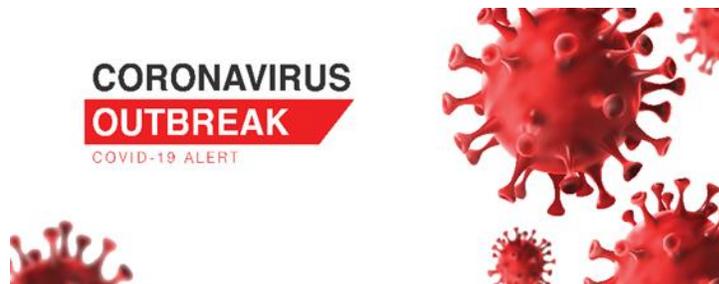
Immunizations are an important aspect of public health. Immunizations have been recognized as one of the top public health achievements, specifically with regards to their ability to



decrease infectious diseases. Although disease eradication for the diseases that plague our country and world would be ideal, to date, only one disease, smallpox, has been eradicated. The eradication of smallpox worldwide has allowed routine smallpox immunizations to be discontinued. Polio has been targeted by the World Health Organization to be the next disease eradicated, but that has not yet occurred as there are countries throughout the world where polio remains.<sup>1</sup>

There are many diseases that are considered eliminated in the United States due to successful immunization campaigns, but the diseases still exist in other parts of the world, so immunizing continues in order to provide protection and prevent disease. In 2019, due to the large number of measles cases that occurred as part of an outbreak in the United States where many of the cases were among an unvaccinated community in New York, the United States was at risk for losing the status of measles elimination that had been held for two decades. Fortunately, the spread of the disease decreased, and the United States has maintained its status of measles elimination.<sup>2</sup>

The Spanish Flu was the largest pandemic in recent history and lasted from 1918-1919. The Spanish Flu was responsible for 50 million deaths worldwide with 675,000 deaths in the United States of America. There was no vaccine available to prevent this disease and no antibiotics to treat the secondary infections, so control efforts included quarantine, isolation, good hygiene practices, the use of disinfectants, and limitations on public gatherings.<sup>3</sup> All of these practices have been implemented during the COVID-19 pandemic since there is not currently a vaccine to prevent the disease. It is fascinating that with all the advances of modern medicine that a new virus can cause such upheaval and the most protective measures in 2020 are the same as were implemented over a century ago. The first influenza vaccine was introduced in 1942, which was twenty-two years after the Spanish Flu pandemic.<sup>4</sup>



During pandemics recommendations can change quickly as more is learned about the pathogen and its respective communicability, so as healthcare practitioners, it is advisable that we know where to find the most up-to-date information

as general recommendations, and immunization recommendations may change as more and more knowledge is gained regarding the virus. Our patients, family members, and friends come to us as healthcare practitioners, thus we need to be equipped with the most up-to-date information to provide timely guidance. A repository of immunization related references to be utilized for vaccination recommendations during the COVID-19 pandemic can be found through the Immunization Action Coalition (<https://www.immunizationcoalitions.org/resource-repository/>). This resource is regularly updated, and I would recommend that you bookmark the site so that you can quickly reference it to review current recommendations.

Amid the COVID-19 pandemic, many questions have arisen regarding the continuation of vaccinations. Shortly after the national emergency was declared in March of 2020, the Centers for Disease Control and Prevention (CDC) issued a recommendation that childhood vaccinations be continued during the pandemic. Although many recommendations from the CDC in other areas changed as the pandemic progressed their stance remained the same for childhood immunizations. The CDC additionally provided recommendations to continue childhood immunizations safely and effectively, especially for newborns through children who are less than 24 months of age when numerous vaccinations are given. They recommended that offices have well-child visits in the morning and sick visits in the afternoon, that children be seen for well-child appointments in a different physical area of the clinic than those being seen for sick visits, and/or that providers collaborate with other providers in their community to have different physical building locations for sick visits versus well visits.<sup>5</sup>

Even with the strong recommendation to continue childhood immunizations, the Morbidity and Mortality Weekly Reports (MMWR) published in May 2020 showed a decline in childhood immunization rates. Two data sources were reviewed to determine the impact of the pandemic on non-influenza childhood vaccines. A decline in vaccines ordered was seen a week after the national emergency declaration. The decrease in number of non-influenza vaccines administered was not as great in the less than 24 months of age group versus the over 24 months of age group.<sup>6</sup> A study in Michigan looked at the up-to-date vaccination status for various age groups by comparing data from May 2016-2019 to May 2020. A decrease was seen in vaccination coverage in all age cohorts except for the birth dose of the Hepatitis B vaccine, which is typically given to the newborn in the hospital prior to discharge.<sup>7</sup>



With the declines in pediatric vaccinations being administered, there is concern for the potential of a resurgence of vaccine preventable diseases, especially if the percentages needed for herd immunity are not achieved. Additionally, with so many children falling behind schedule and not being up to date with the recommended vaccinations,

procedures will need to be put in place to get these children back on schedule. This may require the use of the catch-up schedule from the CDC typically utilized for those who start vaccination series late or for those who are more than one month behind schedule for recommended vaccines, which would be likely to be the case for many of those studied given the length of the COVID-19 pandemic.<sup>8</sup>

The CDC guidance for adult immunizations left many adult immunization providers with questions as to whether adult immunizations should continue during the pandemic. Immunizations fall under preventative services and the official guidance from the CDC recommended that in areas with community transmission of COVID-19 immunizations should be postponed except when an in-person visit may be scheduled for “some other purpose and the clinical preventive service can be delivered during the visit with no additional risk” or when a “patient and their clinician believe there is a compelling need to receive the service based on an assessment that the potential benefit outweighs the risk of exposure to the virus that causes COVID-19.”<sup>5</sup>

For physician offices, this guidance is clear in that patients should not come into the office for an appointment to only receive an immunization unless they fall into one of the categories previously mentioned. However, in regard to pharmacy practice, in most community-based pharmacy practice locations, patients do not need appointments to see their pharmacist for immunization services. Additionally, even during the time of pandemic, patients need to visit the pharmacy, especially if their pharmacy does not offer delivery services to pick up their maintenance or acute medications.

CDC guidance that was released for pharmacies in April 2020 specifically mentioned postponing immunizations for adult patients and following up with reminders at a later date.<sup>9</sup> Despite the guidance from the CDC, pharmacies and pharmacists across the United States approached the delivery of adult immunizations in a variety of ways - from continuing to provide immunizations as usual throughout the pandemic to deciding not to administer any immunizations. Many pharmacies were in this middle ground and confused about what was legal, illegal, or simply a recommendation regarding immunizations.

Pharmacists voiced their confusion through online platforms as to whether immunizations should be continued or if they were even allowed to be continued during the COVID-19 pandemic. Pharmacists commented across the spectrum regarding what was being done in their practices from not providing any immunizations to continuing to provide vaccines as they did pre-pandemic.

In the pharmacy where I practice, a couple in their 80's who were not regular patients came into the pharmacy asking for an immunization to complete a vaccination series as the pharmacy where they usually filled prescriptions and received immunizations refused to complete the series. In this specific instance, these individuals who fell into the high-risk group during the pandemic had visited at least two community pharmacies to obtain an immunization. One of our pharmacists donned all of the appropriate personal protective equipment (PPE) and administered the immunizations to the patients.



This scenario was a risk versus benefit analysis as these patients were determined to receive the vaccine within the recommended timeframe for administration of the second dose and would have continued to put themselves at risk by visiting multiple additional healthcare facilities until they were able to obtain the immunization. With the pharmacist at my practice site efficiently administering the vaccines while following proper protocol with appropriate PPE, these patients were then protected against the vaccine preventable disease that they sought protection from as well as having their respective risk of exposure to the Coronavirus decreased by not having to continue their search for a healthcare professional willing and able to administer the vaccine.

Given the decrease that was seen in childhood immunizations during the first few months of the pandemic in the United States of America when this group had clear guidance to continue with routine immunizations, it should not be surprising that immunization rates for the adult population decreased as well since the guidance stated that clinical preventative services such as immunizations should be delayed unless the patient had an in-person visit for another reason or the patient and clinician felt that the service was needed after a risk-benefit analysis was completed.

A Medscape news article on adult immunizations reported that non-influenza immunization rates decreased among all age groups during the studied timeframe in 2020 when compared with the same timeframe in 2019. During the week of April 6, 2020, the immunization rate in the over 65 years of age group decreased 83.1% when compared with the same week in 2019. This dramatic decrease is extremely concerning as this is the population that is at the greatest risk of complications from COVID-19. The report does include the positive news that immunization rates have started to improve as of May 11, 2020, which will hopefully continue.<sup>10</sup> Adults who have delayed immunizations, just as with children who have immunizations delayed, will be at risk for vaccine preventable diseases and we as healthcare practitioners need to work to get them caught up to ensure that they are protected.



Pharmacists who provide immunizations during a pandemic need to ensure that they and their staff take additional precautions to reduce the risk of exposure to disease. It is recommended that all patients, whether they are in the pharmacy to obtain a vaccination or for any other reason, wear a face mask. These masks can be cloth face masks that are homemade or purchased. All staff in the pharmacy should also be wearing masks, with medical or

surgical face masks being preferred to cloth masks. If wearing cloth face masks, there is the option of having a mask made with a pocket where a filter can be inserted as another layer of protection and changed regularly. Face masks are recommended for source control as patients or pharmacy staff could be infected, but without noticeable symptoms.

Social distancing should also be followed while in the pharmacy, but that is obviously not feasible when administering immunizations because the immunizer will need to be in close contact with the patient. Before an immunization is administered to a patient, the pharmacist (or student pharmacist or technician where legally allowed) should ensure that their face mask is appropriately positioned, wash their hands for at least 20 seconds scrubbing all areas, and should also wear gloves as is standard practice for immunization administration.

In areas where there is moderate or substantial disease transmission, it is also recommended to wear eye protection. Eye protection is considered optional in areas where the disease transmission in a community is low or nonexistent.<sup>9</sup> In order to determine the transmission level in your community it would be recommended to contact your local or state health department, but this information should be used with caution as reporting requirements are not standardized at a federal level, so there may be variability in the reporting.

Out of an abundance of caution, wearing goggles and face shield would be the safest approach during vaccine administration. Of note, neither eyeglasses, sunglasses, bifocals, nor contact lens protect eyeballs from transmission of a virus, as there needs to be a complete barrier around the eyes. At the pharmacy where I practice, one of our patients made us both cloth masks and face shields, which have been utilized while administering immunizations. As some of these items may



be in short supply or highly priced during a pandemic it is important to utilize your resources as patients, colleagues, and friends may be able to assist with providing these items to you at little to no cost. During the COVID-19 pandemic, there were many people sewing cloth face masks and a colleague of mine even 3D printed face shields to donate to local hospitals and clinics that were not able to obtain PPE through the normal channels.

Immediately following the administration of a vaccination, the immunizer should remove their gloves and wash their hands once again for 20 seconds covering all areas. It is important to remember that handwashing needs to be completed prior to and after administering all immunizations and gloves need to be changed between patients as well. When taking off the first glove, one should hold it with the 2<sup>nd</sup> hand that still has a glove donned, and then pull the 2<sup>nd</sup> glove off from the wrist to the fingers while encapsulating the previous glove. In addition to the PPE that is worn by both the immunizers and the patients, it is recommended to clean the area where patients are being immunized frequently.

As vaccinating during a pandemic is new to many, there are some best practices that should be followed to ensure that patients are taken care of when immunization services are restarted or continued. If pharmacies stopped giving vaccines, it would be prudent to take time to determine the best approach for restarting vaccination services. For pharmacies that have continued to vaccinate during the pandemic, they should review their policies and procedures to guarantee that they are meeting the best practice guidelines. The pharmacy should confirm that they have the appropriate PPE as discussed previously before moving forward with immunizing patients.



An inventory should also be taken of all the vaccinations in stock with special attention paid to the quantities and expiration dates of the vaccinations in stock. If vaccinations were delayed due to the patient or pharmacy postponing during the pandemic those patients affected should be contacted to be informed that immunization services are resuming. For patients who are due for a subsequent dose in a vaccination series, priority should be given to the patients

whose due dates occurred first, especially if there is a short supply of the vaccine(s). Pharmacy staff should review immunization records to determine how many doses of “post-due” vaccinations are needed and compare that with the number of vaccines in their inventory to determine how many additional doses need to be ordered. If the pharmacy preemptively offers vaccinations to patients when they are due, such as pneumococcal vaccinations for

patients who turn sixty-five, an analysis of patients who are past due for those vaccinations should be completed and these patients should be notified as well.

It is also highly recommended for the pharmacy staff to determine if they will be offering immunizations on a walk-in basis or if patients need to schedule appointments. It may be advisable during a pandemic for pharmacies who typically provide immunizations on a walk-in basis to temporarily move to an appointment-based model to limit the number of patients in the pharmacy for a longer period of time than one would spend to pick up a prescription and also to ensure that pharmacy staffing is optimal with a designated person to provide immunizations. This change would certainly be best communicated to patients in some manner more proactive than a sign on the door or once inside the pharmacy.

Once the pharmacy is ready to resume immunization administration, patients can be called to notify them of the immunizations that they are due for and to schedule an appointment if that model will be utilized. If scheduling appointments, it would be beneficial and prudent to schedule the immunization when the patient is due to pick up other medications to decrease the number of trips that the patient will need to make into the pharmacy and thus reducing the potential for exposure. Once the patient is scheduled to receive their immunization(s), it would be strategic for the pharmacy to bill the immunization to the patient's insurance coverage for the patient in advance of their arrival in order to decrease the wait time when the patient arrives.

If pharmacies are limiting the number of patients inside the building, the patient should call the pharmacy when they arrive and then enter the building if capacity allows. The patient can then be instructed to either provide payment information over the phone before entering the pharmacy, or they should proceed directly to the register to provide payment prior to vaccine administration. Once the payment is complete, the patient should proceed to the vaccination area (ideally a private patient counseling room) to wait for the immunizing pharmacist, immunizing student pharmacist, or immunizing technician.

The patient should complete the vaccination screening questionnaire as is standard practice if this is not able to be completed through electronic means prior to the patient arriving.<sup>11</sup> Once the questionnaire is complete it should be reviewed and any issues discussed. The immunizer should ask the patient additional screening questions regarding the possibility of having the pandemic causing disease. For example, for COVID-19 the disease can have a variety of symptoms that typically develop 2 to 14 days post exposure with patients developing a mild to severe illness. Symptoms could include, but were not limited to the



following: fever or chills, cough, shortness of breath or difficulty breathing, fatigue, muscle or body aches, headache, new loss of taste or smell, sore throat, congestion or runny nose, nausea or vomiting, and diarrhea.<sup>12</sup>

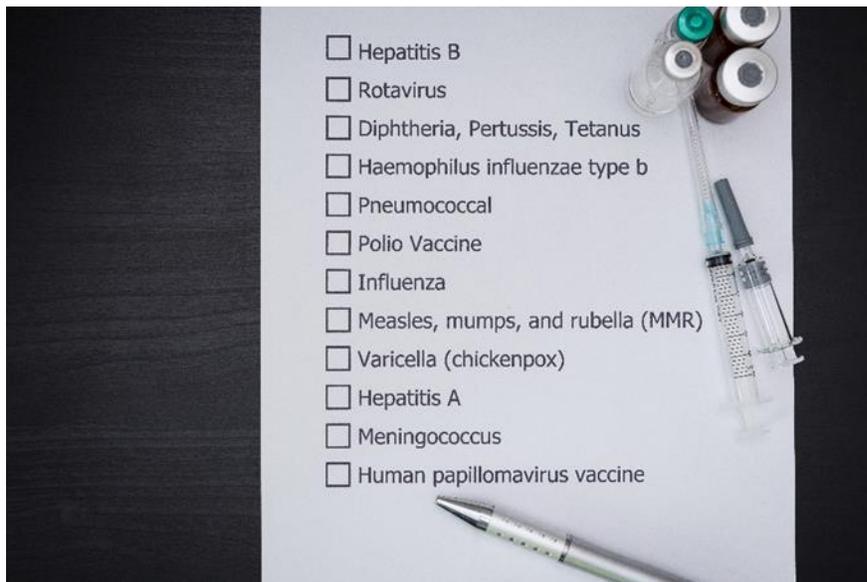
It may be prudent that the screening questions regarding the pandemic causing disease are asked prior to the patient entering the pharmacy to reduce the risk of exposure of the pharmacy staff by a patient who is exhibiting symptoms of disease. If after questioning, a patient is found to exhibit the symptoms of the disease, they should quickly be isolated, and referred for COVID-19 testing.

Temperature checks are another method that could be employed during the screening process to determine if a patient may have the disease. If a patient knows that they are positive for COVID-19 they should not enter the pharmacy and should defer vaccinations until recovered as to not expose the pharmacy staff to the disease. After a non-remarkable screening is complete, the immunizer should prepare and don the appropriate PPE as discussed previously and then administer the vaccine. If possible, the patient should wait in the patient counseling room or another waiting area where the chairs are spaced at least 6 feet apart for fifteen minutes to ensure that they do not have an adverse reaction to the vaccine prior to exiting the pharmacy.

If the pharmacy has moved to a closed-door model during the pandemic it is still possible to administer immunizations but will require unique modifications to the process. Immunizations can be administered to patients by an immunizer leaving the pharmacy building to administer the vaccination to a patient while they remain in their car. If this model is implemented it would be important for the pharmacy to ensure during the planning process that they have additional pharmacists scheduled as in many states it would be a legal issue to leave the pharmacy open without a pharmacist physically in the building.

For vaccinations that are administered to patients in their cars, the pharmacy should have a mobile device to transport all the necessary supplies to the patient's car. The patient should be instructed prior to coming to the pharmacy that they will need to wear appropriate clothing, such as a short-sleeved shirt to ensure optimal access to the proper area for immunization, in addition to a face mask. When scheduling patients to have their immunizations administered in this manner the patients should also be instructed to call the pharmacy when they arrive and to be ready to answer screening questions and provide payment information over the phone. The immunizer can then prepare the vaccine in the pharmacy prior to going out to the patient's car to administer the immunization.

Post immunization, the patient should be instructed to wait in the parking lot for fifteen minutes to confirm that they do not have an adverse reaction. It may help to provide an exact time when the patient could safely resume driving the vehicle, such as 2pm if the vaccine was administered at 1:45pm. If the patient has someone else waiting with them in the vehicle that person should be advised to call the pharmacy immediately should the patient develop any life-threatening symptoms such as difficulty breathing. It is also recommended to have the patient



(or someone in their vehicle) to call the pharmacy prior to driving the vehicle. The pharmacist (or another qualified staff member) should then visually check on the patient prior to the patient departing.

Finally, another option for vaccination to reduce the risk of exposure for your highest risk patients or for those who are not able to travel to the pharmacy would be to offer home-based immunizations. The pharmacy where I

Healthcare Providers should be encouraging their patients to stay up-to-date with routine vaccines.

practice does vaccinations for our homebound patients during normal circumstances, so with some additional precautions put into place regarding the use of the additional PPE mentioned previously, offering immunizations to these patients was seamlessly accomplished in our practice.

Things to consider if offering immunizations to patients in their homes is ensuring that you have the appropriate containers to safely transport the vaccinations while maintaining the cold chain and an ensuring that an immunizing staff member is willing and able to go into patients' homes to administer immunizations. Many factors need to be considered before offering this option to patients such as staffing, equipment, and the time commitment as the immunizer will have to account for travel time as well as time spent giving the immunization(s), plus waiting an additional fifteen minutes with the patient to ensure that they do not have an adverse reaction.

A viral pandemic can of course overlap with an influenza vaccination season, which is typically the busiest immunization season in a pharmacy. It will be imperative to ensure that all eligible patients (those greater than 6 months of age), specifically those who are at high risk for complications from disease receive the influenza vaccination by the end of October as is recommended by the CDC. Should there be a surge of influenza cases, particularly those resulting in hospitalization, in addition to an increase of the pandemic causing disease society

runs the risk of the healthcare systems becoming overwhelmed due to the respiratory nature of both diseases.



Since there is a vaccine to prevent influenza we need to be recommending and administering influenza vaccinations to all eligible patients. Many pharmacies traditionally not only offer influenza immunizations in their pharmacies, but also offer off-site clinics for employer groups or as part of a health fair. The World Health Organization (WHO) recommended that during the COVID-19 pandemic mass

vaccination campaigns not be completed due to the increased risk of potential exposure when a large group of people gathers, especially if social distancing of at least 6 feet between people is not possible.<sup>13</sup>

If vaccination clinics continue to be held, the CDC does offer guidance and recommends that appointment times are scheduled to avoid overcrowding. It would be best to limit the number of people waiting especially if they fall into a high-risk group, and potentially consider offering a dedicated time during the immunization clinic for only high-risk patients to attend, similar to the strategy that grocery stores deployed. There are physical barriers that one can set up to assist with ensuring social distancing such as having a unidirectional flow with signs, ropes, or other physical and visible measures to guarantee that the patients do not congregate close together.

During the planning process, it would also be advisable to confirm that the site where off-site immunization clinics will be held has a large enough space to implement these safety precautions to ensure a minimum distance of 6 feet between patients waiting, receiving immunizations, and in the post-vaccination monitoring areas where they will sit for the fifteen minutes post immunization.<sup>11</sup>

To adhere to these recommendations, it will take a lot of additional planning for many immunizing pharmacists to ensure that these recommended measures are able to be implemented for their off-site influenza vaccination clinics. Once a plan is drafted, have multiple pharmacy team members read or listen through it, in order to make sure that multiple viewpoints have been taken into consideration, as what is obvious to one, is quantum physics to another. It would be recommended that if you have not provided a clinic for an organization in past years that you visit the facility to visualize the space where you will be administering the immunizations so that you can develop a strategy for how to best set up the space so that the recommended safety precautions can be implemented.

When reviewing these recommendations, there is one facility where I have provided off-site influenza immunization clinics over the course of the last eight years that I know will take some additional planning to adhere to the CDC recommendations. It is a senior living facility, where many of the residents have numerous health conditions. I can guarantee that for every event that we hold at this site the residents will not only arrive early, but also at the same exact time. When we schedule vaccination clinics for a two-hour timeframe, we are typically done within the first 30 minutes due to everyone arriving at once, perhaps a subtle victory in normal times, yet quite the challenge during the “new normal”.



Another challenge with this group is that many are also in wheelchairs, which would make unidirectional flows, ropes to assist with the flow, and barriers potentially hazardous to their mobility. When brainstorming options for the influenza vaccination season, I believe that we will either have to schedule times for the individual patients to come to the facility’s activity room to avoid the overcrowding, or we may need to visit the apartment of each

patient who is interested in receiving the vaccine. In this instance, visiting individual apartments is probably not the best option as we do a large number of vaccinations at this clinic and it would take a lot of manpower to be able to observe each patient to ensure that they did not have an adverse reaction.

For all of the off-site clinics that I participate in, I am fortunate to have enough staff to assist with crowd control as well as administer immunizations as I work with a community-based pharmacy resident and also have one to two advanced pharmacy practice experience (APPE) students on rotation at my site that can be utilized for patient intake, immunization administration, and patient observation post vaccination. I have also observed that students from the local school of pharmacy are always willing to assist with immunization clinics to hone their immunization administration skills, which can be very beneficial for a pharmacy to take into consideration, as long as strategically planning out the process. I would recommend that if you choose to utilize any student pharmacists at your immunization clinics you first meet with the student pharmacists to review the site-specific screening procedures, collection of insurance information, immunization technique, and observe them administering an immunization prior to the scheduled clinic (when allowed by state law). I have observed that even well-trained students may make mistakes in the hustle and bustle of an on-site clinic.

In addition to providing routine immunizations, it is also important for us to prepare for the eventual approval of a vaccine to prevent COVID-19. Depending on how many doses of the vaccine are available initially, the vaccine may be allocated for those who are at the highest risk of complications from the disease, as allocations have been made in the past for certain



vaccinations. Pharmacies should be prepared to provide the demographics of the patient populations that they serve to their local or state health departments should that information be requested prior to the distribution of the vaccine.

Additionally, pharmacies should ensure that they are able to track vaccine administration through

statewide immunization information systems and should have recall systems in place should the COVID-19 vaccine require 2 doses.<sup>14</sup> I was a PGY-1 resident in a busy independent community pharmacy during the H1N1 pandemic and provided the H1N1 vaccines in addition to the seasonal influenza vaccine, which required our pharmacy to be extremely organized and have multiple processes in place to administer and appropriately document administration of the H1N1 vaccine in the statewide immunization registry.

### **Conclusion:**

We have discussed many best practices throughout this document that should be implemented prior to continuing or restarting immunization services in community-based pharmacies. It is recommended to implement the safeguards discussed and begin offering immunizations as soon as possible, and if possible, prior to the beginning of influenza vaccination season in order ensure a seamless process. It would be ideal to have as many of your patients up to date with recommended immunizations prior to influenza vaccination season and eventually COVID-19 vaccination. As with so many facets of life, planning and preparation go hand-in-hand, especially in regard to a vastly important public health effort such as immunizations. After all, an ounce of prevention is worth a pound of cure, and if there's no known cure, well we're left solely with our well-prepared plans for prevention.

## References:

1. Andre, F., Booy, R., Bock, H., et al. (2008, February). Vaccination greatly reduces disease, disability, death and inequity worldwide. Retrieved June 14, 2020, from <https://www.who.int/bulletin/volumes/86/2/07-040089/en/>
2. Measles Cases and Outbreaks. (2020, June 9). Retrieved June 14, 2020, from <https://www.cdc.gov/measles/cases-outbreaks.html>
3. 1918 Pandemic (H1N1 virus). (2019, March 20). Retrieved June 14, 2020, from <https://www.cdc.gov/flu/pandemic-resources/1918-pandemic-h1n1.html>
4. Historic Dates and Events Related to Vaccines and Immunization. (2020, April 6). Retrieved June 14, 2020, from <https://www.immunize.org/timeline/>
5. Immunization Schedule Changes. (2020, May 26). Retrieved June 7, 2020, from <https://www.cdc.gov/vaccines/schedules/hcp/schedule-changes.html>
6. Santoli JM, Lindley MC, DeSilva MB, et al. Effects of the COVID-19 Pandemic on Routine Pediatric Vaccine Ordering and Administration—United States, 2020. *MMWR Morb Mortal Wkly Rep* 2020;69:591-593. DOI: <http://dx.doi.org/10.15585/mmwr.mm6919e2external icon>
7. Bramer CA, Kimmins LM, Swanson R, et al. Decline in Child Vaccination Coverage During the COVID-19 Pandemic – Michigan Care Improvement Registry, May 2016-May 2020. *MMWR Morb Mortal Wkly Rep* 2020;69:630-631. DOI: <http://dx.doi.org/10.15585/mmwr.mm6920e1external icon>.
8. Catch-up Immunization Schedule. (2020, February 3). Retrieved May 24, 2020, from <https://www.cdc.gov/vaccines/schedules/hcp/imz/catchup.html>
9. Coronavirus Disease 2019 (COVID-19): Guidance for Pharmacies. (2020, May 28). Retrieved June 7, 2020, from <https://www.cdc.gov/coronavirus/2019-ncov/hcp/pharmacies.html>
10. Frellick, M. (2020, June 8). Vaccine Rates for All Ages Drop Dramatically During COVID-19. Retrieved June 9, 2020, from [https://www.medscape.com/viewarticle/931913?src=mkm\\_covid\\_update\\_200608\\_msc\\_pedit\\_&uac=215368HY&impID=2411975&faf=1#vp\\_2](https://www.medscape.com/viewarticle/931913?src=mkm_covid_update_200608_msc_pedit_&uac=215368HY&impID=2411975&faf=1#vp_2)
11. Vaccination Guidance During a Pandemic. (2020, June 9). Retrieved June 9, 2020, from <https://www.cdc.gov/vaccines/pandemic-guidance/index.html>
12. Coronavirus Disease 2019 (COVID-19) – Symptoms. (2020, May 13). Retrieved June 9, 2020, from <https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>
13. World Health Organization. (2020). Guiding principles for immunization activities during the COVID-19 pandemic: interim guidance, 26 March 2020. World Health Organization. <https://apps.who.int/iris/handle/10665/331590>. License: CC BY-NC-SA 3.0 IGO
14. American Pharmacists Association. Immunizing Pharmacists News. May 18, 2020.

WHEN YOU SEND IN QUIZZES, ALWAYS KEEP A COPY. YOU MAY EMAIL OR FAX THEM.

FAX. (843) 488-5554 • EMAIL. [INFO@CE-PRN.COM](mailto:INFO@CE-PRN.COM)

ALL PHARMACISTS AND PHARMACY TECHNICIANS:

Check your CE activity or print a statement of credit from your CPE Monitor eProfile Account.

To login, go to <https://nabp.pharmacy> Enter your username (your email address) & your password.

Click on "CE Activity" to view your history and print a CE report.

### All Guidance for Effectively & Safely Continuing Immunization Care in a Community Pharmacy During a Pandemic

#### Faculty

Gretchen Kreckel Garofoli, PharmD, BCACP, CTTS

Clinical Associate Professor,

West Virginia University School of Pharmacy



CE-PRN is a publication of PharmCon. PharmCon is accredited by the Accreditation Council for Pharmacy Education (ACPE) as a provider of continuing pharmacy education.

Providers who are accredited by ACPE are recognized by ALL states for fulfilling CE requirements.

Participants completing this activity by September 11, 2021 may receive full credit.

Release Date: October 1, 2020

This lesson furnishes 1.0 (0.1 CEUs) contact hours of credit.

Universal Activity Number for this activity:

Pharmacist 0798-0000-20-160-H06-P

Pharmacy Technician 0798-0000-20-160-H06-H06-T

CE Provider Registered # with CE Broker is 20-705005

#### TO DOWNLOAD LESSONS FROM OUR WEBSITE:

- Go to website [www.ce-prn.com](http://www.ce-prn.com)
- Click on COURSES
- Click on YEAR
- Click on the UAN # "0798-0000-..." for your lesson of interest

FLORIDA PARTICIPANTS – READ THIS!

Place your Florida license # on every quiz.

QUIZ – October 2020 • All Guidance for Effectively & Safely Continuing Immunization Care in a Community Pharmacy During a Pandemic

In order to receive credit for this activity, fill in the information below, answer all questions, and return Quiz Only for certification of participation to:

CE-PRN

341 Wellness Drive

Myrtle Beach, South Carolina 29579

WHEN YOU SEND IN QUIZZES, ALWAYS KEEP A COPY. YOU MAY MAIL, EMAIL, OR FAX THEM.  
FAX #. (843) 488-5554 • EMAIL [INFO@CE-PRN.COM](mailto:INFO@CE-PRN.COM)

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

PHARMACIST

PHARMACY TECHNICIAN

CPE Monitor ePID \_\_\_\_\_ BIRTHDATE (MM/DD) \_\_\_\_\_

IF LICENSED IN FLORIDA, FL LICENSE # \_\_\_\_\_

EMAIL ADDRESS \_\_\_\_\_

LESSON EVALUATION

Please fill out this section as a means of evaluating this lesson. The information will aid us in improving future efforts. Either circle the appropriate evaluation answer, or rate the item from 1 to 7 (1 is the lowest rating; 7 is the highest).

1a. PHARMACISTS AND TECHNICIANS ONLY: Does this lesson meet the learning objectives? (Circle choice).

Recognize the potential impact of delaying routine adult immunizations YES NO

Identify ways to keep both patients and providers safe during immunization administration YES NO

Describe best practices for continuing immunization administration in the community-based pharmacy setting. YES NO

2. Was the program independent & non-commercial? YES NO

3. Relevance of topic Low Relevance Very Relevant  
1 2 3 4 5 6 7

4. What did you like MOST about this lesson? \_\_\_\_\_  
\_\_\_\_\_

5. What did you like LEAST about this lesson? \_\_\_\_\_  
\_\_\_\_\_

6. How would you improve this lesson? \_\_\_\_\_  
\_\_\_\_\_

## Activity Test

### All Guidance for Effectively & Safely Continuing Immunization Care in a Community Pharmacy During a Pandemic

A passing grade of 70 or higher is required to earn credit.

ALWAYS CHECK YOUR CPE MONITOR® or CEBROKER ACCOUNT. TYPICALLY, CREDITS APPEAR IN THAT ACCOUNT WITHIN 7 DAYS AFTER WE RECEIVE QUIZ ANSWERS.

WHEN YOU SEND IN QUIZZES.

ALWAYS KEEP A COPY. YOU MAY MAIL, EMAIL OR FAX THEM.

FAX # IS 843-488-5554. OR SEND A CONVENTIONAL EMAIL WITH YOUR ANSWERS TO INFO@CE-PRN.COM PLEASE MARK THE CORRECT ANSWER(S)

**CE-PRN will be ending support in the year 2021, for immediate CE submissions please visit [www.freece.com](http://www.freece.com) to complete renewal requirements**

1. All the following are potential consequences of delaying routine vaccinations during a pandemic, EXCEPT:
  - a. Patients at risk from delayed immunity to specific diseases
  - b. Loss of herd immunity for the community
  - c. Resurgence of vaccine preventable diseases
  - d. Improvement in public health outcomes
  - e.
  
2. In which of the following instances is eye protection considered optional to be worn by the immunizer?
  - a. It is never considered optional and needs to be worn for all patient interactions
  - b. In areas with substantial disease transmission
  - c. In areas with moderate disease transmission
  - d. In areas with low disease transmission

3. Marlene is a patient at your pharmacy who turned 65 in March of 2020. She always stays up to date with her immunizations and has been calling your pharmacy every week since her birthday asking when she can get the “pneumonia” vaccine. Your pharmacy is now offering immunization services again. Marlene has stayed at home since the stay at home order was put into place in your state and has had her food and medications delivered to her home. What precautions, if any should you take when administering the Pneumovax® 23 immunization to Marlene?
  - a. No precautions are needed because Marlene has followed the stay at home order
  - b. Only the pharmacist immunizing should wear a mask
  - c. Only Marlene should wear a mask
  - d. Both Marlene and the immunizing pharmacist should wear masks
  
4. Albert is a 52-year-old male who comes into your pharmacy to pick up his prescription for metformin for his newly diagnosed diabetes. You proactively recommend immunizations to all of your patients, so you recommend that Albert receive the Pneumovax® 23 vaccine today since your pharmacy has resumed the administration of immunizations. In addition to the standard pre-vaccination screening questions that you ask your patients which of the following questions would be most important to ask Albert prior to administering the vaccine during the COVID-19 pandemic even though he is not exhibiting any alarming symptoms?
  - a. Have you been to a location where COVID-19 transmission is high?
  - b. Are you married?
  - c. Have you been to the grocery store within the past month?
  - d. Do you regularly wash your hands for 20 seconds?
  
5. Your pharmacy team is preparing to begin administering immunizations again. Your student pharmacist has developed a list of patients who became eligible for the second (and third if needed) dose of Gardasil® 9 vaccine since immunization services were put on hold at your pharmacy. In prioritizing the doses that you have in stock at your pharmacy, which group of patients would you reach out to first to administer the vaccines?
  - a. Patients whose due dates for the second (or third) dose of the vaccine are the most past due
  - b. Patients whose due dates for the second (or third) dose of the vaccine occurred most recently
  - c. Patients who need the first dose of the vaccine
  - d. Don't notify your patients and only administer the vaccines when someone comes into the pharmacy to request the vaccine
  
6. Which of the following diseases is considered eradicated worldwide?
  - a. Measles
  - b. Smallpox
  - c. Rubella
  - d. Polio

7. What type of personal protective equipment would be most prudent for a patient to wear when receiving a vaccine during the COVID-19 pandemic?
  - a. Mask
  - b. Face shield
  - c. Gloves
  - d. Long sleeved shirt
  
8. How long should a patient wait post vaccination during the COVID-19 pandemic prior to leaving the premise?
  - a. Immediately following the vaccination
  - b. 2 minutes post vaccination
  - c. 15 minutes post vaccination
  - d. An hour post vaccination
  
9. Stuart is an 85-year-old male who called your pharmacy to inquire about coming to the pharmacy to receive the second dose of his recombinant zoster vaccine that he was eligible to receive in April 2020. Upon questioning you ask Stuart about any recent symptoms he has been experiencing. Which of the following reported symptoms would NOT cause concern for administering a Shingrix® vaccination to him at this time?
  - a. Fever
  - b. Recurrent hiccups
  - c. Loss of smell
  - d. Difficulty breathing
  
10. Elma is a 95-year-old female who has been a lifetime customer at your pharmacy. She is due for an immunization, but is scared to travel to your pharmacy to receive the vaccine since disease transmission in your community is high. Which of the following options would be the best option to be offered to Elma?
  - a. Tell Elma not to worry and to come to the pharmacy when it is convenient for her
  - b. Tell Elma that vaccinations aren't that important and she can skip it
  - c. Offer to have an immunizing pharmacist provide the immunization to her in her home when delivering the medications that she also needs
  - d. Send the vaccine home with her husband (not a healthcare practitioner) to administer to her when he comes into the pharmacy to pick up her prescriptions