Pediatric
Physician Xpress, Inc.

Pediatric Practice Vaccine Management

Background

Vaccines have improved the lives of society and provide much value to patients and their families. There is no better place for pediatric patients to receive vaccines than in the pediatric office. Due to the change in the Healthcare environment, there are retail clinics and urgent care centers advertising sports physicals and giving vaccines. Additionally, some retail pharmacies are advertising giving vaccines to patients. The pediatric practice should maintain a complete vaccine record for the patient including any adverse events reported. The revenue associated with vaccines is significant and so is the cost of the vaccines. Pediatric practice owners and their administrators identify and implement manual tracking of vaccines in many offices (e.g. paper or spreadsheet like excel). While the owners and/or administrators have skills and were able to 'make it work' with a manual process, there is a much better method now to manage vaccine inventory and the revenue cycle management associated with vaccines.

Each year the practice owners should receive a report that shows the profitability per vaccine per insurance company. If the vaccine business is unprofitable or sub-optimal, this type of reporting as well as a vaccine management system should help the practice identify the issues and turn the business profitable (this might also mean terminating a managed care contract if not profitable for the overall business). If you do not have a report to this detail, this is a standard that you should mandate moving forward to help you make the best choices about vaccine management. This white paper looks at the primary areas of vaccine management and provides some suggestions tips for the Pediatric Practice owner and/or their administrator.

Manufacturing and Maintaining the Cold Chain

Most vaccines are manufactured by one of four primary vaccine companies: Merck, Sanofi, Glaxo or Pfizer. The vaccine manufacturers are fairly consistent on managing the cold chain of vaccines in United States for their vaccines from their manufacturing site to the medical practice. Once the vaccines arrive at the medical practice, storage of vaccines is the responsibility of the medical practice. There are many options available for refrigerators and freezers as well as remote temperature devices to monitor the temperature of the refrigerator/freezer. The important part for a Medical Practice is providing consistent storage of vaccines (e.g. 40-46 degrees F). A medical practice should monitor their refrigerators and freezers where they store vaccines with an accurate temperature probe that will alarm/notify a person at the practice if the contents in the Refrigerator/freezer are outside of the range. A good, calibrated monitor that can monitor both the refrigerator and freezer costs about $250 and about $10-15/month for the remote monitoring. This type of temperature monitor sends notifications both via e-mail notifications as well as via the smart phone APP.

Managing Inventory of Vaccines in the Pediatric Office

Most Medical Practices have either inadequate vaccine inventory management systems or very labor intensive systems that are both costly and a burden on the practice. For examples, many practices record inventory on paper or use a Microsoft excel spreadsheet. There are some inventory management practices on the market but they do not provide option to link the vaccine from delivery to the patient so a Medical practice can see which patients received a shipment of vaccine. Ideally, the inventory management system should record the vaccine shipment when they arrive to the practice (use of Bar code readers that integrate into the software can help reduce errors on data entry), show the real time inventory of all vaccines in the refrigerator/freezer as well as reduce the inventory when a vaccine is given and link the patients vaccine record to the inventory system so the practice is able to link all doses to patients. The vaccine inventory management system for the Pediatric Practice should provide:

- **Inventory Management System** for receiving shipments of all vaccines and shows real time the number of doses per vaccine in the refrigerator/freezer.
- **A database** that a Medical Practice can enter in patient demographics, previous vaccine records and is updated real time when vaccines are administered to patients listed in the system.
- **A record all patient vaccinations received** (vaccines administered via VaccineXpress inventory management system and previous vaccines).
- **Ability to show the vaccine schedule** for the practice and if the patient is behind on certain vaccines.
- **A place to order vaccines** for a patient visit and ability for staff to use either a barcode scanner or select the vaccine provided from the inventory listed in the refrigerator/freezer. The staff can record who administered the vaccine for each patient during the administration process.
- **A scheduling program** so that patients receiving a vaccine can be scheduled with the appropriate provider.

How Reimbursement Works for Vaccines

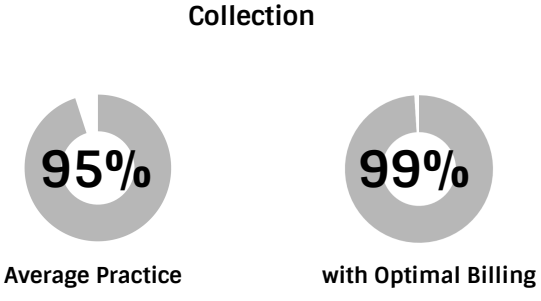
Many practices lose money on their vaccines due to the gap in systems and processes previously available to them. For commercial vaccines, the practice purchases the vaccine from a vaccine manufacturer, administers the vaccine to the patient and then bills for the vaccine as well as associated administration codes. For patients with Medicaid insurance or the uninsured, the practice can provide a vaccine from their Vaccines For Children (VFC) stock. For VFC vaccines, the practice bills the insurance company and receives payment for the vaccine administration but not the vaccine since the practice did not pay for the vaccine.

Reimbursement of vaccines for most pediatric patients with commercial insurance is through their Medical Benefit. The Medical practice buys the vaccines, administers the vaccine and then bills the patient's insurance (known as "Buy and Bill"). Insurance companies have a formula on how they reimburse which is usually based on the Average Sales Price (ASP) or Wholesale Acquisition Cost (WAC) of the Vaccine. Many Insurance companies' reimbursements are based on a formula to provide a small margin above the vaccine cost. Without the right vaccine management tools and reports that link the revenue cycle end to end, it is complicated to monitor profit/loss of each vaccine per insurance company. Let's go through an example of reimbursement for a vaccine:

If the vaccine list price is $102 and the practice receives a 2% prompt pay discount, the practice cost is really $100. If there are other discounts provided by the manufacturer that the practice does not receive, the average sales price (ASP) might be $98. If the Insurance company's reimbursement formula is 6% above Average Sales Price, the reimbursement rate/contract rate would be about $104. So how does the practice lose money on the vaccine cost?

1. The average practice collects 95% of the contract amount of all charges (each visit is a co-pay, insurance pay, and patient responsibility) – by not having an optimal billing process to collect at 99% of the contract amount – the practice can lose money on reimbursement of the vaccine CPT codes.

2. Vaccines increase in cost by 5-10% per year. When the cost goes up by 5-10%, it takes about 5-6 months until the reimbursement to increase because it takes time for ASP to be updated in the systems of payers. There is a method approach to manage the price increases that lead to optimal profitability for the practice.



Patient Vaccine Records and Reporting

There is much opportunity at most practices to increase their vaccination rate which improves prevention across their practice in way that maintains or enhances profitability. The first step is to identify the patients that are either behind on certain vaccines or missing vaccine doses. There should be report in the vaccine management system that shows the patients and the vaccines they need based on the practice vaccine schedule. A person in the practice can view this report, look at the individual patient records and call in appropriate patients to receive vaccines.

Summary

While the number of vaccines have increased greatly over the last 15 years, there is greater need for Pediatric Practices to leverage vaccine inventory and patient vaccine record systems. These systems should have the ability for the practice to view reports of patients behind on vaccines or missing vaccine doses when compared to the practice vaccine schedule. By using the appropriate tools and an elite pediatric medical billing team, the practice should be optimizing both patient care and profitability related to their vaccine business.

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About the Author

Ken Dominy has over 25 years of experience in the healthcare market and he is the founder and president of PhysicianXpress, Inc. Ken helps pediatric practice owners optimize the profitability and management of their pediatric practice via providing an end-to-end pediatric E.H.R. and elite pediatric medical billing service. Ken led a team that created the PediatricXpress system, a pediatric E.H.R. and revenue cycle management system. The PediatricXpress system is leveraged by independent pediatric practices that range from hundreds of visits per month to thousands of visits per month.

Ken managed the start and growth of his wife's pediatric practice from a solo pediatrician to four-provider, two office pediatric group. His overall experience includes: pharmaceuticals, vaccines, specialty medical devices, medical group management, as well as development & implementation of Electronic Health Records and medical billing processes/systems.

Ken holds a Bachelor of Mechanical Engineering degree from the University of Delaware and a Masters of Systems Engineering from the University of Pennsylvania.