

Victoria Village Manor

PointClickCare's eMAR System Improves Patient Safety and Nurse Productivity

Challenge

Victoria Village Manor needed an efficient way of managing the inventory of prescription drugs and the management of all medications to ensure the 5 R's were being followed.

Solution

Victoria Village Manor replaced their manual paper-based documentation with an eMAR application developed by PointClickCare in partnership with Medical Pharmacies Group.

Results

PointClickCare eMAR was successfully implemented for all 128 Victoria Village Manor residents. The new system automates much of the manual documentation process, ensuring the accuracy and integrity of medication management & administration, as well as reducing the risk of medication error.

Introduction

PointClickCare eMAR, in conjunction with Medical Pharmacies Group Inc., saves time for nurses by automating medication management and administration processes. It provides quick, easy access to resident information reducing the risk of medication errors that might impact resident safety by providing alerts and other automated checks.

Creating 'Communities of Caring'

Victoria Village Manor opened in 2003 on the shores of beautiful Kempenfelt Bay in Barrie, Ontario. It is a 128-bed long-term-care facility managed by Specialty Care Inc., which operates 14 such facilities in cities and towns throughout Ontario. Toronto-based Specialty Care is no newcomer to the business of providing quality long-term care and services to seniors and adults with special needs.

Struggling with the challenges of a paper world

Each shift nurse is responsible for managing the inventory of prescription drugs and administering all medications to unit residents. As is still the case in many long-term care (LTC) facilities, however, the ordering, receipt and administration of medications at Victoria Village was supported by a manual, paper-based documentation process that was labour intensive and prone to error that could impact the timely delivery of drugs to residents and, in the event of a drug mishap, even affect resident safety.

This legacy documentation process typically began when a physician wrote an order on paper prescribing medication for a resident. A nurse would fax the order to the pharmacy for filling and at the same time rewrite the order onto a paper Medication Administration Record (MAR) for that resident and into a Drug Order Book, which summarized all the drugs on order for that particular unit. When the drugs arrived from the pharmacy, the nurse would reconcile the delivery against the Drug Order Book to ensure all items were received. It is not uncommon, however, for a pharmacy to make appropriate drug substitutions.

As a result, the nurse would have to amend the MAR to properly reflect the actual drug that had been received and was to be administered to the resident. When it came time to administer the drugs, the nurse used a medication cart containing individual pouches for each resident. After cross-checking what was in the pouch with what was written on the paper MAR, and giving the



drug to the resident, the nurse would sign the MAR, indicating that the right dose of the right drug had been administered to the right resident at the right time. Each MAR covered a one month period, and completed MARs were stored in a binder on the unit.

“This highly manual process was not only time-consuming and labour intensive, but also prone to human error,” admits JoAnne Prokopchuk, Director of Care at Victoria Village. “In a workload crunch, for example, a nurse might forget to fax an order to the pharmacy or transcribe the order into the Order Book.”

Another big challenge with the old process was that it did not provide for proper nurse follow-up subsequent to administering a medication, such as a PRN (i.e. an ‘as needed’ medication), to see if the drug worked effectively.

The most common problem, however, was that a busy nurse being bombarded with requests from residents and staff alike might forget to sign the MAR. Although the drug may have actually been administered as prescribed, nursing standards dictate that a medication not signed is deemed not to have been given. The Ontario Ministry of Health & Long-Term Care is concerned that every resident gets the medications that have been prescribed and that no one forgets anything, so if Compliance Advisors find missing documentation or unsigned MARs when they conduct audits, a home runs the risk of being written-up as non-compliant with ministry regulations governing LTC facilities. To avoid such an outcome, processes had to be put in place at Victoria Village to detect missing signatures and to follow up with nurses to subsequently sign the MARs.

Technology to the rescue at Victoria Village

Medical Pharmacies Group Inc., Specialty Care’s pharmacy partner, implemented an electronic MAR (eMAR) system to address the ongoing problems with legacy medication documentation. After more than a year of looking and not finding a suitable eMAR product on the market, Medical Pharmacies formed a joint venture with PointClickCare to develop an eMAR module for PointClickCare’s core clinical application. PointClickCare was already being used by a number of Medical Pharmacies customers, including Specialty Care, for progress notes and other online nursing documentation.

The resulting PointClickCare eMAR is a full medication administration system based on eMAR software that is securely accessed over the Internet, following the widely accepted software-as-a-service application delivery model. As part of the implementation, the eMAR application was integrated with the existing “fill & bill” system at Medical Pharmacies so that the two systems could communicate based on healthcare standard HL7 messaging. The eMAR system communicates drug orders to the pharmacy system, which responds with information on what medications it actually sends to the home so that the on-screen MAR is updated and nurses can reconcile shipments received from the pharmacy simply by scanning bar codes on the products.

The eMAR system involves the use of a touch-screen tablet PC that mounts on a standard medication cart (as seen on page 1) and connects wirelessly to the Internet to access the eMAR application. Optional swipe card reader, bar code scanner, workstation and printer are available to support additional functionality such as login authentication and paper MAR printouts for backup purposes.

“There has always been a need to make medication administration simpler and safer for nurses and residents, so we decided to do this by

replacing the paper MAR process with an electronic version,” says Mark Barley, Manager of Pharmacy Services at Medical Pharmacies, who has been a key driver behind the eMAR initiative.

This new system automates much of the manual documentation process and provides checks and balances to ensure the accuracy and integrity of medication management and administration at LTC facilities. For example, nurse users can reorder meds simply by touching a button on the screen, be alerted to missed doses and signatures, and even be reminded of follow-ups, such as documenting the outcomes for PRNs.

Pilot sets stage for successful deployment

Specialty Care, one of more than 4,500 long-term care providers already using PointClickCare, expressed interest in being a pilot site for deploying the new PointClickCare eMAR system, and a pilot test involving 10 residents on one unit of Specialty Care’s Victoria Village Manor facility was undertaken. It was supported by two days of training for nurses provided by Mark Barley and his pharmacy team.

“For the pilot, we intentionally picked our most complex unit with the most complex meds. We felt that if it could address our biggest challenge, then it would work anywhere within our facility,” explains Prokopchuk.

The pilot proved to be successful, and by April 2008, medication administration for all 128 Victoria Village Manor residents was covered by the new PointClickCare eMAR system. One of the biggest benefits of PointClickCare eMAR is the accuracy in medication signing and a reduction in the risk of a medication error.

Although she says they continue to work on further enhancements, Prokopchuk claims that, “missing signatures and incomplete follow-ups have decreased significantly for us since it’s easier and more convenient to do them electronically through the eMAR system. The system alerts the nurses to outstanding signatures and prompts them to do PRN follow-ups. I can easily monitor the entire system daily, right from my desktop, so I can quickly see if things aren’t completed.”

“I can now access resident eMAR information directly from PointClickCare and see reports, progress notes and other information,” enthuses Sauve. “This saves me time; and when the system prompts me to follow up on PRNs, I can enter the information into eMAR and it is automatically copied into PointClickCare. This saves additional time when charting residents at the end of my shift.”

According to Sauve, eMAR also helps to reduce the risk of medication errors and improve resident safety by alerting nurses about recording appropriate vital signs before giving certain drugs. If the resident’s MAR calls for the use of the heart drug digoxin, for example, eMAR will alert nurses to the need to record the resident’s pulse before administering the drug – it may be dangerous to give digoxin when pulse rate is below 50.

While Specialty Care completes its plan to roll out the eMAR solution to the rest of its facilities, Barley and the PointClickCare team have just deployed the new system on two units at another LTC facility served by Medical Pharmacies that is already using the PointClickCare nursing documentation solution.

“Over time, we plan to deploy eMAR to all our LTC customers that already use PointClickCare,” concludes Barley.