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Educating medication aides about safe medication administration

derya fuller
deryafuller@yahoo.com

Safe Medication Administration in Assisted Living Facility

Derya Fuller, RN, MSN

NURS- 653-25 Internship: Clinical Nurse Leader

University of San Francisco

Instructor: Carlee Balzaretti

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Clinical Leadership Theme

The clinical leadership theme for my project was to focus on improving patient safety and the practice of safe patient care. We aim to prevent medication errors, and one way is educating the medication aides in an assisted living facility. One of the responsibilities of their job is to pass medications and many of these aides have limited education about medications and safe medication issues. Safe medication administration is standard for quality patient care, and this requires awareness and an organized system. To raise awareness I worked with the director of this assisted living facility and utilized the resources available to me in the hope of finding a better and safer solution to administer medication than the current method the aides are using.

Statement of the Problem

According to Makary's analysis on scientific literature, medical errors are now the third most common cause of death in the U.S. (McMains, 2016), and medication errors are part of medical errors. All individuals who pass meds need to be educated about medication interactions, possible side effects, and incorrect dosage levels. According to Hughes and Blegen (2008), having inadequate education, heavy workloads, inadequate staffing, fatigue, not being able to read provider handwriting, inconsistent dispensing systems, and problems with labeling of drugs, all of these problems continue to challenge nurses from ensuring that their patients receive the right medication at the right time. These same problems are also potential problems for medication aides and their residents.

The current practice at the assisted living facility: When the medication aides pass the medications to the residents, they pre pour the meds into a cup that has the patients' room

numbers written on them and then place these cups on a tray. They prepare these meds 2 hours before the meals and then give them with or after the residents' meals.

Project overview

My specific aim statement was to educate the medication aides about the patients' five rights when administering the medications, and to teach them that this is a tool/method to help prevent medication errors. The aides also need know to report if any medication error happens. Reporting is a very important method to improve safety and quality patient care. People learn by making mistakes when they acknowledge errors, and information sharing about mistakes can lead to ways and innovations that can cut the number of the mistakes. Havinga and Dekker (2014) note creating an environment where people show forward-looking accountability, an organization needs to respond to practitioners who share their accounts. Incidents should not be regarded as errors. There is no need to blame someone, instead, use errors as learning opportunities. Reporting med errors is also a very important way to prevent a possible health crisis when the error can cause serious problems. Donovan (n. d.) writes about the need for nursing assistances to watch for apparent drug side effects, or changes in physical condition, or noncompliance of medication regimens. Their training helps them to be educated observers. Topics include risk factors for geriatric side effects, and also how to report observations to the nurse.

Rationale

Because there is no tracking of medication errors at the assisted living facility there is no specific data I can provide. However, the director believes that there have been medication errors before, such as an aide giving the wrong cup of meds to patients. The director also believes that in her time there has not been harm done to a patient from medication errors. When the aide

makes an error, the director gives more education regarding that error to the aide. A just culture concept establishes an organization mindset that positively changes the work environment and patient outcomes in several ways. The concept promotes the environment where errors do not result in automatic punishment, and instead, helps staff find the source of the error. Mistakes that are not deliberate can be fixed by education about the error, and this will decrease the likelihood of a repeating of the error. Increased error reporting can lead to changes in care delivery systems, and this creates a safer environment for patients/individuals to receive the services, giving nurses and other workers a sense of ownership in their work. The work environment will improve as nurses and workers deliver services in a safer, better system. The culture of the workplace is one that encourages quality and safety, replacing punishment and blame (Halpern, McKinnon, Okolo, Sanzio, & Dolan, 2016).

There is no specific data that shows how many medication errors are happening in this assisted living unit. The nursing aides pass the medications by putting the meds in to the cup, in the medication room, write the resident's room number on the cup and they then place the cups on a special med tray that has the residents' room numbers on it. They start passing the prepared cups of meds to the residents both during and after each meal. For some of the residents there is little spoken dialogue between the resident and the aide, and this suggests that the aides need further education about safety medication administration. For example, the 5 rights include the observation criteria of the Right Patient. There is research that shows that mistakes are being made, for example, 94% of staff making errors when reading the names of the patients' wristband, and 97% scoring negative on asking the patients the residents to confirm their name. The reason why nurses and medication aides do not always confirm the names of the patients on their wristband or ask for their names is because they are sure that they already know the names

of the patients, and so they believe that the need for repeated confirmation is unnecessary. Yes of course the nurses and aides are familiar with their patients or residents, especially those who have extended stays, but to prevent medication errors it is important for staff to adhere to all medication guidelines in all circumstances, even if this seems boring routine (Kim, & Bates, 2013).

There is research that shows that medication aides are capable of safely administering oral, topical, and some parenteral medications, with no evidence that medication aides have the higher error rate than licensed nurses. This is likely because most of the medications that aides pass are low-risk and routine. Low risk and routine medications also do not easily cause the serious health crisis, and this weakens the need to report medication errors. The training and education requirements for medication aides vary in state to state. 43% of medication aides receive training from their employers, while 34 % receive training from community colleges. (Budden, 2011). Every facility should want to know how many errors they are making, and how many medication errors are not being reported. The IOM report emphasizes the importance of reporting errors, because this can help to hold providers accountable for their performance, and also provide information that will lead to improvement of safety (Wolf & Hughes, 2008).

Methodology

The pre-survey was done to check the medication aides' understanding about safe medication administration, such as using the five rights, and also what to do if an error happens. A post survey was then done 2 months after the first survey. Another intervention was done, showing the aides a short video(s) of safe medication administration, which includes the 5 patient rights. An experiment of passing the meds using pillboxes was also done. The pillboxes can be closed, making this potentially safer that leaving open pill cups on a tray. Alzheimer's and

dementia caregiver centers (2016) believe that using a pill box, and keeping a daily list or using a calendar, can help ensure that the medication is taken as prescribed. The main focus of my project was to raise awareness of medication administration errors, and to stress the importance of administering meds in a consistent, systematic method. Also taught was the normality of self-reporting medication errors, and the different reasons about why it is important to report medication errors.

Data Source/Literature Review

Literature research supports the concept that not following safety checks and safety protocol when administrating medications can lead to medication errors (Hughes, & Blegen, 2008). The primary strategy in the prevention of adverse drug events (ADEs) is knowledge of the "Five Rights" of medication safety: administering the right medication, in the right dose, at the right time, by the right route, to the right patient. Other methods include using barcode medication administration, which is an important new tool used to ensure that the correct medications are given to the correct patient. Also important is minimizing interruptions to let nurses/med. aides focus on their administering of the medications safely. (AHRQ, 2015). An example of this is the state of Oregon: they have rules that require that medication aides receive some training before they administer medications, and this training stresses the importance of thoughtful, systematic drug administration.

The formal training that med aides have reported receiving ranges from 8 hours to 2 weeks (80 hours), and usually involves the shadowing of the licensed nurse/ medication aide as she/he passes meds. They also attend in-service meetings. Experienced med aides often teach new med aides how to order, store, document, and administer medications. (Carder, 2012). Because of the use of new technologies, for example, the EPIC, medical aides now require

further training. Rick Matros, the CEO of the Sabra Senior Health Care REIT, notes that the "Electronic medical records are also finding their way into new models of assisted living. The systems use electronic tablets connected to a central system and help to reduce errors" (Ragone, 2013, p. 35). Many of the elderly who live in assisted living are dependent on their caregivers, and they deserve high quality care. As residents they have also paid for this care: the estimated median annual rate for a private room in an ALF is $41,400, while the median annual rate for a private room in a nursing home is $83,950 (Yeaworth, 2015). Because the elderly also consume many drugs, this raises the chances of a medication error happening. According to Centers for Disease Control and Prevention (2010), 82% of the adults in America take at least one medication and 29% take five or more medications. There are an estimated 700,000 emergency department visits and 120,000 hospitalizations annually that are due to ADEs. Annually, $3.5 billion is spent on extra medical costs of ADEs. At least 40% of these ADEs are estimated to be preventable in ambulatory, non-hospital setting.

Timeline

The project began on August 23, 2016 and concluded on November 16, 2016. There were different challenges that came with this timeline. One was how short the time was to do this project, only 3 months. Another was that the staff has no experience with charting, and charting has not been part of either their education or their culture. And a third challenge was that they have no experience with self-reporting. Because of their work environment, their education, and their culture, some of these aides are likely to be resistant and distrustful of self-reporting.

Expected Results

My expectations of this project were to see an increase by 20% in medication aide's usage of the 5 rights. Also, to see the medication aides administering medications safety, using

the five rights, and to understand the importance of reporting any medication errors when they happen. One outcome that I hoped for was that this project would raise awareness in the staff about the dangers of medication errors, and the necessity of paying attention.

Prescription medications today are very widespread and also increasingly complex. There are now more than 10,000 prescription medications available, and, a statistic worth repeating, nearly one-third of adults in the United States are taking 5 or more medications (Agency for Healthcare Research and Quality, 2015). This high number of different medications raises the chances of errors happening. And increased complexity is also raising risk factors for adverse drug affects, i.e., side effects, incorrect medications, overdoses. Med aides must be educated about the seriousness of the task of administering medications. The task may look easy to do, the task may often also be easy to do, but with repetition comes inattention and lack of focus, carelessness. As part of my undergraduate study, many times I and classmates were warned of the seriousness of choosing nursing as a career, with our professors stating that a good nursing candidate needed to have some level of "fear" of making a mistake. Both knowledge and paying attention are always so important. This respect of both the power of medications and the potential for bad outcomes must be a part of the education of medication aides. Teaching them the importance of proper preparation, administering meds using the 5 rights, and maintaining focus and avoiding interruptions is very important.

Another outcome I hoped for was to teach about and encourage the normality of self-reporting errors. Self-reporting however is not part of the assisted living staff's culture and so this will require time and repeated repetition.

Nursing Relevance

A significant contribution would be to raise awareness and knowledge of proper medication administration. If individuals understand the importance of taking steps to ensure safe passing of the meds, it can be estimated that they as individuals will take steps to follow safety protocol: for example, avoid interruptions by working as a team, having team members working to stop possible interruptions from occurring. Distractions and interruptions are anything that can disrupt individuals from their task by diverting their attention. Sources of both interruptions and distractions can include alarms, ringing phones, beepers, text messages, e-mails, as well as people, including other staff members (Beyea, 2014). And when staff members work as a team there is both more efficient use of labor and more transparency. Staff will know what is occurring, and when help is needed.

Summary Report

The specific aim for this project was to see an increase by 20% in the medication aides' usage of the 5 rights by Nov 14, 2016. Villa Riviera is an assisted living facility with 20 residents living there. The team consists of the manager who is an RN, 1RN who is part-time and also works on call, and a total of 18 medication aides (per diem, part time, and full time). Four medication aides work in the morning 0700-1500, another four work from 1500-2300, and there is one extra aide that comes from 1700-2100 to help out for extra tasks. There are two aides that work at night from 2300-0700. The aides in the morning and evening have their own assignments with 5 patients each. They administer the medications; they serve the prepared meals to the residents; they also assist the residents who need help in ADL's. The manager works from Monday through Fridays from 0800-1630 and she also works as an on-call. She can be called 24/7/365, except when she is on vacation or not in the area. Her responsibilities as manager are receiving new orders; seeing that discontinued orders are discontinued; changes in

orders from the MD, and record keeping in the paper MAR. The medication aides pass only PO drugs, and administer ointments.

The medication aides' current practice is pre-pouring the medications into a cup. The aides write the room numbers of the residents on these cups and they then place them on a tray that has written room numbers of the residents. This tray is placed in the medication cart. They prepare the meds ahead of time, about 2-3 hours prior to meals, and they start passing the meds at meal times. This practice can lead to medication errors. For example, an aide can give the wrong cup to a wrong patient, or, there is potential for the residents to help themselves, if the cart is unattended, to what they believe to be their cup of meds. Another possibility is the MD changes or discontinues the dose of medication after the aide pre pours the meds into a cup, causing a medication error. Following strictly the five rights of medication administration helps prevent medication errors, and this is one of the goals of this project.

Following the discussion with the manager and repeated observation of aides passing meds, a focus on education of the 5 rights of medication administration was decided on. Step one was to do a pre survey of the aides, observe aides passing meds in a 3 week time frame, and to identify potential weaknesses. Step two was to identify and talk about various possible safe med problems with the staff, and then to take steps to remove these safe med barriers. Step three was to experiment with using pillboxes for three residents. I also wrote a SWOT analysis to look at microsystem's strengths and the weaknesses. Also, the importance of reporting medication errors was taught. This facility does not track medication errors and has no data. At one of the staff meetings a fishbone diagram was done on the chalkboard to illustrate the potential weaknesses that can cause medication errors. The 5 rights were also discussed, and a video shown. In the pre-survey, 5 out of 9 of the medication aides answered incorrectly in listing all of the 5 rights,

and this supported the need for further education on the five rights. In the post-survey of 6 rights, 8 out of 9 medication aides responded to questions 100% correctly.

Materials used included the experimental pillboxes, the video, and handouts given to the aides. The improvement of the aides' scores on survey questions support the use of education to raise awareness and this also stresses the importance of careful medication administration. The ability to have sustainability in this plan for maintaining the change is very strong due to low cost of refresher education handouts. Staff discussion on the need to maintain vigilance and adhere to the 5 rights is both advised and sustainable.

Appendix A

The 5 Rights of Medication Administration Handout

- Remember: All patients should be treated equally, and all patients, or all assisted living residents, deserve safe and appropriate nursing care.
- Competent and safe care includes receiving the correct medications.
- Being aware of the 5 rights has been shown to help reduce errors when passing medications.

The 5 rights of medication administration:

the right patient
the right drug
the right dose
the right route
the right time

The 3 additional rights now included on some medication administration lists:

the right to know information about the drug
the right to refuse the drug
the right documentation

Appendix B

SAFE MEDICATION ADMINISTRATION AND MEDICATION ERRORS PRE-SURVEY

This survey asks for your opinions on medication administration and reporting of medication errors. All surveys/opinions are confidential and will not be shared.

A medication error is defined as any type of error, accident, or mistake, regardless of whether or not it results in patient harm.

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1) Can you list the 5 rights of medication administration?

2) What do you do when you make a medication error?
   a) I always report the error
   b) I report the error only if I consider the error very serious
   c) I never report the error
   d) I report the error if the error is not too serious

3) I initiate an incident report when I make an error.
   a) Strongly disagree
   b) Disagree
   c) Agree
   d) Strongly agree

4) During my nursing/medication aide career, I failed to report one or more medication errors because I thought reporting an error might be personally or professionally damaging. **Y / N**

5) A good way to understand why errors occur is through analysis of information collected from incident reports. **Y / N**

6) I document the administration of medications on the MAR: (Please select one answer)
   a) Before administration
   b) During administration
   c) After administration
   d) I don't like documenting

7) Reporting medication errors is very essential to track medication errors and to improve safe medication administration**.** **Y /N**

8) When it comes to medication errors which answer is correct?

a) The nurse/medication aide will be punished
b) The mistake should be viewed as an opportunity to learn why the error occurred and how to prevent similar errors that others may make in the future.
c) Mistakes happen and are not very important
d) Mistakes are not allowed in healthcare.

9) I always double-check to be sure I am giving the correct medications to the correct patient.

a) Yes, always
b) No, never
c) Yes, usually
d) No, usually

10) I consider the job of giving medications at the prescribed time to be: (choose best answer)

a) Important
b) Sometimes important
c) The prescribed time is flexible
d) All of the above

11) I give medications based on the correct room number, and not on the identification of the patient. **Y / N**

12) In the space below, please rank your personal satisfaction with your job as a medication aide, with #1 being most satisfied, and # 5 being least satisfied:

1) _____ 2) _____ 3) _____ 4) _____ 5) _____

Thank you for your participation☺

Appendix B Cont.

SAFE MEDICATION ADMINISTRATION AND MEDICATION ERROR POST-SURVEY

This survey asks for your opinions on medication administration and reporting of medication errors. All surveys/opinions are confidential and will not be shared.

A medication error is defined as any type of error, accident, or mistake, regardless of whether or not it results in patient harm.

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1) The six rights of drug administration does not include the right:
   a) dose.
   b) person.
   c) concentration.
   d) documentation.
   e) route.

2) A patient is to receive 12.5 mg of prednisone by mouth daily. The medication is available in 5mg tablets. How many tablets are needed?
   a) 3 tablets
   b) 2.5 tablets
   c) 2 tablets
   d) 1.5 tablets

3) What does it mean when a medication is PRN?
   a) It is to be given immediately
   b) It is to be given once a day
   c) It is to be given only with meals
   d) It is given as needed

4) I initiate an incident report when I make an error.
   a) Strongly disagree
   b) Disagree
   c) Agree
   d) Strongly agree

5) A good way to understand why errors occur is through analysis of information collected from incident reports. **Y / N**

6) I document the administration of medications on the MAR: (Please select one answer)
   a) Before administration
   b) During administration
   c) After administration

d) I don't like documenting

7) When measuring the liquid medicine, always be sure to look at it at eye level. With dosing cups, measure on a flat surface and not while holding in one hand. **Y / N**

8) You need to know all of the following information prior to administering the medication except:

a. The medication's usual dose
b. Potential side effects
c. Pharmacy name
d. Medication's use

9) I always double-check to be sure I am giving the correct medications to the correct patient.

a) Yes, always
b) No, never
c) Yes, usually
d) No, usually

10) Most common types of errors are:

a) Administering improper drug
b) Giving the wrong drug
c) Using wrong route
d) All of above.

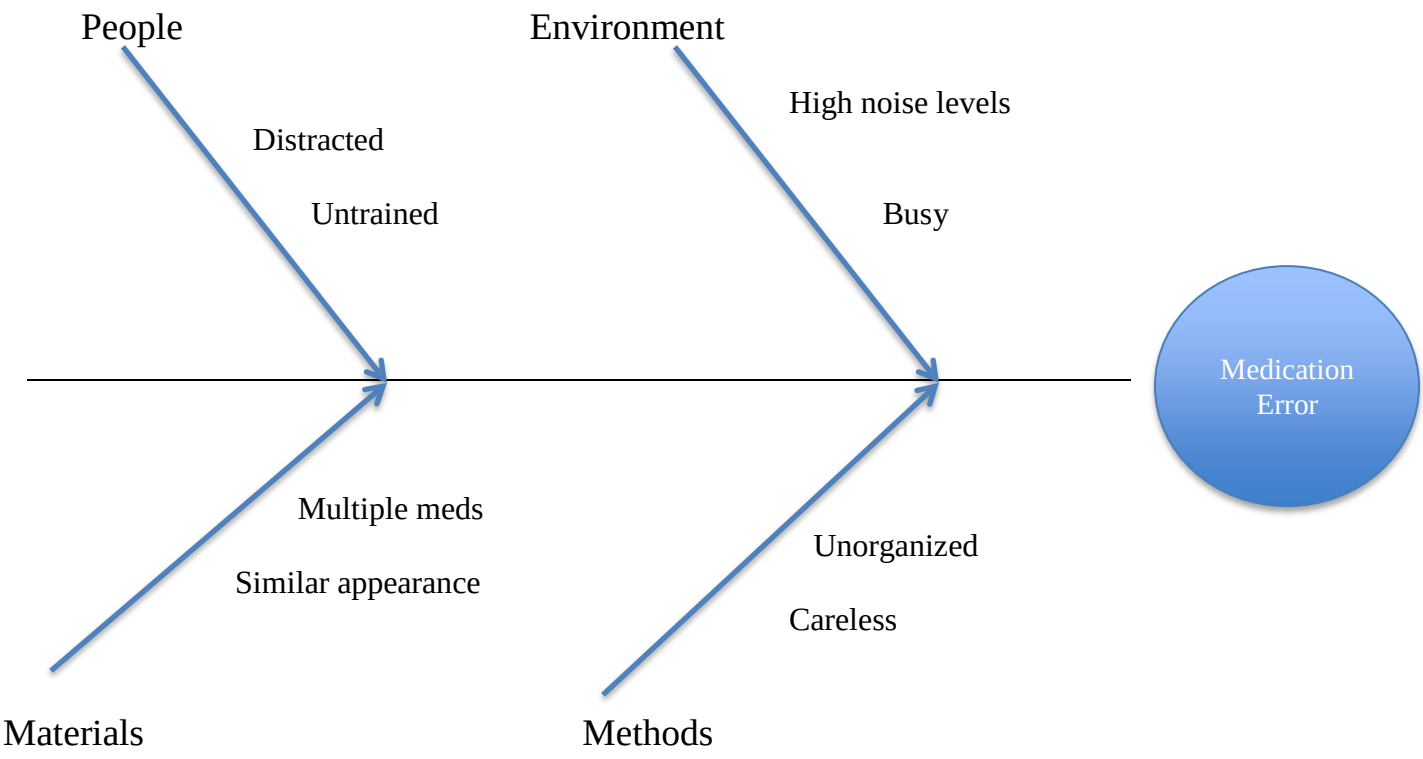
11) I give medications based on the correct room number, and not on the identification of the patient. **Y / N**

12) The abbreviation Q.D. (daily) is often mistaken for Q.I.D. (four times daily). **Y / N**

Thank you for your participation☺

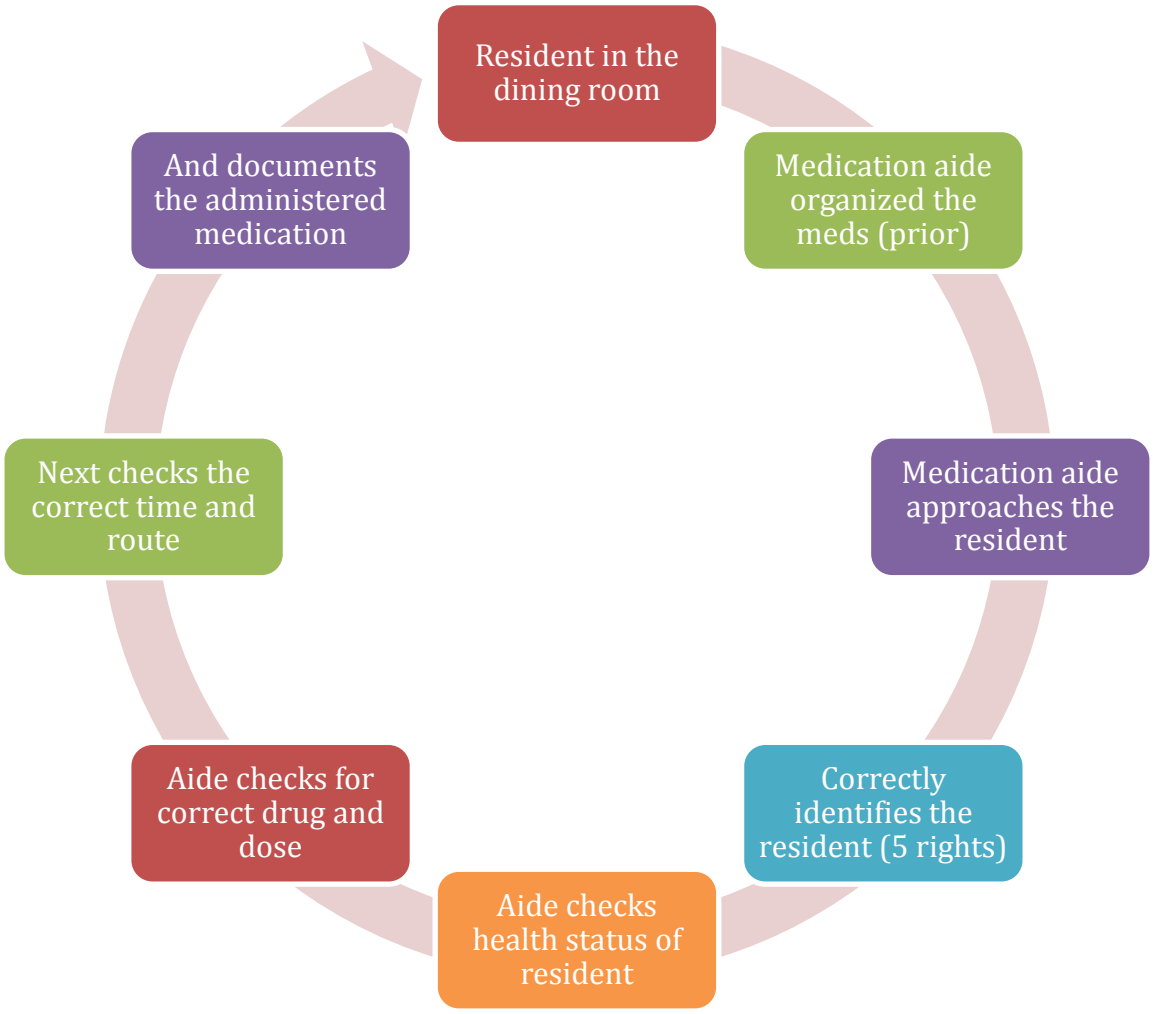
Appendix C

FISHBONE DIAGRAM



Appendix D

PROCESS MAP



Appendix E

SWOT ANALYSIS

Appendix F

TIMELINE

8/24/16	9/15/16	9/29/16	10/20/16	11/10/16
Observation of the medication aides (ongoing)	Pre-survey (5 rights of medication administration)	Pill dispenser	Staff meeting (presentation and safe medication administration video)	Post-survey (6 rights and checking for understanding)

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