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Case Study: Reducing Medication Mismanagement in Adult Care Residences

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Educational Objectives

1. Describe the prevalence of medication mismanagement in adult care facilities in Virginia.
2. Explain the significance of selected medication management errors.
3. Recommend practices to improve medication management task performance in adult care facilities.

Case Study

Salem Manor (a fictitious name) is an eighteen-bed adult care residence. A majority of the residents are women over the age of 70. Residents' medications are stored in a large medicine cart located in the corner of the dining room. Residents are assisted with medication administration at meal time by Ms. Brown, a medication aide. Ms. Brown is a pleasant, energetic woman who has worked at Salem Manor for five years. She has learned to perform her duties efficiently and enjoys providing care for her "eighteen grandparents."

Ms. Brown's medication responsibilities begin when she arrives at Salem Manor each morning. Although her work shift does not begin until 7:00 a.m., she likes to get to work by 6:30. This gives her time to prepare all of the morning oral medications before the residents awaken. Ms. Brown documents the doses of drugs as she removes each from the pharmacy container. This practice saves her time after breakfast. After all of the medications are poured and documented, Ms. Brown places each resident's medications on the table at their breakfast seats.

Then Ms. Brown begins to awaken the sleeping residents, first waking those who take morning showers. She helps several residents select clothes and get dressed before resuming her medication tasks.

Ms. Brown checks the blood glucose levels of two diabetic residents by sticking their fingers and testing drops of their blood with a glucometer. She is careful about recording the glucometer readings. Ms. Brown does not wear gloves for these procedures because she is confident that neither resident is HIV positive. She is, however, very meticulous about swabbing the stick sites with alcohol pads to reduce the risk of infecting either resident.

During breakfast Ms. Brown helps the cook by pouring coffee and juice. As residents finish breakfast, Ms. Brown checks each resident's medicine cup to make sure all of the oral medications have been

taken. She reminds residents receiving eye drops to come by the drug cart before leaving the dining room.

There are two residents, Mrs. Jones and Mrs. Smith, who use two different eye drop medications each. To avoid instilling the wrong eye drops, Ms. Brown administers both of Mrs. Jones' drops together, then instills both of Mrs. Smith's drops together. Ms. Brown does not wear gloves when instilling these eye drops but she always remembers to wash her hands before beginning the eye drop administrations.

Prevalence of Medication Mismanagement in Adult Care Residences

The estimated rate of medication mismanagement in adult care residences in Virginia is 38.7% ($\pm 2.5\%$) based upon the total number of medications administered (Kirkpatrick, 1997). The Code of Virginia (§615-22-02:1) and *A Resource Guide for Medication Management for Persons Authorized under the Drug Control Act* (Sherrod & Kirkpatrick, 1991, 1996) describe appropriate techniques for storing, administering, documenting and disposing of medications in licensed adult care facilities in Virginia. Failure to comply with any of these standards constitutes a medication management error. Examples of medication management errors are storing drugs in a hot and humid environment, having aides touch tablets and capsules, inadequately documenting doses of drugs administered, not administering insulin correctly, not wearing gloves when administering eye drops and insulin, and flushing unused medications.

Medication Mismanagement in this Case Study

1. Pouring medicines prior to administration and placing them on the breakfast table.
2. Documenting the doses of medication which have not been taken.
3. Not observing residents' rights to privacy and confidentiality.
4. Administering all oral medications with food.
5. Administering two eye drops concurrently.
6. Not wearing gloves when using a glucometer.
7. Not wearing gloves when administering eye drops.

Significance of Medication Management Errors

1. Pouring medicines prior to administration is permitted as long as the person preparing the medicines is the same person administering them, and as long as the containers are appropriately labeled with the residents' names. It is dangerous to place medicine cups, with or without residents' names on them, on meal tables. A resident may inadvertently take another resident's drugs without anyone knowing this has occurred. Residents may also dispose of medicines when no one is watching.
2. *A Resource Guide for Medication Management* recommends that medication aides place their first initial on the medication administration record (MAR) when a dose of medication is prepared, then fill in their last initial when the medication is actually taken or used. This provides a double check of drugs as

they are prepared and as they are taken. If time does not permit, the medication aide should document the dose given after it has been administered to avoid forgetting to record a medication refusal.

3. Although giving all residents their medications in one location at one time may be efficient, this practice violates a resident's right to privacy and confidentiality. A resident's health, including treatments, is no one else's business. If medications must be given in a common location, the medication aide can have residents come to the medication cart, one at a time, to get their medicines. This practice would afford some privacy.

4. The practice of administering all medications with a meal can compromise the effects of some of the drugs. There are drugs which should be given on an empty stomach. Having food present in the stomach for these drugs can decrease the rate of absorption, delaying the desired drug effects.

5. Medication aides should allow five minutes between the instillation of two different eye drop medications. When eye drops are administered together, the resident may get little or no effect from either of the drops. Eye drops are administered under the lower lid of the eye. This area forms a small pouch which only holds a couple of drops of fluid. When multiple drops are instilled, the drops flow out of the eye rendering no effect to the resident. One way to avoid these problems is to administer one type of eye drop medication, assist with other medications, then administer the second type of drop. This practice allows several minutes to elapse for drug absorption between the instillations.

6. In an effort to save supplies and money, medication aides may not wear gloves when checking a resident's blood glucose level. Wearing gloves when using a glucometer and administering insulin is essential. Gloves help protect residents and medication aides from potential infection. Aides may think that being careful is enough protection but it is not. Even residents who are neat and clean may be infected. Adult care residence administrators need to insist that standard procedures (formerly called universal precautions) are followed routinely.

7. Wearing gloves is also necessary when a medication aide is assisting with the instillation of eye drops. An eye infection can lead to blindness, a disastrous outcome. Even when a medication aide washes his or her hands, bacteria may be still be present under the fingernails.

Other Potential Medication Mismanagement in this Case Study

1. *Touching tablets and capsules as each is placed in a medicine cup.* This might appear to be a harmless practice, especially if the medication aide washes his or her hands prior to pouring the medications; however, the drugs may be contaminated if touched. Good nursing procedures do not permit medications to be touched.

2. *Not taking oral medications with a sufficient volume of water or juice.* Most oral medications must dissolve in the stomach prior to being absorbed. To accomplish this process, a sufficient quantity of liquid (up to a glassful) must be present in the stomach. Also, it is crucial that bulk forming laxatives such as Metamucil® be mixed with at least one full glass of water or juice. If not properly diluted, these laxatives may cause a bowel obstruction.

3. *Taking oral medications with hot coffee.* Heat may inactivate some drugs. In other cases, heat may cause a drug to be rapidly absorbed, metabolized, and excreted. In these cases, the drug effect may occur more quickly than expected and also may not last as long as expected or desired. This situation could be quite serious for residents on seizure medicines or antipsychotic drugs.

4. *Administering the wrong medication.* When medications are placed on a table and not left in a locked storage area, residents could take other residents' medicines by mistake.

5. *Improperly disposing of blood-stained alcohol swabs and lancets from finger sticks.* All equipment and supplies contaminated with body fluids such as blood must be disposed of in biohazard containers. This practice protects both residents and staff from potential infections.

Reducing Medication Mismanagement in Adult Care Residences

Medication aides like Ms. Brown perform a valuable service to their residents every day. Their job is often demanding and often performed with little praise or recognition. These aides can reduce medication mismanagement by following the procedures and standards set forth in Virginia state regulations and A Resource Guide for Medication Management. If medication aides did not touch any tablets or capsules, the medication management error rate in Virginia would be reduced by almost 60%. If these aides used gloves for instilling eye drops, administering insulin, and using a glucometer, the medication management error rate would be further reduced by approximately 15%.

Aides, however, cannot accomplish medication management error reduction alone. Administrators of adult care residences must provide needed equipment such as latex gloves, sharps containers, and biohazard boxes, and must insist that proper procedures be followed in their facilities at all times.

Study questions

1. What is the current rate of medication mismanagement in Virginia adult care residences?
2. What steps can be taken to reduce the rate of medication mismanagement?
3. What role can administrators in adult care residences play in reducing the rate of medication mismanagement?

References

Sherrod, S. S. & Kirkpatrick, M.A.F. (1991, 1996). A Resource Guide for Medication Management for Persons Authorized under the Drug Control Act. Commonwealth of Virginia.

Kirkpatrick, M.A.F. (1997). A Task Analysis of Medication Management in Adult Care Residences and the Implications for Policy. VCU Ph.D. dissertation.