Strategies to Reduce Length of Medication Administration Time

PharmQuest®

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Objectives

- Define which F Tag discusses the appropriate time(s) that medications may be administered
- Recognize the 6 R's of medication administration
- Discuss issues related to why medications take so long to dispense
- Recognize the various available strategies that can reduce medication administration times

Medication Error

F332 and F333 (Rev. 127, Issued: 11-26-14, Effective: 11-26-14, Implementation: 11-26-14)

§483.25(m) Medication Errors

The facility must ensure that:

- [F332] §483.25(m)(1) It is free of medication error rates of 5 percent or greater; and
- [F333] §483.25(m)(2) Residents are free of any significant medication errors.

Medication Error

- "Medication Error" the observed preparation or administration of medications or biologicals which is not in accordance with:

  1. The prescriber's order;

  2. Manufacturer's specifications (not recommendations) regarding the preparation and administration of the medication or biological;

  3. Accepted professional standards and principles which apply to professionals providing services. Accepted professional standards and principles include the various practice regulations in each State, and current commonly accepted health standards established by national organizations, boards, and councils.

Significant & Non-Significant Errors

- "Significant medication error" means one which causes the resident discomfort or jeopardizes his or her health and safety.

- Significant and non-significant medication errors observed at 5% or greater during the Medication Administration Observation task should continue to be cited at F332. However, any significant medication error included in the F332 (5% or greater) citation should also be cited at F333. If concerns are identified related to the administration of medications at F332-Medication Errors, then additional requirements may also be considered and investigated such as F425 - Pharmacy Services.

Medication Error Rate

- "Medication error rate" is determined by calculating the percentage of medication errors observed during a medication administration observation.

- The numerator in the ratio is the total number of errors that the survey team observes, both significant and non-significant.

- The denominator consists of the total number of observations or "opportunities for errors" and includes all the doses the survey team observed being administered plus the doses ordered but not administered.

Medication Error Rate

- Medication Error Rate = Number of Errors Observed divided by the Opportunities for Errors (doses given plus doses ordered but not given) X 100.

- The error rate must be 5% or greater in order to cite F332. Rounding up of a lower rate (e.g., 4.6%) to a 5% rate is not permitted. A medication error rate of 5% or greater may indicate that the facility has systemic problems with its medication distribution system.

- 6 errors ÷ 75 x 100 = 8%

Medication Error

Significant medication errors are cited in the following circumstances:

- A significant medication error observed during a medication administration observation should be cited, regardless of whether the facility error rate is 5% or greater;

- When identified during the course of a resident record review, including a revisit survey or a complaint investigation. A surveyor may cite a deficiency at F333 based upon either a resident record review and/or an observation of a medication preparation or administration. Surveyors must conduct any follow up investigation to obtain corroborating information regarding the error, such as interviews with the nurse, Director of Nursing, or the pharmacist, and document that information and facts as required by the Principles of Documentation. Also, it may be necessary to apply the past non-compliance protocol when determining a deficient practice or citation.

Omissions Examples

Medication ordered but not administered at least once

S=Significant; NS=Not Significant

Medication Order	Significance
Quinidine 200mg TID	S
Nitrol Ointment QID	S
Haldol 1mg BID	NS
Motrin 400mg TID	NS
Tearisol Drops to both eyes TID	NS
Metamucil BID	NS
Multivitamin QD	NS
Mylanta Suspension 30ml TID AC	NS

Timing Errors

• If a medication is ordered before meals (AC) and administered after meals (PC), always count this as a medication error.

• Likewise, if a medication is ordered PC and is given AC, count as a medication error.

• Count a wrong time error if the medication is administered 60 minutes earlier or later than its scheduled time of administration, BUT ONLY IF THAT WRONG TIME ERROR CAN CAUSE THE RESIDENT DISCOMFORT OR JEOPARDIZE THE RESIDENT'S HEALTH AND SAFETY.

Timing Errors

- Counting a medication with a long half-life (e.g., digoxin) as a wrong time error when it is 15 minutes late is improper because this medication has a long half-life (beyond 24 hours) and 15 minutes has no significant impact on the resident. The same is true for many other wrong time errors (except AC AND PC errors).

- To determine the scheduled time, examine the facility's policy relative to dosing schedules. The facility's policy should dictate when it administers morning doses, or when it administers the first dose in a 4-times-a-day dosing schedule.

Wrong Time Examples

Medication Error	Administered	Significance
Percocet: 2 Tablets 20 minutes before painful treatment	2 Tablets AFTER treatment	S
Digoxin: 0.25mg daily at 8 a.m.	9:30 AM	NS

Determining Significance

The relative significance of medication errors is a matter of professional judgment. Follow three general guidelines in determining whether a medication error is significant or not:

- ***Resident Condition*** - The resident's condition is an important factor to take into consideration. For example, a fluid pill erroneously administered to a dehydrated resident may have serious consequences, but if administered to a resident with a normal fluid balance may not. If the resident's condition requires rigid control, a single missed or wrong dose can be highly significant.

- ***Drug Category -*** If the medication is from a category that usually requires the resident to be titrated to a specific blood level, a single medication error could alter that level and precipitate a reoccurrence of symptoms or toxicity. This is especially important with a medication that has a Narrow Therapeutic Index (NTI) (i.e., a medication in which the therapeutic dose is very close to the toxic dose). Examples of medications with NTI are as follows: Anticonvulsant: phenytoin (Dilantin), carbamazepine (Tegretol), Anticoagulants: warfarin (Coumadin) Antiarrhythmic (digoxin) Lanoxin) Antiasthmatics: theophylline (TheoDur) Antimanic Drugs: lithium salts (Eskalith, Lithobid).

Determining Significance

- *Frequency of Error -* If an error is occurring with any frequency, there is more reason to classify the error as significant. For example, if a resident's medication was omitted several times, as verified by reconciling the number of tablets delivered with the number administered, classifying that error as significant would be more in order. This conclusion should be considered in concert with the resident's condition and the medication category.

Overview

- A *Medication Administration Pass* ideally must be completed within a 2-hour period. For example a 9:00 AM medication must be given between the hours of 8:00 AM & 10:00 AM.

- Nurses must ensure that the 6 R's of Medication administration are met.

6 R's of Medication Administration

- Right Patient
- Right Dose
- Right Frequency
- Right Medication
- Right Time
- Right Route

Medication Administration

Minimize distractions:

❖ Wherever possible have other staff members attend to patient and family concerns (CNAs, Nursing Supervisors)

❖ Wherever possible have other staff members answer non-essential phone calls (nursing station) and call bells (CNAs, Nursing Supervisors)

Preparation for Med Pass

- Prepare floor stock medications and transfer controlled substances to medication cart;

- Set up liquids (e.g. water, juice) and oral solids (e.g. applesauce, pudding) necessary to facilitate medication administration;

- Prepare drinking cups, medication cups, spoons, pill-crushers, gloves, alcohol wipes, hand sanitizers, syringes, sharp container, stethoscope, BP apparatus and garbage disposal.

Residents / Patients

- *CNAs:* Are patients ready for medication administration (e.g. are they awake, are they on the unit, are they being bathed or toileted)?

- *Schedule:* Priority should be given to those going-out-on pass, appointments with consultants, dialysis, procedures, therapies & trips.

- *Organize the tour:* Start from the lowest room number to the highest room number.

Residents / Patients

- For those patients that are difficult or require more time, consider saving them for the end of the pass;

- Establish / maintain a routine with the residents (e.g. administer their medication in the same location, with the same liquid, etc.)

- Seek guidance from CNAs who have a familiarity with the resident.

Hold Parameters

- Hold parameters should be reevaluated for those residents that are stable (e.g. blood pressure recordings, pulse recordings, etc.)
- BPs / Pulse recordings can be performed once weekly for stable residents

Dosage Forms

- Accommodate the resident with the most appropriate / preferential dosage form → Vendor Pharmacy

- Medications may only be crushed upon authorization by the prescriber

- If unsure about crushable medications, always check to see if the dosage form can be crushed with the Vendor Pharmacy

Alternative Dosage Forms / Frequencies

- Are there medications that can be prescribed once daily instead of multiple administrations (e.g. timed release medications)?

- Are there medications that may be administered topically instead of orally (e.g. Clonidine)?

- Are there medications that may be administered weekly instead of daily (e.g. Fosamax,Trulicity)

Ophthalmic Medications

Remove ophthalmics wherever possible from the 7AM – 3PM Shift

- Once-daily ophthalmics should be administered at bedtime
- Twice-daily ophthalmics should be given early in the morning and evening
- TID ophthalmics should be given early in the morning, afternoon and evening
- Consider separating multiple ophthalmic medications at different time intervals

Oral Inhalers / Nebulizers

- Nebulized medications take time to set up and administer (~ 20 minutes)

- Consider oral inhalers w/spacers instead of nebulizers (i.e. Albuterol)

- Use combination products instead of single type medications (e.g. Combivent®)

Medication Administration Record

- Chart administration into the EHR before proceeding to the next resident (do not leave until the end)

- Consistent refusals and held medications should be brought to the attention of prescriber where they may be reevaluated (e.g. discontinuation, alternative dosage forms)

Combination / Extended Release Medications

- Depakene / Depakote → Depakote ER
- Proventil & Atrovent Inhalers → Combivent
- Catapress Tablets → Catapress TTS Patch
- Lipitor / Zocor → QOD and/or reevaluate for those > 75 years of age
- Multivitamins / FeS04 / Vit C → Theragran-M
- Fosamax 10mg QD → Fosamax 70mg QW

Fingerstick Monitoring

- Sliding Scale Insulin
- Reevaluate need for multiple FSM
- GLP1 Receptor Agonists vs. Mealtime Insulin for certain residents
- Evaluate HBA1c and therapies
- Relax FSM & HBA1c for those > 80 years of age

Alternative Times of Administration

- Coumadin® →   HS
- Allergy Medications →   HS
- Blood Pressure Medications →   HS
- Anti-Lipemic Medications →   HS
- Digoxin →   HS

Electronic Health Record (EHR)

- Often times EHR will default to the most common administration times as per MediSpan / First Data Bank (8AM / 10AM)
- Directions need to be reevaluated by the order entry person → Override these pre-populated times

Miscellaneous Tips

- Weekly BP / Pulse recordings should be performed once weekly for the entire unit on an agreed day in the afternoon (i.e. Sundays)
- Eliminate un-requested PRN medications after 30 days
- Use Therapeutic Multivitamins instead of separate supplements wherever possible
- Identify duplicate medications (e.g. Tylenol)
- Reevaluate use of multiple laxatives

Departmental Support

- Vendor Pharmacy → Alternative Dosage Forms
- Pharmacy Consultant → Therapeutic Alternatives
- Prescriber → Alternative Times & Monitoring
- Electronic Health Record → Develop reports based on usage and shift

Conclusion

- The morning medication pass is usually the most time consuming → Consider moving these medications to alternative shifts

- Nurses need to start on time & work efficiently with little distractions as possible

- CNAs are vital in this process and need to assist in preparing the resident

- Develop strategies with the prescriber and other essential personnel

- Develop your own strategies, do what works for you!

Questions