

# PHARMACY



# NEWSCAPSULE

DEPARTMENT OF HEALTH SERVICES / DIVISION OF QUALITY ASSURANCE

Quarter 3 2022

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### APP for That!

#### **MySugr:** Diabetes Tracker Log

This healthcare app's motto is to "make diabetes suck less!"

MySugr allows patients to track their blood sugar, carbs, bolus, and estimated HbA1c all at a glance. Logging their data daily has allowed them to have better control over their condition.

This easy-to-use app also provides users with motivating challenges and feedback to help cope with type 1 and type 2 diabetes.

## Medication Time Errors

In all settings questions come up about definitions of medication errors related to times of medication administration. For example, the medication was administered at 9:00 a.m. but the medication administration record (MAR) indicates the medication was scheduled for 7:30 a.m. Is this a medication error?

Many definitions of medication timing errors do exist and vary depending on setting and medication. Here are two common scenarios surveyors encounter in nursing homes:

**Scenario 1:** We have observed "medications being passed late" or "more than one hour past their scheduled time" at a facility. The facility is undergoing major staff changes with institution of many new nurses who are taking a much longer time to pass medications. They are taking more time in an effort to avoid medication errors but now find that they are going beyond one hour of the scheduled administration time which is a medication error identified in their policy.

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## Medication Time Errors cont.

**Scenario 2:** I have seen some facilities start to change their policies and schedule medications in the a.m. or p.m. instead of assigning a time to the medication. How do surveyors look at this when defining a medication error?

### What are the standards?

The National Coordinating Council for Medication Error Reporting and Prevention defines a medication error as "any preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is in the control of the health care professional, patient, or consumer." Such events may be related to professional practice, health care products, procedures, and systems, including prescribing, order communication, product labeling, packaging, and nomenclature, compounding, dispensing, distribution, administration, education, monitoring, and use.

The Centers for Medicare and Medicaid Services (CMS) in the State Operations Manual for Nursing Homes uses the following medication error definition:

"Medication Error" means the observed or identified 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. There are many other authoritative definitions of medication errors however when it comes to definitions of medication errors specific to timing there is much less guidance.

CMS guidance for nursing homes does indicate a timing error definition as follows: If a medication is prescribed before meals (AC) and administered after meals (PC), always count this as a medication error. Likewise, if a medication is prescribed PC and is given AC, count as a medication error. Count a wrong time error if the medication is administered 60 or more 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. 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).

### CMS Guidance for Timing Errors in Hospitals

Time-critical scheduled medications are those for which an early or late administration of greater than thirty minutes might cause harm or have significant, negative impact on the intended therapeutic or pharmacological effect. Accordingly, scheduled medications identified under the hospital's policies and procedures as time-critical must be administered within thirty minutes before or after their scheduled dosing time, for a total window of 1 hour.

Hospitals must periodically evaluate their medication administration timing policies, including staff adherence to the policies, to determine whether they ensure safe and effective medication administration. Consistent with the Quality Assurance (QA) and Performance Improvement (PI) requirements at Condition of Participation: Quality Assurance, 42 C.F.R. § 482.21(c)(2), medication errors related to the timing of medication administration must be tracked and analyzed to determine their causes. Based on the results of the evaluations of the policies and the medication administration errors, the medical staff must consider whether there is a need to revise the policies and procedures governing medication administration timing.

How do systems that do not assign or schedule a time for medication administration effect medication timing error definitions? Typically, a facility or program creates MARs defining medication administration times as a.m., p.m., lunch, bedtime, or some other general terms versus assigning a specific time. There are really no regulations or standards that require MARs to schedule specific times. However, basic standards of medication administration include the **Six Rights** with one of them being **the right time**.

When no time is defined the **right time** is dependent on the patient, condition and medications. For example, a medication that is given once a day should be given usually at the same time each day. So, although the MAR may say AM, the medication should be given approximately at the same time each morning. In order to ensure that consistency is put in place facilities must then have a procedure in place. Some facilities to ensure this occurs will have staff who administer medications document the specific time the medication was administered. Another example will be for a facility to look at each resident or patient individually and assign specific times for that person. These times may be documented on the MAR or may be documented in a care plan or other parts of the record. This approach allows a nurse the flexibility of not documenting times assuming the medication was administered within the definition chosen for that specific resident or patient. The bottom line a procedure that a facility uses should be able to ensure medication timing errors will not occur. For example, if a medication is given four times a day does the procedure answer the question, when was the a.m. dose given? This question needs to be answered so that the next nurse does not give the second, third or fourth dose too early or late.

What should surveyors do? Surveyors who survey nursing homes have a very specific protocol and regulations related to evaluating medication administration. Specifically, the procedure involves a determination of a medication error. No matter the system a facility uses the following process needs to be used to define the medication error.

1. Medication administration per the physician order. If a physician order indicates a specific time or specific administration procedure that order must be followed. If the observed medication administration does not follow the order, it will be considered a medication error. If facilities have problems with the order, then the order should be clarified or changed.
2. Medication administration per manufacturer requirements. If manufacturer instructions require a specific time component, the facility must follow that requirement or the procedure will be defined as a medication error. For example, Fosamax must be given 30 minutes prior to any food or liquid except for water.

3. Medication administration per standards of practice. For medications administered on the traditional schedule where MARs have defined times use the plus or minus 60-minute rule first for nursing homes and hospital policies for hospitals. Then look at the medication itself. If the medication has characteristics where time is not a specific issue, then the plus or minus 60-minute rule may not apply. For example, a vitamin rarely needs to be given each day at the same time so the plus or minus 60-minute rule would not apply and a vitamin given late or early compared to the schedule time often will not be a medication error. For facilities that use a nontraditional approach and do not define medication times on the MAR, a surveyor should look for consistency and documentation to determine if a medication error has occurred. For example, the medication in question is Lantus to be given at bedtime. First, what is the normal bedtime for the resident or patient? Second is Lantus given consistently, plus or minus 60 minutes, at the same time each day? If not, this will be a medication error. In addition, if the facility lacks procedures to document times or define individual times to patient or resident records then the facility may also be subject to policy and procedure citations as well.

For assisted living surveyors we are seeing many citations where staff fail to document medication or the staff at the facility are going back and documenting medication administration at the end of the shift for everything they administered during the day. These situations lead to many medication errors and this practice is harming residents. Medications need to be documented at the time they are administered. As noted in the CMS and Institute for Safe Medication Practices (ISMP) guidance, timing for some medications is critical. Assisted living surveyors who encounter facilities that are documenting medication administration at the end of a shift should look at the medications involved and identify those medications that may be time critical. These time critical medications can be used to support your citations.

According to the ISMP standards, the following can be considered time sensitive medications:

- Medications with a dosing schedule more frequent than every 4 hours
- Scheduled (not prn) opioids used for chronic pain or palliative care (fluctuations in the dosing interval may result in unnecessary break-through pain)
- Immunosuppressive agents used for the prevention of solid-organ transplant rejection or to treat myasthenia gravis
- Medications that must be administered apart from other medications (e.g., antacids and fluoroquinolones).
- Certain medications that require administration within a specified period of time before, after, or with meals—for example, rapid-, short-, or ultra-short-acting insulins, certain oral antidiabetic agents (e.g., acarbose, nateglinide, repaglinide, glimepiride), alendronate, and pancrelipase.

All surveyors who are evaluating medication administration and timing policies found in policies may want to review the ISMP Acute Care Guidelines for Timely Administration of Scheduled Medications. This guidance is something that facilities can use to evaluate their systems and establish their procedures.