



## From the Front Lines

### Appropriate Medication Use in Post-Acute and LTC

#### Check EMC Refrigerator Temperature

A state surveyor wanted to know how the EMC refrigerator log was kept. After working with them, I realized that half the staff didn't know either, so I developed the guidance below.

- Locate the P&R Percentage on the bottom of the Program on the EMC computer
- There is a real-time temperature reading in Celsius
- Convert to Fahrenheit  $F = 9/5 (C + 32)$  or  $F = 36 - 46$   $C = 2 - 8$
- May call IT if an emergency
- Facility PST should be able to find this and easily train nursing staff

Submitted by Chad Zeisig  
AlixRx Clinical Pharmacist

#### Living Center Quarantined

I recently had an outbreak of Mycoplasma or walking pneumonia in one of my living centers. This was reported to the local health department who contacted the CDC. They recommended that the living center institute a quarantine and required that all persons entering the facility wear a mask. The quarantine lasted for 3 months. Needless to say, the staff hated the masks and compliance was an ongoing challenge

Also, the health department and the medical director, after the first month and a half, decided that everyone that developed a cough was to go on Levaquin. However, two of the people who had a cough prior to that were sent to the hospital and didn't have mycoplasma, one was heart related and the other had a blood disorder.

**Editor's Note:** This episode highlights the importance of early notification of the local health department and close collaboration with medical director and other agencies to control disease spread and protect both patients and staff. Clinical pharmacists can play an important role helping prescribers, staff, and families understand appropriate treatments and individualizing medication doses for each resident. For example, many antifectives including Levaquin (and Tamiflu) require dose adjustments in patients with reduced renal function.

Submitted by Stephanie R. Bottorf  
AlixRx Clinical Pharmacist

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## Medication Administration: Timing

Prescribers and nursing staff are often unaware of how medications are available or the best time to administer certain medications. See below an example of both of these issues that, if not corrected, can lead to negative clinical and regulatory outcomes.

**CURRENT ORDER(s):** Prevalyte (cholestyramine) packet 2gm QD at noon. Per nursing, patient does not like the flavor of Prevalyte and continues to have chronic diarrhea. Cholestyramine packets contain 4gm/packet so nursing is estimating the dose in 1/2 packet, which may not be an adequate dose for this patient. Note: other medications are at 8AM and 8PM, so 12 noon is a good time to administer the cholestyramine).

**RECOMMENDATION:** Please consider changing the order to cholestyramine orange flavor 4gm QD at 12 noon, 4 hours before and one hour after other medications

## Expiration Date for OTC Stock Bottles

Many living centers purchase stock bottles of OTC medications such as acetaminophen, ferrous sulfate, etc. and keep these in medication carts to administer to patients per physician orders. Some states require that these OTC medications be dispensed from the pharmacy and labeled patient-specific, but most do not.

The article below appeared in the September issue of the ISMP LTC AdviseERR Newsletter. This article recommends that OTC stock bottles used in LTC facilities be labeled with a beyond use date (BUD) of one year after opening or expiration date on the manufacturers label whichever is earlier.

### Message in our Mailbox



**Question:** *We often use bulk bottles of tablets (e.g., acetaminophen [TYLENOL]) as a cost savings measure in our facility. We have been told that the product expiration date changes once the bottle is opened. What date should be used?*

**Answer:** The manufacturer's expiration date listed on the medication container is based on the container *not* being opened. Once the container is opened, the last date that the medications should be used is called the "beyond-use date" (BUD). The US Pharmacopeial Convention (USP) sets the standards for beyond-use dating of drug products. For oral tablets, the USP BUD is 1 year from the date opened, or the manufacturer's expiration date, whichever is less. ISMP does not recommend the use of bulk containers of medications in long-term care facilities, as many of the safeguards of the medication system are bypassed when resident-specific doses are not dispensed from the pharmacy. But if you do obtain medications from a bulk container, we recommend that you label the container with the last date that the product should be used (rather than the date opened). Also, the medication should be inspected prior to use and discarded if the tablets are discolored, congealed, contaminated, or otherwise lack integrity.

## Expiration Date for OTC Stock Bottles (Continued)

However, USP 37 – NF 33 General Notices 10.40.100 states that this BUD applies to prescription drugs:

- For articles requiring constitution before use, a suitable beyond-use date for the constituted product shall be identified in the labeling.
- For all other dosage forms, in determining an appropriate period of time during which a prescription drug may be retained by a patient after its dispensing..... such beyond-use date shall be not later than (a) the expiration date on the manufacturer’s container, or (b) 1 year from the date the drug is dispensed, whichever is earlier. For non-sterile solid and liquid dosage forms that are packaged in single-unit and unit-dose containers, the beyond-use date shall be 1 year from the date the drug is packaged into the single-unit or unit-dose container or the expiration date on the manufacturer’s container, whichever is earlier, unless stability data or the manufacturer’s labeling indicates otherwise.

This was confirmed in a communication received from Rick Schnatz PharmD, Manager Compounding and Healthcare Standards United States Pharmacopeia

- “All stock bottles, Tylenol caps, Tylenol liquids, penicillin tablets, etc and be dispensed from according to the Expiration Date on the bottle. The prescription to the patient should contain a BUD. Sometimes state laws may address the BUD that goes on the patient’s bottle so I would also check your regulations. USP addresses BUD in our General Notices that I put in the email.
- The BUD does not apply to a stock bottle which has an Expiration date”

I have also been in conversation with the board of pharmacy here in MS and they agree 100% with USP and plan to uphold any issue with survey according to USP standards

Submitted by Arien Dwyer  
AlixarX Consultant Pharmacist

Editor’s Note: As a result of Arien’s communication. ISMP has agreed to print a correction in the October LTC AdvisERR Newsletter

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