April 2015 ▪ Volume 3 Issue 4

ISMP

Long-Term Care Advise*ERR*™

Educating the Healthcare Community About Safe Medication Practices

ENFit enteral devices are on their way...

Important safety considerations in long-term care facilities

In our September 2014 newsletter, we alerted long-term care (LTC) facilities to upcoming changes in enteral feeding device connectors. An industry group, The Global Enteral Device Supplier Association (GEDSA), is coordinating this effort, and GEDSA member companies are introducing the new devices called ENFit. The ENFit devices will not be compatible with a Luer connection or any other type of small bore medical connector, thus preventing misadministration of an enteral feeding or medication by the wrong route. Unlike current parenteral and oral syringes with male syringe tips that fit into female connectors, the new ENFit devices are just the opposite. They have a ***female*** tip on the syringe that will fit around a ***male*** connector on feeding tubes (**Figure 1**).

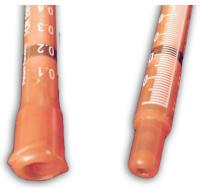

Figure 1. New ENFit syringe (left) has larger female tip than an oral syringe with a male tip (right).

We previously urged LTC facilities to plan for the enteral connector design changes, but that has been difficult because the actual devices have not been available. In general terms, during the first quarter of 2015, we were anticipating availability of enteral administration sets with a new female ENFit connector and a limited-use ENFit Transition Connector to facilitate compatibility between the new ENFit system and the existing port. The ENFit connector system also requires the use of a new enteral-specific syringe that can be used for medication administration, flushing, and feeding. Distribution of the new ENFit syringes is supposed to begin in the current quarter. Any oral syringe currently in use (and any Luer-tipped syringe) will not work with the ENFit connector system. ENFit feeding tubes will begin distribution in the third quarter according to the published GEDSA timelines on stayconnected.org.

Also, in our September 2014 newsletter, we identified several unresolved process dilemmas that this changeover would trigger. Fortunately, these issues have been addressed, and we are happy to report that vendors have designed bottle adapters and straws (**Figure 2**), and syringe caps (**Figure 3**) to use with the ENFit syringes. However, ISMP has identified further safety issues for LTC facilities to consider as the connectors are introduced. When we recently received samples of the new devices and conducted simulations, we verified some measurement and administration issues reported to us. Importantly, some residents could be at risk of dosing errors unless these considerations are understood and proactively addressed. Based on our simulations, here's how we envision using the ENFit syringes, feeding tubes, adapters, and

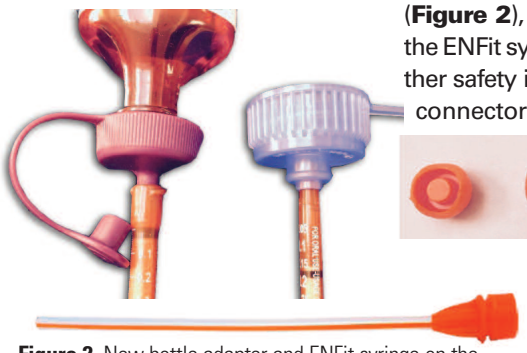

Figure 2. New bottle adapter and ENFit syringe on the left compared to the current style oral syringe and bottle adapter on the right (top). A straw-type device (bottom) will also be available. This can be used to draw up medication from a unit dose liquid cup.

Figure 3. Cap for new ENFit syringe.

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Please participate in our survey!

We are conducting a readership survey to learn how **Long-Term Care Advise*ERR*** is being distributed and its impact on medication safety. We would really appreciate if the primary recipients of our newsletter would complete the survey on **pages 6-7**.

SAFETY wires

Catching dispensing errors. We have received numerous reports in which the pharmacy dispensed the wrong drug or wrong dose to a long-term care (LTC) facility, but nurses have not detected the errors and administer the wrong drug or dose to residents. In these reports the medication dispensed did not match what was on the medication administration record (MAR). A few examples follow:

- A resident received **FLU**oxetine (**PROZAC**) 20 mg instead of omeprazole (**PRILOSEC**) 20 mg
- A resident received **SEROQUEL** (**QUE**tiapine) 25 mg instead of **SERO**quel 12.5 mg
- A resident received Cefidir (**OMNICEF**) suspension 125 mg/5 mL instead of **CEFTIN** (cefuroxime) suspension 125 mg/5 mL

In each of these cases, no harm occurred.

Before medications are administered, the dispensed drug and dose should be matched against the MAR, ensuring the spelling is the same and the dosage is correct. For new orders or a change in the order, the MAR should first be checked against the original physician's order. Including both the brand and generic name of medications on MARs, and asking the pharmacy provider to do

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Provided free to long-term care facilities in the US thanks to corporate sponsorship from Lilly

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syringe caps. We have highlighted in red the processes in the sections below that may present particular safety considerations.

Administering Liquid Medications Via An Enteral Feeding Tube

ENFit syringe to ENFit connection. If a dose of liquid medication must be administered via a feeding tube with the new enteral connector, an ENFit syringe must be used. In a recent guidance document, FDA suggested the syringes should be marked "Feeding/Medication Only." An oral syringe will no longer connect to the feeding tube.

Measuring an enteral medication dose in the pharmacy. An ENFit bottle adapter (**Figure 2**, page 1) should be affixed to the bulk bottle of liquid medication, and the correct dose should be withdrawn from the bottle using an ENFit syringe. If medicine must be withdrawn from a unit dose cup, an ENFit straw (**Figure 2** on page 1) is available. It is important to note that dose measurement with an ENFit syringe is from the base of the syringe tip (where the gradation marks begin) to the correct gradation mark on the syringe (**Figure 4**). In this regard, no changes were made to gradient markings or how to measure a dose when compared to an oral syringe. A cap meant for an ENFit syringe should be securely placed on the filled ENFit syringe prior to transport (**Figure 3** on page 1) within or to the LTC facility.

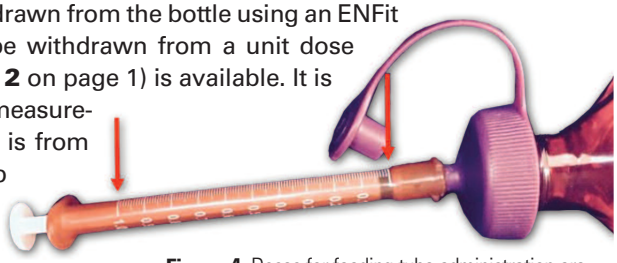

Figure 4. Doses for feeding tube administration are measured in between the arrows, from the base of the syringe tip to the proper gradation on the syringe scale.

Measuring an enteral medication dose in LTC facilities. While ISMP strongly recommends that liquid medications for residents with feeding tubes be prepared and dispensed in exact doses by the pharmacy, there may be times when the pharmacy dispenses a bulk bottle or unit dose liquid cup to the LTC facility. For a bulk bottle of liquid medication, an ENFit bottle adapter (**Figure 2**, page 1) should be affixed to the bulk bottle, and the correct dose should be withdrawn from the bottle using an ENFit syringe as described in the previous section. If medicine must be withdrawn directly from a unit dose liquid cup, or a cup which has been filled from a bulk bottle, an ENFit straw (**Figure 2** on page 1) is available. If an ENFit straw isn't used, the dead space in the tip of the ENFit syringe must be considered. This dead space measures from 0.15 to 0.2 mL, and while this may not seem like much, it can be significant for certain drug doses.

Because of the dead space, when a practitioner uses the ENFit syringe and begins to draw up a medication directly from a cup or bottle, there will be a small bubble of about 0.15 mL to 0.2 mL of air (**Figure 5**) that moves into the syringe first. To measure doses exactly, staff must remove the air bubble and attempt to accurately measure the dose without allowing fluid to remain in the syringe tip, thus filling the dead space. Flicking the syringe to remove the air bubble may lead to some minor spillage as the medication sprays out of the wide female connector. Thus, as staff become familiar with the new syringes, there may be several attempts to withdraw the correct amount of medication from the cup or bottle into the ENFit syringe, each time requiring removal of an air bubble. The process can be messy and tedious, and can lead to incorrect dosing if the bubble isn't removed.

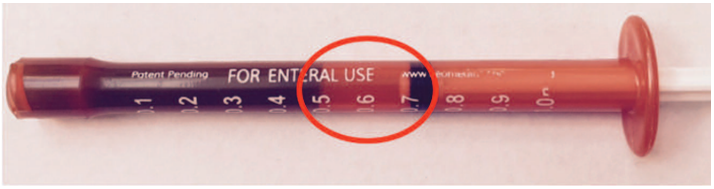

Figure 5. Air (circled) is drawn into a syringe when drawing an oral liquid from a cup without an ENFit straw device. The air bubble must be removed to measure an accurate dose.

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> SAFETY wires continued from page 1

the same, may help avoid errors with look-alike medications. You may also want to list brand names in **bold** and/or *italics* to differentiate them from generic names. While many dispensing errors are detected by nurses before administration, the measures above will raise the likelihood dispensing errors will be caught.

Glucagon label contributes to confusion. A nurse gave orange juice to a resident with a blood glucose of less than 50 mg/dL, but it did not raise the glucose level much, so he administered a dose of IV **GLUCAGON EMERGENCY** (glucagon) per policy. When the resident's blood glucose was checked 30 minutes later, the glucose level was still less than 50 mg/dL. Orange juice was given again, but 20 minutes later, the resident's glucose level remained less than 50 mg/dL. Another glucagon injection was given, which raised the blood glucose into the 50s. More oral carbohydrates were given until, finally, the resident's blood glucose returned to normal.

Later, the nurse who administered the glucagon mentioned that he had administered a dose measured in units because the label on Lilly's Glucagon Emergency Kit (**Figure 1**) and vial indicates the dose is "1 mg (1 unit)." The nurse was new and had never administered glucagon. He said he used a U-100 insulin syringe to administer the 1 unit dose each time. He did not realize that

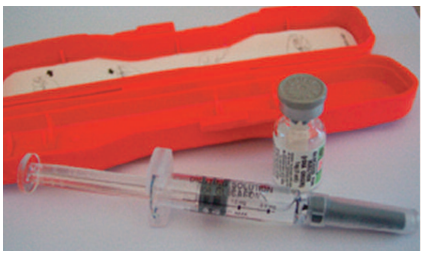

Figure 1. Lilly's Glucagon Emergency kit.

"1 unit," in this case, meant a full mg as indicated by the marking on the syringe contained in the kit. The resident had received only 1/100 of the dose, even though the pharmacy label on the product said, "Inject 1 mg (1 unit) subcutaneously every 15 minutes as needed if blood glucose is less than 60 mg/dL and resident unable to take glucose products by mouth." The nurse became confused when he saw "1 unit" and used an insulin syringe to measure each dose.

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> ENFit—continued from page 2

For these enteral doses, one way to minimize the bubble and measure an accurate dose from a cup would be for staff to use the ENFit straw attached to the ENFit syringe (**Figure 2** on page 2). This allows the nurse to minimize the dead space and promote easier dose measurement. Of course, this means LTC facilities must supply ENFit straws and bottle adaptors in resident care areas and educate staff about the need to use them and how to use them.

Again, doses meant for a feeding tube are measured only using the syringe scale, and should not include a syringe tip full of medication, which can be avoided by using the bottle adapter or straw device. With doses given via a tube, the dead space in the syringe should always be cleared of fluid during measurement of the dose and should also be clear of fluid when attaching the syringe to an ENFit connection on the feeding tube. If there is an accumulation of medication in the syringe tip when measuring a feeding tube dose from a medication cup (**Figure 6**), some of that may leak out when connected to the feeding tube or be injected via the tube, which may constitute a small amount of excess medicine reaching the resident. The volumes appear to vary depending on liquid viscosity, volume of fluid in the dead space, and force of injection caused by the syringe plunger when connected via the ENFit connector to the feeding tube.

As already mentioned, measuring a dose for administration via an ENFit feeding tube is only accurate if there is no medication in the dead space both before and after administration. This is a fundamental change in the way that staff must measure medication doses for feeding tubes while using unit dose cups since a straw must be used in the process. The added complexity has the potential to contribute to dosage error when very small amounts of liquid are needed for a dose.

Figure 6. The ENFit syringe tip (circled) must be cleared when measuring doses and before connecting to an ENFit (male) feeding tube (left). If fluid remains, some leakage may occur and a small amount of extra medication may be administered.

ENFit syringe product vendors are aware of the issue of bubble formation and dead space when preparing doses directly from a cup of liquid and they are prepared to introduce solutions that may mitigate this concern. ISMP has not received anything to test and cannot comment on the safety or accuracy of what may be forthcoming.

Administering the medication. Once procedures have been followed to verify placement and/or flushing of the feeding tube, the ENFit syringe's female connector should be attached to the compatible male connector on the feeding tube, and the medication should be administered (**Figure 6**).

Administering Liquid Medications by Mouth

Measuring and administering an oral dose of medication. For now, it would be safest to use an oral syringe to measure the dose and administer the medication by mouth, using the same techniques and devices currently in place.

Using ENFit syringes as the sole device. Even with excellent communication between LTC facilities and the pharmacy, it may be impossible for the pharmacy to always know which residents can swallow and can use an oral syringe, and which have a feeding tube and will need an ENFit syringe. For residents with feeding tubes, medication orders should specify "via tube." But even so, some residents may later have their tubes removed before pharmacy is notified, while others with feeding tubes

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While the likelihood of a similar error occurring again is small, we asked Lilly to consider whether the dose in units is needed. **GLUCAGEN HYPOKIT** (glucagon), distributed by Novo Nordisk, lists the dose only in mg (1 mg) on the primary label panel. According to Lilly's Glucagon Emergency Kit directions, the syringe that contains the diluent is to be used to withdraw the dose (to the 1 mg mark on the syringe) and then also to inject it (see instructions at: http://pi.lilly.com/us/rglucagon-ppi.pdf). The facility is also committed to improving staff training on the topic of glucagon administration.

Mix-up between two anti-anxiety drugs with names that start with "A." We have received numerous reports of mix-ups between **ATIVAN** (**LOR**azepam) and **XANAX** (**ALPRAZ**olam). Most frequently, when **ALPRAZ**olam has been prescribed, nurses have documented or transcribed the drug as "Ativan" assuming it was the same drug as **ALPRAZ**olam because both names begin with the letter "A." Be sure you use the correct name when converting a generic name to a brand name and vice versa. Better yet, document the drug name as you heard it or as it is printed on the order, medication administration record (MAR), or drug label.

Z-pak order confusion. Dosing errors involving azithromycin 250 mg tablets can occur when the medication is ordered as a "Z-Pak" without specific dosing instructions. Recently, a physician chose azithromycin "Z-Pak" from the drop-down menu on the order entry screen and included "as directed" in the comments. The physician assumed that by choosing the "Z-Pak" option, the usual "split dosage" directions of taking two tablets on day 1, and 1 tablet on days 2 through 5 would be automatically included in the order. It was not. The order was sent to the pharmacy and then appeared on the medication administration record (MAR) as 250 mg, 1 tablet daily for 5 days. The error was discovered several days later by the consultant pharmacist. The consultant pharmacist found the same error 2 weeks later at a different assisted living facility involving a different physician.

These types of "split dosage" orders that require different dosing instructions on different days need to be entered into the elec-

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> ENFit—continued from page 3

can still swallow liquid medications orally. For simplicity, some healthcare organizations have told us that they hope to be able to use ENFit syringes for both feeding tube administration as well as oral administration by mouth, thus eliminating the need for a second type of syringe without a Luer tip. But going with only ENFit syringes alone poses safety considerations, particularly for doses in small volumes, less than 2 mL, as described below.

Administering an oral dose via ENFit syringe. When a medication intended for oral administration has been drawn into an ENFit syringe via a bottle adapter or ENFit straw, if the dose is given orally and not connected to a feeding tube, the resident will not receive the full amount of liquid, and thus an incomplete dose. This is because fluid will remain in the dead space after delivering the medication into the resident's mouth (**Figure 7**). For medication volumes above 2 mL, this would not be clinically significant since only 0.15 mL to, at most, 0.2 mL would remain (under 10%) in the syringe tip dead space. Most liquid doses for adults are usually well above that amount, so this should rarely be a problem for them.

Figure 7. Medication remains in the syringe tip if using an ENFit syringe to administer an oral dose.

Finally, if an ENFit syringe by itself (no straw) is used by staff to draw up liquid from a unit dose cup for oral use, the bubble should be removed and the syringe should be completely filled to the appropriate dose, keeping the fluid that accumulates in the syringe tip dead space. This same amount will remain in the dead space after releasing the medicine into the mouth. Therefore, a dosing error will not result.

A timely system must be established to notify the pharmacy of all medication doses needed via ENFit syringes due to feeding tubes (or oral syringes when feeding tubes are discontinued). For example, prescribers should be required to order medications by the correct route (i.e., oral, enteral) so the pharmacy knows what type of syringe to use. There should also be other ways to communicate route of administration, such as via electronic messaging. However, in practice, this may be difficult to reliably implement and align with the type of syringe the pharmacy dispenses. Even with such a policy, LTC facilities should anticipate that some rework will occasionally be needed. Of course, the route of administration should always be reflected in the medication administration record.

A Note About Proprietary Enteral Systems

Devices meant specifically for the neonatal population that do NOT meet the ISO 80369-3 standard for enteral connectors, but have their own proprietary design, are also on the market. These devices will not connect to small bore Luer connectors. However, concern has been expressed that LTC facilities may inappropriately use these devices as a fallback system to rely on if a shortage or recall of ENFit equipment occurs since the proprietary system would not be compatible with ISO-designed ENFit connectors.

Conclusions

If an ENFit syringe is connected to an ENFit bottle adapter or straw for syringe filling, then it must be attached to an ENFit feeding tube in order to administer an accurate dose, particularly liquid doses under 2 mL. If an ENFit syringe is filled directly from a cup without an ENFit straw, then as long as it is not connected to an ENFit device for administration, and instead is delivered directly into the resident's mouth, the dose will be accurate. Problems can exist if an ENFit adapter or straw is used to fill the syringe with small amounts of medicine but the dose is given orally. Problems can also exist if

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tronic order entry system as separate orders for each set of dosing instructions unless a medication template is available. Use of a template that includes the specific doses to administer on the specific days (day 1 and days 2-5 in this case), is the preferred, safest method of ordering azithromycin with these dosing parameters. In this case, the physician was unaware that a template, which only required identification of the start date, was available in the order entry system.

Both physicians and staff need to be made aware that by selecting an azithromycin "Z-Pak," the usual dosing of 2 tablets on day 1 and 1 tablet on days 2-5 cannot be assumed. To avoid confusion, it would be best to make sure the selection of a "Z-Pak" option for azithromycin in the order entry system leads only to the template that prompts for the start date. Providing physicians with a quick reference of all available templates in the order entry system can also help.

Is it insulin or heparin? How can injectable heparin wind up in an insulin syringe? Your first thought may be a vial mix-up in which a nurse, pharmacist, or pharmacy technician *accidentally* drew heparin into an insulin syringe, believing it was insulin. But what if we told you it was *no accident*?

We recently learned about an at-risk behavior in which nurses were intentionally drawing heparin into an insulin syringe because they did not have a syringe with a 25 gauge needle to use for subcutaneous heparin injections. Of course, the primary risk with this practice is that an insulin syringe with heparin could easily be mistaken as an insulin syringe with insulin. Even if the insulin syringe is clearly labeled as containing heparin, nurses will associate the orange-capped syringe with insulin, not heparin.

This scenario can lead to disastrous results due to *inattentional blindness*. When looking at the syringe, the information seen with our eyes is first processed by our subconscious. To make sure our brain is not overloaded with information, just a small portion of what we are seeing may enter our conscious awareness. Unfortunately, the brain is a master at filling in gaps and compiling a view of what the brain thinks it should be seeing based on our past experiences. In this case,

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> ENFit—continued from page 4

liquid is drawn directly into a syringe from a cup (no straw) then attached to an ENFit feeding tube. The key point to remember is that the volume in the tip of the syringe (the dead space) before and after administration needs to be the same. If the tip is full of medicine before administration, it must be full after administration. If the tip is empty before administration, it must be empty after administration (**Figures 8-11**).

We urge product vendors to make samples of ENFit syringes, caps, bottle adapters, feeding tubes, straws, and administration sets available as soon as possible. Companies have yet to announce when the enteral devices will be available, but delivery of the samples must be well in advance of new supplies of ENFit devices to allow for evaluation by staff and training. It is only through simulations that staff will fully understand the issues described above and pinpoint where errors may happen based on facility practices. Time for staff inservicing before actual use is also needed, and that can't be done adequately without seeing the supplies that will be used. Of utmost importance is the ability for pharmacy staff and frontline staff who administer medications to examine the devices. During the development of future products, early versions of the products should be tested by frontline personnel so potential problems can be identified during development rather than when products are about to reach the market.

We also urge GEDSA companies to work closely with each other and with frontline practitioners to understand how these devices will be used in practice. This will require a lot of hard work on everyone's part in order to reduce the risk of dosing errors when using the new devices. In the end, though, this is a worthwhile endeavor to eliminate the risk of tragic errors in which enteral liquids are given by the wrong route.

ISMP expresses our gratitude to NeoMed for providing us with samples of the new ENFit devices for simulation while preparing this article. We would also like to express our appreciation to Jamie Sklar, RN, MS, CCRN, and Sean O'Neill, PharmD, both from The Children's Hospital of Philadelphia, for their assistance during preparation of this article.

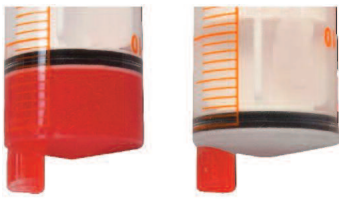

Figure 8. Medication drawn up from a cup without an ENFit connector and delivered by mouth. The volume of medication in the syringe tip at the start and end of administration is the same, so dosing is accurate.

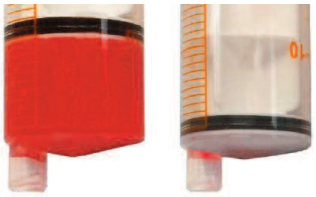

Figure 9. Medication drawn into an ENFit syringe in the pharmacy using an ENFit adapter, and then given via an ENFit device. The volume of medication in the syringe tip is the same before and after administration, so dosing is accurate.

Figure 10. Medication drawn from a cup but administered into an ENFit device can lead to over-delivery of medication. The volume of medication in the tip of the syringe differs before and after administration. The full dose plus the extra in the dead space was administered.

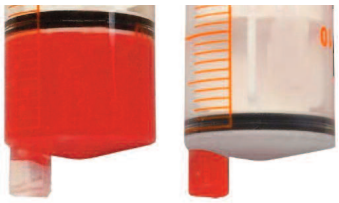

Figure 11. Medication drawn into a syringe using an ENFit adapter but given by mouth leads to under-delivery of medication. The volume of medication in the tip of the syringe differs before and after administration. The dose minus the drug leftover in the dead space was administered.

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the orange color of the syringe cap could capture the nurse's attention, and anything lying outside the initial capture of attention—such as the actual drug name on the label—will not enter the conscious mind. Nurses in this facility used the insulin syringes for heparin because the syringes/needles they required were not available. Over time, the perception of risk associated with this practice had been lost, particularly given that using an insulin syringe was the only way to administer subcutaneous heparin in that facility. Until syringes with a 25 gauge needle are readily available, this dangerous workaround will continue. A safer option is to provide commercially available prefilled syringes of heparin and 25 gauge needles.

Be sure you have all the necessary medication-related supplies in all your resident care units, including parenteral and oral syringes, infusion pumps, infusion tubing, port caps, and so on. Do not employ policies which force staff to engage in workarounds in order to provide care to their residents.

ISMP begins 2015 Annual Fund Drive

Medication safety would be very different today without ISMP. The nonprofit organization has worked closely with regulatory authorities, standards organizations, professional and industry groups, and you, to improve safety. As a result, thousands of product and practice changes have occurred since our founding in 1994. We recently launched the **2015 Annual Fund Drive** to ensure that our lifesaving work will continue via an endowment (see last page for details). Please consider donating to this year's **Annual Fund** to help keep ISMP an important part of the fight against preventable medication errors. To contribute, go to: www.ismp.org/support. Thank you!

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2015 Readership Survey of the ISMP Long-Term Care AdviseERR

We need the **help** of **the individual who receives the initial copy of this newsletter at each practice site** to understand how it's received and re-distributed within your organization, and its value to you. The survey will take just a few minutes to complete and will give us the information we need to continually increase distribution of medication safety recommendations to LTC facilities and to maintain sponsorship so the newsletter can be offered free to LTC facilities. **We would greatly appreciate just ONE RESPONSE from each facility BY THE PERSON WHO RECEIVES THE NEWSLETTER INITIALLY, regardless of whether you redistribute it to others.** Please submit your responses by **May 29, 2015**, via https://surveys.ismp.org/s3/Readership-Survey (or by fax to 215-914-1492 only if you do not have Internet access). Thank you!

1 As the person who receives the initial copy of the newsletter, what is your professional role? (check one)

____ Nurse (excluding certified nurse practitioners, who are considered prescribers)—**If yes, please note level:**
___ Staff LPN ___ Staff RN ___ Manager/Supervisor ___ Director ___ Chief Nursing Officer ___ Other:_____

____ Pharmacist—**If yes, please note level:**
___ Staff (Dispensing) ___ Consultant ___ Manager/Supervisor ___ Administrator/Director ___ Other:_____

____ Prescriber —**If yes, please note professional designation:**
___ Physician, but not the Medical Director ___ Physician Medical Director ___ Certified Nurse Practitioner
___ Physician Assistant ___ Other:_____

____ Facility Administrator
____ Educator—**If yes, choose:** _____Academic Setting ____Patient Care Setting
____ Student
____ Industry/Regulatory
____ Other (please identify): _____
____ Don't know if I receive the initial copy of the newsletter in my facility

2 Please indicate your title at your workplace: _____

3 Do you redistribute the newsletter to other LTC facility staff after it is received? Yes ____ No ____ **If no, skip to question # 7.**

4 As a general pattern, how do you redistribute the newsletter to others? (check one)

____ Send all issues ____ Send selected issues ____ Send selected items ____ Other (specify): _____

5 Please estimate how many people in each category actually receive each issue (or selected items) of the newsletter after redistribution in your facility. (please give a number, even zero, for all categories of staff)

____ Staff registered nurses ____ Staff licensed practical nurses ____ Educators ____ Nurse managers
____ Staff pharmacists ____ Consultant pharmacists ____ Pharmacy technicians ____ Pharmacy managers
____ Prescribers—**If so, do you distribute to the Medical Director?** ____Yes ____No
____ Physician managers ____ Administrators ____ Students ____ Others

6 Place a checkmark next to each method used to distribute newsletter information. (check all that apply)

____ Fax ____ Email ____ Internal intranet ____ Internal website ____ Bulletin board ____ Sent with meeting minutes
____ Sent through an internal newsletter ____ Copied and sent to individuals/departments ____ Other (specify): _____

continued on page 7— **Survey >**

> **Survey**—continued from page 6

7 **What topics would you like to see covered in future editions of the newsletter?**

_____

_____

8 **Please describe the organization in which you practice.** (check all that apply)

____ Skilled Nursing Facility—**please note bed size:** ___Under 150 ___150-450 ___ Over 450
____ Rehabilitation Facility—**please note bed size:** ___Under 150 ___150-450 ___ Over 450
____ Nursing Home—**please note bed size:** ___Under 150 ___150-450 ___ Over 450
____ Group Home—**please note bed size:** ___Under 150 ___150-450 ___ Over 450
____ Assisted Living Facility—**please note bed size:** ___Under 150 ___150-450 ___ Over 450
____ Long-Term Acute Care Hospital—**please note bed size:** ___Under 150 ___150-450 ___ Over 450
____ Long-Term Care Pharmacy—**please note type:** ___Independent ____Branch ____ Regional Office ___Corporate Headquarters
____ Community Pharmacy—**please note type:** ___Independent ____Chain Store ____ Regional Office___Corporate Headquarters
____ Private Practice/Independent
____ Academic Setting
____ Other (specify): _____

9 **Please tell us under which conditions you currently receive the newsletter** (check only one):

____Free—**If you could not receive the newsletter free, would you be willing to pay for a subscription to still receive it?** ____Yes ____No
____Paid Subscription

10 **Tell us your thoughts about the newsletter by checking the box that best describes your opinion.**

Statements about content	Disagree---------- Agree				
	1	2	3	4	5
a The newsletter increases my understanding of the causative factors leading to medication errors.					
b The newsletter increases my understanding of how to prevent medication errors.					
c The recommendations for medication error prevention are practical and helpful.					
d Many of the newsletter recommendations *could* be implemented in my facility.					
e I have referenced past newsletter issues and used them as a resource when planning medication error-reduction strategies in my facility.					
f I have made specific changes to improve medication safety in my own practice based on information in the newsletter.					
g My facility has implemented medication safety improvements based on recommendations in the newsletter.					
h I have used the newsletter to educate staff, other healthcare providers, and/or students.					
i The newsletter has facilitated the identification of medication safety issues in my facility.					
j The newsletter has facilitated the development and implementation of potential solutions.					
k The newsletter serves as a credible, respected, and reliable source of information on medication safety.					
l The newsletter has helped reduce or prevent harmful medication events in my facility.					
m Even though the newsletter is sponsored by a drug company, I believe that the information presented in the newsletter is unbiased.					

11 **Please state in a sentence the value of the newsletter to you:**

_____

12 **Other comments about the newsletter you would like to make:**

_____

Please submit responses to ISMP at: https://surveys.ismp.org/s3/Readership-Survey or by fax (215-914-1492) by **May 29, 2015.**

Thank you for participating!

HELP KEEP ISMP GOING

ISMP extends sincere thanks to our friends who contributed to our 2014 Annual Fund campaign* to support our lifesaving work. All the charitable donations will help keep ISMP an important part of the fight against preventable medication errors. To support ISMP in 2015, go to: www.ismp.org/support.

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