Ohio Nurse Practice Act Updates 2013

By: Mary Burkart, RN

In March 2013, a new law took effect that directly affects nursing practice in the administration & care of intravenous fluids & medications in adult patients. Ohio Revised Code, Section Sec. 4723.18, further clarifies the LPN IV therapy courses & permitted tasks.

Section 4723.18(D)(1)(d) states that an LPN may not provide IV therapy with “Solutions administered through any central venous line or arterial line or any other line that does not terminate in a peripheral vein, except that a licensed practical nurse authorized by the board to perform intravenous therapy may maintain the solutions specified in division (D)(6)(a) of this section that are being administered through a central venous line or peripherally inserted central catheter.” (emphasis added)

This is a change in the law, saying that an IV certified LPN is legally permitted to perform central line or PICC infusions. HOWEVER, currently there are no corresponding rules (Ohio Administrative Code) promulgated by the Board of Nursing to guide us on what the required education & skills training are; who will be instructing these updates; where the skills may be performed; if an RN has to be on-site or available by telecommunication; and many other concerns to keep all nurses safely within their scope of practice and maintain the health & safety of our patients. The Ohio Board of Nursing reported that it was meeting to discuss the wording of the new rules in November 2013, with finalization coming in February or March 2014.

Many long-term care facilities are anticipating utilizing their LPN’s in this expanded role. While we appreciate their excitement at providing this new skill and service, ICP’s Nursing Department recommends waiting until the Board reviews, writes & releases the updated rules as the interpretation of the law may change. Those licensed under the Ohio Board of Nursing are well aware they are required to practice in compliance with all laws and rules. We would not want to jeopardize any nurse’s licensure status by recommending one interpretation only to find out the board has a completely different interpretation!

ICP’s Nursing Department is closely watching this developing situation. As the Ohio Administrative Code rules are written & published, information will be disseminated, new education programs will be developed, and assistance provided in order for the facilities to comply with the Nurse Practice Act.

Should you have any questions on this hot topic, please call your ICP Nurse Consultant or the Nursing Department at 800-228-8278 ext. 132.

CE for Nurses

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ICP is pleased to announce several additions to our nursing continuing education offerings.

In addition to Safeguarding Your Practice (Ohio Nursing Law), and Medication Administration in the Long-term Care Facility, ICP can now provide:

- Skin Tears: A Little Rip Can Be a Big Problem: The purpose of this program is to educate long-term care nurses on the anatomy & physiology, classification, and current interventions for the prevention and treatment of skin tears
- CPR vs. DNR: How Well Do You Know Your Residents?: The purpose of this program is to educate long-term care nurses on code status, assisting with decision-making, planning & communication, and ramifications of not complying with patient preference
- Understanding Coagulation Testing: APPT/PPT/PT/INR Values: The purpose of this program is to educate nurses on the importance of anticoagulation testing as it pertains to long-term care patients
- Pain Management Strategies: The purpose of this program is to educate long-term care staff on pain management using the nursing process

Each program is one (1) hour long and provides 1 contact hour for successful completion. To schedule one of these programs, please contact your ICP Nurse Consultant.

Keep your eyes on the Consultant Connection, as more continuing education programs will be announced in the future!
As U-500 insulin safety concerns mount, it’s time to rethink safe use of strengths above U-100

As the obesity epidemic continues and insulin resistance problems worsen, larger doses of insulin are more frequently required to meet glycemic goals. This has led to an increased use of U-500 insulin when dose requirements exceed 200 units per day. But along with the increased use of U-500 insulin, there are a growing number of U-500 insulin-related medication error reports and/or complaints to ISMP from nurses and other health professionals. Most of the reports are related to dosing errors caused by not having a U-500 scale. This usually requires practitioners to rely on measuring doses with a U-100 syringe and teaching the patient to communicate doses in “syringe units”—that is, measure 200 units of U-500 insulin by drawing up 40 “syringe units” on the U-100 syringe. But too often, patients do not understand the difference between U-100 and U-500, so they inaccurately state the actual dose, saying things like, “I took 40 units of insulin, which can lead to hypo or hypoglycemia.” Worse, confusion can also lead to overdoses. If people using a U-100 syringe misunderstand “syringe units,” a dose of 80 units of U-500 insulin might be prepared by measuring 80 units on the U-100 scale instead of 16 "syringe units,” resulting in a dose of 400 units.

It is difficult to understand how a high-alert drug like insulin was ever allowed to be available without a corresponding way to measure doses accurately (e.g., a U-500 syringe). Instead, practitioners have been forced to improvise by using a U-100 syringe, which we believe is more error prone than using a tuberculin syringe that measures U-500 doses by volume. Indeed, a U-500 syringe would seem to be a much better option by providing markings appropriate for U-500 insulin. Recently, the Department of Veterans Affairs (VA) published research on a prototype U-500 syringe design (www.ismp.org/sc?id=257). One of the goals of the evaluation was to observe intuitive selection of the correct syringe for a corresponding dose. More than 100 subjects (clinicians, and experienced and inexperienced patient groups) were asked to select the correct syringe among two U-500 syringes (see Figure 1) or a U-100 syringe given three different dosing situations. When the U-500 insulin doses were below 100 units, the majority of subjects chose a U-100 syringe instead of the U-500 syringe. In such a case, the patient could receive a 5-fold overdose when using U-500 insulin. With clinicians alone, 47% chose the wrong syringe (U-100), probably thinking it would be more accurate for doses under 100 units. The authors of this study noted other vulnerabilities with the U-500 syringe and offered helpful recommendations for improving its design.

What about an insulin pen for U-500? Given that far fewer patients receive U-500 insulin than U-100 insulin, and given the well-known confusion brought about by not having a corresponding U-500 syringe, at the present time we believe a U-500 insulin pen would be the best option. Unfortunately, Lilly and BD will not provide information about whether this is in the works, and FDA is unable to comment on any products that may or may not be under development. However, there are additional strengths of insulin now under development that will only add to the confusion if a pen is not made available. Sanofi-Aventis is developing U-300 glargine (LANTUS), Novo-Nordisk is developing U-200 degludec (brand name TRENIUM) and Lilly is developing a U-200 HUMALOG® (U-200). Treinta & Cuenta is already on the market in the United Kingdom and is only available in a pen. Given the syringe selection issues raised in the U-500 insulin study, we strongly recommend that these new products be available in the US only in a pen. If development of a U-200 syringe and/or a U-100 syringe is being considered, that will only add to inventory problems, selection issues, confusion, and medication errors. Indeed, mis-match between syringe types were common back when U-40 and U-80 insulins were available for a time, along with U-100 insulins (www.ismp.org/sc?id=262).

One final issue with U-500 insulin that perhaps can also lead to confusion is name similarity. HUMULIN R is the name for both the U-100 and the U-500 product even though they have different concentrations. As U-500 insulin safety concerns mount, we strongly recommend that these new products be available in U-100 insulins and insulin pens.

U-500 insulin syringes or pens are available for U-500 insulin, ISMP continues to believe that it would be far less confusing to all concerned if tuberculin syringes were used to measure doses by volume using a dosing conversion chart (www.ismp.org/sc?id=260). Total doses should be expressed in terms of both units and volume (i.e., 200 units [0.4 mL]). That way, the U-100 scale and associated confusion would not emerge. One issue that has come up, however, is reimbursement for patients using tuberculin syringes. Some insurers will not cover the cost. That is shortsighted given the financial cost of dosing errors. We can only hope that insurers will begin to cover the cost of using the most appropriate syringe with higher concentration insulin.


Flomax® (tamsulosin) for Urinary Issues in Women

The use of alpha-blockers (tamsulosin, alfuzosin, terazosin, doxazosin) has been the mainstay of treatment for men with benign prostatic hyperplasia (BPH) and lower urinary tract symptoms (LUTS), but little has been published supporting the use of alpha-blockers in women with voiding dysfunction. Some urologists are now prescribing alpha-blockers for women with lower urinary tract symptoms associated with bladder outlet obstruction (BOO) or undetectable detrusor muscle, but are they doing any good?

Alpha-blockers can help increase urinary flow by acting on receptors in the bladder neck and urethra leading to relaxation. The majority of the receptors are located within the prostate, which is why alpha-blockers have been studied and used for BOO and LUTS in men. Since some of these receptors are also located in other parts of the urinary tract, it is presumed that alpha-blockers should have an effect in females as well. Recent studies have been done evaluating the use of tamsulosin in women with bladder outlet obstruction and detrusor underactivity. The results have shown some promise, but with inconclusive results. Most studies have been outside of the United States and using a dose of tamsulosin 0.2mg, which is not available in the US. Another problem with the studies, is they were only ran for a few short weeks and they were not compared to a placebo. Despite the weaknesses in study design, the majority of female participants reported that treatment with tamsulosin had a good clinical response and an improved quality of life.

Even though strong evidence may be lacking, tamsulosin and other alpha-blockers seem to be the first line medication choice of some urologists. Alpha-blockers as a class are associated with minimal side effects, mostly those related to orthostatic hypotension. Tamsulosin is the most well tolerated, with the most prominent side effect noted being dizziness. In some cases, alpha-blockers lead to worsened stress incontinence, so they may want to be avoided in female patients with stress incontinence. Tamsulosin is also commonly being prescribed for short-term use in women with kidney stones. In this case, tamsulosin should only be used until the kidney stones are passed and then discontinued.

Urinary retention can impair quality of life and potentially lead to recurrent UTIs and upper urinary tract damage, so if there is an effective medication that would be used. Women, prescribed tamsulosin or other alpha-blockers for voiding dysfunction should be monitored for efficacy. At this point, most studies have been done with tamsulosin, so it will most likely be the preferred agent used in women.

References:
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Changes or the addition of a suffix to the more concentrated forms would help differentiate them. The Institute for Safe Medication Practices (ISMP) Medication Safety Alert October 31, 2013

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Urinary retention can impair quality of life and potentially lead to recurrent UTIs and upper urinary tract damage, so if there is an effective, long acting, once daily, labeled alpha-blocker, it would be useful. Women prescribed tamsulosin or other alpha-blockers for voiding dysfunction should be monitored for efficacy. At this point, most studies have been done with tamsulosin, so it will most likely be the preferred agent used in women.

References:

Gut Microbes Associated with Presence of Rheumatoid Arthritis

New-onset rheumatoid arthritis (NORA) has been found to correlate with presence of Proteus coli microbes in the gut of untreated patients. The presence of P. coli was associated with lower levels of beneficial microbes such as Bacteroides. P. coli remains in patients with established RA were the same as those in healthy individuals, leading researchers to believe this condition may be a product of the microbiome environment to survive since patients already undergoing treatment with anti-inflammatory medications would not have this type of gut environment.

New Treatment Guidelines for Dyslipidemia

The American Heart Association and the American College of Cardiology have released new guidelines for dyslipidemia treatment that will change how medications such as statins are prescribed. Previous guidelines suggested treating to achieve an LDL level of 70mg/dL. The new guidelines suggest using a statin for LDL levels > 190 mg/dL, but there are no set numerical goals. A new risk calculator examines age, blood pressure, and total cholesterol levels to determine whether a patient should receive medications. In general, the guidelines recommend treatment if the patient has a 7.5% risk of developing heart disease or stroke within 10 years. It is thought the guidelines may result in more people taking statins, but fewer using multiple agents, such as statin plus ezetimibe to achieve an LDL of 70mg/dL.
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