ProCare **HospiceCare** *May/June Edition 2017*

On-Demand Clinical News

The Impact of Inaccurate Information on Patient Care, and How Pharmacists Can Help Prevent Errors: A Case Assessment Example

By: Kristin Speer, BCPS, RPh, PharmD

As one can imagine, a single inaccurate piece of information reported during a pain or symptom assessment can impact the care outcome of a patient. But to what degree? Some details are certainly more important than others to get right. For example, reporting that a patient was taking Sorbitol twice daily rather than only once daily may not amount to a clinically-significant impact on the recommendation for constipation management. In some cases, such as an inaccurately reported opioid strength or dose, the misinformation may lead to a significant overdose or under-dose in the recommendation. In other cases, the entire plan or direction of care may change. The below case example illustrates the potential impact of reporting accurate versus inaccurate details:

Hospice wanted to convert a patient from fentanyl patches and oxycodone to all morphine-based therapies.

The patient was initially reported to be using 15mg oxycodone IR tabs: 1 tab x 4 doses and 2 tabs x 2 doses in the past 24h (total 120mg oxycodone/24h). Upon further questioning by the pharmacist, it was discovered that the patient was actually using a 5mg strength of the same number of doses and tabs in 24h (total 40mg/24h). ***The difference was 80mg per day of oxycodone.***

The patient was also initially reported to be receiving 2 x fentanyl 75mcg/hr patches, plus 1 x 25mcg/hr patch TD q72h (total 175mcg/hr TD q72h). Upon further assessment by the pharmacist, it was discovered that the patient was actually wearing a single 25mcg/hr patch (the family confirmed this to be the correct dosage and not a result of any patches falling off). ***The difference was 150mcg/hr of fentanyl TD q72h.***

Converting the opioids to oral morphine equivalents, the difference was about 400mg oral morphine equivalents per day that the patient was (not) receiving.

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Blood Pressure Management at End of Life

By: Tracey Gordon, PharmD, CPh

Since there are no set guidelines for blood pressure management at end of life, our goal in hospice is ensuring patient comfort by effective management of symptoms. Hypotension and hypertension can both cause symptoms that are manageable by either addressing the culprit and/or adding medication to control blood pressure and heart rate.

Based on the JNC-7 and 8, the ACCORD Study, the American Society of Hypertension, the American Heart Association, and the Sprint Trial, the target blood pressure goal for most patients <60 yrs is <140/90mmHG (including DM and CKD). The goal for age ≥65 yrs (JNC-8) or ≥80 yrs (most other guidelines) is <150/90mmHG. These higher goals for older individuals are established to avoid unwanted effects (i.e. acute renal failure, serious hypotension, syncope) and because lower targets show no differences in risk of MI, acute coronary syndrome, or stroke.

Symptoms of high blood pressure do not often occur, but they may include chest pain, dyspnea, and neurological deficits (i.e. headache, visual disturbances, vomiting, seizures, and mental status changes like anxiety, confusion, etc.). They are more likely to occur with severely high blood pressure. Management of these symptoms may include discontinuing offending agents like herbal medications (i.e. DHEA, Garlic, or Vitamins B12, C, D, and E), or changing a steroid of predominately mineralocorticoid activity (like prednisone) to dexamethasone. Hypertension-related symptom management might also involve increasing or adding anti-hypertensive medication. The optimal agent should be chosen based on your patient's history, blood pressure, and heart rate, and by understanding the pharmacology of the anti-hypertensive and its possible adverse effects.

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Based on initial opioid usage reports, the recommendation would have been to switch to morphine ER 100mg q12h and 30-40mg q2h prn BTP. After the additional questions and clarification, the final recommendation was morphine ER 30mg q12h, and 10mg q2h prn BTP. ***The morphine ER recommendation difference was 140mg/day, and the breakthrough dose recommendation difference was 20-30mg/dose.***

As in the case example, it is easy to understand how 5mg could be erroneously transcribed or translated as 15mg (or 0.5mg or 50mg, for that matter). Likewise, it is understandable how 25mcg might look like 75mcg, or vice-versa. Orders can be confusing or difficult to read, particularly when there are multiple orders, there are many stop/start orders and dates, or the orders are hand-written.

Our pharmacists can assist in avoiding mistakes such as these. With a keen and clinical eye, we compare the details you are communicating against the details we have on record. We double check dosages and number conversions. We review the information you are providing to assess risks and benefits. We confirm – perhaps silently – those details that make sense, and question – perhaps out loud – when they do not. We review the admission consult, prior symptom consults, and medication updates. We evaluate medications against each other (drug interactions), and against disease states, kidney and liver function, and prior medication updates/orders reported. Our pharmacists do everything we can to provide the most efficacious and safest pain and symptom management strategies possible for the patient's unique clinical picture.

We also document all relevant and clinically important information to help create the patient's clinical picture, which assists with future consults. Our documentation gives rationale to our recommendations and ensures effective and safe pharmacologic and non-pharmacologic therapies. It also serves as an important communication tool for hospice.

We share your passion to deliver the very best patient care possible. Please feel free to run details by us, ask us to double check dosing or run drug interactions, or ask us for our recommendations. ProCare clinical pharmacists are here for you and your patients, 24 hours a day, 7 days a week.

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As with hypertension, there are no set guidelines for the management of hypotension, as there are numerous causes and types of hypotension. Hypotension can be classified as absolute (SBP <90mmHG or DBP <65mmHG), relative (a drop in SBP by >40mmHG), or orthostatic (SBP decrease of >20 mm Hg or DBP decrease of >10 mm Hg when changing from supine to standing). It can also be caused by reflex syncope, volume depletion, overall decline, or autonomic failure, as in Parkinson's disease, dementia, neuropathy, diabetes mellitus, renal failure, or vitamin B-12 deficiency.

Symptoms of hypotension include, but are not limited to, dizziness, syncope, weakness, cognitive slowing, nausea, rapid/shallow breathing, depression, inability to concentrate, thirst, cold/clammy skin, and chest pain; but these can also be signs of overall decline. Management of these symptoms starts with determining the cause and managing the underlying condition. Examples are managing triggers of reflex syncope, like alleviating straining with laxatives; minimizing stress with benzodiazepines, anti-psychotics or anti-depressants; limiting exertional stress from SOB or pain; assisting in lowering body temperature, when heat is the trigger, with cooling techniques, fans, etc.; stabilizing sugars in diabetic patients with post-prandial hypotension; controlling neuropathic pain and Parkinson's disease symptoms in hypotension of autonomic diseases; and stabilizing orthostasis with physical measures, like raising the head of bed 10-20 degrees, arising slowly, etc. Other treatments for hypotension include discontinuing offending pharmaceutical and/or herbal agents like magnesium, niacin, potassium, senna, honey, cholinesterase inhibitors, anti-hypertensives, anti-histamines, antipsychotics like aripiprazole and quetiapine, muscle relaxants, and benzodiazepines with long half-lives like alprazolam and temazepam. Treatment has also included increasing water intake to a target of 1.5-3L/day and salt intake to a target dose 6-10g sodium/day. If pharmaceutical management is warranted, fludrocortisone is first-line, with a starting dose of 0.1mg po QAM; up to 0.3mg po QAM in weekly adjustments. If overall decline is the culprit, decreasing or discontinuation of anti-hypertensive medications is always suggested. Lastly, current blood pressure, heart rate, and anti-hypertensive class of medication(s) will determine whether or not a medication can be safely discontinued or if it requires gradual tapering. For example, beta blockers (e.g. metoprolol, atenolol) and alpha 2-adrenergic agonists (e.g. clonidine) should generally be tapered to avoid rebound hypertension and/or chest pain.

In summary, blood pressure in hospice patients should be generally maintained to <140/90mmHG for those <60 yrs old and to <150/90mmHG in the elderly, while maintaining control of symptoms. In patients with a poorer prognosis without symptoms, blood pressure targets can be relaxed or not monitored at all. As a general rule, determine and address the culprit of the blood pressure fluctuation, and adjust therapy, if needed, based on your patient's past medical history, current blood pressure and heart rate, current symptoms, and anticipated side effects of the hypertension medication. Please contact ProCare's clinical hospice team to assist with blood pressure management and symptom control for your patients.

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Upcoming Lunch and Learn Presentations

June

"Palliative Emergencies: What, When, and How to Treat"

Presenter: Nathaniel Hedrick, Pharm D

Wednesday, June 14, 2017 at 12:00pm ET; Thursday, June 15, 2017 at 3:00pm ET

Please note: For this month we are offering a Weds and Thurs session

July

"Symptom Management in Bowel Obstruction"

Presenter: Meri Madison, Pharm D

Tuesday, July 11, 2017 at 3:00pm ET; Wednesday, July 12, 2017 at 12:00pm ET

RSVP by contacting Suzanne Stewart, Lunch and Learn Coordinator, at:
1-800-662-0586 ext. 3303 or sstewart@procarerx.com.

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