FROM THE DESK OF THE PRESIDENT

As I write this first letter with the new title of President of the Louisiana Society of Health-System Pharmacists (LSHP), I want to take a moment to thank you for supporting me and the society. With all of the challenges we are sure to face over the next year, LSHP is in great shape. I look forward to this year with anticipation and confidence that our leadership and members have the knowledge, experience, and commitment to respond to these challenges.

Our Past Presidents, Ed Stemley and Roxie Stewart, have done an excellent job and thanks to their leadership LSHP continues to enjoy great relationships with our members and industry supporters. Under Ed's leadership, LSHP's first Reverse Expo and Pharmacy Leadership Forum was held at the Annual Meeting in New Orleans. THANK YOU to all of our Pharmacy Directors and Clinical Managers that participated in these events. The Reverse Expo is sure to be a favorite of our industry supporters and as a participating hospital, I found it an easy way to meet vendors and learn about their products and drugs. It was a concentrated approach in a comfortable room with time set aside for the purpose at hand with NO interruptions! The Pharmacy Leadership Forum was also a first for LSHP. It is our vision that future LSHP Pharmacy Leadership Forums will be events that are relevant and useful to health-system pharmacy leaders in Louisiana. Please help us to establish future agendas by submitting topics and ideas to office@lshp.org.

I would like to thank all of our board of directors, committee chairs, affiliate chapter leaders, and schools of pharmacy for your commitment and dedication to health-system pharmacy. A special thanks to Jay Schwab and Helen Calmes for your work with the programming of the Annual Meeting. Pharmacy Management Committee Co-chairs Mike Loftin and Mike Dorman, thank you for your leadership and direction. Ed Stemley and Roxie Stewart, thank you for your leadership as President and Immediate Past President and to Tommy Mannino, Treasurer and Helen Calmes, Secretary for your continued service to LSHP. Thanks to our executive director and staff, Bland O’Connor and Heather Gremillion, for your diligence, professionalism, and commitment to LSHP’s success.

As the only organization in Louisiana that is exclusively devoted to health-system pharmacy practice in Louisiana, LSHP is important to every hospital and health-system pharmacy in the state. It is critical for our profession to have a state organization that can be quickly mobilized, should the need arise, to support our practice in order to ensure the safety and care of our patients. I urge members to volunteer through our chapter affiliates, committees, and meetings of LSHP as well as encourage nonmembers to join or attend our meetings. Please let us know of your interest by contacting office@lshp.org. It is a great time to get involved!

Sincerely,

Fancy Manton, Pharm.D.
President

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LOUISIANA SOCIETY
OF HEALTH-SYSTEM PHARMACISTS
2014-2015 BOARD OF DIRECTORS

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Upcoming Events:

June 24, 2014
7:00 pm
Complications of Liver Disease - Victoria Miller,
PharmD, BCPS
ULM College of Pharmacy, Shreveport, LA

June 25, 2014
6:00 pm
Guidelines for Prevention of Stroke in Women
Bethany Bonner, PharmD
Xavier University, New Orleans, LA

June 25, 2014
7:00 pm
Evaluation of post operative opioid consumption
and length of stay in patients undergoing unilateral
knee replacement surgeries
Danielle Ricks, PharmD
Conference Center, Woman’s Hospital
Baton Rouge, LA

July 24, 2014
7:00 pm
Hypertension Update with JNC8
Tibb Jacobs, PharmD, BCPS
ULM College of Pharmacy, Shreveport, LA

October 18, 2014
2014 LSHP Mid Year Meeting
Hilton Garden Inn
Shreveport, LA

October 19-25, 2014
Pharmacy Week

December 7-11, 2014
ASHP 2014 Midyear Clinical Meeting and
Exhibition
Anaheim, CA
Congratulations to the 2014 Award Winners!

Health-System Pharmacist of the Year Award
“For Demonstrated Excellence in Institutional Pharmacy Practice”
Jennifer Smith

Albert P. Lauve Memorial Award
“Outstanding Health-System Pharmacy Student”:
University of Louisiana at Monroe College of Pharmacy
Nichole Witmyer
Xavier University College of Pharmacy
Chukiwemezie Chimezie

LSHP Service Award
“For Outstanding Continuous Service to the Society”
Amanda Storer

Industry Award
“For Outstanding Support of the Society”
Camtu Ho

Technician of the Year
Chuck Everton

Tommy Himel Award
David Loftin

Outstanding Affiliate Chapter President Award
Joseph Gary Leblanc, Jr.

Outstanding Committee Chair Award
Michael Loftin and Michael Dorman

Save the Date!

2014 Mid Year Meeting
October 18, 2014
Hilton Garden Inn
Shreveport, LA
Kadcyla® (ado-trastuzumab emtansine) for HER2-positive Metastatic Breast Cancer
By Marissa Israel, PharmD Candidate, Courtney Cain, PharmD Candidate, and Tam Le, PharmD Candidate

The National Cancer Institute estimates there will be 232,000 new cases of breast cancer in 2013 and 10.8% of those patients will not survive five years. Twenty percent of breast cancer cases have an amplification of human epidermal growth factor receptor 2 (HER2). HER2-positive breast cancers are more aggressive and associated with a shorter survival time. This is in contrast to hormone receptor positive breast cancers that have a better prognosis. Early stage HER2-positive breast cancer can be cured, however, the goal for metastatic disease is a palliative approach with possible potential to extend life.

Kadcyla® (ado-trastuzumab emtansine or TDM1) is a modification of trastuzumab by conjugating it with the microtubule inhibitor, mertansine (DM1). Trastuzumab is a monoclonal antibody that targets HER-2. Trastuzumab also acts as a highly specific delivery system for the attached mertansine molecule. Kadcyla® is indicated for HER2-positive, metastatic breast cancer in patients previously treated with trastuzumab and a taxane or had a recurrence during or within six months of completing adjuvant therapy.

The recommended dose of Kadcyla® is 3.6mg/kg every 3 weeks. TDM1 can be administered until unacceptable toxicity or progression of disease occurs. The dose reduction for toxicities include a decrease to 3mg/kg then 2.4mg/kg. The next step is discontinuing treatment with Kadcyla®. The dose cannot be re-escalated. The need to decrease the dose may vary based on the type and severity of the adverse effect. Kadcyla® should be reconstituted with sterile water for injection. The vial should be gently swirled, not shaken, to allow for dissolution. The reconstituted solution should be diluted in 250ml of normal saline. The manufacturer notes that D5W should not be used. The solution should be used immediately but may be refrigerated for up to 24 hours if necessary.

Kadcyla® is administered as an intravenous infusion only with a 0.22 micron in-line non-protein adsorptive polyethersulfone filter. The first administration should be infused over 90 minutes. Patients should then be observed for an additional 90 minutes for adverse reactions including fever, chills and hypersensitivity. All subsequent infusions should be administered over 30 minutes. This should be done only if prior infusions were tolerated. Patients should then be observed for an additional 30 minutes for adverse reactions.

The most serious adverse effects are thrombocytopenia, left ventricular cardiac dysfunction, hepatotoxicity, peripheral neuropathy, anemia, neutropenia and dyspnea. Common adverse reactions include headache, constipation, nausea, muscle pain, thrombocytopenia, increased liver enzymes and fatigue. Dose reduction, temporary discontinuation or treatment discontinuation may be necessary for managing adverse events. Dose reductions are recommended in patients exhibiting hepatotoxicity, left ventricular dysfunction, or thrombocytopenia. Temporary discontinuation is needed for patients with grade 3 or 4 peripheral neuropathy. Kadcyla® should be permanently discontinued in patients with pulmonary toxicity, including pneumonitis and interstitial lung disease.

Kadcyla® has black box warnings that include hepatotoxicity, cardiotoxicity and embryo-fetal toxicity. Due to these warnings, a baseline measurement and frequent monitoring of serum transaminases, bilirubin and left ventricular ejection fraction should be assessed. Women of childbearing age need to be counseled on appropriate contraceptive measures and a pregnancy test should be completed prior to initiating Kadcyla®.

Approval of Kadcyla® in February of 2013 was the result of the EMILIA trial. The EMILIA trial compared Kadcyla® to lapatinib plus capecitabine in 991 patients with advanced HER2-positive breast cancer. Results of the study showed significant difference in progression-free survival: 9.6 months in the Kadcyla® group versus 6.4 months in patients treated with lapatinib plus capecitabine. Patients taking Kadcyla® also had a median overall survival of 30.9 months as compared to 25.1 months in the lapatinib/capecitabine treatment group. Kadcyla showed less toxicity than lapatinib plus capecitabine.
Kadcyla® can increase survival time in cases of metastatic HER2-positive breast cancer that are refractory to other methods of treatment.

References:

Review of the Clinical Practice Guidelines for the Management of Pain, Agitation, and Delirium in Adult Patients in the Intensive Care Unit
By Brittney Murdock, PharmD

Pain, agitation, and delirium (PAD) are becoming more prevalent in intensive care units nationwide. All of these conditions can be underestimated at times. With the recently published (January 2013) Clinical Practice Guidelines for the Management of Pain, Agitation, and Delirium in Adult Patients in the Intensive Care Unit, a better understanding of how to provide physiological and psychological relief for patients in the intensive care unit is emerging. The goal of these clinical practice guidelines is to recommend best practices for managing PAD to improve clinical outcomes in adult ICU patients. Difficulty arises when trying to provide proper pain relief and sedation, without affecting other patient hemodynamic parameters.

Pain is defined as the “unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage.” This causes problems for clinicians because many critically ill patients are unable to self-report their pain. The Behavioral Pain Scale (BPS) and Critical Care Pain Observation Tool (CPOT) are the most reliable behavioral pain scales in adult ICU patients (except for brain injury) who are unable to self-report. Vital signs should not be used alone for pain assessment in adult ICU patient; they should be used as a cue for further monitoring of the patient. As a pharmacist and patient advocate, it is always important to remember the inability to communicate verbally does not negate the possibility of the patient experiencing pain. Studies on ICU discharged but still hospitalized patients showed that 82% remembered pain or discomfort associated with the endotracheal tube, and 77% remembered moderate to severe pain during their ICU stay. Treatment of pain should always be addressed. Opioids are recommended first line for managing pain in the critically ill, including fentanyl, hydromorphone, methadone, morphine, and remifentanil. Meperidine is usually avoided due to CNS toxicity. Patient specific parameters ultimately determine the first choice agent. Non-opioid drugs such as anti-inflammatory medications and anticonvulsants have been shown to be effective and can be used as adjunctive therapy in reducing opioid requirements.

Agitation and sedation are a common combination occurring in the intensive care units in critically ill patients. Immediate recognition of possible underlying causes of agitation, such as pain, delirium, hypoxemia, hypoglycemia, hypotension, or withdrawal from alcohol and other drugs, are important. Sedating agents are frequently given to
patients to treat agitation without deeply considering the cause of the response. Studies have shown that deep prolonged sedation can lead to negative consequences on patient outcomes. According to the 2013 guidelines, midazolam and propofol remain the mainstay of treatment of agitation and sedation in the ICU. Propofol has no analgesia properties, however due to its short half-life, it is recommended for patients requiring frequent awakenings. The Richmond Agitation and Sedation Scale (RASS) and Sedation Agitation Scale (SAS) are the most valid and accurate tools for assessing the depth of sedation. Dexmedetomidine has made an impact in the critical care world since FDA approval. Dexmedetomidine has only been approved in the United States for short term sedation of ICU patients (<24 hrs) at a max dose of 0.7 μg/kg/hr, producing a power of sedation much different than other agents. It is currently the only sedative used in the United States in non-intubated ICU patients and displays an opioid sparing effect, as well as a lower prevalence of delirium.

Delirium is an acute onset of cerebral dysfunction with change in mental status from baseline. This can involve disorganized thinking, slurred speech, and even an altered level of consciousness. Delirium in critically ill patients is now recognized as a major public health problem affecting up to 80% of mechanically ventilated adult ICU patients and costing 4-6 billion dollars annually. Once patients become delirious, their prognosis is poor as delirium is an independent predictor of negative outcomes in the ICU. As practitioners, the key is prevention, detection, and treatment. Many healthcare providers advocate the use of antipsychotics to reduce symptoms associated with delirium; however no double-blind, randomized, placebo-controlled trials with adequate power has established the efficacy or safety of any antipsychotic agent in the management of delirium in ICU patients.

Another area of increased concern is the treatment of alcohol withdrawal in the ICU. Alcohol withdrawal syndrome which includes seizures and delirium is becoming a familiar condition in the medical setting. Alcohol abuse and dependence affects approximately 10% of people in the United States. An estimated 500,000 withdrawal episodes occur each year and are severe enough to require pharmacologic treatment. Patients withdrawing from alcohol typically display a hyperactive delirium. Benzodiazepines are the mainstay of treatment in alcohol withdrawal syndrome. No studies have been published comparing benzodiazepine use to dexmedetomidine for symptom relief in alcohol withdrawal syndrome. In mechanically ventilated adult ICU patients at risk for developing delirium, dexmedetomidine infusions administered for sedation may be associated with a lower prevalence of delirium compared to benzodiazepine infusions. It is beyond the scope of these guidelines to describe the validity of alcohol withdrawal measurement tools, prevention, and treatment in the critical care setting.

Since the newly published guidelines, efforts have been made to better prevent, detect, and manage pain, agitation, and delirium in the critically ill. As pharmacists we play a vital role in caring for this patient population. The complexity of this subject area provides an open opportunity for further research to be conducted.

References
7. Riker et al. SEDCOM (Safety and Efficacy of Dexmedetomidine Compared with Midazolam) study Group A randomized trial JAMA 2009;301 489-499
PPMI
By Fancy Manton, PharmD, CPPS and Jennifer Smith, PharmD, BCPS

What is PPMI?

- Pharmacy Practice Model Initiative
- Sponsored by ASHP and the ASHP Research and Education Foundation
- Consensus recommendations developed in November 2010
  - Imperatives for new pharmacy practice models
  - Optimal pharmacy practice models: Characteristics, requirements, and challenge
  - Advancing the application of information technology in the medication-use process
  - Advancing the use of pharmacy technicians
  - Successful implementation of new pharmacy practice models
- Background information and further details on the initiative area available at http://www.ashpmedia.org/ppmi/

Get Involved!

A good place to start is by completing ASHP’s FREE hospital self-assessment survey.

- http://www.ppmiasessment.org
- Anyone can complete the survey, but only one entry can be designated as the official submission for data comparison. ASHP membership is NOT required!
- Consists of 106 questions assessing adoption of PPMI recommendations at the hospital level.
- It is best to work with a team to complete the survey: include pharmacy director, pharmacists, pharmacy technicians, etc.
- Completion of the survey allows development of a list of “action items” specific to your hospital.
- Your hospital’s specific scores can be benchmarked to the national and state scores and may help you justify improvement opportunities.

Louisiana’s PPMI Highlights

Nationwide, 1,412 hospitals have completed the hospital self-assessment. The numbers for comparison are small, however, it’s possible to look at some key initiatives to see how Louisiana compares to hospitals nationwide.

Currently, only about 5% of Louisiana hospitals have submitted an assessment.

Below is a sample of results from completed hospital self-assessments. Individual hospitals will receive their own data to compare to others.

<table>
<thead>
<tr>
<th></th>
<th>MR is performed by pharmacy staff throughout all areas</th>
<th>MR is performed by pharmacy staff in some areas</th>
<th>MR partially performed by pharmacy staff in some or all areas</th>
<th>MR not performed by pharmacy staff</th>
<th>Not applicable</th>
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<tbody>
<tr>
<td>USA</td>
<td>0.71%</td>
<td>43.13%</td>
<td>26.56%</td>
<td>20.04%</td>
<td>9.56%</td>
</tr>
<tr>
<td>Louisiana</td>
<td>0%</td>
<td>9.09%</td>
<td>9.09%</td>
<td>81.82%</td>
<td>0%</td>
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MR = Medication Reconciliation

Continued on page 8
Thanks to the following Louisiana facilities who have completed their hospital self-assessment!

- Byrd Regional Hospital, Leesville
- East Jefferson General Hospital, Metairie
- Glenwood Regional Medical Center, Monroe
- Interim LSU Public Hospital, New Orleans
- Lafayette General Medical Center, Lafayette
- LTAC of Louisiana - Lafayette Campus, Lafayette
- Mercy Regional Medical Center, Ville Platte
- Minden Medical Center, Minden
- Our Lady of the Lake Regional Medical Center, Baton Rouge
- Opelousas General Hospital, Opelousas
- University Health System Monroe/EA Conway, Monroe
- University Health System Shreveport, Shreveport
- Woman’s Hospital, Baton Rouge