



# Oklahoma Society of Health-System Pharmacists

October 2007– January 2008

Visit our website at  
[www.oshp.net](http://www.oshp.net)

## Board of Directors 2007-2008:

**Susan Fugate**  
President  
(405) 951-8369  
[susan-fugate@ouhsc.edu](mailto:susan-fugate@ouhsc.edu)

**Jenean Young**  
Past President  
(918) 728-8899  
[jyoung81@cox.net](mailto:jyoung81@cox.net)

**Lesley Maloney**  
President Elect  
(405) 840-2891 Ext. 104  
[lmaloney@okqio.sdps.org](mailto:lmaloney@okqio.sdps.org)

**Yvette Morrison**  
Treasurer  
(405) 307-1955  
[ymorrison@nrh-ok.com](mailto:ymorrison@nrh-ok.com)

**Scott Schaeffer**  
Secretary  
(405) 271-5454  
[scott-schaeffer@ouhsc.edu](mailto:scott-schaeffer@ouhsc.edu)

**Jennifer Bird**  
Western District Chair  
(405) 271-6878 Ext. 47265  
[jennifer-bird@ouhsc.edu](mailto:jennifer-bird@ouhsc.edu)

**Darrell Willyard**  
Eastern District Chair  
(918) 294-4071  
[darrell.willyard@triadhospitals.com](mailto:darrell.willyard@triadhospitals.com)



## Mark your Calendar

**OSHP Board Meetings**  
OUCOP (OKC and Tulsa)  
February 21 and March 20 at 3 pm

**AACP Interim Meeting**  
Arlington, VA  
February 3<sup>rd</sup>-6<sup>th</sup>, 2008  
For information, go to [www.aacp.org](http://www.aacp.org)

**Annual OPhA Legislative Day**  
February 19<sup>th</sup>, 2008

**National Poison Prevention Week**  
March 16<sup>th</sup>-22<sup>nd</sup>, 2008

**ACCP Spring Meeting**  
Phoenix, Arizona  
April 5<sup>th</sup>-9<sup>th</sup>, 2008  
For information, go to [www.aacp.com](http://www.aacp.com)

**OSHP Annual Meeting**  
Integris Baptist Medical Center  
Conference Center  
Oklahoma City, OK  
April 17<sup>th</sup>-18<sup>th</sup>, 2008

## *FROM THE PRESIDENT...*

### **Susan Fugate, Pharm.D.**



I hope that everyone is having a great 2008 so far! We are looking forward to many great things for OSHP in this new year. As I have done in my past President's Column, I would like to take the time to update you on our progress towards achieving the OSHP Board of Director's three primary goals for 2007-2008.

**Goal 1: Establish a collaborative practice agreement between pharmacists and physicians practicing in Oklahoma.** The joint OSHP-OPhA committee is currently working toward defining improved language for Collaborative Drug Therapy Management (CDTM) in Oklahoma. Once this language is drafted, we will meet with key stakeholders to discuss and further refine the CDTM proposal. In concert with the CDTM Committee's efforts, the Program Committee is planning programming for the Annual Meeting to educate our members on the importance of CDTM and share examples of existing collaborative pharmacist-physician practices in Oklahoma.

**Goal 2: Increase membership to 400 active and associate members of OSHP.** The half-price membership promotion was a huge success. Thank you to all the members who helped us to recruit new OSHP members. We had a remarkable 71 new members join OSHP during this membership promotion period (October 1<sup>st</sup>-December 31<sup>st</sup>). Membership dues reminders recently went out to those members from 2007 that have not yet paid dues for the 2008-year. If you have not yet renewed, please submit your dues as soon as possible so that you do not miss out on the multiple benefits of membership including district meetings, networking opportunities, pharmacy advocacy, information sharing, and much more. By February 2008, we expect to have the 2008 renewals in and will run a new membership report. Check out our website ([www.oshp.net](http://www.oshp.net)) next month to see if we reached our goal.

**Goal 3: Improve value of membership in OSHP by creating resources to foster professional development in health-system pharmacy.** Currently, we are seeking feedback on ways to improve our website and information sharing through an online survey. If you have not already done so, please take a few minutes to answer our survey at [http://www.oshp.net/php\\_esp/public/survey.php?name=WebPageSurvey](http://www.oshp.net/php_esp/public/survey.php?name=WebPageSurvey). One lucky survey participant will win a \$50 VISA gift card. Additionally, we continue to receive a lot of positive feedback on the expanded newsletter and new OSHP email updates. I hope you are taking time to review these publications to keep updated on activities of OSHP and information pertinent to pharmacy practice. The Program Committee is increasing its efforts to expand programming at the Annual Meeting this year to target education for all our membership categories including pharmacists, students, and technicians. There will be afternoon breakout sessions, thus allowing time to focus educational activities for the specific member groups. Please plan to join us for the Annual Meeting on April 17<sup>th</sup>-18<sup>th</sup>, 2008, in Oklahoma City, OK.

Thank you to all of the OSHP members for your involvement in OSHP and your ongoing support of health-system pharmacy in Oklahoma. Feel free to contact me with any comments, issues, concerns, ideas, or questions relating to OSHP.



**Check it Out!**

This is a new section in our newsletter that profiles our OSHP board members. That way, you can learn more about their offices and various responsibilities. So next time you see one of our board members, thank them for all of their hard work!

**Attention Potential Authors:**

If you or a colleague is interested in submitting an article for publication in the OSHP newsletter, please contact the OSHP Newsletter Committee or a board member.

Newsletter Committee Chair is Nancy Williams:

[nancy.williams@swosu.edu](mailto:nancy.williams@swosu.edu)



**BOARD MEMBER HIGHLIGHTS – MEET YOUR OFFICERS**

**LESLEY MALONEY, PRESIDENT ELECT**  
**Medication Systems Management Specialist**

When my husband, Pat, and I returned to Oklahoma from the Washington, D.C., area last year, I was approached about running for the OSHP Board as President-Elect. I had some hesitation since I had just moved, was starting a new job, and had been an employee of ASHP with very little involvement on a state level. But, Susan Fugate, Tracy Hagemann, and Edna Patatanian assured me I could do the job...and I guess I believed them!

A year later, I am thrilled to be the President-Elect. I have really enjoyed learning about OSHP, meeting some of our great and committed members, and serving with an outstanding Board of Directors (BOD). The only drawback is that I have to follow in the steps of current President Susan Fugate, who has worked tirelessly this year to increase membership and bring real value to OSHP members. No pressure!!

The position of President-Elect is really a "learning" position, and I have taken full advantage of that job description. I've had the opportunity to observe the OSHP President and BOD, learning about some of the issues facing our Society and helping identify future strategies for our continued success. Responsibilities of the President-Elect include attending monthly board meetings, serving as a board liaison on at least one OSHP committee, and assisting the President as needed. The term as President-Elect is three years, yet I cannot believe one year has passed, and it's almost my time to lead this great organization! The time commitment completely depends on the current President, and if you have a great predecessor like I did, the time is well spent.

I encourage anyone interested in leadership to consider the office of President-Elect. It's an amazing opportunity to give back to the Society and to help shape the future of health-system practice in Oklahoma. My success as President depends on the BOD and the dedication of OSHP members who willingly serve on committees. If you have something to give back, some ideas on how to improve OSHP, or just want to network with other OSHP members, when I approach you to be on a committee next year...please say, "YES!!"



**POISON PREVENTION WEEK IS COMING SOON**

The Oklahoma Poison Control Center is gearing up for National Poison Prevention Week, which will run March 16<sup>th</sup> through 22<sup>nd</sup>. The goal of this national event, whose theme is "Children Act Fast ... So Do Poisons," is to create community awareness and provide education so that families know how to protect their loved ones from unintentional poisonings. As part of the event, first- through fifth-graders will be invited to participate in a statewide poster contest to create awareness about poisonings and what can be done to prevent them.

Here's some interesting facts about the Oklahoma Poison Control Center:

- In 2007, 56% of the poisonings reported were among children under the age of 5.
- In 2007, the center responded to more than 54,000 calls.

Poison Prevention Week is also a great time for pharmacists and pharmacy students to get involved and increase awareness about unintentional poisonings.



### Legislative Day is Coming!

Mark your calendar. February 19<sup>th</sup> is the annual OPhA Legislative Day, which takes place from 10-12 noon at the OPhA office. The reception follows from 5-7 pm at the OU HSC Faculty House.



### Can you guess who this little cutie is?

Hint . . . She grew up in Perry, OK, but has also recently lived in the Washington, D.C. area. She has a dog named Eddie Sutton and was "Ado Annie" in a hometown production of "Oklahoma!" She still has that great smile. See page 4 for the answer.

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## Legislative Committee Update

**Submitted by: Wiley "Butch" Williams, D.Ph., J.D.**  
**OSHP Legislative Committee Chair and OPhA Legislative Committee Chair**

Well, the Oklahoma Legislature is back in session. Horror movies are far less frightening. Is it asking too much for these guys and gals to personally experience the effect of the laws they pass? Perhaps the Speaker of the House might lose his job for failing to timely file taxes. I know that state employees do. Oh! I am sorry; please forgive my digression.

Proposed bills for this session were due on January 17<sup>th</sup>, 2008. As usual, there were hundreds of bills tossed in for consideration. A number of those relate to the healthcare industry and could impact the practice of pharmacy. There are several bills related to regulation of over-the-counter medication and a perceived problem of substance abuse among adolescents. HB 1794 and HB 2951 are just a few of the new bills introduced to restrict access to dextromethorphan and to establish a task force to study adolescent substance abuse and misuse of household items. Doesn't anyone parent anymore?

HB 2239, HB 2454, and HB 3128 relate to student self-administration of inhaled asthma medication in schools by expanding permission for self-administration and by also including anaphylaxis medication. What ever happened to common sense? Why do we need laws to regulate common sense? Is this just a plea from school administrators to protect them from using common sense by passing a new law?

A provision that is long overdue, but will probably never see the light of day, is HB 2647, which requires a practitioner to include the symptom or condition for which a drug is being dispensed, unless the patient requests otherwise. How many mistakes could be avoided with this simple requirement? My suspicion is that it will never get out of committee.

HB 2764 amends certain provisions of the Oklahoma Pharmacy Act to broaden the disciplinary powers of the Board of Pharmacy, declares that investigatory information is not subject to the Oklahoma Open Records Act, and passes the costs associated with the disciplinary process to the responding pharmacist or technician.

SB 1450 relates to insurance and proposes that health plans cannot exclude contraceptive services or supplies from coverage. SB 1493 will attempt to clarify the right of a pharmacist to refuse to dispense contraceptive drugs or devices in certain circumstances. Actually, the bill is designed to protect the consumer's rights and access to contraceptives. A pharmacy or pharmacist can only refuse contraceptive prescriptions in certain circumstances and under specific parameters. On the other side is SB 1874 that attempts to prohibit the sale or distribution of mifepristone except by physicians and prohibits physicians from knowingly violating certain federal laws. Why can't we all just get along?

SB 1407 attempts to regulate access to and reimbursement for vaccines containing mercury and sets limits for mercury content in certain vaccines. Not a bad idea, but is the public health and safety really being served?

SB 1526 is a complex bill that creates the Medical Price Transparency Act. It appears to be designed to level the costs of medical treatment charged by providers to insured and non-insured patients across the board. In theory, transparency sounds good, but I have yet to see a proposal that can fix the perceived inequities. Not all doctors are created equal and one doctor's services may truly be worth more than those of another. Not all patients are the same and no two surgeries are the same. Providing true transparency on these issues is in my opinion not practical. This is simply a fancy concept that sounds good for politicians but will in no manner fix America's health care issues.

A bill that is sponsored by the Oklahoma Pharmacists Association is HB 2490, which is known as the Pharmacy Audit Integrity Act. The bill is designed to prohibit certain accounting practices by insurance companies and pharmacy benefit managers. The bill will limit audits to the prior two years, require two weeks notice to the pharmacy before an on-sight audit, and restrict the finding of an overpayment or underpayment to the actual overpayment or underpayment. The finding may not be a projection based on the number of patients served having similar diagnoses or on the number of similar orders or refills for similar drugs.



**Attention Pharmacy Students!**

This is a new section in our newsletter addressing issues pertinent to students. If you have a topic idea or would like to submit something, then please contact the Newsletter Committee.

**Baby Picture:**

That future pharmacist is Lesley Maloney, your current President-Elect. Thanks for being so active in OSHP in the short time since your recent return to OK. We know you'll do a great job as President!

*Do you have a baby picture to submit? Then contact the Newsletter Committee.*

## Legislative Committee Update *(continued)*

Another bill worth keeping an eye on is SB 1638 which creates the Non-Physician Practitioners Supervision Act. This bill attempts to regulate the performance of certain healthcare services under particular circumstances and to implement more rules. Although pharmacists are not expressly included within the definition of practitioner, the act does propose regulation of the administration of injections.

The State Board of Pharmacy has a few regulation proposals in the works, including one that makes any theft in a pharmacy an action subject to discipline. Also proposed are final rules for wholesale drug pedigree. Although the Board has been busy, collaborative drug therapy management does not appear to a subject of concern.

As you can see, the Oklahoma Legislature is hard at work. Every special interest group has an agenda and seems to find a sponsor for the cause. Some are good; some are very bad. Your Legislative Committee is trying to keep an eye on the current issues and will do its best to keep the membership informed. As a volunteer body, we would appreciate your comments and input. We can't watch it all, and things happen very fast in the legislature. We do depend a great deal on Dr. Phil Woodward at OPhA and his lobbying efforts on behalf of all pharmacists. As committee chair, I appreciate and applaud his efforts. As always, I encourage all hospital pharmacists to be active in both OSHP and OPhA. Your participation is key to a successful future in our chosen profession.

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## Pharmacy Student Topics

*Submitted by: Katherine O'Neal, Pharm.D. Student, OU College of Pharmacy*

### ***The Successful Interview...***

So now that we have our curriculum vitas (CVs) submitted for residencies and/or jobs, we are ready for the next step, and no, that does not mean we can relax and wait. Before we can sign our names on the dotted line, relax, and start the countdown towards graduation, we must prepare for and complete a successful interview.

From preparing for the interview, getting to the interview, and actually completing the interview, here are some general guidelines to follow:

- o Make sure you know how to get to the interview site. Even a practice run to the site the night before can help settle nerves and anxiety with finding the site.
- o Get your interview outfit ready a few nights before. The last thing you want the morning of the interview is trouble finding a particular shoe or finding out your suit doesn't fit like it used to. Also, please remember to dress professionally. Men should wear ties, and if women wear skirts, please make sure that they aren't too short.
- o Don't wear brand new shoes or a brand new suit to the interview. You want to be as comfortable as you can, and new shoes or a new outfit may not be very comfortable after wearing it a few hours.
- o Practice interviewing with a friend or colleague. Having answers prepared to some standard questions will help you sound more confident. A good place to go for sample questions is <http://www.myresumeonline.org/interviews/sample-questions.asp>.
- o In addition to answering questions, be prepared to ask questions as well.
- o Have extra copies or updated copies of your CV handy.
- o Turn off your cell phone before leaving for the interview or leave your cell phone at home or in the car.
- o Arrive at the interview site 10 – 15 minutes before your scheduled interview.
- o Pop a breath mint in your mouth on your drive there. This way, by the time you get to the interview site, you will have finished your mint. If you have gum in your mouth, please remember to remove it before the interview.
- o Greet your interviewers with a firm handshake and make eye contact.
- o Get business cards from everyone that interviewed you. That way, when you are ready to write your thank-you notes, you will have everyone's name as well as the correct way to spell their names right in front of you.
- o A general rule-of-thumb is to write your thank-you letters within 24 hours of the interview.

Last, but not least, be yourself at the interview. You will come across more genuine, and it will be easier for both you and the employer to determine if the residency or job is truly a good fit. Good luck to everyone!



# OSHP District Update

## **Western District**

**Recent Meeting:** January 31<sup>st</sup>, 2008

Topic: Schizophrenia

Speaker: Chris Thomas, Pharm.D., BCPS, CGP, BCPP

Location: Red Prime Steak, OKC, OK

**Upcoming Meeting:** February 21<sup>st</sup>, 2008

Topic: Treatment and Prophylaxis of DVT/PE

Speaker: Jean Keddissi, MD

Location: Deep Fork Grill, OKC, OK

**Upcoming Meeting:** March 13<sup>th</sup>, 2008

Topic: Atherosclerosis

Speaker: TBA (Sponsored by Astra Zeneca)

Location: TBA

## **Eastern District**

**Recent Meeting:** November 15<sup>th</sup>, 2007

Topic: The Changing Face of Candidemia

Speaker: Amar Safdar, MD

Location: The French Hen, Tulsa, OK

**Recent Meeting:** January 17<sup>th</sup>, 2008

Topic: Inpatient Glycemic Control

Speaker: Jeffrey Stroup, Pharm.D., BCPS

Location: Ted's Escondido, Tulsa, OK

**Upcoming Meeting:** February 21<sup>st</sup>, 2008

Topic: Enoxaparin in UA/NSTEMI and STEMI

Speaker: Sarah A. Spinler, Pharm.D., FCCP

Location: Tiamo Italian Restaurante', Tulsa, OK

### **Fall Membership Drive a Success!**

Wow! The half-price membership promotion, which ran from October 1<sup>st</sup> through December 31<sup>st</sup>, was very successful. We had 71 new members join OSHP during this period. Welcome new members! We hope to see you at the upcoming district meetings.



## **Welcome New Members:**

Mike Abdo  
Traselynn Anderson  
Erica Anderson  
Jason Baird  
Marsha Ballew  
Burl Beasley  
Brandi Belicek  
Julie Beller  
Django Belote  
Jean Benoit-Rey  
John Brand  
Rodney Brown  
Misty Broyles  
Adam Buersmeyer  
Ebony Cain  
Stanley Carter  
Robert Cather  
Kirsten Chapman  
Carly Christian  
Paula Clark  
Laura Cudd  
Katherine Denney  
Shane Desselle  
Nancy Epperson  
Stephanie Evangelista

Liz Foster  
Shelly Geiger  
David George  
Daniel Gonzales  
LeAnn Graham  
Arsala Habib  
James Haley  
Michael Hogan  
Candace Hooper  
Megan Hostetter  
Steven Judge  
Sara Justice  
Melanie Kempf  
Tiffany Kessler  
Smitha Kurian  
Deobra Linse  
Chris Martin  
Jennifer Maune  
Jimmie McDaniel  
Lisa Nguyen  
Scott Oder  
Siukwan Winnie Odom  
Rick Overton  
Joyce Pagels  
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Nick Ponce  
Dared Price  
Dustin Radloff  
Jason Redwine  
Beth Rosson  
Jill Sczech  
Lauren Shullaw  
Sarah Smith  
Tammy Spears  
Neil Staadt  
Niki Sykora  
Nadine Ta  
Brandon Tarwater  
Karen Tobey  
Meredith Toma  
Ray Welch  
Amy Wesson  
Peter Wilsack  
Janice Wingfield  
Ester Winsjansen  
Roberta Woodward  
Jamiee Yeo  
Howard Young  
Dewayne Young  
Nicholas Young



## ❖ OSHP DELEGATE ELECTION

Congratulations to Edna Patatanian, Pharm.D. (Associate Professor of Pharmacy Practice, SWOSU) who was elected Oklahoma Delegate to the ASHP House of Delegates. Mathew Bird, Pharm.D., was elected as alternate delegate. Both will serve a two-year term. Barbara Poe and Darin Smith were elected as delegates last year and will be serving the second year of their two-year terms.

## ❖ NOMINATIONS REQUESTED

The Nominations Committee is seeking candidates who are interested in running for OSHP offices. This year, three positions are open for election:

- President-Elect (3-year term)
- Secretary (2-year term)
- Eastern District Chair (2-year term)

If you are interested in volunteering or would like to nominate a colleague or a co-worker, please submit their name to Edna Patatanian, Nominations Committee Chair, at [edna.patatanian@swosu.edu](mailto:edna.patatanian@swosu.edu). The deadline for submitting names is **February 20<sup>th</sup>, 2008**.

## ❖ AWARDS

Several awards will be given out at the OSHP Annual Meeting in April. Nominations are being requested for the following awards:

- **Sylvia J. Martin Outstanding Technician Award**

This award may or may not be given annually depending on the qualifications of applicants. Nominations should be submitted to Ben Welch, Chair of the Scholarship and Awards Committee, at [ben@oshp.net](mailto:ben@oshp.net) by **March 15<sup>th</sup>, 2008**.

- **Continuing Excellence Award**

This award recognizes health-system pharmacy practitioners for their continuing excellence in advancing the profession of pharmacy in OK. Applications are evaluated based on attainment of a required level of activity in three categories of service. More information and submission forms can be found at [www.oshp.net](http://www.oshp.net). This is also due to Ben Welch by **March 15<sup>th</sup>, 2008**.

- **Health-System Pharmacist of the Year**

This is OSHP's highest and most prestigious award. The selection criteria for the award include service to the profession, contributions to pharmacy programs, cooperation with the entire health care team, and service to the community. Nominations can be submitted in written or electronic format to Wiley Williams (email: [wiley.williams@okc.gov](mailto:wiley.williams@okc.gov)) by **February 15<sup>th</sup>, 2008**.

## ❖ CONGRATULATIONS TO MERCY HEALTH CENTER

At the ASHP Midyear Clinical Meeting in December 2007, the ASHP Foundation named Mercy Health Center as a finalist for the Award for Excellence in Medication-Use Safety. This award honors a pharmacist-led multidisciplinary team for its significant institution-wide improvements in medication use. Mercy was a finalist for its Pharmacy Falls Prevention Program. Great job! Congratulations to all the pharmacists on this team.

## ❖ SAVE THE DATE . . . OSHP ANNUAL MEETING AND VENDOR SHOWCASE COMING SOON!

The OSHP Annual Meeting is scheduled for April 17<sup>th</sup>-18<sup>th</sup>, 2008, in Oklahoma City. There will be a pre-meeting symposium on the evening of April 17<sup>th</sup> (location TBA) and a full-day meeting on April 18<sup>th</sup> at Integris Baptist Medical Center Conference Center. The meeting format will be a combination of lecture, panel discussion, breakout sessions, and "pearls". There is programming planned for pharmacists, pharmacy residents, pharmacy students, and pharmacy technicians. Meeting activities and topics include:

- Venous thromboembolism update, collaborative drug therapy management, assessing the effectiveness of clinical pharmacy services, and Oklahoma pharmacy residency project pearls.
- Also, breakout sessions, panel discussions, and the vendor showcase.

More information regarding the meeting will follow. Stay tuned!

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# Scenes From the Oklahoma Reception at the 2007 ASHP Midyear Clinical Meeting in Las Vegas (December 2<sup>nd</sup>, 2007)

**2007 Oklahoma Reception**

**Location:**  
Venetian Resort in Las Vegas

**Attendance:**  
Over 100 pharmacists and students attended.

**Sponsors:**  
OSHP, OU College of Pharmacy, and SWOSU College of Pharmacy

*Special thanks to Yvette Morrison for organizing the reception!*



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**Pharmacists having a great time at the Eastern District Meetings. See how learning and food make us so happy!**

**Apparently, learning and food make the pharmacists at the Western District Meetings happy, too!**



**SWOSU Student OSHP Chapter Spring 2007 Officers**





The intention of clinical pearls is to highlight information regarding various therapeutic topics pertinent to health-system pharmacy practice. If you or your institution have information, protocols, etc. and are willing to share, please contact the OSHP Newsletter Committee.

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## **Lipid Rescue Therapy for Anesthetic-Induced Cardiotoxicity**

**Submitted by: Julia Chiappe, Pharm.D.**  
**Integris Baptist Medical Center, Oklahoma City, OK**

### **QUESTION:**

**Can lipid emulsions treat bupivacaine-induced cardiotoxicity?**

### **ANSWER:**

Bupivacaine and other lipophilic local anesthetics with long half-lives have the potential to cause cardiotoxicity, especially in patients with pre-existing cardiac arrhythmias after inadvertent intravascular administration during regional anesthesia or from absorption of the local anesthetic from a tissue depot.<sup>1</sup> The use of lipid rescue to treat cardiovascular arrest due to toxicity from bupivacaine and other related local anesthetics is reviewed.

#### **ANIMAL STUDIES:**

Weinberg et al conducted two observational studies to evaluate how intravenous lipid emulsion would affect survival of rats and dogs after induced bupivacaine toxicity.<sup>2,3</sup> In the rat study, results of two protocols revealed that intravenous lipid emulsion increased the dose of bupivacaine required to produce asystole and improved survival in rats resuscitated with a combination of chest compressions and lipid emulsion versus chest compressions and normal saline. The canine study involved 12 dogs given 10 mg/Kg of bupivacaine to cause cardiovascular arrest. The six dogs who received 20% lipid emulsion were successfully resuscitated after 10 minutes of unsuccessful cardiac massage; whereas, none of the six dogs receiving normal saline after 10 minutes of cardiac massage survived.

An in vitro study involving isolated rat heart was performed to investigate a possible mechanism of action for lipid rescue.<sup>4</sup> The study concluded that lipid emulsion increases the removal of bupivacaine from the cardiac tissue by either creating a lipid phase that extracts the lipid-soluble bupivacaine from the aqueous plasma phase of the tissues, or the lipid emulsion diffuses directly into tissue and interacts with the bupivacaine. Additional mechanisms are felt to also be involved due to the speed in which lipid emulsion has been shown to cause an effect.<sup>1</sup>

Dr. Weinberg listed the following preliminary protocol for lipid rescue based on the animal studies he conducted: Continue advanced cardiac life support (ACLS) and infuse 20% lipid emulsion intravenously as a bolus injection of 1.5 mL/Kg; followed by a continuous infusion of 0.25 mL/Kg/min, for 30 min. Repeat bolus 1–2 times if no improvement. Increase rate of infusion to 0.5 mL/Kg/min for declining blood pressure. Additional boluses are not required after cardiac electrical activity returns, even if ventricular ectopy or other arrhythmias persist. The infusion should continue for a full hour and may need to be restarted if blood pressure declines after it is stopped. Propofol (10% lipid emulsion) should not be used in place of 20% lipid emulsion due to its hypotensive effect and the overdose that would be required to achieve the necessary lipid dose.<sup>1</sup>

#### **CASE REPORTS:**

Three case reports in humans describing the use of lipid emulsion to rescue patients with local anesthetic cardiotoxicity have been published. The first case involved a 58 year-old male (82 Kg) with significant pre-existing cardiac disease who received a brachial plexus block with 20 mL bupivacaine 0.5% and 20 mL mepivacaine 1.5% prior to surgical repair of a torn rotator cuff. The patient quickly developed tonic-clonic seizure activity and was given two doses of propofol. Once asystole developed, ACLS was started. After 20 minutes of ACLS, 100 mL of 20% lipid emulsion was given via peripheral I.V. due to lack of central I.V. access. An infusion of 0.5 mL/Kg/min was started once the blood pressure became detectable and was discontinued after 2 hours. The patient was discharged after an overnight observation due to his full recovery. No evidence of complications from administration of lipid emulsion were observed during the 2 weeks following the incident.<sup>5</sup> Publication of this case was followed by numerous editorials expressing skepticism on the efficacy of lipid emulsion as well as criticism on how this case was medically managed.<sup>6,7</sup> One editorial specifically cautioned on assuming that lipid emulsion will successfully treat cardiotoxicity induced by all local anesthetics.<sup>8</sup>

## Lipid Emulsions and Anesthetic-Induced Cardiotoxicity (continued)

The second case involved an 84 year-old female (50 Kg) mistakenly given 40 mL of 1% ropivacaine instead of the intended 0.5% concentration for an axillary brachial plexus block prior to surgery on a Dupuytren contracture. The patient experienced loss of consciousness and a tonic-clonic seizure, which was treated with thiopental. ACLS was started once asystole developed. After 10 minutes of ACLS, 100 mL of 20% lipid emulsion was administered via a central line (placed during ACLS) followed by a 10 mL/min continuous infusion. After 200 mL (4 mL/Kg) of lipid emulsion had been administered, a tachyarrhythmia was noted followed by a detectable blood pressure (chest compressions were discontinued after the first cardiac electrical activity was detected). The patient recovered completely and was discharged home after 4 days.<sup>9</sup> One editorial felt that the focus of the case report should have been on future strategies to prevent the medication error. The author of the editorial also reminded the medical community that efficacy of lipid emulsion should still not be assumed after just two cases experiencing success.<sup>10</sup> The author's reply<sup>11</sup> highlighted the [LipidRescue™](#) website<sup>12</sup> created by Dr. Weinberg to advance the understanding of local anesthetic toxicity prevention, mechanisms, and treatment. A second editorial announced that one institution has made 500 mL bags of 20% lipid emulsion quickly accessible to areas where regional anesthesia are practiced.<sup>13</sup>

The third case involved a 75 year-old female (85 Kg) who received a lumbar plexus block using 20 mL of levobupivacaine 0.5% prior to surgical repair of a fractured femur. The patient became unresponsive and experienced a tonic-clonic seizure. The patient was immediately given respiratory support and then intubated using propofol 80 mg and suxamethonium 100 mg. The pulse was never lost, although arterial pressure was 60/40 mmHg and the ECG showed reduced QRS voltage and broadened complexes compared to baseline. Within 4 minutes of levobupivacaine injection, proactive administration of 100 mL of 20% lipid emulsion was infused over 5 minutes via the peripheral I.V. site. During the infusion, arterial pressure was directly measured at 90/60 mmHg, and the QRS complex normalized. The patient did not experience subsequent seizures. The surgery was continued without further incident. This case differs from the other two because lipid emulsion was administered prior to the onset of cardiac arrest.<sup>14</sup>

### CONCLUSION:

Published clinical data on use of lipid emulsion to rescue patients in refractory cardiac arrest due to local anesthetic toxicity are limited to three human case reports, two in vivo animal studies, and one in vitro study using isolated rat heart. Weinberg cautions that his recommendations for administration are preliminary. Numerous questions remain unanswered such as the lipid emulsion concentration, total dose, combination of bolus and infusion, combination of lipid emulsion with ACLS medications that would be optimal. Other unknowns include the safety of large lipid doses and whether efficacy depends on the type of local anesthetic involved.<sup>1</sup> Institutions at risk of experiencing severe local anesthetic-induced cardiotoxicity need to carefully evaluate the limited literature on use of lipid rescue and make a multidisciplinary decision on whether a strict protocol and rapid availability of 20% lipid emulsion to areas most likely to encounter this serious complication would be a safe approach.

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**Check it Out!**

This section of our newsletter highlights different areas of pharmacy practice. If you are doing something interesting that may benefit others, then please contact the OSHP Newsletter Committee so we can profile you.

**Don't Forget to Renew Your Membership for 2008!**

You don't want to let your membership benefits lapse by not paying your dues. There are many great district and statewide meetings, networking opportunities, pharmacy advocacy, and this great newsletter! You won't want to miss out!

For more information regarding pediatric pharmacy practice, please contact Leslie Patatanian at (405) 951-2159 or [leslie.patatanian@integris-health.com](mailto:leslie.patatanian@integris-health.com).

# Pediatric Pharmacist



Submitted by: **Leslie Patatanian, Pharm.D.**  
Clinical Pharmacy Specialist, Pediatrics & PICU  
Integris Baptist Medical Center; Oklahoma City, OK

It was 1996, and I was at the end of my pharmacy practice residency and looking for a new job. Although I had not really envisioned for myself a role as a pediatric pharmacist, my training at the University of Oklahoma College of Pharmacy had given me a good foundation to build on in this area. So when a position as a pharmaceutical care pharmacist was offered to me, I took it. Nearly 12 years later, I am still here and loving every minute of it. In my position as Clinical Pharmacy Specialist for Pediatrics, I am an integral component of an interdisciplinary team. My service is responsible for providing pharmaceutical care to a 25-bed general pediatric unit and a 10-bed pediatric intensive care unit (PICU).

During interdisciplinary team rounds in the PICU, we are all invited to play a part in making clinical decisions. The team is composed of physicians, nurses, pharmacists, and all other disciplines involved with the patients' care. Rounds can be time-consuming, but this is where we learn the clinical information that leads to the delivery of quality pharmaceutical care to our patients. As the clinical pharmacist, I am responsible for reviewing current drip rates, medication profiles, labs, cultures, daily input and output, and nutrition parameters. Based on my chart review, medication regimens are modified for age, developmental stage, and organ dysfunction. In addition, antibiotic regimens are tailored to culture results, and adverse drug events are screened for, treated, and reported.

In addition to these responsibilities, I provide formal consultation in areas such as pediatric parenteral nutrition, pain management, therapeutic drug monitoring, pharmacotherapy, antibiotic selection and streamlining, drug information, patient education, vaccination screening, sedation, and sedative weaning. Consultations are initiated by various methods. The admitting physician may write an order or may contact me directly, and in some cases, I may initiate the consult when problems are identified during profile review or patient assessment.

Formulary management, patient safety, policy development, and staff education are also an important part of my job. This includes presentations to the Pharmacy and Therapeutics Committee regarding pediatric medications, annual competencies for pharmacy and nursing, developing smart pump programming for the PICU, teaching the Pediatric Advanced Life Support (PALS) class, and training of students and residents.

Overall, my position is very busy and very rewarding. When you are part of a team that is completely committed to the goal of helping patients, you truly feel as though you are making a difference. A pharmacist interested in specializing in pediatrics would benefit from completing a pharmacy practice residency at an institution that provides core experiences in this area, followed by a pediatric specialty residency at a pediatric institution.

As a student, we are asked the question "where do you see yourself in 10 years". At the time, it seems impossible to see this vision. I could not see mine, but it was handed to me, and I am still holding on. There are not very many people who can say that they love to go to work, but I can.



### **OUCOP Student Chapter Report**

*Advisor: Michele Splinter*

The University of Oklahoma student OSHP chapter held its first meeting of the semester, Friday, February 1<sup>st</sup>, 2008, featuring Jennifer Gass as the speaker. Jennifer is the former president of the OU student chapter and is currently serving on both ASHP and OSHP committees. The chapter discussed plans to have future speakers, including a poison control representative, an emergency department pharmacist, and an ASHP representative. Other plans discussed included participating with the Poison Control Center in poison prevention education at elementary schools. The Oklahoma City members have begun assisting at the Western District OSHP meetings by handing out forms and signing in attendees. On Monday, January 28, members from the Tulsa campus participated with another student organization (SNPhA) in an information session with students at Glenpool High School as part of a service project. Members were encouraged to attend the monthly district OSHP meetings, as well as the spring meeting at Integris Baptist in Oklahoma City. The chapter also plans on electing new officers at its next meeting.

OFFICERS	SPRING 2007 - SPRING 2008
President	Mark Bateman
President-Elect	Renee Tobey
Vice President	Misty Broyles (OKC), Traselynn Anderson (Tulsa)
Secretary	Shannon Beekman
Treasurer	Maria Bates
Historian	Cory Binova (OKC), Kevin Diller (Tulsa)



### **SWOSU Student Chapter Report**

*Advisors: Mark Gales, Virgil Van Dusen, Nancy Williams*

The SWOSU OSHP student chapter is gearing up for a new and exciting semester. We just recently had our spring membership drive and had over 30 students, new and returning faces, attend the event. We have some great speakers planned for our future meetings. Our first speaker will be Dr. Becca Baugher, who will be speaking to us about nuclear pharmacy. In March, a group of pharmacists from Clinton Indian Health Services are coming to speak to the group about their activities at that practice site. In April, Dr. Nancy Williams will speak to us about her job as an adult medicine/nutrition pharmacist, as well as discuss the benefits of joining ASHP. We are very excited to have them come speak with us and appreciate the time they are taking out of their schedule to do so.

Last semester, members came together to adopt a marine, and we will continue to send monthly letters and care packages to him. We will also be participating in some other fun events this semester. In February, the group is going to Trinity Hospice to make Valentine's Day decorations for the hospice residents. Then in March, we will be going to one of the local elementary schools to put on skits for the students during Poison Prevention Week. The members always have fun with these events, and it is a great opportunity for us to give back to our community.

We would like to thank the fall officers for a successful semester and for a great start to the year. Thank you also to the SWOSU faculty, student officers, and group members for all of the hard work you put into this organization and for everything you will continue to do this semester!

OFFICERS	SPRING 2008
President	Samantha Mitchell
President-Elect	Asmini Mohanlal
Secretary	Swathi Krishnaprasad
Treasurer	Anita Patel
Fundraising Chairs	Melissa Gloden, Becca Stodieck, & Rebekah Vermillion



**WATCH FOR UPCOMING ISSUES OF THE OSHP NEWSLETTER**

January-March 2008, April-June 2008