GULF COAST SOCIETY OF HEALTH-SYSTEM PHARMACISTS

VOLUME 20

ISSUE NO. 2

EDITOR-IN-CHIEF: IAN DUNNE, PHARMD, BCPS, AAHIVP

PRESIDENT'S LETTER

JOSEPH W. ROGERS, PHARMD, MS
PRESIDENT, GCSHP
DIRECTOR OF SPECIALTY PHARMACY
MEMORIAL HERMANN HEALTH SYSTEM

Greetings! It is a pleasure to write to you in a new year on behalf of the board of directors for the Gulf Coast Society of Health-System Pharmacists. I hope to bring you up to speed on some of the chapter's activities and to forecast what is to come.

It has been a busy couple of months for GCSHP. In December, a volunteer event was held in partnership with the McGovern Centennial Gardens. Members, their families, and friends assisted the park with weeding and clearing debris from the main flower beds. Combined with the perfect weather, getting to be outdoors in an amazing setting while helping the community made this event a complete success.

GCSHP was also represented well the following week at the ASHP Midyear Clinical Meeting in Anaheim, California. The chapter contributed funds to support the always well-attended Texas reception and many members were on the residency showcase floor.

Our latest social event was a holiday-themed winter gathering at Dish Society in the Memorial neighborhood. A wide variety of members had the opportunity to network and let off a little steam as the holiday season came to a close. We will continue to try to host social and education events in this area of town to make it easier for members from farther out of town to attend.

Looking ahead, we have a number of CE events scheduled, including a law CE presented by Texas Board of Pharmacy surveyor, Kathy Salinas, RPh, and a CE sponsored by the *Pharmacy Times* on targeted therapies for B-cell malignancies presented by Hillary Prescott, PharmD, BCOP. The latter will be combined with a full chapter business meeting.

Finally, it is that time of year – officer elections! A number of Board of Directors positions will be open for nominations from February 1st to February 15th. The open positions include: Director, Membership Secretary, and President-Elect. Please send nominations for these positions to Ardath Mitchell, current President-Elect (gcshpmembership@gmail.com). A nominating committee will review and approve nominations prior to elections opening. The elections will take place by electronic ballot March 4th to March 22nd. The newly elected representatives will be announced the following week.

Thank you for your continued participation with GCSHP. Our organization continues to strive to bring forth high-quality, valuable events and programming. If you have ideas for how we can better engage with you as our members, please let anyone on the Board of Directors know. We sincerely appreciate your input and hope to see you soon at one of our upcoming events. #pharmacystrong

GCSHP CONTINUING EDUCATION

2018 Continuing Education Events

Pancreatic Cancers – A Disease State Overview (September 2018)
- Location: Gloria's Latin Cuisine – Midtown
- Speaker: Alexandria Phan, MD
- Sponsor: Jennie Lucksinger (Ipsen Pharmaceuticals)

Optimizing Stroke Care in Acute Ischemic Stroke Patients (November 2018)
- Location: Central Grotto – Downtown
- Speaker: Mark Murray, MD
- Sponsor: Suzanne Dominey (Genentech)

2019 Upcoming Continuing Education Events

Texas Pharmacy Law Update (ACPE Approved)
- Date/Time: Monday, February 11th from 1800 to 1930
- Location: Houston Methodist Hospital–TMC (Rio Grande Conference Room)
- Speaker: Kathy Anderson Salinas, RPH (Texas State Board of Pharmacy)
- Sponsor: Texas State Board of Pharmacy and GCSHP
- Cost: free for members and $15 for non-members

Considerations for Novel, Targeted Therapies in B-Cell Malignancies (ACPE Approved)
- Date/Time: March 5th, 2019 (Time TBA)
- Location: M.D. Anderson Cancer Center
- Speaker: Hillary A. Prescott, PharmD, BCOP (Dana-Farber Cancer Institute)
- Sponsor: Olivia Mastrodonato (Pharmacy Times Continuing Education)

About our speaker: Hillary Prescott, PharmD, BCOP is the Manager of Clinical Pharmacy Services at Dana-Farber Cancer Institute. Dr. Prescott received a PharmD from the University of Rhode Island. She then completed a PGY-1 Pharmacy Practice Residency at the Medical College of Virginia followed by a Hematology/Oncology Specialty Residency at the University of North Carolina Medical Center. She practiced at M.D. Anderson Cancer Center for close to 10 years before joining the Dana-Farber Cancer Institute. She now serves as clinical pharmacist specialist with the lymphoma team at Dana-Farber as well as the PGY-2 Oncology Residency Program Director.

GCSHP MEMBERS IN ACTION

GCSHP hosted a volunteer event on Saturday, December 1st at McGovern Centennial Gardens. This unique event was our first venture into gardening and was a resounding success with an estimated 25 members participating! GCSHP members, family, and friends were hosted by the Garden's Volunteer Coordinator and treated to a brief history of the Gardens and its various themed gardens.

Throughout the morning, volunteers were assigned to weed garden sections surrounding the Centennial Green. This beautiful area within the Hermann Park Conservancy served as a beautiful backdrop for our volunteer activities. GCSHP member Margon Linzer earned a gift card prize for bringing the most guests!

TSHP ANNUAL SEMINAR

Exhibitor and Partnership Prospectus
April 12-14, 2019
Embassy Suites Hotel, Convention Center, & Spa
Frisco, Texas

Abstract deadline for poster: February 25, 2019
Advance online registration ends: April 1, 2019

Register at: https://www.tshp.org/registration

TSHP SCHOLARSHIPS

TSHP Research & Education Foundation has announced available annual scholarships for pharmacy students, technicians, residents, and pharmacists! Applications are currently being accepted through February 10, 2019.

TSHP offers over 20 scholarships, including:

- Richard Cadle Mentoring Scholarship for Pharmacy Leadership (residents)
- Celso and Matiana M. Cuellar Sr. Scholarship (students)
- Gulf Coast Society of Health-System Pharmacists Leadership Scholarship (pharmacists, students)

To learn more about all of the available scholarship opportunities, criteria, and application rules, please visit www.tshp.org/scholarships.

RESIDENT'S CORNER

CHANDLER D. SCHEXNAYDER, PHARMD, BCPS
PGY-2 AMBULATORY CARE PHARMACY RESIDENT
MICHAEL E. DEBAKEY VETERANS AFFAIRS MEDICAL CENTER

HMG-CoA reductase inhibitors, better known as "statins", are widely used in the United States. Statins are very effective in treating dyslipidemia and preventing major adverse cardiac events (MACE) as evidenced by many randomized controlled trials. In 2010, more than 255.4 million prescriptions for statins were filled. In addition to their efficacy, statins are attractive agents due to their ease of administration (most are given once daily) as well as tolerability. Although generally safe, statins have the potential to cause potential adverse effects, the most common being muscle-related toxicity. Based on prospective clinical trial data, researchers estimate that 1.5 million people per year will experience muscle toxicity due to statins. Myotoxicity is classified in the following ways:

- Myopathy – general term for disease of muscle
- Myalgia – muscle symptoms without elevation of creatinine kinase (CK)
- Myositis – muscle inflammation with CK elevation < 10x upper limit normal
- Myonecrosis – necrotic muscle damage, further classified as mild (CK elevated 3-10x), moderate (CK elevation 10-50x), or severe (CK elevation > 50x)
- Clinical rhabdomyolysis – myonecrosis with myoglobinuria or renal failure

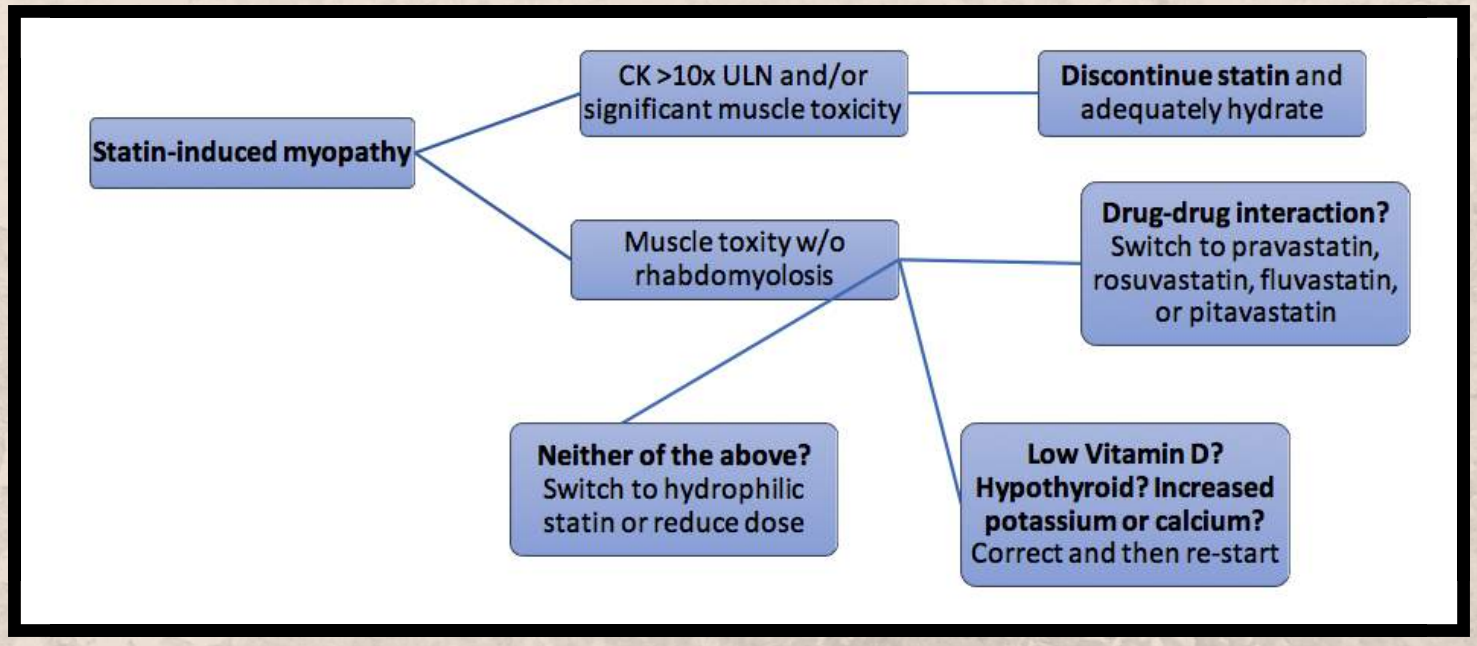
The mechanism of statin-induced myopathy is not fully understood, but there are postulations. One hypothesis mentions coenzyme Q10 (ubiquinone) as a contributing factor. Coenzyme Q10 plays an important role in muscle cell energy production. Studies have reported that statins reduce concentrations of coenzyme Q10 in the plasma and muscle cells. Another postulation is the role of plant sterols, particularly beta-sitosterol. Beta-sitosterol reduces fat synthesis and regulates testosterone. High-dose statins have the potential to increase the intracellular levels of beta-sitosterol in the muscle by 50%, which may contribute to myopathy.

Statin-induced myopathy is highly dependent upon various risk factors that stem from specific patient and statin characteristics. Some patient characteristics that may increase the risk of muscle-related adverse events include: increasing age, female gender, renal insufficiency, hepatic dysfunction, hypothyroidism, vitamin D deficiency, genetic polymorphisms (e.g. SLCO1B1 enzyme), surgery

(perioperative period), pre-existing muscular disorders, and unaccustomed vigorous exercise. In regards to statin characteristics, lipophilic statins (e.g. simvastatin, lovastatin) have increased penetration in muscle cells, hence these types of statins have a higher risk of causing myopathy compared to hydrophilic statins (e.g. pravastatin, rosuvastatin). Also, statins with less drug-drug interaction potential (e.g. pravastatin, fluvastatin, pitavastatin, and rosuvastatin) are less prone to cause myalgias. Therefore, those statins that are major substrates of CYP3A4 (simvastatin, lovastatin, atorvastatin) should be closely monitored especially when taken with moderate-to-strong CYP3A4 inhibitors (e.g. gemfibrozil, colchicine, niacin, and protease inhibitors).

Patients with statin-induced myalgia and/or myopathy may present with proximal and symmetric muscle weakness and/or soreness, particularly involving large muscle groups. There is potential for muscle tenderness, functional impairments, and/or tendon pain (less often). While statin-related myopathy may occur at any time, onset is usually within six months of statin initiation.

Below is an algorithm for managing statin-related myotoxicities. If these strategies are unsuccessful, another approach is to use alternate-day dosing, which has been shown to have similar LDL-C lowering as daily dosing. Importantly, cardiovascular outcomes have not been studied with alternate-day dosing strategies.



1. IMS Health, National Prescription Audit, Dec 2010.
2. Sathasivam S, Lecky B. Statin induced myopathy. *BMJ* 2008;337:a2286.
3. Larsen S, Stride N, Hey-Mogensen M, et al. Simvastatin effects on skeletal muscle: relation to decreased mitochondrial function and glucose tolerance. *J Am Coll Cardiol* 2013;61:44.
4. Awad K, Mikhailidis DP, Toth PP, et al. Efficacy and Safety of Alternate-Day Versus Daily Dosing of Statins: a Systematic Review and Meta-Analysis. *Cardiovasc Drugs Ther* 2017;31:419.

STUDENT'S SECTION

JACOB OBERRENDER, PHARMD CANDIDATE
UNIVERSITY OF HOUSTON
COLLEGE OF PHARMACY

PRECEPTOR:
MOHAMED SARG, PHARMD, BCPS, CPPS
CLEAR LAKE REGIONAL MEDICAL CENTER

According to an analysis prepared by Martin Makary and Michael Daniel, medical errors were the third leading cause of death in the United States just behind cancer in 2013. Poor communication between members of the healthcare team plays a major role with handoffs. A 2016 by CRICO Strategies estimated that in the hospital and ambulatory setting about 30% of all malpractice claims were due to failures in communication, resulting in $1.7 billion loss. The Joint Commission describes a handoff as a transfer and acceptance of reasonability and accountability for a patient through effective communication between caregivers or teams of caregivers. To help reduce errors during these high risk events, The Joint Commission's National Patient Safety Goal in 2006 required healthcare organizations to implement a standardized approach to handoffs.

Given the frequency of handoffs in healthcare settings, some caregivers may underestimate the risk associated with handoffs, which may open the door for a failure in communication. Handoffs can involve one or multiple disciplines and each additional handoff increases the chance of a failure in communication. Understanding what barriers can occur during a handoff is important in order to recognize and overcome the potential errors that may arise. Table 1 represents a portion of these potential barriers for handoffs in the hospital setting. When there is inaccurate, incomplete, misinterpreted, and/or omitted data passed between the sender and receiver during a handoff, it creates an opportunity for a poor outcome to occur.

Table 1. Potential Barriers to Handoffs

Environmental factors	Interruptions Distractions Fatigue Background noise Inconsistent processes Relying on memory Poor communication (i.e. language barrier, illegible writing) Different knowledge or experiences
System factors	A culture not focused on safety or learning Inadequate number of staff or equipment to have effective handoffs Increased number of transfers which leads to increased number of handoffs Technology that is difficult to use to assess essential information
Situational factors	Emergency situations Critically ill patients Fluctuating resources available

Studies have shown that errors in communication have been connected to a number of adverse outcomes in patients. For this reason, The Joint Commission mandated that handoffs be standardized within each hospital. To ensure effective communication, the handoff information must be accurate, complete, clear, brief, timely, and verifiable/validated. There are several structured communication tools that are available that have helped to standardize and allow for more effective communication between caregivers (Table 2). The Agency for Healthcare Research and Quality and the Department of Defense developed a systematic approach called the Team Strategies and Tools to Enhance Performance and Patient Safety (TeamSTEPPS) to help improve safety and quality. This system was designed to enhance the communication and teamwork skills among healthcare providers by providing tools and strategies to help improve outcomes. In 2017, The Joint Commission released an article that contained helpful tips with the purpose of improving the quality of handoffs for all caregivers (Table 3).

Table 2: Hand off Tools

SBAR	**S**ituation **B**ackground **A**ssessment **R**ecommendation	**IPASS**	**I**llness Severity **P**atient Summary **A**ction List **S**ituation awareness/contingency plan **S**ynthesis by receiver (Opportunity for the receiver to asking questions)	**I PASS THE BATON**	**I**ntroduction **P**atient **A**ssessment **S**ituation **S**afety Concerns **T**he **B**ackground **A**ctions **T**iming **O**wnership **N**ext

Table 3. High Quality Handoff Tips

1	Determine what information needs to be communicated through the handoff so the receiver can safely care for the patient
2	Standardize the method used for handoffs such as SBAR
3	Allow the receiver to ask questions through either face to face, telephone, or video conference handoff
4	Combine information from different sources and communicate it at one time
5	Ensure that the content of the handoff to the receiver includes all those listed in the above paragraph
6	Designate an area that is free from distraction, "zone of silence" when performing handoffs
7	Handoffs should include all team members so members of the team can discuss the patient and ask and answer any questions
8	To strengthen handoffs between caregivers using electronic health records (EHRs) and other forms of technology, but do not rely solely on them for the information

1. Makary M, Daniel M. Medical Error-The third leading cause of death in the US. The BMJ. 2016; (353):1-5
2. Gretchen Ruoff. Malpractice Risks in Communication Failures: 2015 Annual Benchmarking Report. Malpractice Risks in Communication Failures: 2015 Annual Benchmarking Report. 2016.
3. Sentinel Alert Event: Inadequate hand-off communication. The Joint Commission. 2017; (58):1-6.
4. Friesen MA, White S, Byers J. Chapter 34: Handoffs: Implications for Nurses. Patient Safety and Quality: An Evidence-Based Handbook for Nurses. 2008; 2:285-332.
5. Lee S-H, Phan P, Dorman T, Weaver S, Pronovost P. Handoffs, Safety Culture, and Practices: Evidence from the hospital survey on patient safety culture. BMC Health Services Research. 2016; 16:1-8.

GCSHP SOCIAL EVENTS

On January 3, 2019, GSCHP hosted a Winter Holiday-themed Networking Social at Dish Society Restaurant in the Memorial City area. This was a great opportunity to gather after the holidays and network with the different members in GCSHP. We had excellent attendance from students, residents, and pharmacists – both familiar faces and plenty of new members! We also held a raffle for all those in attendance with various prizes including multiple holiday-themed mugs and gift cards. Thank you to all those who were able to attend. We look forward to seeing everyone at the next social!

DISH SOCIETY

BOARD OF DIRECTORS

PRESIDENT - JOSEPH W. ROGERS, PHARMD, MS

PRESIDENT-ELECT - ARDATH MITCHELL, PHARMD, BCPS

IMMEDIATE PAST-PRESIDENT - KATIE MORNEAU, PHARMD, BCPS

DIRECTOR - AN LE, PHARMD

DIRECTOR - LAURA STOKES, PHARMD, MS

TREASURER - EDWARD MCLEAN, PHARMD, BCOP

RECORDING SECRETARY - LAURA BLACKBURN, PHARMD, BCPS, BCCCP

INTERIM MEMBERSHIP SECRETARY - IAN DUNNE, PHARMD, BCPS, AAHIVP

COMMITTEE CHAIRS AND MEMBERS-AT-LARGE

MEMBERSHIP CHAIR - REBA FORBESS, PHARMD

EDUCATION CO-CHAIRS
EMMANUEL ENWERE, PHARMD, MS
CHIBUOKEM AMUNEKE-NZE, PHARMD

INDUSTRY CHAIR - SHARLA TAJCHMAN, PHARMD

LEADERS OF TOMORROW (LOT) - PHUOC ANNE NGUYEN, PHARMD, MS

NEW PRACTITIONER CHAIR - THOMAS RODUTA, PHARMD

COMMUNICATIONS CHAIR - IAN DUNNE, PHARMD, BCPS, AAHIVP

STUDENT SECTION REPRESENTATIVES
UNIVERSITY OF HOUSTON - NIHA ZAFAR
TEXAS SOUTHERN UNIVERSITY - KASHENA KENNEDY
TEXAS A&M HEALTH SCIENCE CENTER - CHIDINMA AHIARAH

GCSHP
GULF COAST SOCIETY
OF HEALTH-SYSTEM
PHARMACISTS

CONTACT: GCSHP.MEMBERSHIP@GMAIL.COM

@GULFCOASTSHP