Year in Review – 2016

Matthew Wanat, PharmD, BCPS, BCCCP
President, Texas Chapter 2017

Michael Sirimatusros, PharmD, BCNSP, BCCCP, FCCM
Immediate Past President, Texas Chapter 2017
Business Meeting Outline

- SCCM Texas Chapter Overview
  - Committees, Charges, and Accomplishments
  - Financial Status
  - Election Results

- Alan Field Award Winner Presentations and Chapter Awards

- Looking Ahead in 2017
Society of Critical Care Medicine (SCCM) Texas Chapter

- Not for profit
- Sub-chapter of parent organization, SCCM
- Re-founded in 2008

Mission
- Provide Texas chapter members with education, professional resources, and networking opportunities to improve the quality of care to critically ill patients across Texas

- Multidisciplinary
- Officials elected by the membership
- Voluntary (no compensation)
2016 SCCM Texas Chapter Executive Council

President
Michael Sirimatumuros, PharmD, BCNSP, BCCCP, FCCM

President - Elect
Matthew Wanat, PharmD, BCPS, BCCCP

Treasurer
Sharla Tajchman, PharmD, BCCCP, BCNSP

Past President
Wendi Jones, MSN, ACNP-BC

Secretary
Mary Lou Warren, DNP, RN, CNS-CC, FCCM
<table>
<thead>
<tr>
<th>BOD Seat</th>
<th>Representative</th>
<th>Credentials</th>
<th>Term End</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physicians (2)</td>
<td>Imrana Malik (Houston)</td>
<td>MD</td>
<td>2017</td>
</tr>
<tr>
<td></td>
<td>Darrell Alley (Houston)</td>
<td>MD, FACS</td>
<td>2018</td>
</tr>
<tr>
<td>Nurses (2)</td>
<td>Susan Smith (Dallas)</td>
<td>DNP, APRN, ACNS-BC</td>
<td>2018</td>
</tr>
<tr>
<td></td>
<td>Phyllis McCorstin (Dallas)</td>
<td>MSN, RN, APRN, CNS, CCNS, CCRN</td>
<td>2019</td>
</tr>
<tr>
<td>Allied Health (2)</td>
<td>Brian Dee (Houston)</td>
<td>PharmD, BCNSP, BCCCP</td>
<td>2019</td>
</tr>
<tr>
<td></td>
<td>Vi Nguyen (Houston)</td>
<td>OTR, MOT, RRT</td>
<td>2019</td>
</tr>
<tr>
<td>At-Large (4)</td>
<td>Andro Herrera-Mendoza (San Antonio)</td>
<td>MBA, RRT-NPS, RPFT</td>
<td>2017</td>
</tr>
<tr>
<td></td>
<td>Patrick Cullinan (San Antonio)</td>
<td>DO, FACOEP, FACOI, FCCM</td>
<td>2018</td>
</tr>
<tr>
<td></td>
<td>Susan McLean (El Paso)</td>
<td>MD, FACS</td>
<td>2019</td>
</tr>
<tr>
<td></td>
<td>Vacant</td>
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</table>
SCCM Texas Chapter
Committees

- Membership
- Programs
- Communication
- Symposium
- Research
- Awards
- Nominations

SIGN UP FOR A COMMITTEE (OR 2) TODAY!!!
MEMBERSHIP Committee

- Chair: Maggie Ma, PharmD, BCPS
- Vice Chair: April Finnigan, PharmD, BCCCP
  - New Member Manager: Rebeca Halfon, BS, PharmD
  - Trainee Verification: Brittany Pelsue, PharmD, BCPS
  - SCCM Verification: Olakunle Idowu, MD

- Committee members
  - Evan Brietzke-Gupta, BBA, BS(N), RN, CCRN
  - Katie Morneau, PharmD, BCPS
  - Vy Pham, PharmD, BCPS
  - Jef Sala, RN
  - Ola Adejuwon, PharmD, BCCCP, BCNSP, BCPS
MEMBERSHIP Committee Charges

- Coordinate and promote multidisciplinary membership expansion throughout Texas
- Establish and maintain the SCCM TX Chapter membership database
- Organize annual TX Chapter membership drive
- Identify methods to recruit new membership in addition to ensuring retention of existing TX Chapter members
- Build on and maintain a multidisciplinary critical care training database to target new members
SCCM Texas Chapter Membership 2015

December 31, 2015
SCCM members – 72%
Trainees – 5%
FCCM – 18 total
SCCM Texas Chapter Membership 2016

December 31, 2016
SCCM members – 73%
Trainees – 6%
FCCM – 21 total
Regional Representation

January 2016

January 2017
Multidisciplinary Membership

January 2016
- MD: 29%
- NP: 19%
- Other: 4%
- PA: 3%
- PT: 5%
- RN: 3%
- RX: 3%

January 2017
- MD: 37%
- NP: 18.3%
- Other: 4%
- PA: 3%
- PT: 3.6%
- RN: 12.2%
- RX: 3%

Legend:
- MD
- NP
- Other
- PA
- PT
- RN
- RX
2016 Membership Drive

**Referred 4 New Texas Chapter Members**
Christiane Perme, PT, CCS
Houston

**Referred 3 New Texas Chapter Members**
Andro Herrera-Mendoza, MBA, RRT-NPS, RPFT
San Antonio

**Referred 3 New Texas Chapter Members**
Omar Enriquez, MD
San Antonio
PROGRAM Committee

- **Chair:** Anne Rain Tanner, PharmD, BCPS

- **Regional Coordinators**
  - **Houston**
    - Anne Rain Tanner, PharmD, BCPS
  - **Dallas / Fort Worth**
    - Lyndsay Shepherd, PharmD, BCPS
    - Jennifer Roth, PharmD, BCPS
  - **San Antonio**
    - Patrick Cullinan, DO, FCCM, FACOEP, FACOI
    - Andro Herrera-Mendoza, MBA, RRT-NPS, RPFT
  - **El Paso**
    - Susan McLean, MD, FACS
PROGRAM Committee Charges

- Organize regularly occurring Chapter educational meetings
  - Total of 31 meetings in 2016 (up from 21 in 2015 with growth in every region!)
    - Houston: 9 (2 non-industry sponsored, plus the Annual Symposium)
    - Dallas / Fort Worth: 7
    - San Antonio: 11
    - El Paso: 4

- Coordinate member reception at SCCM Critical Care Congress
  - 45th Congress – Orlando (February 21, 2016)
  - 46th Congress – Honolulu (January 22, 2017)
    - ~30 Texas Chapter members in attendance
  - 47th Congress – SAN ANTONIO (February 25-28, 2018 – MARK YOUR CALENDARS!!!)

- Assist with TX Chapter expansion as delegated by the Exec and BOD
  - Continue to grown in every region
  - Goal is to increase non-branded programming in each region

- Assist with vendor sponsorship for TX Chapter Symposium
  - Sponsorship helps cover venue, catering, printing, and continuing education costs
  - Assisted in obtaining over $15,000 in sponsorship!
Houston
Meeting Attendance - 2016

*denotes RSVP collected by sponsor
PROGRAM Committee

Houston

Total RSVPs vs. No shows - 2016

*denotes RSVP collected by sponsor

* denotes RSVP collected by sponsor
PROGRAM Committee

Dallas
Meeting Attendance - 2016

*denotes RSVP collected by sponsor

* denotes RSVP collected by sponsor
Dallas

Total RSVPs vs. No shows - 2016

*denotes RSVP collected by sponsor
PROGRAM Committee

San Antonio
Meeting Attendance - 2016

*denotes RSVP collected by sponsor
San Antonio
Total RSVPs vs. No shows - 2016

*denotes RSVP collected by sponsor
El Paso

Meeting Attendance - 2016

- January: 25 (RSVP)
- March: 24 (RSVP, 1 Non-RSVP)
- August: 40 (RSVP)
- September: 15 (RSVP)
El Paso

Total RSVPs vs. No shows - 2016

*denotes RSVP collected by sponsor
PROGRAM Committee

- **Programming**
  - Continue pediatric programming initiative state-wide
  - Contact Anne Rain [programs@sccmtexaschapter.org](mailto:programs@sccmtexaschapter.org) with any ideas for future programming or feedback on current programming!
COMMUNICATIONS Committee

- Chair: Brian Burleson, PharmD, BCPS

- Regional Coordinators
  - Houston Communications: Elizabeth Dozier, BSN, RN
  - Dallas Communications: Leanne Current, PharmD, BCPS
  - San Antonio: Molly Curran, PharmD
  - El Paso: vacant – If interested, please notify Brian Burleson

- Website: Brandon Sterling, MS, APRN, AGACNP-BC, CCRN

- Social Media: Don Foronda, RN

- Newsletter: Lan Bui, PharmD, BCPS

- Charges
  - Facilitate communication between leadership and SCCM Texas Chapter members
  - Inform SCCM Texas Chapter members about upcoming events and opportunities
NEW WEBPAGE!
www.sccmtexaschapter.org

Welcome to the new official homepage of the Society of Critical Care Medicine - Texas Chapter!

The SCCM Texas Chapter is a multidisciplinary organization composed of critical care practitioners, whose purpose is to foster collaboration among caregivers at a state level for the enhancement of patient care. Members of the chapter include physicians, nurses, pharmacists, respiratory therapists, physician assistants and other health care professionals.

The Texas Chapter's mission is to provide its members with educational opportunities, professional resources and a chance for networking with other critical care professionals from across the region in order to improve the quality of critical care. The website provides you with information regarding chapter leadership, meeting schedule, membership benefits, research opportunities and resources. Please feel free to contact any of us with questions, or regarding interest in participation. For additional information, you can visit the SCCM national website at www.sccm.org.

We are delighted you are interested in the Texas Chapter. Should you decide to become an official member, your membership to the Chapter will allow you to further your professional successes and growth.
As another year comes to a close, I reflect on all of the successes we have had as a chapter this year. The chapter leadership and committees focused their efforts on the following themes for 2016: Strengthen, Engage/Re-Engage, Innovate and Streamline. We have strengthened our chapter by increasing our membership numbers to over 530 members across the state of Texas. Our committees are the strongest they have ever been with members actively engaged in all seven committees and all committees having active and engaged committee chairs. We continue to engage members at all of our chapter meetings in each major region across Texas as well as at our annual symposium. Our symposium, held in Houston this past year, had record turnout with close to 150 in attendance many of which were new members to the chapter. We continue to provide innovative programming at our annual symposium as well as at our chapter meetings. Our chapter meetings added additional monthly programming in the San Antonio region and the Houston region broadened the topics to be more inclusive of our pediatric members. We also continue working on ways to streamline our processes and delegate duties out across our membership in order to setup our future chapter leaders for success in the coming years.

We recently held successful elections this past month and welcome new members to our Executive Committee and Board of Directors in 2017. Please refer to page 7 of the newsletter for full election results. We also recognized 4 individuals as our Alan I. Fields Award winners, listed on page 5 of the newsletter, who each will be recognized at our annual business meeting in February 2017 in Houston and who also will receive reimbursement of up to $1000 to attend SCCM Congress in Hawaii in January.
COMMUNICATIONS Committee

- Twitter
  - Added September 2016
  - @SCCMTXCHAPTER
  - Follow us!
  - Tweet chapter events!
SYMPOSIUM Committee

- Chair: Jennifer Gass, PharmD, MC, BCPS, BCCCP
- Secretary: Mary Lou Warren, DNP, RN, CNS-CC, FCCM

Symposium Planning Committee

Darrell E. R. Alley, MD, FACS, FCCP
Sugar Land, Texas

Teresa A. Allison, PharmD, BCPS, BCCCP
Houston, Texas

Lisa Beil, RN, APRN, AGACNP-BC, ACNS-BC
Houston, Texas

Utpal Bhalala, MD, FAAP
San Antonio, Texas

Laura Blackburn, PharmD, BCPS, BCCCP
Houston, TX

Brian S. Burleson, PharmD, BCPS
Houston, Texas

Andro R. Herrera-Mendoza, MBA, RRT-NPS, RPFT, RCP
San Antonio, Texas

Monica Lee, PharmD
Houston, Texas

Phyllis McCorstin, MSN, RN, APRN, CNS, CCNS, CCRN
Dallas, Texas

Susan McLean, MD, FACS
El Paso, Texas

Vi Nguyen, OTR, MOT
Houston, Texas

Patrick C. Cullinan, DO, NBPNS, FCCM, FACOEP, FACOI
San Antonio, Texas

Lisa Cushman, MS, RN, NE-BC
Houston, Texas

Maria Dent, PT, DPT
Houston, Texas

Jennifer Gass, PharmD, MS, BCPS, BCCCP
Houston, Texas

Heather Hartman, PharmD, BCPS, BCCCP
Houston, Texas

Joel Reyes, DO
San Antonio, Texas

Reagan Collins, PharmD, BCCCP
Houston, Texas

Michael Sirimatuso PharmD, BCNSP, BCCCP
Houston, Texas

Sonia Sultan, PharmD, BCPS
Houston, Texas

Shari Tajchman PharmD, BCCCP, BCNSP
Houston, Texas

Anne Rain Tanner, PharmD, BCPS
Houston, Texas

Matt Wanat PharmD, BCPS, BCCCP
Houston, Texas

Mary Lou Warren DNP, RN, CNS-CC, FCCM
Houston, Texas
SYMPOSIUM Committee Charges

- Secure date and venue for annual symposium
- Create innovative program for a multidisciplinary critical care audience
- Secure content expert speakers
- Obtain continuing education credits for a variety of TX Chapter member disciplines
- Coordinate vendors in collaboration with the Program Committee and abstracts in collaboration with the Research Committee
SYMPOSIUM Committee

- 5th Annual Symposium: Houston Methodist Research Institute
- September 16-17, 2016
- “Disparities in Critical Care”
  - >140 participants, speakers, vendors and volunteers
  - 22 speakers
  - 17 vendors
  - Topics: disparities at home and abroad, ED, sepsis, cardiothoracic disease and MCS, neuro, discharge planning and end of life, ID, future of critical care
  - Poster session with professor walk rounds; 12 posters
SYMPOSIUM Committee

- 6th Annual Symposium: LATE BREAKING DETAILS
- Hotel Galvez, Galveston, Texas
- September 8-9, 2017
- “Controversies in Critical Care”
- ***Not finalized***
RESEARCH Committee

- Chair: Joshua Swan, PharmD, MPH, BCPS

- Charges
  - Re-invigorate committee and committee members
  - Coordinate and oversee Symposium poster submissions
    - Coordinator: Teresa Allison, PharmD, BCPS, BCCCP
    - Poster submission increased from 4 (2015) to 13 (2016)
  - Coordinate and oversee the Alan I. Fields Awards
    - Coordinator: Michelle Horng, PharmD, BCPS, BCCCP
    - Abstract submission increased from 5 (2015) to 13 (2016)
  - Provide guidance and mentorship for FCCM application
    - Deadline for this year: March 15, 2017
Symposium Research Award

- First year for the award
- $500 stipend to offset SCCM Texas Chapter symposium expenditures

Award Recipients

- **Two or More Years of Clinical Experience**
  - Stephanie Bird, PharmD, Shazia Raheem, PharmD, Brooke Rachelle Herndon, PharmD, Amit Pulickan, MSc, M(ASCP), Charlie Lan, DO, Daniel Musher, MD.
  - *Impact of antibiotic MIC in a VA population with Pseudomonas bacteremia or pneumonia*

- **Less than Two Years of Clinical Experience**
  - Lan N. Bui, PharmD, Joshua T. Swan, PharmD, MPH, Beverly A. Shirkey, PhD, Randall J. Olsen, MD, PhD, Scott W. Long, MD, PhD, Edward A. Graviss, PhD, MPH, FIDSA.
  - *Effects of chlorhexidine bathing on Clostridium difficile infection in a surgical intensive care unit*
Alan I. Fields Award

- Recognizes Texas chapter members attending SCCM Congress for their achievements in clinical research

- $1000 stipend to offset SCCM Congress meeting expenditures

- 2 awards annually (4 awards for 2016!)
Alan I. Fields Award

Award Recipient

Two or More Years of Clinical Experience

Utpal Bhalala, MD, Niveditha Balakumar, MD, Maria Zamora, RN, Elumalai Appachi, MD.

Defibrillation Skills of Pediatric Acute Care Providers: Are They Faster with Paddles or Pads?
Defibrillation Skills of Pediatric Acute Care Providers: Are They Faster With Paddles or Pads?

Utpal Bhalala, MD, FAAP; Niveditha Balakumar, MD; Maria Zamora, RN; Elumalai Appachi, MD, FAAP
No Disclosure to Report
BACKGROUND

There is insufficient data on defibrillation skills of pediatric providers in VFCA

Timely defibrillation of Ventricular Fibrillation Cardiac Arrest (VFCA) is associated with favorable outcomes
Time-to-shock by pediatric providers in VFCA is significantly longer with use of paddles as compared to pads
METHODS

Prospective observational study of video evaluation of hands on defibrillation skills of pediatric providers during delivery of 2J/Kg shock to an infant manikin in VFCA using LifePak20e defibrillator.

Each provider was asked to use pads followed by paddles.

Videos evaluated by 2 independent reviewers and disagreements resolved by a moderator.

Data analyzed using chi square test with significant p value < 0.05.
METHODS

Figure 1: The defibrillation using pads versus paddles. Most providers used adult paddles instead of pediatric paddles.
### METHODS

**Defibrillation Study Check-list**

**Date:** ___/___/____ (MM/DD/YYYY)

Please circle the item applicable to you -

**Provider level:**
- Faculty
- NP
- RN

**Trainee:** PL1, PL2, PL3, PL4, PL5, PL6

**Years in practice:** <2, 2-5, 5-10, 10-20, >20

**Primary location of work:** PICU, ER, Peds Floor, NICU, Transport

**Certified in:** PALS, PEPARS, NRP, BLS, ACLS, All, None

**Date of certification:** (MM/YYYY)

Did you ever use the **study defibrillator** in the past? Y N Not sure

If Yes, last time you used the **study defibrillator**:
- ___ days
- ___ weeks
- ___ months
- ___ years back in real /mock code

Did you ever use the **non-study defibrillator** in the past? Y N Not sure

If Yes, last time you used the **non-study defibrillator**:
- ___ days
- ___ weeks
- ___ months
- ___ years back in real /mock code

**Check-list for Facilitator:**

1. Provider applied pads: Yes No
2. Provider used pediatric pads/paddles: Yes No
3. Provider used adult pads/paddles? Yes No
4. Provider selected correct energy? Yes No
5. Provider charged the device: Yes No
6. Provider announced “I am clear, you are clear, everyone is clear!”: Yes No
7. Provider applied shock: Yes No
8. Provider announced “Restart chest compressions”: Yes No
9. Time to connect the pads/paddles to the device: ___ seconds
10. Total time to shock: ___ seconds
11. Struggle with connecting pads/paddles: Yes No
12. Struggle with using pads/paddles: Yes No
13. Struggle with buttons on the device: Yes No

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**Figure 2:** The defibrillation Study Checklist showing the provider-specific questions and defibrillation-specific questions
Figure 3: The bar diagram showing comparison of provider characteristics and time to shock in seconds. * = significant
# RESULTS

<table>
<thead>
<tr>
<th>Acute Care Providers</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurses</td>
<td>52</td>
</tr>
<tr>
<td>Non nurses</td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td>68</td>
</tr>
</tbody>
</table>

**Years of experience:**
- <5 years: 46%
- >5 years: 54%

All providers PALS trained, Last PALS certification-Median of 273 days prior to VFCA

Median time-to-shock using paddles - 97 sec (IOR: 60-122.5 sec) and the median time-to-shock with pads - 77.5 seconds (IQR: 59-105 sec)
Figure 4: Time-to-shock with use of paddles Vs. pads
CONCLUSIONS

Time-to-shock by pediatric providers in VFCA is not statistically significantly longer with use of paddles as compared to pads.
HYPOTHESIS

Pediatric providers lack sufficient defibrillation skills due to human factors and machine-related factors
METHODS

Check-list for Facilitator:

Provider applied pads: Yes  No
Provider used pediatric pads/paddles appropriately: Yes  No
Provider selected correct energy: Yes  No
Provider charged the device: Yes  No
Provider announced "I am clear, you are clear, everyone is clear": Yes  No
Provider applied shock: Yes  No
Provider announced "Restart chest compressions": Yes  No
Time to connecting the pads/paddles: ___seconds
Total time to shock (Sum of all the times if able to complete all the steps): ___seconds
Struggle with connecting pads/paddles: Yes  No
Struggle with using pads/paddles: Yes  No
Struggle with buttons on the device: Yes  No

Figure 1: Check list for evaluating hands-on shock skills
Figure 2: Use of adult pads and paddles (top). Machine related factors (red circles) (bottom).
RESULTS

Struggle with Machines (>10 sec delay)
A significant proportion of providers struggled with connecting pads/paddles to the machine, using buttons and using pads/paddles on the manikin

- 38% Struggle with using pads/paddles
- 46% Struggle with using buttons on device
- 50% Struggle with connecting pads/paddles to device
CONCLUSIONS

Pediatric providers lack sufficient hands on defibrillations skills. It is associated with human and machine related factors.
FUTURE DIRECTIONS

Future studies on hands-on defibrillation training of acute care providers

Future simulation studies on defibrillation choreography during VFCA scenario
ACKNOWLEDGEMENTS

Special thanks to the ICU staff and other acute care providers at Children’s Hospital of San Antonio
Questions?
Thank You!
Alan I. Fields Award

Award Recipient

Two or More Years of Clinical Experience

Teresa A. Allison, PharmD, Heather Hartman, PharmD, Jennifer Gass, PharmD, Pei Jen Lin, PharmD, Kenneth Chong, PharmD, H. Alex Choi, MD, Miguel Escobar, MD.

Low Dose 4-Factor Prothrombin Complex Concentrate in Reversal of Xa Inhibitors in a Neuro ICU
Low Dose 4-Factor Prothrombin Complex Concentrate in Reversal of Xa Inhibitors in a Neuro ICU

Teresa A. Allison, PharmD, BCPS, BCCCP
Pharmacy Clinical Specialist, Neurosciences
Memorial Hermann – Texas Medical Center
Houston, Texas
Co-Investigators

- Heather Hartman, PharmD, BCPS, BCCCP\textsuperscript{1}
- Jennifer Gass, PharmD, MS, BCPS, BCCCP\textsuperscript{1}
- Pei Jen Lin, PharmD\textsuperscript{2}
- Kenneth Chong, PharmD\textsuperscript{1}
- H. Alex Choi, MD\textsuperscript{3}
- Miguel Escobar, MD\textsuperscript{4}

1. Memorial Hermann – Texas Medical Center, Department of Pharmacy, Houston, TX
2. Houston Methodist Hospital, Department of Pharmacy, Houston, TX
3. The University of Texas Health Science Center at Houston, Department of Neurosurgery and Neurology, Houston, TX
4. The University of Texas Health Science Center at Houston, Department of Hematology, Houston, TX
Background

- No FDA-approved reversal agent for Xa-inhibitors
  - Andexanet alpha is under investigation
  - Dabigatran is reversed with idarucizumab (Praxibind®)

- 4-factor prothrombin complex concentrate (4PCC) is FDA approved for warfarin reversal
  - Used off-label in this pilot study

- Most commonly cited dose is 50 units/kg

- Our institution routinely uses 35 units/kg with a rounding protocol
Objectives

- **Primary objective**
  - To evaluate the effectiveness of 4PCC 35 units/kg in the reversal of Xa-inhibitors in patients with head bleeds in the neuroscience intensive care unit

- Evaluated bleeding progression with computed tomography (CT)

- Hemostasis defined as a stable CT after administration of 4PCC
Methods

• Single center, retrospective, cohort study
  – Level 1 trauma center in Houston, Texas
  – 32-bed neuroscience intensive care unit (NSICU)
  – May 2013 – February 2016

• Inclusion Criteria
  – Greater than or equal to 18 years of age
  – Received a Xa inhibitor near time of admission
  – Major brain hemorrhagic event
  – Received 4PCC ~ 35 units/kg per institution protocol
<table>
<thead>
<tr>
<th></th>
<th>N = 38</th>
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<tbody>
<tr>
<td>Male, n (%)</td>
<td>20 (52.6)</td>
</tr>
<tr>
<td>Age, years</td>
<td>72.9 (13.9)</td>
</tr>
<tr>
<td>Weight, kg</td>
<td>80.6 (19.7)</td>
</tr>
<tr>
<td>Bleed Type, n (%)</td>
<td></td>
</tr>
<tr>
<td>Traumatic Brain Injury</td>
<td>27 (71.1)</td>
</tr>
<tr>
<td>Intracerebral Hemorrhage</td>
<td>8 (21.1)</td>
</tr>
<tr>
<td>Subarachnoid Hemorrhage</td>
<td>3 (7.9)</td>
</tr>
<tr>
<td>Admission Glasgow Coma Score</td>
<td>14.5 [11, 15]</td>
</tr>
<tr>
<td>Admission APACHE II Score</td>
<td>17 [12.8, 25]</td>
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Data expressed as mean (SD) or median [IQR] unless otherwise specified
### Patient Demographics

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<tr>
<td><strong>N = 38</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Xa Inhibitor</strong></td>
<td></td>
</tr>
<tr>
<td>Rivaroxaban</td>
<td>29 (76.3)</td>
</tr>
<tr>
<td>Apixaban</td>
<td>9 (23.7)</td>
</tr>
<tr>
<td><strong>Indication for Xa Inhibitor</strong></td>
<td></td>
</tr>
<tr>
<td>Atrial Fibrillation</td>
<td>28 (73.7)</td>
</tr>
<tr>
<td>DVT/PE</td>
<td>7 (18.4)</td>
</tr>
<tr>
<td>Other</td>
<td>3 (7.9)</td>
</tr>
<tr>
<td><strong>Antiplatelet Therapy</strong></td>
<td></td>
</tr>
<tr>
<td>Aspirin</td>
<td>9 (23.7)</td>
</tr>
<tr>
<td>Clopidogrel</td>
<td>2 (5.3)</td>
</tr>
<tr>
<td>Aspirin / Clopidogrel</td>
<td>3 (7.9)</td>
</tr>
</tbody>
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Data expressed as n (%)
# Results: Coagulation Labs Prior to 4PCC

<table>
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<th>Lab</th>
<th>Normal Values</th>
<th>TEG group (n = 8)</th>
<th>rTEG group (n = 25)</th>
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<tbody>
<tr>
<td>PT</td>
<td>12.0 – 14.7 seconds</td>
<td>18.1 (3.5)</td>
<td>17.6 (4.4)</td>
</tr>
<tr>
<td>PTT</td>
<td>22.9 – 35.8 seconds</td>
<td>33.5 (5.6)</td>
<td>35.4 (6.9)</td>
</tr>
<tr>
<td>INR</td>
<td>-</td>
<td>1.5 (0.4)</td>
<td>1.4 (0.5)</td>
</tr>
<tr>
<td>Split point</td>
<td>-</td>
<td>-</td>
<td>0.7 (0.2)</td>
</tr>
<tr>
<td>ACT</td>
<td>86 – 116 seconds</td>
<td>-</td>
<td>124.1 (16.9)</td>
</tr>
<tr>
<td>R-time</td>
<td>TEG: 5 – 10 minutes</td>
<td>4.5 (0.9)</td>
<td>0.8 (0.2)</td>
</tr>
<tr>
<td></td>
<td>rTEG: 0.4 – 0.7 minutes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K-time</td>
<td>1 – 3 minutes</td>
<td>1.4 (0.3)</td>
<td>1.0 (0.2)</td>
</tr>
<tr>
<td>α-angle</td>
<td>53 – 72 degrees</td>
<td>69.3 (7.5)</td>
<td>77.5 (2.5)</td>
</tr>
<tr>
<td>Maximum amplitude</td>
<td>50 – 70 mm</td>
<td>65.8 (3.7)</td>
<td>67.6 (6.1)</td>
</tr>
<tr>
<td>G-value</td>
<td>4.5 – 11 K d/sc</td>
<td>9.8 (1.9)</td>
<td>10.9 (2.9)</td>
</tr>
<tr>
<td>Est % Lys</td>
<td>0 – 7.5 %</td>
<td>-</td>
<td>1.7 (2.9)</td>
</tr>
<tr>
<td>Lys 30</td>
<td>0 – 7.5 %</td>
<td>0.7 (1.0)</td>
<td>-</td>
</tr>
<tr>
<td>Coag Index</td>
<td>-3 – 3</td>
<td>2.1 (1.1)</td>
<td>-</td>
</tr>
</tbody>
</table>

Data expressed as mean (SD)
Results: Labs Prior to 4PCC

<table>
<thead>
<tr>
<th>Lab</th>
<th>Normal Value</th>
<th>n = 35</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hemoglobin</td>
<td>14 – 18 g/dL</td>
<td>12.1 (1.8) g/dL</td>
</tr>
<tr>
<td>Hematocrit</td>
<td>42 – 54%</td>
<td>36.5 (5.8) %</td>
</tr>
<tr>
<td>Platelets</td>
<td>133 – 450 k/cm²</td>
<td>228 (88) k/cm²</td>
</tr>
</tbody>
</table>

Data expressed as mean (SD)

- 5/11 patients on a single anti-platelet therapy received platelets
  - 3/3 patients on dual anti-platelet therapy received platelets
Results: 4PCC and CTs

- Median [IQR] dose of 4PCC = 32.8 [27.9, 35.1] units/kg
- Repeat CT showed no progression of the bleed in 33 (86.8%) patients
- 3 of 5 patients without cessation of bleeding received a 2\textsuperscript{nd} dose
  - Mean dose = 33.1 units/kg
  - All 3 had cessation of bleeding with 2\textsuperscript{nd} dose

<table>
<thead>
<tr>
<th>Process</th>
<th>Time (median [IQR])</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time between Check-in to CT, hours</td>
<td>1.0 [0.3, 1.8]</td>
</tr>
<tr>
<td>Time between Check-in to 4PCC Administration, hours</td>
<td>2.3 [1.5, 5.4]</td>
</tr>
<tr>
<td>Time between CT to 4PCC, hours</td>
<td>2.4 [0.9, 4.5]</td>
</tr>
<tr>
<td>Time between CT and Repeat CT, hours</td>
<td>6.0 [4.3, 8.1]</td>
</tr>
<tr>
<td>Time between 4PCC and Repeat CT, hours</td>
<td>3.7 [0.9, 6.0]</td>
</tr>
</tbody>
</table>
Length of Stay and Disposition

• Length of stay, median
  – ICU: 2.1 [1.5, 6.1] days
  – Hospital: 9 [3.8, 15.2] days

• Disposition
  – SNF: 14 (36.9%)
  – Home: 13 (34.2%)
  – Deceased / Hospice: 7 (18.4%)
  – LTAC: 4 (10.5%)

• 2 patients were made comfort care
Conclusions

• 4PCC 35 units/kg was associated with cessation of bleeding, clinically and radiographically, in 86.8% of patients

• No clinical evidence of adverse events

• If 4PCC continues to be used for this indication further evaluation of this dose is required
Alan I. Fields Award

Award Recipient

Less than Two Years of Clinical Experience

Elizabeth Franco, PharmD, Garbo Mak, MD, Jennifer Cortes, PharmD.

Duration of mechanical ventilation with non-benzodiazepine vs. benzodiazepine-based sedation
Duration of Mechanical Ventilation in Patients Treated with Non-Benzodiazepine vs. Benzodiazepine-Based Sedation

*Elizabeth Franco, PharmD, Garbo Mak, MD, Jennifer Cortes, PharmD, BCPS, BCCCP

*Memorial Hermann – Texas Medical Center, Houston, Texas
± University of Texas Health Science Center at Houston – School of Medicine

PRESENTED AT: Society of Critical Care Medicine
Background

- 2002 SCCM guidelines for sustained use of sedatives and analgesics
  - Benzodiazepines (BZ) as first-line agents for mechanically ventilated adults
- 2013 SCCM guidelines for management of pain, agitation and delirium
  - Analgosedation as first-line
  - Non-benzodiazepine (NBZ) sedation before BZ sedation
- Lack of comparison studies in combination sedative therapies with either NBZ or BZ-based sedation

Objectives

• Primary objective
  – Duration of mechanical ventilation (MV) during the patients’ ICU stay in those who received combination sedative strategies with either BZ or NBZ-based therapies

• Secondary objectives
  – ICU LOS
  – Hospital LOS
  – Prevalence of delirium
Methods

• Inclusion criteria:
  – Patients ≥ 18 years, admitted to the medical ICU (MICU), received MV > 24 hours and continuous intravenous infusion of either BZ or NBZ-based sedation

• Exclusion criteria:
  – Transferred from outside hospital/ICU, ICU readmission during same hospitalization, continuous paralysis, pregnant, tracheostomy, status epilepticus, alcohol or BZ withdrawal, comfort care, post cardiac arrest

• Statistics:
  – Continuous data- Mann-Whitney U test, Kruskal-Wallis test, Dunn-Bonferroni test
  – Categorical data- Chi-squared test
Excluded
N = 52

Included
N = 402

Reasons for Exclusion
• Ongoing seizures
• Alcohol withdrawal
• BZ withdrawal
• Post cardiac arrest
• Transferred from OSH

BZ
n = 160
BZ ± analgesics ± propofol or dexmedetomidine

NBZ
n = 242
Analgesics ± propofol or dexmedetomidine
Patient Population

- No difference in baseline characteristics, past medical history, home medications, or admission diagnosis

<table>
<thead>
<tr>
<th>Variable</th>
<th>BZ (n = 160)</th>
<th>NBZ (n = 242)</th>
<th>p-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiratory failure- <em>no. (%)</em></td>
<td>36 (22.5)</td>
<td>64 (26.4)</td>
<td>NS</td>
</tr>
<tr>
<td>Bolus fentanyl (mcg)- <em>median [IQR]</em></td>
<td>100 [75-275]</td>
<td>106.3 [50-225]</td>
<td>NS</td>
</tr>
<tr>
<td>No. treated (%)</td>
<td>75 (46.9)</td>
<td>106 (43.8)</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>Bolus hydromorphone (mg)- <em>median [IQR]</em></td>
<td>2 [1-3.3]</td>
<td>3 [1-5]</td>
<td>NS</td>
</tr>
<tr>
<td>No. treated (%)</td>
<td>14 (8.7)</td>
<td>11 (4.5)</td>
<td>NS</td>
</tr>
<tr>
<td>Bolus midazolam (mg)- <em>median [IQR]</em></td>
<td>5 [3.7-9]</td>
<td>4 [2-7]</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>No. treated (%)</td>
<td>78 (48.7)</td>
<td>100 (41.3)</td>
<td>NS</td>
</tr>
</tbody>
</table>
Results

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Median Duration of MV (n=160)</th>
<th>Median Duration of MV (n=74)</th>
<th>p-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICU LOS, d</td>
<td>4.8</td>
<td>3.7</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>Hospital LOS, d</td>
<td>10.3</td>
<td>7.5</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>Positive CAM-ICU, no.</td>
<td>65.8</td>
<td>50.2</td>
<td>&lt; 0.01</td>
</tr>
</tbody>
</table>
Subgroup Analysis

- **BZ**
  - n = 160
  - ± analgesics ± propofol or dexmedetomidine

- **NBZ**
  - n = 242
  - ± analgesics ± propofol or dexmedetomidine
  - ± A
  - n = 74
  - Analgesics ± propofol or dexmedetomidine

  - **Analgosedation**
    - n = 168
    - Only fentanyl or hydromorphone
## Subgroup Analysis

<table>
<thead>
<tr>
<th>Outcome- median</th>
<th>BZD (n = 160)</th>
<th>NBZ ± A (n = 74)</th>
<th>p-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration of MV (hrs)</td>
<td>70.5</td>
<td>49.4</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>ICU LOS (days)</td>
<td>4.8</td>
<td>3.7</td>
<td>0.04</td>
</tr>
<tr>
<td>Hospital LOS (days)</td>
<td>10.3</td>
<td>6.8</td>
<td>&lt; 0.01</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Outcome- median</th>
<th>BZD (n = 160)</th>
<th>Analgosedation (n = 168)</th>
<th>p-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration of MV (hrs)</td>
<td>70.5</td>
<td>55.9</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>ICU LOS (days)</td>
<td>4.8</td>
<td>3.7</td>
<td>0.02</td>
</tr>
<tr>
<td>Hospital LOS (days)</td>
<td>10.3</td>
<td>7.9</td>
<td>NS</td>
</tr>
</tbody>
</table>
Discussion

• Appropriateness of sedation goals, dosing, medication titration, and time spent within target sedation was not possible to assess

• Reason for bolus doses unknown

• Duration of MV is shorter than previously published studies

• Could not analyze any adverse events secondary to medication use
Conclusions

• This study reports a reduction in MV, incidence of delirium, ICU LOS, and hospital LOS associated with NBZ sedation

• Subgroup analysis revealed potential benefit in outcomes in both combination and analgosedation therapy

• Patients requiring MV who do not have an indication for BZ, should receive analgosedation and NBZ as first-line therapy
Duration of Mechanical Ventilation in Patients Treated with Non-Benzodiazepine vs. Benzodiazepine-Based Sedation

*Elizabeth Franco, PharmD, ±Garbo Mak, MD,
*Jennifer Cortes, PharmD, BCPS, BCCCP

* Memorial Hermann – Texas Medical Center, Houston, Texas
± University of Texas Health Science Center at Houston – School of Medicine
Alan I. Fields Award

Award Recipient

Less than Two Years of Clinical Experience

Amanda Holyk, PharmD, Michael J. Melroy, PharmD.

Evaluating Outcomes of Poractant alfa (Curosurf) vs. Calfactant (Infasurf) in Neonates
Evaluating Outcomes of Poractant alfa (Curosurf) vs. Calfactant (Infasurf) in Neonates

Amanda Holyk, PharmD
PGY2 Critical Care Pharmacy Resident
Houston Methodist Hospital
Houston, TX
Disclosure Statement

• None of the authors of this presentation have information to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation.
Background

- Endogenous surfactant produced by type II pneumocytes
- The primary role of pulmonary surfactant:
  - Decrease surface tension
- Increased surface tension can lead to:
  - Decreased compliance and lung collapse
  - Respiratory Distress Syndrome (RDS)
- Exogenous pulmonary surfactant
  - Evidence indicating reduction in morbidity and mortality
  - Decreased Hospital and ICU length of stay
- Little data directly comparing poractant alfa with calfactant
- Memorial University Medical Center (MUMC) has used both products within recent years

Neonatology 103.4 (2013): 353-68.
J Pulm Respir Med S13.01 (2013)
Purpose and Objectives

• To retrospectively evaluate safety and efficacy outcomes of using poractant alfa as compared to calfactant for the treatment of RDS in neonates

• Primary Outcome
  • Time on ventilator

• Secondary Outcomes
  • Length of stay
  • Number of redoses
  • Mortality/Survival rate
  • Cost of surfactant
Methods

• Single center, retrospective electronic medical record review
  • 605 bed teaching hospital
  • Level III NICU
    • 62 beds
• Date range
  • Calfactant: March - September 2015
  • Poractant alfa: March - September 2014
• IRB approved
Methods

- **Inclusion Criteria**
  - Neonates born before 34 weeks’ gestation
  - 500-2000g
  - ≥ 1 dose(s) of calfactant or poractant alfa within 48 hours of life
  - RDS within 15 hours of life

- **Exclusion Criteria**
  - Meconium aspiration syndrome
  - Early onset B streptococcal pneumonia
  - Death before 7 days of life
  - Congenital malformation
  - Pulmonary hemorrhage
Results

Patients Screened
n=135

Excluded:
41 patients

Calfactant
n=47

Poractant alfa
n=47
## Baseline Characteristics

<table>
<thead>
<tr>
<th></th>
<th>Poractant alfa (n = 47)</th>
<th>Calfactant (n = 47)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (% male)</td>
<td>49</td>
<td>53</td>
<td>0.675</td>
</tr>
<tr>
<td>Gestational Age (wks.) (µ±SD)</td>
<td>28.7 ± 2.5</td>
<td>28.5 ± 3</td>
<td>0.836</td>
</tr>
<tr>
<td>Body weight (g) (µ±SD)</td>
<td>1129.4 ± 403.4</td>
<td>1105.6 ± 390</td>
<td>0.772</td>
</tr>
</tbody>
</table>
**APGAR Severity Score**

- Used to categorize the status of a newborn infant right after birth and post-resuscitation if needed.

<table>
<thead>
<tr>
<th></th>
<th>Poractant alfa (n = 47)</th>
<th>Calfactant (n = 47)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>APGAR 1 min (µ±SD)</td>
<td>4.8 ± 2.7</td>
<td>4.1 ± 2.6</td>
<td>0.2445</td>
</tr>
<tr>
<td>APGAR 5 min (µ±SD)</td>
<td>6.9 ± 1.7</td>
<td>6.6 ± 2.2</td>
<td>0.3460</td>
</tr>
<tr>
<td>APGAR 10 min (µ±SD)</td>
<td>7 ± 1.6</td>
<td>5.8 ± 1.9</td>
<td>0.0669</td>
</tr>
</tbody>
</table>
Results: Primary Outcome

### Ventilator Duration

- Calfactant: 9.9 days
- Poractant alfa: 8.8 days

p-value = 0.2346
Results: Secondary Outcomes

<table>
<thead>
<tr>
<th>Days</th>
<th>Hospital Length of Stay</th>
<th>p-value = 0.6187</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>66</td>
<td></td>
<td>57</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Percent</th>
<th>Mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.3</td>
<td>Calfactant</td>
</tr>
<tr>
<td>6.4</td>
<td>Poractant alfa</td>
</tr>
</tbody>
</table>

p-value = 1.0000
Results: Secondary Outcomes

Patients Requiring Redose

- Calfactant: 40.4%
- Poractant alfa: 25.5%

p-value = 0.1877
Results: Secondary Outcomes

**Average Cost Per Patient**

- Calfactant: $729
- Poractant alfa: $534

**Drug Cost**

- **Initial Dose**
  - Calfactant: $22,640
  - Poractant alfa: $34,251

- **All Doses**
  - Calfactant: $32,559
  - Poractant alfa: $40,097

**Total difference after redoses: $7,538**
Discussion

• Although poractant alfa was associated with fewer days of mechanical ventilation and a reduced length of stay, these results were not statistically significant, but may be of clinical significance.

• Fewer redoses of poractant alfa were required, narrowing the overall cost differential to $7,538 for a six month period.

• Strengths
  • Well designed, robust data collection
  • Addresses a void in literature
  • Useful cost and redose information

• Limitations
  • Small sample size (n = 94)
  • Two different electronic medical record systems
  • Unable to determine incidence of reflux
Conclusion

• This analysis was unable to definitively determine which surfactant is associated with optimal patient outcomes, but the results may be utilized with other available information to aid in the overall clinical picture.
Acknowledgements

- Dr. Mike Melroy
- Dr. Brad Buckler
- Society of Critical Care Medicine- Texas Chapter
References

NSHIELDSYNC/522C48/ND_PG/evidenceexpert/ND_B/evidenceexpert/ND_AppProduct/evidenceexpert/ND_T/evidenceexpert/PFActionId/
evidenceexpert.DolIntegratedSearch?SearchTerm=calfactant&UserSearchTerm=calfactant&SearchFilter=filterNone&navitem=searchGlo
gal#>


AWARDS Committee

- Chair: Lisa Beil, MSN, APRN, AGACNP-BC, ACNS-BC

- Committee Members
  - Tiffany Mundie, MSN, APRN, ACNP-BC, CCRN
  - Vi Nguyen, OTR, MOT, RRT

- Charge
  - To recognize SCCM TX Chapter members for their contributions to the Chapter and care of critically ill patients
  - Facilitate nomination process for deserving SCCM TX Chapter members for national SCCM awards
AWARDS Committee

Award Categories

Outstanding Member Awards (up to 5 awards – 1 per region)
- Houston: Lan Bui, PharmD, BCPS
- Dallas/Fort Worth: Jennifer Roth, PharmD, BCPS, BCCCP
- San Antonio: Utpal Bhalala, MD, FAAP

Excellence in Service Awards (up to 3 awards)
- Clinical Practice: Wendi Jones, MSN, RN, ACNP-BC
- Education: Daniel Arellano, MSN, RN, CCRN, ACNP-BC
- Research Quality Improvement: Petra Grami, MSN, RN, CCRN, NE-BC, CVRN
Executive Committee Award

- **Distinguished Service Award**
  - Brian Burleson, PharmD, BCPS
    - Communications Committee Chair (2015)
    - Concise and thorough committee reports
    - Exceptional attendance at Exec Council meetings
    - Frequent attendance at chapter meetings
    - Coordinates communication for all 4 major regions throughout TX
    - Responsive to all requests from Exec Council
    - Expanded delegation of duties amongst his committee
SCCM Texas Chapter
Financial Status

- 2016 Financial Margin
  - \(~$24,000\) positive (Jan 1\(^{st}\), 2016 to Dec 31\(^{st}\), 2016)

- Chapter remains in good standing with IRS and Texas Secretary of State’s Office for nonprofit status
2016 Elections
First . . . Thank You!

- Nominations Committee
  - Chair: Michael Bocci, BS, RRT, RCP
    - Rebecca Attridge, PharmD, MSc, BCPS
    - Olga Rodriguez, RN
    - Bridgett Sterling, RN, MSN, MHA, DNP
    - Laura Withers, MBA, RRT

- Communications Committee

- All SCCM TX Chapter members who nominated a colleague

- All nominees
SCCM TX Chapter – Executive Committee
2017

Executive Committee

MATTHEW A. WANAT, PHARMD, BCPS, BCCCP
President

MARY LOU WARREN, DNP, RN, CNS-CC, FCCM
President-Elect

SHARLA TAJCHMAN, PHARMD, BCCCP, BCNSP
Treasurer

DARRELL ALLEY, MD, MBA, FACS
Secretary

MICHAEL SIRIMATUROS, PHARMD, BCNSP, BCCCP, FCCM (2016-17)
Immediate Past President
Welcome New Officers!

- **President-Elect (3-year term)**
  - Mary Lou Warren, DNP, RN, CNS-CC, FCCM (Houston)

- **Secretary (2-year term)**
  - Darrell Alley, MD, MBA, FACS (Houston)

- **Board of Directors (3-year terms)**
  - **Physician Representatives**
    - Utpal Bhalala, MD, FAAP (San Antonio)
    - Olakunle Idowu, MD (Houston) (filling 1-year vacancy)
  - **At-Large Representatives**
    - Daniel Arellano, MSN, RN, CCRN, ACNP-BC (Houston)
    - Rebeca Halfon, PharmD (Houston)
Looking Ahead in 2017
Looking Ahead in 2017

- **Increasing Member Benefits**
  - Research Awards (Alan Fields Award & Symposium Award)
  - Congress Scholarships (2018 Congress in San Antonio)
  - Student Scholarships
  - ICU Quality Improvement/Research Grants
  - Social events in each region

- **Increased Non-industry Sponsored Meetings**
  - Non-branded talks, in each of our 4 regions
  - Allows opportunities for Texas Chapter Members to give lectures
  - Allows members to attend that previously couldn’t
Looking Ahead in 2017

- Establish SCCM Texas Chapter Speakers Bureau
  - Database of Texas Chapter Members (content experts)
  - May be used for speaking at local meetings, annual symposium or SCCM congress
  - Many opportunities for chapter members

- Advances in Technology
  - Web conferencing solutions for Exec/BOD meetings and chapter meetings
  - Symposium technology (registration, mobile app, etc)
Questions?

- Have you joined a committee?
  - Want to get involved…but don’t know how…talk to us!!!

- Do you have any suggestions for changes?

- Do you have any recommendations for how to recruit and retain members?

- Are you getting the most out of your membership?