Carolinas/Virginias Chapter of the Society of Critical Care Medicine

MEMBERSHIP NEWSLETTER- May VOL 5. ISSUE 2

In This Issue:

Joining CVCSCCM

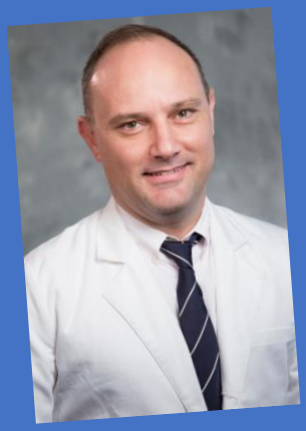
Benefits of CVCSCCM membership include networking with multidisciplinary critical care professionals across the region, live education, platforms for research presentations, communication through newsletters and social media, Twitter Journal Clubs, outreach opportunities both locally and abroad, scholarship, multidisciplinary research, and professional mentorship!

Annual fees are only $45 per year and you do not need to be a member of SCCM to join. Join at: https://www.sccm.org/Member-Center/Chapters/Carolinas-Virginias

GET TO KNOW YOUR BOARD OF DIRECTORS

New section in our Chapter Newsletter!

Each newsletter will feature 2-3 members of our Board of Directors (BOD)

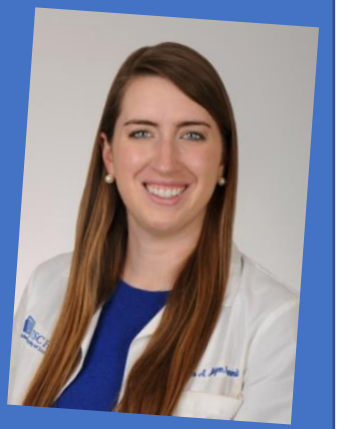


George Kasotakis, MD, MPH, FACS, FCCM

Job Title: Assistant Professor of Surgery (Duke University Medical School), Trauma Surgeon and Surgical Intensivist
Hospital: Duke University Hospital
CVCSCCM Chapter Member: 2+ years
Committee Involvement: Research. Only the best!
What do you enjoy most about being a CVCSCCM Member? The ability to connect with several other energetic multi-disciplinary professionals from all across the 4 states, and exchange ideas and collaborate on a multitude of research projects. I know I will be friends with many of them for life, way after my involvement with the Chapter has ended.
Hobbies/Interests: Travel, the beach, exercise, music, movies

Carolyn Magee Bell, PharmD, BCCCP

Job Title: Clinical Pharmacy Specialist- Medical/Surgical ICU
Hospital: Medical University of South Carolina
CVCSCCM Chapter Member: Since 2017
Committee Involvement: Research & Mentorship
What do you enjoy most about being a CVCSCCM Member? Finding like-minded people in our region to collaborate with on writing and educational opportunities. It also provides really excellent opportunities for networking for me and my trainees.
Hobbies/Interests: Trying new restaurants, kayaking/SUPing, going for walks with my dog and husband, cheering on my favorite sports teams (KU basketball and KC Chiefs)



MEET YOUR 2021 – 2022 EXECUTIVE BOARD

President: C. Todd Borchers, MSN, APRN, ACNP-BC

President-Elect: Kristie Hertel, RN, MSN, CCRN, ACNP-BC

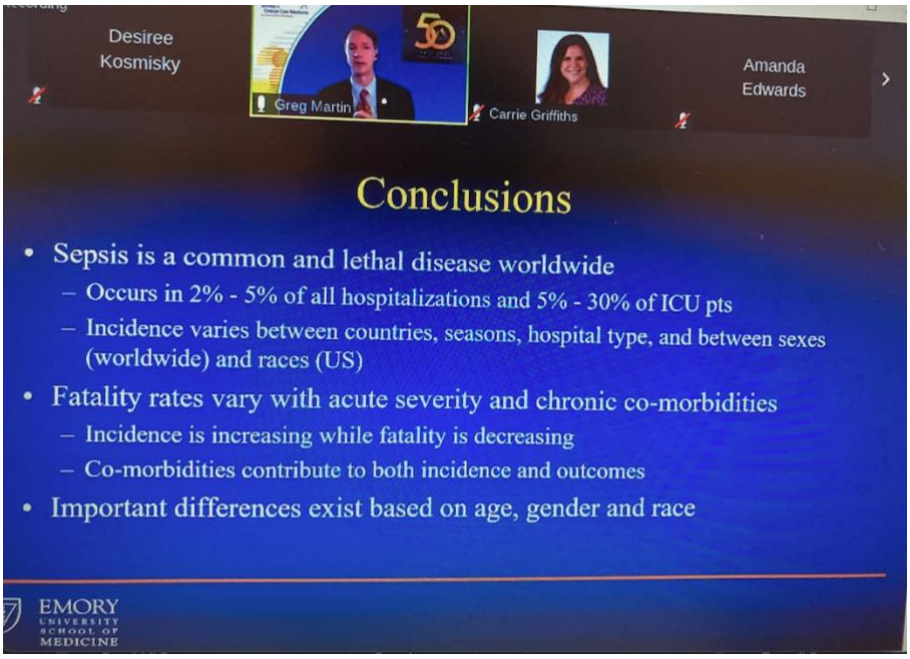
Secretary: Ankit Sakhuja, MBBS, FACP, FASN, FCCP

Treasurer: Audis Bethea, PharmD,

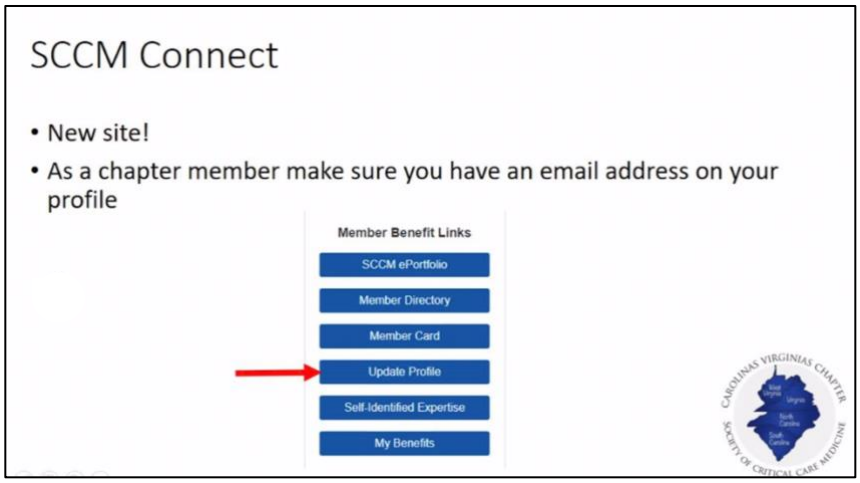
Past-President: Carrie L. Griffiths, PharmD, BCCCP, FCCM

39th Annual Scientific Symposium

The CVCSCCM 39th Annual Scientific Symposium was held virtually on June 18th, 2021. The Symposium began on June 17th with a Pre-Conference Pharmacology Course that featured exciting topics such as toxicology, injuries, bites, and stings unique to coastal regions, COVID-19 vaccines, and more! Gregory S. Martin, MD, MSc, current SCCM President, delivered the Keynote Address on Sepsis: Definitions, Epidemiology, and Health Services Research. Our guest speakers led excellent and timely educational presentations throughout the day. Topics covered included a Pro/Con Debate on COVID Anticoagulation by Kevin M. O'Neil, MD, MHA from New Hanover Regional Medical Center, an update on current management of ARDS in 2021 by Craig R. Rackley, MD, FCCP from Duke University Hospital, and Essentials of Burn Critical Care by Mack D. Drake, DO, FACS from Virginia Commonwealth University Medical Center.



Additional topics in the afternoon included a review of the challenges of ICH Prognostication and key points for patient and family discussions by Nikhil Patel, MD, MBA from Atrium Health-Carolinas Medical Center, a review of Post-ICU Syndrome and the effects of COVID-19 by Joanna Stollings, PharmD, FCCM, FCCP, BCPS, BCCCP from Vanderbilt University Medical Center. The conference was wrapped up with Adult and Pediatric Year In Review presentations by Kristie A. Hertel, RN, MSN, CCRN, ACNP-BC, FCCM from Vidant Medical Center and Michael Stoiko, MD from New Hanover Regional Medical Center, respectively.



The business meeting held over lunch highlighted many of the Chapter's accomplishments over the last year. A major success for the Chapter was the Chapters Alliance Excellence Award from the SCCM Chapters Alliance at the 50th Annual Congress in February 2021. This award recognizes a chapter for exceptional work holding regular academic activities, providing mentorship in areas of academics, patient care, research, and professional growth; and demonstrating continued importance in the development and growth of the chapter. Committee initiatives were reviewed and members were encouraged to engage with the Chapter by joining a committee and ensuring that emails are up to date in the SCCM Connect platform.

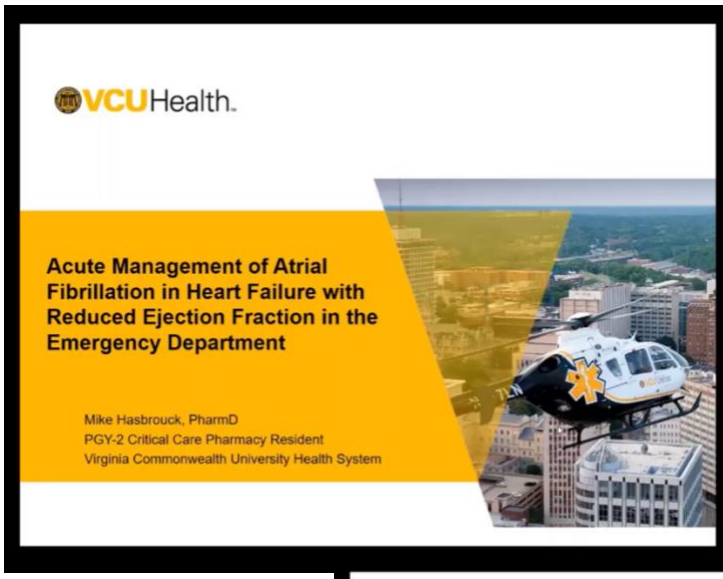
All presentations are currently available at [https://cvcsccm.org/education-committee-2/.](https://cvcsccm.org/education-committee-2/) We look forward to seeing everyone next summer, June 9th and 10th, in Roanoke, Virginia for the 40th Annual Symposium!

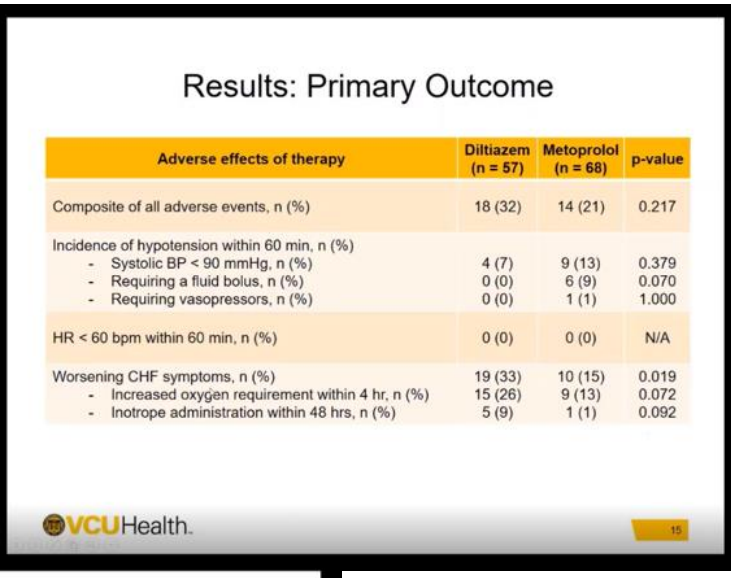
39th Annual Scientific Symposium

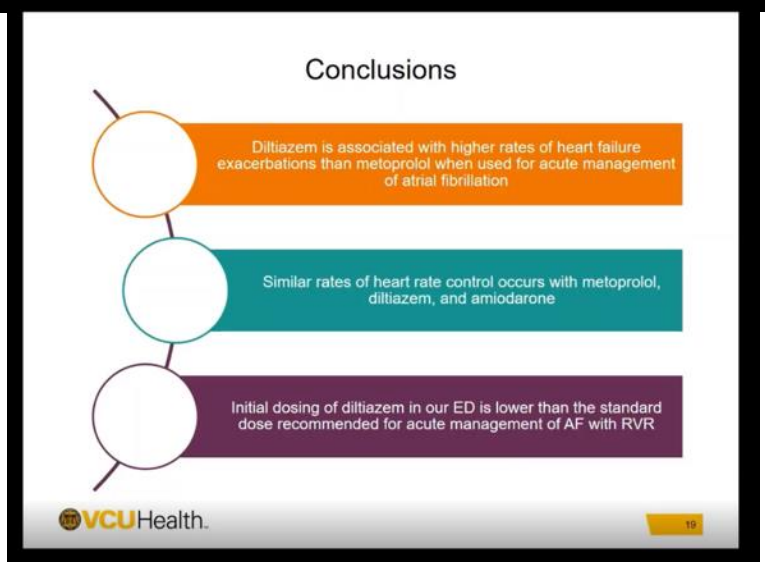
It was a productive year for scholarly activity! At the symposium, we had excellent multidisciplinary representation from around the region with 19 abstracts and case reports accepted for presentation! The top 5 scoring abstracts were selected and presented as platform presentations. The remaining abstracts were presented as posters, with individual posters available at https://cvcsccm.org/education-committee-2/. The top two scoring platform presentations and top two scoring posters received awards.

Platform Presentations

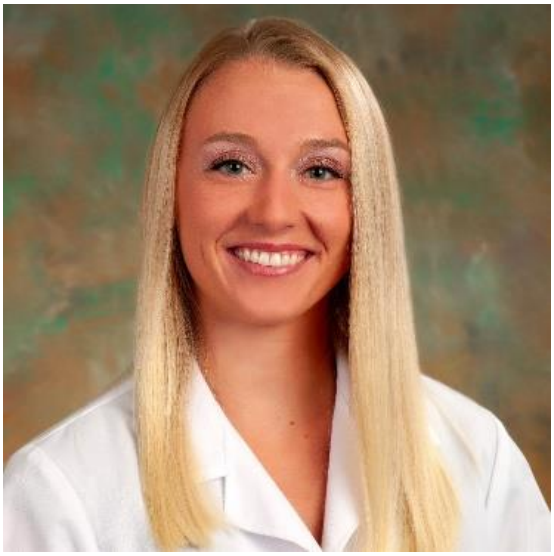
Congratulations to our first-place winner, Michael Hasbrouk, PharmD! Dr. Hasbrouk, a recent graduate of the PGY2 Critical Care Pharmacy Residency at Virginia Commonwealth University, presented on “Acute Management of Atrial Fibrillation on Heart Failure with Reduced Ejection Fraction in the Emergency Department”. In this single-center, retrospective quality improvement project, diltiazem as compared to metoprolol and amiodarone was associated with an increased risk of heart failure exacerbations in patients with heart failure with reduced ejection fraction. The results of this project have led to a cautionary statement in the electronic medical record when diltiazem is ordered with the ultimate goal of a creation of an Emergency Department Atrial Fibrillation/Flutter Guideline.



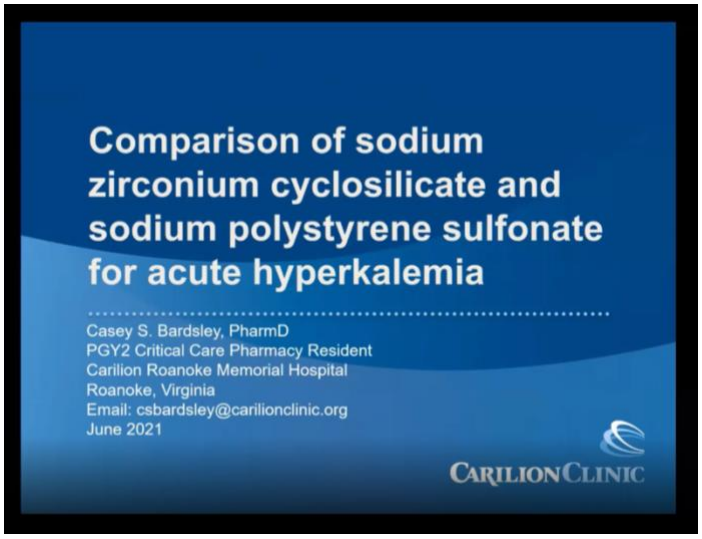


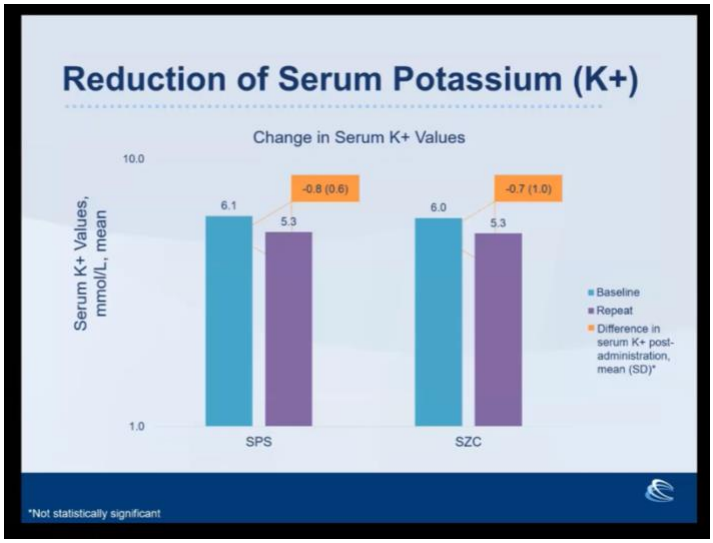


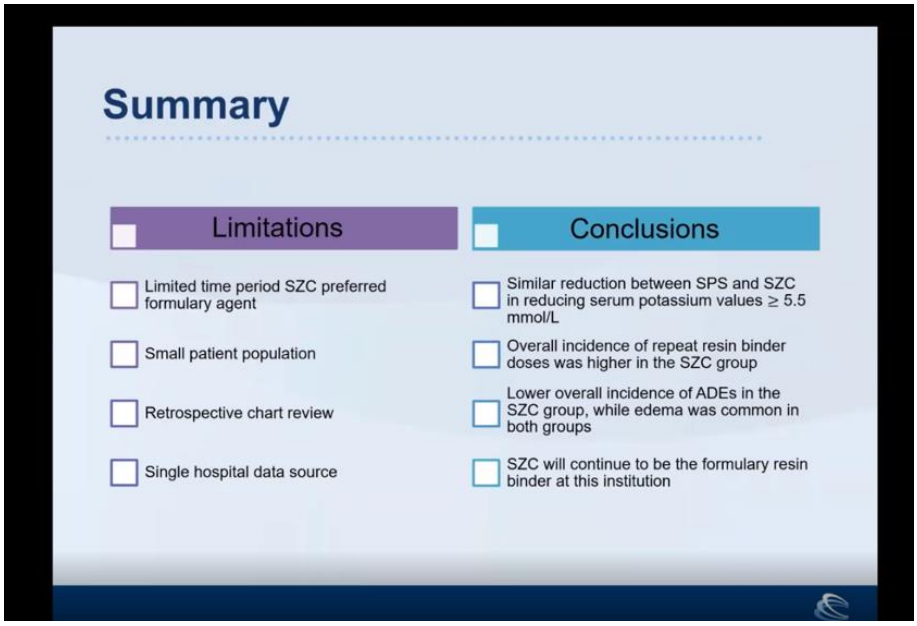
39th Annual Scientific Symposium



Our second-place winner, Casey Bardsley, PharmD, a recent graduate of the PGY2 Critical Care Pharmacy Residency at Carilion Roanoke Memorial Hospital, presented on the “Comparison of Sodium Zirconium Cyclosilicate (SZC) and Sodium Polystyrene Sulfonate (SPS) for Acute Hyperkalemia”. This single-center, retrospective cohort found similar reduction in serum potassium levels within twelve hours between SZC and SPS, with a lower incidence of adverse drug effects with SZC. These results validated the decision to keep SZC as the formulary agent.





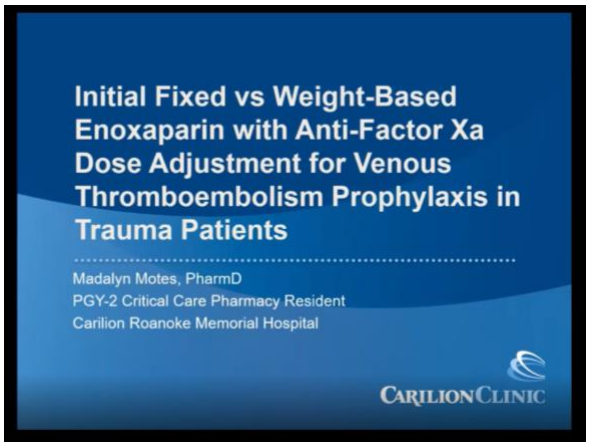


39th Annual Scientific Symposium

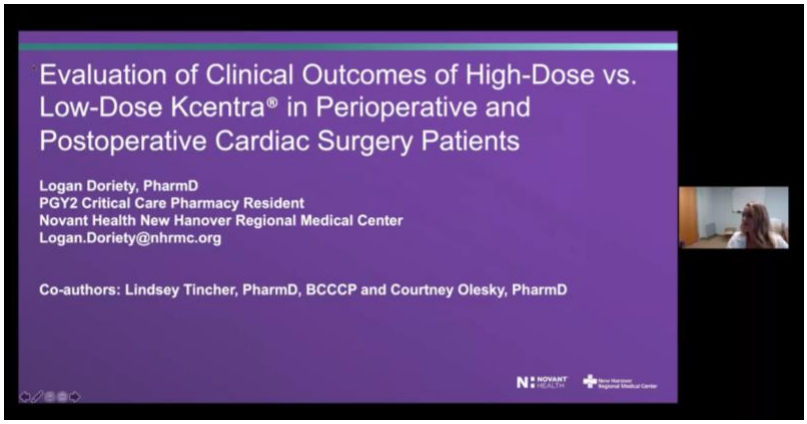
Additional platform presentations included:

"Patients Who Decompensate and Trigger Rapid Response Immediately Upon Hospital Admission Have Higher Mortality than Equivalent Patients without Rapid Responses" by Joseph D. Lykins V, MD, of Virginia Commonwealth University

"Initial Fixed vs. Weight-Based Enoxaparin with Anti-Factor Xa Dose Adjustment for Venous Thromboembolism Prophylaxis in Trauma Patients" by Madelyn Motes, PharmD, a recent graduate of the PGY2 Critical Care Pharmacy Residency at Carilion Roanoke Memorial Hospital



"Evaluation of Clinical Outcomes of High-Dose vs. Low-Dose KCentra® in Perioperative and Postoperative Cardiac Surgery Patients" by Logan Doriety, PharmD, a recent graduate of the PGY2 Critical Care Pharmacy Residency at Novant Health New Hanover Regional Medical Center



39th Annual Scientific Symposium

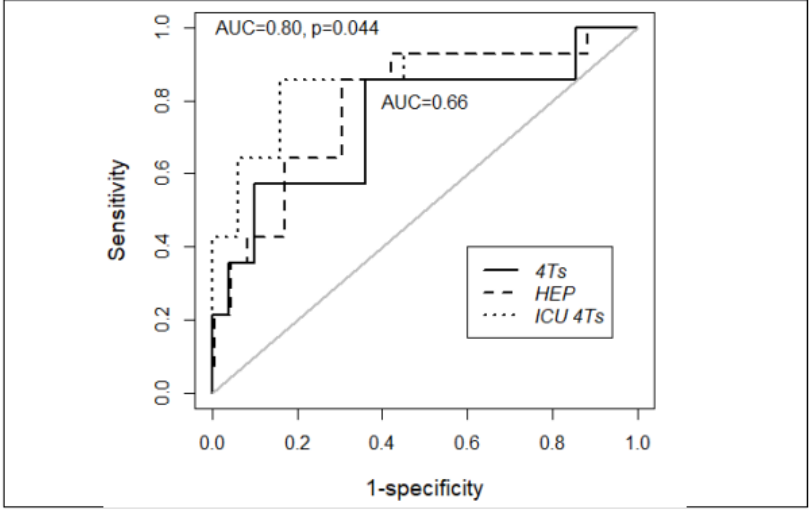
Poster Presentations

Our first-place winner, Brandon Powell, PharmD, a recent graduate of the PGY2 Critical Care Pharmacy Residency at the University of North Carolina Medical Center, presented "Accuracy of a Modified 4Ts Score in Predicting Heparin-Induced Thrombocytopenia in Critically Ill Patients: a Pilot Study". This single-center, retrospective pilot study found that the use of a modified 4Ts score for patients in the intensive care unit (ICU-4Ts) more accurately predicted the diagnosis of heparin-induced thrombocytopenia (HIT) than the 4Ts score or the HIT Expert Probability Score. Future prospective validation of the ICU-4Ts is the next step of this research.

Table 1: ICU-4Ts Scoring Tool

All platelet count values known:	
2 points	Platelet count fall > 50% and platelet nadir ≥ 20 x 10^9/L
1 point	Platelet count fall 30%–50% or platelet nadir ≥ 20 x 10^9/L
0 points	Platelet count fall < 30% or platelet nadir < 20 x 10^9/L
Platelet counts unknown due to transfer:	
1 point	≤ 10 days OSH & platelet nadir ≥ 20 x 10^9/L
0 points	> 10 days OSH & platelet nadir < 20 x 10^9/L
Timing:	
2 points	Timeline is 5–10 days Timeline is ≤ 2 days with prior heparin exposure within 30 days (e.g. CVAD, dialysis, recent hospitalization)
1 point	Timeline is > 10 days Timeline is 5–10 days, but unclear if exposed to heparin at OSH Exposed to heparin at OSH, but timeline is unclear
0 points	Timeline is ≤ 4 days without recent heparin exposure within 30 days (e.g. CVAD, dialysis, recent hospitalization)
-1 point	Thrombocytopenia (< 150 x 10^9/L) present on admission without recent heparin exposure within 30 days (e.g. CVAD, dialysis, recent hospitalization)
Thrombosis:	
2 points	New thrombosis (confirmed) or skin necrosis at heparin injection sites or acute systemic reaction after intravenous heparin bolus
1 point	Progressive or recurrent thrombosis or non-necrotizing (erythematous) skin lesions or suspected thrombosis (not proven)

Figure 1: ROC Curve for Scoring Tools



39th Annual Scientific Symposium

Our second-place winner, Zachary Pedretti, PharmD, a recent graduate of the PGY2 Critical Care Pharmacy Residency at the University of North Carolina Medical Center, presented "Evaluation of Computer-Based Insulin Titration on ICU Length of Stay in Diabetic Ketoacidosis". This single-center, retrospective review found no difference in the duration of IV insulin therapy with an algorithm-based approach as compared to a computerized decision support software (CDSS) guided approach, however a statistically significant reduction in hypoglycemic events was identified with CDSS management.

Table 3. Secondary Outcomes	Group 1 (n=130)	Group 2 (n=130)	*P*-value
Mean hours in ED on insulin infusion (SD)	1.85 (2.35)	1.33 (1.63)	0.20
Mean total hours on insulin infusion (SD)	23.45 (15.91)	24.87 (21.13)	0.87
Mean hours to anion gap closure (SD)	10.47 (14.41)	13.60 (23.97)	0.11
Mean hours to transition to subcutaneous insulin (SD)	22.93 (16.07)	24.41 (21.11)	0.84
Mean days in the ICU (SD)	2.47 (3.68)	2.57 (2.43)	0.15
Mean days in the hospital (SD)	5.74 (8.90)	6.79 (11.07)	0.39
Mean hours in the ED (SD)	4.28 (2.97)	5.08 (3.95)	0.21
Mean units of IV insulin received (SD)	79 (67.76)	134 (4.30)	<0.01
Mean hypoglycemic events per patient (SD)	0.1308 (0.42)	0.0308 (0.18)	0.01
In-hospital mortality, n (%)	4 (3.1)	5 (3.8)	0.73

Table 2. Primary Outcome	Group 1 (n=130)	Group 2 (n=130)	*P*-value
Mean hours in medicine ICU on insulin infusion (SD)	21.58 (16.01)	23.54 (20.58)	0.44

Thank you to Lesly V. Jurado Hernández, PharmD, BCPS, BCCCP, BCNSP, for organizing abstract submission and presentation, to our judges for scoring abstracts, and to all who submitted and presented! We look forward to more excellent work next year!

COMMITTEE UPDATES

Research Committee

The Committee has been hard at work continuing work on some high-profile projects at various stages:

- Benefits of Fundamentals of Critical Care Support course training in Africa (manuscript submission stage)
- A nationwide SCCM member survey on ketamine use in critically ill (manuscript submission stage)
- A single-center study on the effects of tracheostomy on weaning from mechanical ventilation (data collection stage)
- National SCCM-sponsored project (led by our own group) that aims to describe experience with national ICU database projects, aiming to guide a future such project in the US (data extraction stage)
- A nationwide SCCM member survey on local practices on Acute Kidney Injury prevention and management, a project that is currently under way with funding from our Committee and Chapter
- Multi-center survey on use of automated chest compression devices in an inpatient setting (survey development stage)
- Multi-center survey and development of a pre-intubation checklist for emergency intubation in the ICU (survey development stage)

Several other projects are at the study design stage, with many more to be launched this year. We are also very excited to have increased membership to our Committee by almost 50%.

Some of our dynamic members' work were showcased at the annual CVC SCCM meeting (virtual this year), and hope to continue the trend from last year, where a Committee member won 1st prize for their research project.

We will continue to foster multi-institutional relationships and support, advance and promote the conduct and dissemination of high-quality critical care research within the Chapter and beyond.

Education Committee

Thank you all who were able to attend our 2021 CVCSCCM conference virtually. We are hoping to offer an in-person conference in 2022. Please save the date for June 9 & 10th, 2022 in Roanoke, Virginia.

If you would like to participate in our education committee and symposium planning, please email Amanda Edwards at amedwards@wakemed.org. We will meet the 4th Thursday of the month at 3:30pm. Or if you have any topic or speakers suggestions for 2022 reach out, we would love to hear from you. Thank you!

Chapter Leadership

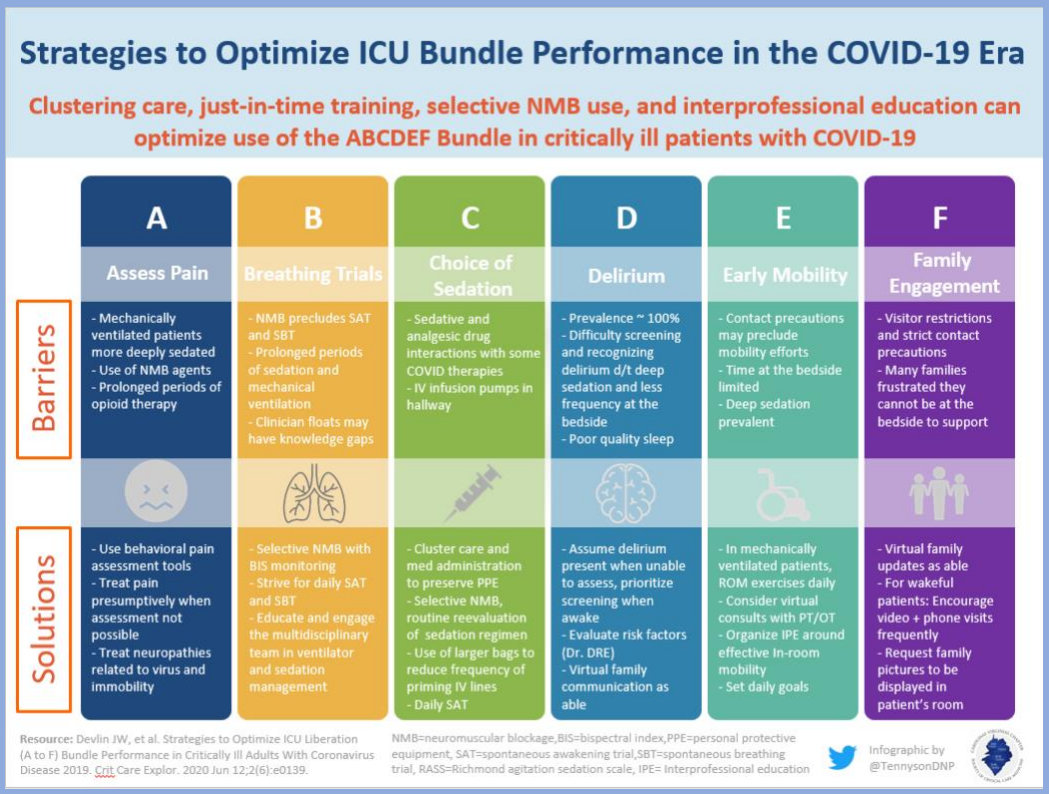
Executive Committee

- **President:** C. Todd Borchers, MSN, APRN, ACNP-BC
- **President-Elect:** Kristie Hertel, RN, MSN, CCRN, ACNP-BC, FCCM
- **Secretary:** Ankit Sakhuja, MBBS, FACP, FASN, FCCP
- **Treasurer:** Audis Bethea, PharmD, BCPS, BCCCP
- **Past-President:** Carrie L. Griffiths, PharmD, BCCCP, FCCM

COMMITTEE UPDATES

Communications Committee

The last Twitter Journal Club (#CVCSCCMjc) was hosted by Callie Tennyson, DNP, ACNP-BC, AACC, CHSE on Wednesday, July 28th. Callie led an excellent and timely discussion on strategies to optimize the #A2FBundle in critically ill patients with COVID-19.



Please contact cvcsccm@gmail.com if you or a trainee are interested in hosting a future Twitter Journal Club!

Don't forget to check out our website (www.cvcsccm.org) and follow us on Facebook and Twitter (@CVCSCCM) for updates, announcements, and general organizational communications!

Callie Tennyson, DNP, ACNP-BC, AACC, CHSE
Assistant Professor, Duke University School of Nursing
Acute Care Nurse Practitioner, Duke Heart Center
@TennysonDNP

Chapter Leadership

Board of Directors

- Desiree Kosmisky, PharmD, BCCCP (NC)
- Bryan Collier, DO (VA)
- Christopher Hogan, MD, FACEP (VA)
- Lesly Jurado, PharmD, BCPS, BCCCP (NC)
- Sameer Kamath, MD (NC)
- George Kasotakis, MD (NC)
- Andrew Miller, RT (NC)
- Paul McCarthy, MD (WV)
- Carolyn Magee, PharmD (SC)
- Vishal Yajnik, MD, MS (VA)
- Taylor O'Neal, RN (SC)

Todd's Corner

Updates from the President of CVCSCCM

Hello Carolina's and Virginia's chapter members. I hope this message finds each of you safe and well. I am happy to report our Chapter is alive and well. In addition to all the ongoing committee work, we are continuing to build a Chapter activity tracking and reward system; working to streamline communication between the committee chairs and the Board; looking to increase multidisciplinary membership; as well as increasing diversity and inclusion across the Chapter. As always, we encourage each of you to step up and get involved if you are not already engaged. Until next time, stay safe and take care.

Todd

Additional Committees

Contact cvcsccm@gmail.com with interest in joining or check out www.cvcsccm.org to learn more about each committee!

Check out our new 'Join a Committee Form' on the homepage of the website!

- Education: organizes the Annual Symposium and Pharmacology Pre-Conference
- Nominations: solicits nominations for the board of directors
- Research: supports, advances, and promotes the conduct and dissemination of high quality research in critical care
- Membership: support membership's professional development and research
- Outreach: fosters collaborative outreach efforts at local, regional, and global levels

We want to celebrate you!

Future newsletters will highlight accomplishments of chapter members and chapter institutions. This includes new board certifications, publications, awards and accolades, or institution accreditations. Send all submissions to CVCSCCM@gmail.com. We can also highlight local or regional educational events.