

BAYLOR COLLEGE OF MEDICINE

CURRICULUM VITAE OUTLINE

I. GENERAL BIOGRAPHICAL INFORMATION

A. Personal

1. Jennifer Catherine Lee Erklauer
2. United States Citizenship

B. Education (include institution/location, degree, and dates of attendance)

1. **Bachelor of Arts in Health and Society**
Minor in French and Psychology
University of Rochester
Rochester, NY 1997-2001
2. **Doctor of Medicine**
University of Rochester School of Medicine and Dentistry
Rochester, NY 2001-2005
3. **Clinical Postdoctoral Fellow, Pediatric Critical Care**
Baylor College of Medicine, Texas Children's Hospital
Houston, TX, 2013-2017

Clinical Postdoctoral Fellow, Pediatric Neurocritical Care
Baylor College of Medicine, Texas Children's Hospital
Houston, TX 2010-2012

Resident, Pediatric Neurology
Baylor College of Medicine, Texas Children's Hospital
Houston, TX 2007-2010

Resident, Pediatrics
Baylor College of Medicine, Texas Children's Hospital
Houston, TX 2005-2007

C. Academic Appointments (include title and dates of appointment)

1. **Assistant Professor, Pediatric Critical Care and Neurology**
Baylor College of Medicine, Texas Children's Hospital
Houston, TX 2017-present

Assistant Professor, Pediatric Neurology
Baylor College of Medicine, Texas Children's Hospital
Houston, TX, 2012-2017

Medical Director of the Pediatric Neurointensive Care Unit
Baylor College of Medicine, Texas Children's Hospital
Houston, TX, 2018-present

Medical Director of Pediatric Neurocritical Care

Baylor College of Medicine, Texas Children's Hospital
Houston, TX, 2017-present

D. Other Advanced Training/Experience (include locations, dates and sources of support)

1. Formal Sabbatical Leave-None
2. Other Specialized Training Following Academic Appointment – Completed my pediatric critical care medicine fellowship intermixed with time as a pediatric neurology attending at BCM. I alternated 6 months of pediatric neurology attending time and 6 months of pediatric critical care fellowship time for 5 years (2012-2017) to complete fellowship.

E. Other Information

1. Honors or Awards (titles, dates)
Early Career Faculty Award for Excellence in Patient Care, Baylor College of Medicine, 2020
Presidential Citation, Society of Critical Care Medicine, 2020
Child Neurology Education Award, 2017
Selected faculty attendee, Future Leaders Forum of the Neurocritical Care Society, Neurocritical Care Society Annual Meeting, Washington, DC, 2016
Rochester Early Medical Scholars Program, 1997-2005
Bausch & Lomb Academic Scholarship Recipient, 1997-2001
Rush Rhees Academic Scholarship Recipient, 1997-2001
2. Board Eligibility/Certification (dates)
American Board of Pediatrics: Certification in Pediatric Critical Care Medicine, 2018
American Board of Pediatrics: Certification in General Pediatrics, 2016
United Council for Neurologic Subspecialties: Certification in Neurocritical Care, 2013
American Board of Psychiatry and Neurology: Certification in Neurology with Special Qualification in Child Neurology, 2010
3. Other Non-academic Positions (include locations, titles, dates of employment)
Pediatric Advanced Life Support, 2019
Advanced Trauma Life Support, 2019
Emergency Neurologic Life Support, 2022
NIH Stroke Scale, 2008

II. RESEARCH INFORMATION

A. Research Support (provide the following information for each project)

ACTIVE RESEARCH SUPPORT (list all active projects)

1. Pediatric Influence of Cooling Duration on Efficacy in Cardiac Arrest Patients (P-ICECAP)
Sponsored by: National Heart, Lung, and Blood Institute (NHLBI)
Study PI's: Frank Moler, Alexis Topjian, William Meurer
Role in Study: Site-PI for Texas Children's Hospital, 2021-present
2. Neurologic Manifestations of COVID-19 in Children
Sponsored by: Non funded
Study Co-PI's: Ericka Fink, MD, MS, Courtney Robertson, MD, and Michelle Schober, MD
Role in study: Site PI for Texas Children's Hospital, 2020-present
3. Surveillance of Acute Flaccid Myelitis
Sponsored by: Centers for Disease Control and Prevention
Study PI: Julie Boom
Role in study: Co-Investigator, 2019-present

4. Neuroimaging in Abusive Head Trauma in Children
Sponsored by: None
Study PI: Nilesh Desai
Role in Study: Co-investigator, 2019-present
5. Creation and Assessment of a Pediatric Neurocritical Care Program
Sponsored by: None
Study PI: Jennifer Erklauer, 2018-present
6. Circulatory Support in Pediatric Heart Failure Patients Using Jarvik 2015 VAD: A Feasibility Study
Sponsored by: National Heart, Lung, and Blood Institute (NHLBI)
Study PI: Iki Adachi
Role in Study: Co-investigator, study neurologist, 2018-present

COMPLETED RESEARCH SUPPORT (list all former projects)

1. Thrombolysis in Pediatric Stroke (TIPS Clinical Trial)
Sponsored by: NINDS
Study PI: Catherine Amelie-Lefond, MD
Role in study: Site PI for Texas Children's Hospital, 2012-2014

B. National Scientific and Professional Participation (include dates and titles)

1. Editorial Contributions (e.g., Journal Editorial Boards, Editor roles, Ad Hoc Reviewer)
 - Invited to be an Editor along with Dr. Riviello and Dr. Lai for Seminars in Pediatric Neurology special edition on Neurocritical Care for 2024
 - Invited to participate in Editorial Board for Seminars in Pediatric Neurology, 2022-present
 - Reviewer, Neurocritical Care Journal, 2021
 - Reviewer, Neurocritical Care Board Review Question Bank, 2021
 - Reviewer, International Journal of Brain Disorders and Treatment, 2018
2. Review Panels and Selection Committees (e.g., NIH Study Sections, Review Panels)
 - Member of the Guidelines Committee for the Neurocritical Care Society on Status Epilepticus, 2021-present
3. Professional Societies
 - Society for Critical Care Medicine, 2014-present
 - Pediatric Neurocritical Care Research Group, 2014-present
 - Educational Committee, 2021-present
 - Co-chair for the Educational Materials Subcommittee, 2021-present
 - Fellowship Training Subgroup, 2021-present
 - Neuromonitoring Subgroup, 2020-present
 - Neurocritical Care Outcomes Subgroup, 2020-present
 - Transcranial Doppler Subgroup, 2017-present
 - Neurocritical Care Society, 2010-present
 - Child Neurology Society, 2008-2010
 - American Academy of Neurology, 2007-2010
 - American Academy of Pediatrics, 2005-2007, 2013-present
4. Elected Positions (e.g., Officer in a Professional Society) – None
5. Invited Lectures, Presentations, Seminars (Provide complete citation for each presentation, including author(s), year, title of presentation, name of meeting or host organization, location, date.)
 - a. International

DEI in Pediatric Neurocritical Care

Moderator for pre-meeting session for the Neurocritical Care Society Annual Meeting, Virtual, 2021

The Role of a Pediatric Neurocritical Care Program and Specialized Neuro ICU

Pediatric Critical Care Study Day, Neurocritical Care, Birmingham Children's Hospital, Birmingham, England, Virtual, 2021

Pediatric Neurocritical Care Educational Series

Pediatric Neurocritical Care Research Group Meeting, Virtual, 2021

New Therapies in Encephalopathies: An EBM Approach

World Federation of Pediatric Intensive & Critical Care Societies World Congress, Virtual, 2020

Neuro Intensive Care Session Moderator

World Federation of Pediatric Intensive & Critical Care Societies World Congress, Virtual, 2020

Management of Refractory Status Epilepticus in High-Risk Populations in the PICU

Neurocritical Care Society Annual Meeting, Virtual, 2020

Cerebral Vasospasm

Pediatric Critical Care Summit of the Americas, Houston, TX, 2019

Management of Acute Stroke

Current Concepts in Pediatric Critical Care Course, Society for Critical Care Medicine World Congress, San Diego, CA, 2019

b. National

Pediatric Neurocritical Care

7th Annual Neuro ICU Symposium, Memorial Hermann-Texas Medical Center, Houston, TX, 2019

c. Regional

Pediatric Neurocritical Care

Texas Neurological Society Winter Meeting, Austin, TX, 2014

Therapeutic Hypothermia After Cardiac Arrest in Children

Child Neurology Grand Rounds, Children's Hospital of Los Angeles, Los Angeles, CA, 2012

NOTE: This section includes lectures, presentations, research seminars, panels, etc., for which you were invited to speak by the organizers. Presentations and posters with a published abstract (based on a submission to a conference or similar event) should be cited in section II.C.3. All other presentations, lectures, etc. should be listed in section III.F.

C. Publications (provide complete citation for each item listed; indicate whether each publication resulted from work done at BCM or elsewhere; use underline or bold font for your name; number each list, preferably in reverse chronological order)

1. Full Papers in Peer Reviewed Journals

- Herman I, Nguyen T, Chan SW, **Erklauer J**, Riviello JJ, Lai YC. Implementation of a Pediatric Neurocritical Care Program for Children With Status Epilepticus: Adherence to Continuous Electroencephalogram Monitoring. *Pediatr Crit Care Med*. 2022 Oct 6. Epub ahead of print. PMID: 36200780.
- **Erklauer JC**, Thammasitboon S, Shekerdemian LS, Riviello JJ, Lai YC. Creating a Robust Community of Practice as a Foundation for the Successful Development of a Pediatric Neurocritical Care Program. *Pediatr Neurol*. 2022 Aug 7;136:1-7. doi: 10.1016/j.pediatrneurol.2022.07.014. Epub ahead of print. PMID: 36029730.
- **Erklauer JC**, Thomas AX, Hong SJ, Appavu BL, Carpenter JL, Chiriboga-Salazar NR, Ferrazzano PA, Goldstein Z, Griffith JL, Williams KP, Kirschen MP, Lidsky K, Lovett ME, McLaughlin B, Munoz Pareja JC, Murphy S, O'Donnell W, Riviello JJ, Schober ME, Topjian AA, Wainwright MS, Simon DW, Pediatric Neurocritical Care Research Group. A Virtual Community of Practice: An International Educational Series in Pediatric Neurocritical Care. *Children (Basel)*. 2022 Jul 20;9(7):1086. doi: 10.3390/children9071086. PMID: 35884070; PMCID: PMC9316633.
- Thomas AX, Riviello JJ Jr, Davila-Williams D, Thomas SP, **Erklauer JC**, Bauer DF, Cokley JA. Pharmacologic and Acute Management of Spinal Cord Injury in Adults and Children. *Curr Treat Options Neurol*. 2022 Jun 10:1-20. doi: 10.1007/s11940-022-00720-9. Epub ahead of print. PMID: 35702419; PMCID: PMC9184374.
- Williams CN, Hall TA, Francoeur C, Kurz J, Rasmussen L, Hartman ME, O'meara AI, Ferguson NM, Fink EL, Walker T, Drury K, Carpenter JL, **Erklauer J**, Press C, Wainwright MS, Lovett M, Dapul H, Murphy S, Risen S, Guerriero RM, Woodruff A, Williams KP; Pediatric Neurocritical Care Research Group. Continuing Care For Critically Ill Children Beyond Hospital Discharge: Current State of Follow-up. *Hosp Pediatr*. 2022 Apr 1;12(4):359-393. doi: 10.1542/hpeds.2021-006464. PMID: 35314865; PMCID: PMC9182716.
- Kirschen MP, LaRovere K, Balakrishnan B, **Erklauer J**, Francoeur C, Ganesan SL, Jayakar A, Lovett M, Luchette M, Press CA, Wolf M, Ferrazzano P, Wainwright MS, Appavu B; Pediatric Neurocritical Care Research Group (PNCRG). A Survey of Neuromonitoring Practices in North American Pediatric Intensive Care Units. *Pediatr Neurol*. 2022 Jan;126:125-130. doi: 10.1016/j.pediatrneurol.2021.11.002. Epub 2021 Nov 12. PMID: 34864306; PMCID: PMC9135309.
- Riviello JJ Jr, **Erklauer J**. Evidence-Based Protocols in Child Neurology. *Neurol Clin*. 2021 Aug;39(3):883-895. Epub 2021 Jun 10. PMID: 34215392.
- Riviello JJ Jr, **Erklauer J**. Neurocritical Care and Brain Monitoring. *Neurol Clin*. 2021 Aug;39(3):847-866. Epub 2021 Jun 10. PMID: 34215390.
- O'Brien NF, Reuter-Rice K, Wainwright MS, Kaplan SL, Appavu B, **Erklauer JC**, Ghosh S, Kirschen M, Kozak B, Lidsky K, Lovett ME, Mehollin-Ray AR, Miles DK, Press CA, Simon DW, Tasker RC, LaRovere KL. Practice Recommendations for Transcranial Doppler Ultrasonography in Critically Ill Children in the Pediatric Intensive Care Unit: A Multidisciplinary Expert Consensus Statement. *J Pediatr Intensive Care*. 2021 Jun;10(2):133-142. Epub 2020 Sep 4. PMID: 33884214.
- Press CA, Kirschen M, LaRovere K, Risen S, Williams KP, Chung M, Griffith J, **Erklauer J**, Peariso K, Ducharme-Crevier L, Shah SS, Hall M, Wainwright MS. Variation in Treatment and Outcomes of Children With Acute Disseminated Encephalomyelitis. *Hosp Pediatr*. 2020 Feb;10(2):159-165. PMID: 31996356.
- Moffett BS, Weingarten MM, Schmees LR, Galati M, **Erklauer J**, Riviello JJ. Fosphenytoin Population Pharmacokinetics in the Acutely Ill Pediatric Population. *Pediatr Crit Care Med*. 2018 Aug;19(8):748-754. PMID: 29927880.
- **Erklauer J**, Graf J, McPherson M, Anderson A, Wilfong A, Minard CG, Loftis L. Outcomes in Children Treated with Pentobarbital Infusion for Refractory and Super-Refractory Status Epilepticus. *Neurocrit Care*. 2018 Oct;29(2):171-179. PMID: 29582225.

- Kitagawa MG, Ettinger N, Breen D, **Erklauer J**, Chang E, Herce H, King K, Naik S. Transmission of West Nile Virus Through a Hematopoietic Stem Cell Transplant. *J Pediatric Infect Dis Soc*. 2018 May 15;7(2):e52-e54. PMID: 29309636.
 - Dillman NO, Messinger MM, Dinh KN, Placencia JL, Moffett BS, Guaman MC, **Erklauer JC**, Kaiser JR, Wilfong AA. Evaluation of the Effects of Extracorporeal Membrane Oxygenation on Antiepileptic Drug Serum Concentrations in Pediatric Patients. *J Pediatr Pharmacol Ther*. 2017 Sep-Oct;22(5):352-357. PMID: 29042836.
 - Hall CE, Mirski M, Palesch YY, Diringer MN, Qureshi AI, Robertson CS, Geocadin R, Wijman CA, Le Roux PD, Suarez JJ; **First Neurocritical Care Research Conference Investigators**. Clinical trial design in the neurocritical care unit. *Neurocrit Care*. 2012 Feb;16(1):6-19. doi: 10.1007/s12028-011-9608-6. PMID: 21792753.
 - Wijman CA, Smirnakis SM, Vespa P, Szigeti K, Ziai WC, Ning MM, Rosand J, Hanley DF, Geocadin R, Hall C, Le Roux PD, Suarez JJ, Zaidat OO; **First Neurocritical Care Research Conference Investigators**. Research and technology in neurocritical care. *Neurocrit Care*. 2012 Feb;16(1):42-54. doi: 10.1007/s12028-011-9609-5. PMID: 21796494; PMCID: PMC3790471.
 - **Lee JC**, Riviello JJ Jr. Education of the child neurologist: pediatric neurocritical care. *Semin Pediatr Neurol*. 2011 Jun;18(2):128-30. PMID: 22036499.
- b. Accepted/In Press
- None
2. Full Papers Without Peer Review
- a. Published
- b. In Preparation
3. Abstracts Given During Last Three Years (based on posters or oral presentations)
- Mansour M, Fogarty T, Lam F, **Erklauer J**, Orellana R, Lai Y, Cossbu J. Underweight and outcomes in surgical and medical critically ill children admitted to neuro ICU. *SCCM Critical Care Congress*, San Francisco, California, January 2023.
 - Irwin K, Pinto V, Dezfulian C, Bavare A, Causey J, Lemming K, Flores S, **Erklauer J**, Lai Y, Betker Anderson K, Lasa J. Post-Cardiac Arrest Care Guidelines Development and Implementation Across Pediatric and Adult Congenital Cardiac Critical Care Units at a Single Center. *Pediatric Cardiac Critical Care Consortium/Pediatric Acute Care Cardiology Collaborative Meeting*, Atlanta, Georgia, May 2022.
 - Caretti V, Thomas A, Kannan V, Pareek A, Ankar A, Guzman-Karlsson M, Solis J, Campbell P, Sandeweiss A, Cokley J, **Erklauer J**, Davila-Williams D. Implementation of a Pediatric Stroke Alert System in a Large Medical Center: 1-year experience. *IPSO Founding Members' Congress (IPSO FMC)*, Vienna, Austria, April 2022.
 - Pinto VL, Irwin K, Lemming K, **Erklauer J**, Lai Y, Bavare A, Flores S, Musick M, Graf J, Dezfulian C, Lasa J. Development of Post-Cardiac Arrest Care Guidelines Across a Quaternary Pediatric Health System. *Research Snapshot Presentation, Society for Critical Care Medicine 51st Critical Care Congress*, San Juan, Puerto Rico, February 2022.
 - Herman I, Diaz-Media G, **Erklauer J**, Riviello JJ, Ontaneda-Perez A. Establishment of a Continuous EEG Monitoring Protocol in ECMO Patients in the Pediatric ICU at a Large Tertiary Referral Center. *Child Neurology Society Annual Meeting*, Virtual, October 2020.
 - Aljohani OA, Price JF, Purifoy E, **Erklauer J**, Kan P, Adachi I, Choudhry S, Spinner JA, Denfield SW, Dreyer WJ, Tunuguntla HP. Act Fast! Mechanical Thrombectomy In Children on Ventricular Assist Devices. Accepted for poster at *The International Society for Heart and Lung Transplantation Annual Meeting*, Montreal, Canada, April 2020.

- Lai Y, Hermann I, **Erklauer J**, Riviello J. Pediatric Neurointensive Care Unit Boosts Adherence to Continuous EEG Best-Care Practices. Society for Critical Care Medicine Congress, Orland, FL February 2020.
- **Erklauer J**, Thammasitboon S, Musick M, Shekerdemian L, Riviello J, Lai Y. Creating a Robust Community of Practice as a Foundation for the Successful Development of a Pediatric Neuro-intensive Care Unit. Poster accepted to the Neurocritical Care Society Annual Meeting, Vancouver, British Columbia, Canada, October 2019.

4. Books

- a. Complete Books Written-None
- b. Books Edited (include names of other editors, if applicable)-None
- c. Book Chapters Written (including major contributions to professional resources, such as *UpToDate*, which is an evidence-based website for physicians).
 - Singh V, Williamson C, **Erklauer J**. Emergency Neurologic Life Support: Intracerebral Hemorrhage. Emergency Neurologic Life Support 5.0 Course. Neurocritical Care Society. 2022.
 - **Erklauer J**, Risen S. Vascular Neurologic Controversies: Arterial Vasospasm in Children and Risk of Worsening Brain Injury with Cardiac Bypass. In Goswami E, Bhalala U, ed. Current Concepts in Pediatric Critical Care 2020 Edition. United States: Society of Critical Care Medicine; 2020.
 - **Erklauer J**, Nassif-Wright L. Latest in Management of Pediatric Acute Ischemic Stroke. In Mack EH, Goswami E ed. Current Concepts in Pediatric Critical Care 2019 Edition. United States: Society of Critical Care Medicine; 2019.
 - **Erklauer J**. Thrombolytic Therapy: tPA-Induced Bleeding. In Teruya, J, ed. Management of Bleeding Patients. Switzerland: Springer International Publishing; 2016. Updated again in 2020 for new edition.
 - **Lee J**, Owens J, Zeller R, Lotze T. Neurology. In: Lowry AW, Nag PK, Bhakta KY, eds. Texas Children's Hospital Handbook of Pediatrics and Neonatology. New York, NY: McGraw-Hill Professional Inc; 2011.

5. Other Works Communicating Research Results to Scientific Colleagues (e.g., professional newsletters, blogs, video presentations, etc.)

- **Erklauer J**. Critical appraisal of: Burjek NE, Wagner CE, Hollenbeck RD, Wang L, Yu C, McPherson JA, Billings FT 4th. Early Bispectral Index and Sedation Requirements During Therapeutic Hypothermia Predict Neurologic Recovery Following Cardiac Arrest. Critical Care Medicine 2014; 42:1204-1212. In The PedsCCM Evidence-Based Journal Club, September 23, 2016. Available from <http://pedscm.org/view-review.php?id=959>. Accessed April 16, 2017.
- **Lee J**, Lotze T. A 2.5 month old boy with status epilepticus and fever. Child Neurology Society Education Website Case Report. 2009. Available at: <http://www.childneurologysociety.org/education/casestudies>. Accessed July 19, 2011.

6. Other Works Communicating Research Results to General Public (e.g., newspaper and other print resources, web-based communications, video and television media)

D. Innovation and Commercialization

1. Patents (list applications, patents awards, business development resulting from patents)-None
2. Device, Software or Other Development

- I have been the liaison for the introduction of the latest multi-modal neuro-monitoring implementation into the Neuro-intensive Care Unit at Texas Children's Hospital including the addition of the Moberg multi-modal neuro-monitoring device, 2016-present
 - In association with the radiology department, I implemented the use of transcranial doppler ultrasound into the care of patients in the Neuro-intensive Care Unit, 2018-present
3. Evidence of Impacting Health/Scientific Policy or Clinical Practice Guidelines (e.g., note policy or guidelines where publications were cited)
- Provided tour of the Neuro-intensive Care Unit to Congresswoman Lizzie Fletcher, discussed the needs and care of children with neurologic conditions, she was able to meet with families of children admitted to the Neuro-intensive Care Unit to hear their experience, 2019
 - Content Expert, Pediatric Neurocritical Care Research Group Transcranial Doppler Subgroup, 2018-2019
 - Developing national guidelines for the implementation and use of transcranial doppler ultrasound in the pediatric intensive care unit
 - O'Brien NF, Reuter-Rice K, Wainwright MS, Kaplan SL, Appavu B, Erklauer JC, Ghosh S, Kirschen M, Kozak B, Lidsky K, Lovett ME, Mehollin-Ray AR, Miles DK, Press CA, Simon DW, Tasker RC, LaRovere KL. Practice Recommendations for Transcranial Doppler Ultrasonography in Critically Ill Children in the Pediatric Intensive Care Unit: A Multidisciplinary Expert Consensus Statement. *J Pediatr Intensive Care*. 2021 Jun;10(2):133-142. doi: 10.1055/s-0040-1715128. Epub 2020 Sep 4. PMID: 33884214; PMCID: PMC8052112.
 - Content Expert, Evidence Based Outcome Center for Texas Children's Hospital, 2017-present
 - Created evidence-based patient care guideline and management algorithm for Texas Children's Hospital for Acute Ischemic Stroke, Status Epilepticus, and Severe Traumatic Brain Injury
 - Content Expert, ECMO Neuro-monitoring Workgroup, 2019-present
 - We have initiated planning for an evidence-based neuro-monitoring protocol for ECMO patients at TCH and have begun meeting. Our monitoring for ECMO patients now includes continuous EEG monitoring.
 - Content Expert, Acute Flaccid Myelitis Task Force, 2018-present
 - Multidisciplinary group that has developed a patient care management algorithm to standardize and coordinate care for these patients throughout their hospitalization. The group has worked closely with the U.S. Centers for Disease Control to report cases and to gather samples and clinical information for patients diagnosed with this condition.
 - Content Expert, TCH Autoimmune Encephalitis workgroup, 2018-present
 - Developed and implemented a patient care management algorithm to standardize care and optimize coordination of care for patients with this condition.
 - Content Expert, TCH FIRES workgroup, 2018-present
 - This group has created a standardized patient care algorithm for management of children with Febrile Infection Related Epilepsy Syndrome including approach to workup/diagnosis, immune suppression treatment, and initiation of ketogenic diet.
 - Content Expert, Acute Liver Failure and Hepatic Encephalopathy Workgroup, 2015-present
 - I am a content expert member for the TCH Acute Liver Failure workgroup and developed a patient care management algorithm of care for patients with hepatic encephalopathy including incorporation of transcranial doppler ultrasound for patients with severe hepatic encephalopathy who are not able to undergo invasive intracranial pressure monitoring.

- Content Expert, TCH Traumatic Brain Injury Committee, 2015-present
 - This group evaluates practices of care delivery and quality improvement in TBI at Texas Children's Hospital. Through this multidisciplinary group, we standardized definition, performance, and documentation of neurologic vital signs throughout the critical care unit. We developed a moderate TBI patient care algorithm.
- 4. Participation in Business Development and Commercialization
 - Attended Business Boot Camp, Business Operations Interest Group, Division of Pediatric Critical Care, 2019
- 5. Other Activities
 - Faculty Representative, CareFirst Hospital Planning Committee for Tower E Design, 2015-2018
 - Physician representative for planning and design meetings for Tower E, now called Legacy Tower, at TCH which houses the Pediatric Neuro-intensive Care Unit.
 - Faculty Representative, Scenario creator and director, Legacy Tower post-construction simulation tests, 2018
 - Leader, Texas Children's Hospital Brainstorming Group for the planning/design phase of development for the Pediatric Neurological Intensive Care Unit, 2015-2016

III. TEACHING INFORMATION

A. Educational Leadership Roles (title, dates, responsibilities)

- **Co-chair of the Subcommittee for Educational Materials within the Education Committee for PNCRG**
PNCRG Research Group
2020-present
- **Program Director Pediatric Neurocritical Care Instructorship**
Baylor College of Medicine/Texas Children's Hospital
2020-present

B. Didactic Coursework (include dates, number of hours and approximate numbers of learners)

1. Courses Taught at BCM Within the Primary Department
2. Courses Taught at BCM External to the Primary Department (include number of hours)
3. Courses Taught at Other Institutions while at BCM
4. Courses Taught Prior to BCM

C. Curriculum Development Work (include institution where work was done and whether work was disseminated beyond home institution)

1. Course(s)/Curricula to Which Contributions Have Been Made
Pediatric Neurocritical Care Educational Series
2. Role in Course/Curriculum Development
Educational Series Leader
3. Audience(s) for Course(s)/Curricula Developed

International Audience including Medical students, Trainees (CCM, Neurology, Neurocritical Care), Faculty (CCM, Neurology, Neurocritical Care)

We have had >1600 participants from >75 countries in the first 8 sessions and >2500 views on the online educational channel. Participants reported improved knowledge in learning objectives in anonymous feedback surveys at the end of the sessions. All participants who responded to survey said the sessions met or exceeded expectations.

D. Non-didactic Teaching (include teaching at BCM and any other teaching concurrent with or prior to teaching at BCM)

1. Resident Training (include estimate of time spent, numbers of learners)
Member of the child neurology residency program education committee
2. Clinical Fellow Training (include names of fellows, dates, current location or position)
Director of the Pediatric Neurocritical Care Instructorship which is an additional year of training for the pediatric critical care trained or child neurology trained physicians.
 - Thao Nguyen 2020-2021, currently Attending Physician at Memorial Hermann Hospital
 - Molly McGetrick 2022-2023
3. Research Fellow Training (as above)
4. Graduate Student Training (describe your role, such as major advisor or committee member; provide information about each fellow as above)
5. Medical Student Mentoring (provide information as above)

E. Faculty Development or Continuing Medical Education (list contributions as a course developer, presenter, etc.)

Pediatric Neurocritical Care Educational Series has been approved for CME

F. Lectures and Presentations (provide complete citation for each item; list invited lectures in II.B.5 and lectures, posters or presentations with published abstracts in section II.C.3)

1. International
 - *Multimodality Systems*
Pediatric Multimodal Neuromonitoring PNCRG Mini-Symposium, Virtual, November 2021
 - *The Role of a Pediatric Neurocritical Care Program and Specialized Neuro ICU*
Pediatric Critical Care Study Day, Neurocritical Care, Birmingham Children's Hospital, Birmingham, England, Virtual, 2021
 - *Pediatric Neurocritical Care Educational Series*
Pediatric Neurocritical Care Research Group Meeting, Virtual, 2021
 - *Pediatric Neurocritical Care Educational Series New Therapies in Encephalopathies: An EBM Approach*
World Federation of Pediatric Intensive & Critical Care Societies World Congress, Virtual, 2020
 - *Neuro Intensive Care Session Moderator*
World Federation of Pediatric Intensive & Critical Care Societies World Congress, Virtual, 2020
 - *Management of Refractory Status Epilepticus in High-Risk Populations in the PICU*
Neurocritical Care Society Annual Meeting, Virtual, 2020
 - *Cerebral Vasospasm*
Pediatric Critical Care Summit of the Americas, Houston, TX, 2019
 - *Management of Acute Stroke*
Current Concepts in Pediatric Critical Care Course, Society for Critical Care Medicine, San Diego, CA, 2019

2. National
 - *Therapeutic Hypothermia After Cardiac Arrest in Children*
Child Neurology Grand Rounds, Children's Hospital of Los Angeles, Los Angeles, CA, 2012
3. Regional
 - *Pediatric Neurocritical Care*
7th Annual Neuro ICU Symposium, Memorial Hermann-Texas Medical Center, Houston, TX, 2019
 - *Pediatric Neurocritical Care*
Texas Neurological Society Winter Meeting, Austin, TX, 2014
4. Local
 - *Neurologic Emergencies Didactic and Simulation Sessions*
Pediatric Critical Care Fellows Orientation, Texas Children's Hospital/Baylor College of Medicine, Houston, TX 2022
 - *Neurocritical Care at Texas Children's Hospital: Realization of a Shared Vision and Path to the Future*
Pediatric Grand Rounds, Texas Children's Hospital/Baylor College of Medicine, Houston, TX 2021
 - *Pediatric Neurocritical Care at Texas Children's Hospital*
Pediatric Surgery Fellows Educational Series, Texas Children's Hospital/Baylor College of Medicine, Houston, TX 2021
 - *Pediatric STAT Stroke Alert*
State of the Unit Nursing Educational Series, Texas Children's Hospital, Houston, TX 2021
 - *Management of Cerebral Herniation*
Pediatric Emergency Medicine and Critical Care Medicine Collaborative Conference, Texas Children's Hospital/Baylor College of Medicine, Houston, TX 2020
 - *Intro to Neuroimaging*
Pediatric Neurocritical Care Lecture Series, Texas Children's Hospital/Baylor College of Medicine, Houston, TX 2019, 2020
 - *Transcranial Doppler in the Pediatric Neuro ICU*
Pediatric Neurocritical Care Lecture Series, Texas Children's Hospital/Baylor College of Medicine, Houston, TX 2019
 - *Acute Ischemic Stroke*
Pediatric Critical Care Section Education Series, Texas Children's Hospital/Baylor College of Medicine, Houston, TX, 2019
 - *Update on Severe TBI Guidelines*
Pediatric Neurocritical Care Lecture Series, Texas Children's Hospital/Baylor College of Medicine, Houston, TX, 2019
 - *Management of Acute Stroke*
Pediatric Neurocritical Care Lecture Series, Texas Children's Hospital/Baylor College of Medicine, Houston, TX, 2019
 - *Neurology Board Review for Pediatric Critical Care Medicine Fellows*
Contributor to board review session, Texas Children's Hospital/Baylor College of Medicine, Houston, TX, 2019
 - *Update on Neurocritical Care and Multimodal Neuromonitoring*
Pediatric Neurology Grand Rounds, Texas Children's Hospital/Baylor College of Medicine, Houston, TX, 2018
 - *Applied Physiology: Neuroanatomy and Neurophysiology*
Contributor to the Pediatric Critical Care Medicine Core and Applied Physiology Lecture Series, Baylor College of Medicine/Texas Children's Hospital, Houston, TX, 2016

- *Traumatic Brain Injury*
Educational lectures for the child neurology residents, 2013, 2016
- Monthly resident lectures to pediatric residents rotating through the pediatric intensive care unit, Baylor College of Medicine/Texas Children's Hospital, Houston, TX 2012-2017
 - *Inotropes*
 - *ECMO in the PICU*
 - *Respiratory Failure*
 - *Mechanical Ventilation*
 - *Traumatic Brain Injury*
 - *Diabetic Ketoacidosis*
- *Therapeutic Hypothermia After Cardiac Arrest in Children*
Pediatric Neurology Grand Rounds, Texas Children's Hospital/Baylor College of Medicine, Houston, TX, 2010
- Teaching rotating medical students and residents in child neurology on the Neurocritical Care Consult Service, 2010-present
- Physical Exam Instructor, Baylor College of Medicine, Physician, Patient, and Society course, 2008

G. Visiting Professorships (include location, dates)

IV. PATIENT CARE AND CLINICAL CONTRIBUTIONS

A. Patient Care Responsibilities

1. Department-wide
 - As medical director for the pediatric Neuro-intensive Care Unit at Texas Children's Hospital, I am responsible for overseeing the multi-disciplinary collaboration of providers caring for patients in the Neuro-intensive Care Unit including integrated daily patient care rounds and multimodal neuro-monitoring.
2. Section or Specialty
 - Faculty attending, Pediatric Critical Care Medicine Service, Baylor College of Medicine and Texas Children's Hospital, 2017-present
 - Faculty attending, Pediatric Neurocritical Care Consult Service, Baylor College of Medicine and Texas Children's Hospital, 2012-present
3. Clinical Service
 - 2017-present – 50% of my clinical time is in the critical care section and 50% of my clinical time is in the neurology section
 - 2012-2016 – Worked 36 weeks of clinical inpatient service time in 12 month period for Neurology Critical Care Inpatient Consult Service

B. Clinical Leadership or Business Development (describe roles and documented outcomes)

- **Medical Director for the Pediatric Neuro-intensive Care Unit, 2017-present**
In these roles, I have led efforts to create the first pediatric neuro-intensive care unit in the country including state of the art multimodal neuromonitoring, a robust continuous EEG program, and a collaborative multi-disciplinary team-based approach to the care of patients with critical neurologic illness.
- **Medical Director for Neurocritical Care and Developmental Neurosciences, 2012-present**
Worked with guidance from leadership in Neurology to develop a dedicated pediatric neurocritical care neurology consult service for the intensive care units. We now have 8 attendings with a primary focus in neurology consults in the ICUs. With the implementation of

the Neuro-intensive Care Unit, ICU consults billed by the neurologists have increased substantially with a 26.8% growth from 2019 to 2021. Per administrative partners, we have averaged around 10-15% growth per year in pediatric neurocritical care consults.

- Attended the half-day Business Bootcamp: The Business of Medicine Education Symposium held by the Business Operations Interest Group in the Critical Care Section including sessions led by senior hospital administrators from TCH, 2019

C. Voluntary Health Organization Participation

- Faculty representative, Texas Children's Hospital Critical Care Staffing Committee, 2017-2018
- Fellow representative, Rapid Response Team Quality Improvement Project for Critical Care Medicine Fellowship, 2015-2017

D. Contributions, Initiatives or Recognition Related to Patient Safety and Healthcare Quality (include information about implementation, outcomes or dissemination, where applicable)

- **Development and Implementation of the ICU Continuous EEG Monitoring Service**
Worked closely with the neurophysiology team to develop and implement the critical care continuous EEG service with a dedicated ICU neurophysiologist and in house technologists. We created an algorithm for identification and notification of appropriate parties for seizures/status epilepticus in an effort to decrease time to treatment decisions. We expanded the use of continuous EEG monitoring in line with national consensus guidelines. With the opening of the Neuro-intensive Care Unit, the number of children who underwent cEEG monitoring according to national standards for continuous EEG upon admission increased from 42% to 80%. Median time to initiation of cEEG placement was 58 minutes faster in the Neurocritical Care Unit compared with the time period prior to the opening of the unit. We improved adherence to the national standards and initiated monitoring more quickly.
- With the development of the Neuro-intensive Care Unit, we have evaluated our ability to triage and admit patients to the correct location within the pediatric intensive care unit. For the Neuro-intensive Care Unit, we have implemented Tier 1 admission criteria. We have tracked our ability to admit patients correctly to the Neuro-intensive Care Unit based on admitting diagnosis since opening of Legacy Tower in May 2018. We have implemented a quality improvement plan to track admissions, educate physicians and nurse managers/charge nurses on performance, and enact change for continued improvement.
- I have worked with Emergency, Critical Care, Neurology, Neuroradiology, and Hematology groups to review recent acute stroke cases for quality improvement. We have created an acute stroke notification system for the hospital and have educated providers, physicians, nurses, and technologists on this process. We reviewed our acute stroke cases and have implemented change as a result of case reviews to improve care. I have worked with the neurointerventionalists to streamline notification of their team for evaluation for mechanical thrombectomy in the setting of acute stroke.
- I have led recurrent multidisciplinary meetings between neurology and critical care services focused on quality improvement for the care of children in the neurocritical care unit and all ICUs at TCH.
- I have worked with neurosurgery to review central line placement in neurosurgical patients in the intensive care units.
- I have worked with leadership in critical care and neurosurgery to develop neurosurgical drain leadership rounds to improve care of patients with neurosurgical drains.
- I am currently working with neurosurgery, neuro-interventionalists, and neuroradiology to evaluate our use of transcranial doppler and to improve care for those patients at risk for cerebral vasospasm.

E. Contributions to Health and Science Policy (institutional, regional, state, or federal level)

- N/A

V. SERVICE CONTRIBUTIONS

A. Administrative Assignments and Committees

1. Department or Center Administration, Committees, etc.
 - **See section IVB**
 - **Member of the CCM Operational Leadership Group, 2018-present**
Meeting of operational medical directors for the critical care section every other week to discuss day to day operations in the unit including the Neurointensive Care Unit
 - **Member of the CCM Leadership Group, 2018-present**
Monthly meeting with critical care section medical directors and section chief
2. Institution-wide or School Administration, Committees, etc.

B. National, Regional or Local Participation in Professional or Voluntary Organizations

- Neurocritical Care Society (NCS)
 - Selected faculty attendee for the Future Leaders Forum of the Neurocritical Care Society, Neurocritical Care Society Annual Meeting, Washington, DC, 2016
 - Member of NCS
- Pediatric Neurocritical Care Research Group (PNCRG)
 - Member of the PNCRG
 - Member of the PNCRG Education Committee
 - Co-chair for the subcommittee on Educational Products
 - Member of the PNCRG subgroup on Transcranial Doppler
 - Member of the PNCRG subgroup on Fellowship Training
 - Member of the PNCRG subgroup on Outcomes
 - Member of the PNCRG subgroup on Multi-modal Neuromonitoring
 - Brought institutional membership in the PNCRG to Texas Children's Hospital
- Society for Critical Care Medicine (SCCM)
 - Selected as Faculty for the Current Concepts in Pediatric Critical Care Medicine Course in 2019 and 2020
 - Received the Presidential Citation from SCCM in 2020
 - Member of SCCM
- American Academy of Pediatrics (AAP)
 - Member of AAP

C. Other Pertinent Information (not given above, including community service)