

CURRICULUM VITAE

Date Prepared: October 10, 2023

I. PERSONAL INFORMATION: **Alaina Katheryn Kipps**

Clinical Associate Professor
Department of Pediatrics
Division of Pediatric Cardiology
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II. ACADEMIC HISTORY

UNIVERSITIES AND DEGREES:

- 8/95-6/99 Honors B.S. in Psychobiology, University of Southern California, Los Angeles, CA
- 8/99-6/03 M.D., Harvard University, Boston, MA
- 7/13-5/16 M.S. in Epidemiology, Harvard School of Public Health, Boston, MA

RESIDENCY AND FELLOWSHIP TRAINING

- 6/03-7/06 Internship and Residency in Pediatrics, Stanford University School of Medicine, Palo Alto, CA
- 7/06-7/09 Fellowship in Pediatric Cardiology, Children's Hospital Boston, Boston, MA

CERTIFICATES & COURSEWORK

- 7/08-8/08 Summer Program in Clinical Effectiveness, Harvard School of Public Health
- 10/15-3/16 Stanford Clinical Effectiveness Leadership Training (CELT)
- 9/17-6/18 Stanford Honors Scholars Certificate Program in Medical Education
- 9/20-6/21 Stanford Medicine: Advanced Course Improvement Science (ACIS)
- 4/23-5/23 Stanford Medicine: Physician Well-being Director Course
- 9/23-6/24 Stanford Leadership Development Program

III. BOARD CERTIFICATIONS

2006 Certified, American Board of Pediatrics
2010 Certified, Sub-Board of Cardiology, American Board of Pediatrics
2016 Re-certified, American Board of Pediatrics

IV. PROFESSIONAL APPOINTMENTS:

8/2009-7/2010 Instructor in Pediatrics, UCSF
7/2010-3/2012 Assistant Clinical Professor of Pediatrics, UCSF
3/2012-3/2019 Clinical Assistant Professor of Pediatrics, Stanford
3/2019-current Clinical Associate Professor of Pediatrics, Stanford

V. HONORS AND AWARDS:

6/1995: Valedictorian of Santa Cruz High School, Class of 1995
7/1995: Junior Olympic Gold Medalist, Volleyball
11/1997: Academic All-American
5/1998: Phi Beta Kappa
5/1998: Phi Kappa Phi
5/1998: Golden Key National Honor Society
6/1998-6/99: Pediatric AIDS Institute student research scholarship
5/1999: Valedictorian of USC, Class of 1999
7/99-7/00: Phi Kappa Phi Graduate fellowship
7/99-7/00: NCAA Post-graduate scholarship
6/2016: "Dedication to Excellence" teaching award from the pediatric residents for the Purple Team Cardiology rotation
8/2016: Stanford Medicine X | Health Care Design Awards in the *Collaboration in Health Care* for Purple Team Scheduled Based Family Centered Rounds Design and Implementation
9/2016: Stanford Medicine X | Health Care Design Awards – Grand Prize (best among all categories) for Purple Team Scheduled Based Family Centered Rounds Design and Implementation
5/2018: Hospital Council of Northern and Central California Innovation Challenge winner for "Innovations in Family Centered Care: Adventures in Building an Inpatient Rounding Schedule"
6/2018: "Dedication to Excellence" teaching award from the pediatric residents for the Purple Team Cardiology rotation
9/2018: AHA 2019 Young Hearts (CVDY) Outstanding Research Award in Pediatric Cardiology (Senior author for the abstract selected for this award).
9/2019: Scheduled Based Family Centered Rounds named as a Magnet program Exemplar when LPCH gained Magnet recognition for first time.

9/2019: AHA 2019 Young Hearts (CVDY) Outstanding Research Award in Pediatric Cardiology (Senior author for the abstract selected for this award).

9/2022: 2021- 2022 Pediatrics Residency Program's Honor Roll for Teaching.

5/2023: Nominated for 2023 Alwin C. Rambar-James B.D. Mark Award for Excellence in Patient Care, which recognizes a member of the medical faculty for compassion in working with patients and their families, excellence in providing medical treatment, and effectiveness and pleasantness in interactions with patient-care staff.

8/2023: 2022-2023 Pediatrics Residency Program's Honor Roll for Teaching.

VI. GRANTS

2019-2021: Lucile Packard Association of Auxiliaries for Children Special Project Grant. For the design process, creation, and maintenance of CHDcarecompass.com.

VII. BIBLIOGRAPHY

PEER REVIEWED PUBLICATIONS – ORIGINAL RESEARCH

1. **Kipps AK**, Ramamoorthy C, Rosenthal D, Williams, G. Children with cardiomyopathy: complications of noncardiac procedures with general anesthesia. *Pediatric Anesthesia* 2007, 17 (8): 775-781.
2. **Kipps AK**, Alexander M, Colan S, Gauvreau K, Smoot L, Crawford L, Darras B, Blume E. The Longitudinal Course of Cardiomyopathy during childhood in Friedreich's Ataxia. *Pediatric Cardiology* 2009, 30 (3): 306-10.
3. **Kipps AK**, McElhinney DB, Kane J, Rhodes J. Exercise function of children with congenital aortic stenosis following aortic valvuloplasty during early infancy. *Congenital Heart Disease* 2009, 4(4): 258-64.
4. **Kipps AK**, Wypij D, Thiagarajan RR, Bacha EA, Newburger JW. Blood transfusion prolongs duration of mechanical ventilation in infants undergoing cardiac surgery. *Pediatric Critical Care Medicine* 2011, 12 (1): 52-56.
5. **Kipps AK**, Graham D, Harrild DM, Lewis E, Powell AJ, Rhodes J. Longitudinal Exercise Capacity of Patients with Repaired Tetralogy of Fallot. *American Journal of Cardiology* 2011, 108 (1): 99-105.
6. **Kipps AK**, Feuille C, Azakie A, Hoffman JIE, Tabbutt S, Brook MM, Moon-Grady AJ. Prenatal diagnosis of Hypoplastic Left Heart Syndrome in the Current Era. *American Journal of Cardiology* 2011, 108 (1): 421-427.
7. **Kipps AK**, Powell AJ, Levine JC. Association of Right Ventricle Dependent Coronary Circulation and Coronary Ostial Atresia with Muscular Infundibular Atresia in Pulmonary Atresia with Intact Ventricular Septum. *Congenital Heart Disease*, 2011 (6): 444-450.
8. Bryne FA, Lee H, **Kipps AK**, Brook MM, Moon-Grady AJ. Echocardiographic Risk Stratification of Fetuses with Sacrococcygeal Teratoma and Twin-Reversed Arterial Perfusion. *Fetal Diagnosis and Therapy* 2011; 30(4): 280-288.

9. Bui YK, **Kipps AK**, Brook MM, Moon-Grady AJ. Right ventricular myocardial performance index determined by tissue Doppler is superior to pulse wave measurements in human fetal hearts. *Amer J of Obstetrics and Gynecology* 2012; 206(1): S178.
10. **Kipps AK**, Graham D Lewis E, Marx GR, Banka P, Rhodes J. Natural History of Exercise Function in Patients with Ebstein's Anomaly: A Serial Study. *American Heart Journal*. 2012; 163(3): 486-91.
11. Lowenthal A, **Kipps AK**, Brook MM, Meadows J, Azakie A, Moon-Grady AJ. Prenatal diagnosis of atrial restriction in hypoplastic left heart syndrome is associated with decreased 2-year survival. *Prenatal Diagnosis*. 2012; 32(5): 485-90.
12. Bui YK, **Kipps AK**, Brook MM, Moon-Grady AJ. Tissue Doppler Is More Sensitive and Reproducible than Spectral Pulsed-Wave Doppler for Fetal Right Ventricle Myocardial Performance Index Determination in Normal and Diabetic Pregnancies. *J Am Soc Echocardiogr*. 2013; 26(5): 507-14.
13. Smith BM, Ezeokoli NJ, **Kipps AK**, Azakie A, Meadows JJ. Course, Predictors of Diaphragm Recovery After Phrenic Nerve Injury During Pediatric Cardiac Surgery. *Ann Thorac Surg*. 2013; 96(3): 938-42.
14. Landman G, **Kipps A**, Moore P, Teitel D, Meadows J. Outcomes of a modified approach to transcatheter closure of perimembranous ventricular septal defects. *Catheter Cardiovasc Interv*. 2013; 82(1):143-9.
15. Lowenthal A, Lemley B, **Kipps AK**, Brook MM, Moon-Grady AJ. Prenatal tricuspid valve size as a predictor of postnatal outcome in patients with severe pulmonary stenosis or pulmonary atresia with intact ventricular septum. *Fetal Diagn Ther*. 2014; 35(2):101-7.
16. Arunamata A, Perry SB, **Kipps AK**, Vasanaawala SS, Axelrod DM. Isolation of the right subclavian artery in a patient with d-transposition of the great arteries. *Ann Pediatr Cardiol*. 2015 May-Aug; 8(2):161-163.
17. Goel V, Poole S, **Kipps A**, Palma J, Platchek T, Pageler N, Longhurst C, Sharek P. Implementation of Data Drive Heart Rate and Respiratory Rate parameters on a Pediatric Acute Care Unit. *Stud Health Tech Inform*. 2015; 216: 918.
18. Sheth, S, McCarthy E, **Kipps AK***, Wood M, Roth SJ, Sharek P, Shin A. Changes in Efficiency and Safety Culture after Integration of an iPASS Supported Handoff Process. *Pediatrics* 2016; 137(2) e20150166.
19. Balasubramanian S, **Kipps AK***, Smith SN, Tacy TA, Tierney ESS. Pediatric Echocardiography by Work Relative Value Units - Is Study Complexity Adequately Captured? *J. American Soc of Echo* 2016 July 9 (PMID 27405593).
20. Stauffer KJ, Arunamata AA, Vasanaawala SS, Behara SK, **Kipps AK***, Silverman NH. Decompressing vein and bilateral superior vena cavae in a patient with hypoplastic left heart syndrome. *Echocardiography* 2016; 00: 1–4. doi: 10.1111/echo.13292

21. Arunamata AA, McElhinney DB, Shin AY, Axelrod DM, Hanley FL, Reddy VM, Olson IL, **Kipps AK***, Roth SJ, Tierney ES. Practice Patterns in Postoperative Echocardiographic Surveillance in Children after Congenital Heart Surgery: A Single Center Experience. *Journal of Pediatrics* 2017 Jan; 180: 87-91.
22. **Kipps AK**, Poole SF, Slaney C, Feehan S, Longhurst CA, Sharek PJ, Goel VV. Inpatient-Derived Vital Sign Parameters Implementation: An Initiative to Decrease Alarm Burden. *Pediatrics*. 2017 Aug; 140(2).
23. **Kipps AK**, Cassidy SC, Strohacker CM, Graoupe M, Bates KE, McLellan MC, Harahsheh AS, Hanke SP, Tanel RE, Schachtner SK, Gaies M, Madsen N. Collective quality improvement in the Pediatric Cardiology Acute Care Unit: Establishment of the Pediatric Acute Care Cardiology Collaborative (PAC3). *Cardiology of the Young*. 2018 Aug; 28 (8): 1019-1023.
24. Algaze CA, Shin AY, Nather C, Elgin KH, Ramamoorthy C, Kamra K, **Kipps AK**, Yarlagadda VV, Sacks LD, Mafla MM, Vashist T, Krawczeski CD, Sharek PJ. Applying Lessons from an Inaugural Clinical Pathway to Establish a Clinical Effectiveness Program. *Pediatric Quality and Safety*. 2018 Oct 31; 3(6): e115.
25. Peng DM, **Kipps AK**, Palmon M, Tacy TA, Peng LF, Hollander SA, McElhinney DB. Utility of Screening Echocardiogram After Endomyocardial Biopsy for Identification of Cardiac Perforation or Tricuspid Valve Injury. *Pediatr transplant*. 2018 Nov; 22(7): e13275
26. Taylor AC, Bates KE, **Kipps AK**. Variability in Pediatric Cardiac Post-operative Chest tube Management. *Cardiology in the Young*, 2018 Dec; 28(12): 1471-1474.
27. Gaies M, Anderson J, **Kipps AK**, Lorts A, Madsen N, Marino B, Costello JM, Brown D, Jacobs JP, Kasnic D, Lihn S, Lannon C, Margolis P, Pearson GD, Kaltman J, Charpie JR, Redington AN, Pasquali SK; Cardiac Networks United Executive Committee and Advisory Board. Cardiac Networks United: an integrated paediatric and congenital cardiovascular research and improvement network. *Cardiology of the Young*. 2018 Dec 20: 1-8.
28. Dykes JC, **Kipps AK**, Chen A, Nourse S, Rosenthal DN, Selamet Tierney ES. Parental Acquisition of Echocardiographic Images in Pediatric Heart Transplant Patients Using a Handheld Device: A Pilot Telehealth Study. *J Am Soc Echocardiogr*. 2019 Mar; 32(3): 404-411. **I helped with study design, did all echocardiographic data acquisition, and critically revised the manuscript.*
29. Hoerst A, Bakar A, Cassidy SC, Clabby M, DelGrippo E, Graupe M, Harahsheh A, Hart SA, Hlavacek AM, **Kipps AK***, Madsen NL, O'Neil DD, Patel SS, Strohacker CM, Tanel RE. Variation in Care Practice Across Pediatric Acute Care Cardiology Units: Results of the Pediatric Acute Care Cardiology Collaborative (PAC³) hospital survey. *Congenit Heat Dis*. 2019 May: 419-426. **I helped with study design, participated in survey design and implementation, and critically revised the manuscript.*

30. Cox K, Arunamata A, Krawczeski CD, Reddy C, **Kipps AK***, Long J, Roth SJ, Axelrod DM, Hanley F, Shin A, Tierney ESS. "Echo Pause" for Postoperative Transthoracic Echocardiographic Surveillance. *Echocardiography* 2019 Nov; 36(11): 2078-85. **I helped with study design, participated in survey design and implementation, and critically revised the manuscript.*
31. ACC/AHA/ASE/HRS/ISACHD/SCAI/SCCT/SCMR/SOPE 2020 Appropriate Use Criteria for Multimodality Imaging During the Follow-Up Care of Patients With Congenital Heart Disease: A Report of the American College of Cardiology Solution Set Oversight Committee and Appropriate Use Criteria Task Force, American Heart Association, American Society of Echocardiography, Heart Rhythm Society, International Society for Adult Congenital Heart Disease, Society for Cardiovascular Angiography and Interventions, Society of Cardiovascular Computed Tomography, Society for Cardiovascular Magnetic Resonance, and Society of Pediatric Echocardiography. Writing Group, Sachdeva R, Valente AM, Armstrong AK, Cook SC, Han BK, Lopez L, Lui GK, Pickard SS, Powell AJ; Rating Panel, Bhave NM, Sachdeva R, Valente AM, Pickard SS, Baffa JM, Banka P, Cohen SB, Glickstein JS, Kanter JP, Kanter RJ, Kim YY, **Kipps AK**, Latson LA, Lin JP, Parra DA, Rodriguez FH 3rd, Saarel EV, Srivastava S, Stephenson EA, Stout KK, Zaidi AN. *J Am Coll Cardiol*. 2020 Feb 18; 75(6): 657-703.
32. **Kipps AK**, Albert MS, Bomher S, Cheung S, Feehan S, Kim J. Schedule-Based Family-Centered Rounds: A novel approach to achieve high nursing attendance and participation. *Pediatric Quality and Safety*, 2020 Mar 13; 5(2): e265.
33. Bates KE, Khadr L, Donohue J, Crawford K, Gaies MG, Graupe M, Hanke S, Hlavacek A, Madsen N, Morell E, Pasquali SK, Russel JL, Schachtner SK, Tanel R, Ware AL, **Kipps AK**. Center Variation in Chest Tube Duration and Length of Stay After Congenital Heart Surgery. *Annals of Thoracic Surgery*. 2020 Jul; 110(1): 221-227
34. Hart SA, Tanel RE, **Kipps AK***, Kolb A, Graupe, M, Cassidy SC, Hlavacek A, Clabby ML, Bush L, Zhang W, Banerjee M, Pasquali SK, Gaies MG, Madsen N. Impact of intensive care unit and acute care unit length of stay on total length of stay following congenital heart surgery: A joint PC⁴ and PAC³ multicenter analysis. *Annals of Thoracic Surgery*. 2020 Oct; 110(4): 1396-1403. **I helped with study design, data analysis and interpretation, and I critically revised the manuscript.*
35. Almond CS, Chen S, Dykes JC, Kwong J, Burstein D, Rosenthal D, **Kipps AK***, Teuteberg J, Murray J, Kaufman BD, Hollander SA, Profita E, Yarlaga V, Sachs L, Chen CY. An acute heart failure symptom score for children hospitalized with acute decompensated heart failure. *Journal of Heart and Lung Transplant* 2020 Nov; 39(11):1250-1259. **I helped with study design, participated in project design and implementation, and critically revised the manuscript.*
36. Willis AJ, Hoerst A, Hart SA, Holbein D, Lowery K, Harahsheh AS, **Kipps AK***, Madsen N, Patel SS, Tanel RE; Paediatric Acute Care Cardiology Collaborative (PAC3). The added value of the advanced practice provider in paediatric acute care cardiology. *Cardiology in the Young*. 2021 Feb; 31(2): 248-251. **I helped with study design, project design and implementation, and critically revised the manuscript.*

37. Shin AY, Loh L, Sharek PJ, Bassett H, Mafla M, Presnell L, Komra K, Kim J, Steffen KM, **Kipps AK***, Maeda K, Algaze CA. Target Based Care: An Intervention to Reduce Variation in Postoperative Length of Stay. *Journal of Pediatrics* 2021 Jan;228: 208-212. **I was key member in clinical effectiveness team, assisted with project design and implementation, and critically revised the manuscript.*
38. Harahsheh AS, **Kipps AK***, Hart SA, Cassidy SC, Clabby ML, Hlavacek AM, Hoerst AK, Graupe MA, Madsen NL, Bakar AM, Del Grippo EL, Patel SS, Bost JE, Tanel RE; Pediatric Acute Care Cardiology Collaborative (PAC3). High Acuity Therapy Variation Across Pediatric Acute Care Cardiology Units: Results from the Pediatric Acute Care Cardiology Collaborative Hospital Surveys. *Pediatric Cardiology* 2021 June; 42(5): 1074-1081. **I helped with study design and critically revised the manuscript.*
39. Bates KE, Connelly C, Khadr L, Graupe M, Hlavacek A, Morell E, Pasquali S, Russel J, Schachtner SK, Strohacker C, Tanel R, Ware AL, Madsen N, **Kipps AK**. Successful Reduction of Postoperative Chest Tube Duration and Length of Stay After Congenital Heart Surgery: A Multicenter Collaborative Improvement Project. *J. Amer Heart Assoc.* 2021 Nov 2; 10 (21).
40. Han B, Yang JK, Ling AY, Ma M, **Kipps AK***, Shin AY, Beshish AG. Early Functional Status After Surgery for Congenital Heart Disease: A Single-Center Retrospective Study. *Peds Critical Care Medicine.* 2022 Feb 1; 23(2): 109-117 **I helped with study design, data collection, and I critically revised the manuscript.*
41. Gal DB, Kwaitkowski DM, Cribb Fabersunne C, **Kipps AK**. Direct Discharge to Home from the Pediatric Cardiovascular ICU. *Peds Critical Care Medicine.* 2022 Apr 1;23(4): e199-e207
42. Gal DB, Rodts M, Hills BK, **Kipps AK***, Char DS, Pater C, Madsen ML. Caregiver and provider attitudes toward family-centered rounding in pediatric acute care cardiology. *Cardiology in the Young.* 2023 May 18; 1-6. **I helped with study design and I critically revised the manuscript.*

ORIGINAL ARTICLES SUBMITTED FOR PEER REVIEW:

1. Jodah R, Arunamata A, **Kipps AK**, Chen S, Stauffer KJ, Tierney ES. Maternal Diabetes and Cardiovascular Health in the Offspring. Submitted to *Pediatric Cardiology*, July 2023.
2. Gall DB, Cleveland JD, **Kipps AK**. Early and midterm wound and sternal management following pediatric cardiac surgery. Submitted to *World Journal for Pediatric and Congenital Heart Surgery*, August 2023.
3. Gall DB, Cleveland JD, Vergales JE, **Kipps AK**. Immunization Deferral Practices Surrounding Congenital Heart Surgery. Submitted to *Annals of Thoracic Surgery*, September 2023.
4. Sheth SS, Tignor A, Connelly C, Madsen NL, Graupe M, Bates KE, Figueroa M, Greiten L, Hart S, Jensen M, Morse T, Patel M, St John A, Saudek D, **Kipps AK**. Sustaining and Spreading Success: Longer Term Outcomes and Spread of a Multi-Center Quality Improvement Project to Reduce Post-Operative Chest Tube Duration. Submitted to *Journal of the American Heart Association*, September 2023

5. Ware AL, Jones C, **Kipps AK***, Marcuccio E, Patel SS, Plummer S, Ravishankar C, Figueroa M. Feeding Variation Among Infants in Acute Care Cardiology Units. *I helped with study design, data analysis interpretation, and I critically revised the manuscript. Submitted to *Pediatrics*, September 2023
6. Yang JK, Su F, Graber-Naidich A, DeSousa C, Hedlin H, Feehan S, Graves A, Palmquist A, Cable R, Madsen NL, **Kipps AK**. Mitigating Alarm Fatigue and Improving the Bedside Experience by Reducing Non-actionable Alarms. Submitted to *BMJ Quality and Safety*, October 2023
7. Alexander MA, Gauvreau K, Gaies MG, DeWitt AG, Ghanayem N, Lasa JJ, **Kipps AK***, Mistry K, Schwartz SM, Shin AY, Thiagarajan RR, Bergersen L. Leveraging multi-institutional data to derive a generalizable prediction model for intensive care unit length of stay after congenital heart surgery. *I helped with study design, data analysis interpretation, and I critically revised the manuscript. Submitted to *Pediatric Critical Care Medicine*, October 2023.

NON-PEER REVIEWED ARTICLES

1. **Kipps AK**, Lee H. Visual Diagnosis: Newborn who has Respiratory Distress. *NeoReviews* 2005 6:e49
2. **Kipps AK**, Silverman N. Historical Perspectives: Introduction of Ultrasonography in Neonatal Cardiac Diagnosis. *NeoReviews* 2005 6:e315

BOOK CHAPTERS – In print

1. **Kipps AK**, Robertson L: Disorders of the Heart. pp 492-518. In: Cabana M, Haftel HM, Kaiser K, O'Brien JS, eds. *Rudolph's Pediatrics, 22nd Edition, Self-Assessment and Board Review*. New York, NY: McGraw-Hill; 2014.
2. Purkey N, Reddy C, **Kipps AK**. Clinical Approach to Common Complaints in Cardiology. In: Dean T, Bell LM eds. *Nelson Pediatrics Board Review 1st Edition – Certification and Recertification*. Elsevier; 2018.
3. Reddy C, Purkey N, **Kipps AK**. Structural Heart Disease In: Dean T, Bell LM eds. *Nelson Pediatrics Board Review 1st Edition – Certification and Recertification*. Elsevier; 2018.
4. Purkey N, Reddy C, **Kipps AK**. Acquired Heart Disease In: Dean T, Bell LM eds. *Nelson Pediatrics Board Review 1st Edition – Certification and Recertification*. Elsevier; 2018.
5. Reddy C, Purkey N, **Kipps AK**. Selected Topics in Cardiology In: Dean T, Bell LM eds. *Nelson Pediatrics Board Review 1st Edition – Certification and Recertification*. Elsevier; 2018.

BOOK CHAPTERS – Submitted for 2nd edition.

1. Conrad D, **Kipps AK**, Reddy C, Purkey N. Clinical Approach to Common Complaints in Cardiology In: Dean T, Bell LM eds. *Nelson Pediatrics Board Review 2nd Edition – Certification and Recertification*. Elsevier; 2023

2. Deitch A, **Kipps AK**, Purkey N, Reddy C. Structural Heart Disease In: Dean T, Bell LM eds. *Nelson Pediatrics Board Review 2nd Edition – Certification and Recertification*. Elsevier; 2023.
3. Hunter-Adamson L, **Kipps AK**, Reddy C, Purkey N. Acquired Heart Disease In: Dean T, Bell LM eds. *Nelson Pediatrics Board Review 2nd Edition – Certification and Recertification*. Elsevier; 2023.
4. Navarre B, **Kipps AK**, Purkey N, Reddy C. Selected Topics in Cardiology In: Dean T, Bell LM eds. *Nelson Pediatrics Board Review 2nd Edition – Certification and Recertification*. Elsevier; 2023.

DIGITAL PUBLICATIONS

1. Silverman NH, Anderson RH, Ursell P, Spicer D, **Kipps AK**: Chapter 1 Normal Echoplane correlations. In *Echocardiographic and Pathological Correlations in Congenital Heart Disease*. Md1World.com. Sept 1, 2017.
2. Silverman NH, Anderson RH, Ursell P, Spicer D, **Kipps AK**: Chapter 2 Inter-Atrial Communications. In *Echocardiographic and Pathological Correlations in Congenital Heart Disease*. Md1World.com. Sept 1, 2017.
3. Silverman NH, Anderson RH, Ursell P, Spicer D, **Kipps AK**: Chapter 3 Atrioventricular Septal Defects (AV Canal Defects). In *Echocardiographic and Pathological Correlations in Congenital Heart Disease*. Md1World.com. Sept 1, 2017.
4. Silverman NH, Anderson RH, Ursell P, Spicer D, **Kipps AK**: Chapter 4 Ventricular Septal Defects. In *Echocardiographic and Pathological Correlations in Congenital Heart Disease*. Md1World.com. Sept 1, 2017.
5. Silverman NH, Anderson RH, Ursell P, Spicer D, **Kipps AK**: Chapter 5 Patent Arterial Duct and other Aortopulmonary Shunts. In *Echocardiographic and Pathological Correlations in Congenital Heart Disease*. Md1World.com. Sept 1, 2017.
6. Silverman NH, Anderson RH, Ursell P, Spicer D, **Kipps AK**: Chapter 6 Anomalous Pulmonary Venous Return. In *Echocardiographic and Pathological Correlations in Congenital Heart Disease*. Md1World.com. Sept 1, 2017.
7. Silverman NH, Anderson RH, Ursell P, Spicer D, **Kipps AK**: Chapter 7 Tetralogy of Fallot. In *Echocardiographic and Pathological Correlations in Congenital Heart Disease*. Md1World.com. April 1, 2018.
8. Silverman NH, Anderson RH, Ursell P, Spicer D, **Kipps AK**: Chapter 8 Truncus Arteriosus. In *Echocardiographic and Pathological Correlations in Congenital Heart Disease*. Md1World.com. April 1, 2018.
9. Silverman NH, Anderson RH, Ursell P, Spicer D, **Kipps AK**: Chapter 9 Transposition. In *Echocardiographic and Pathological Correlations in Congenital Heart Disease*. Md1World.com. August 2019.
10. Silverman NH, Anderson RH, Ursell P, Spicer D, **Kipps AK**: Chapter 10 Congenitally Corrected Transposition. In *Echocardiographic and Pathological Correlations in Congenital Heart Disease*. Md1World.com. March 2020.

11. Silverman NH, Anderson RH, Ursell P, Spicer D, **Kipps AK**: Chapter 11 Double outlet right ventricle. In Echocardiographic and Pathological Correlations in Congenital Heart Disease. Md1World.com. December 2020.
12. Silverman NH, Anderson RH, Ursell P, Spicer D, **Kipps AK**: Chapter 12 Univentricular Atrioventricular Connections. In Echocardiographic and Pathological Correlations in Congenital Heart Disease. Md1World.com. March 2021.
13. Silverman NH, Anderson RH, Ursell P, Spicer D, **Kipps AK**: Chapter 13 The Functionally Single Ventricle: Hypoplastic Left Ventricles. In Echocardiographic and Pathological Correlations in Congenital Heart Disease. Md1World.com. January 2022.
14. Silverman NH, Anderson RH, Ursell P, Spicer D, **Kipps AK**: Chapter 14 Pulmonary atresia with Intact Ventricular Septum. In Echocardiographic and Pathological Correlations in Congenital Heart Disease. Md1World.com. March 2022.
15. Silverman NH, Anderson RH, Ursell P, Spicer D, **Kipps AK**: Chapter 15 Hearts with Isomerism. In Echocardiographic and Pathological Correlations in Congenital Heart Disease. Md1World.com. April 2022.
16. Silverman NH, Anderson RH, Ursell P, Spicer D, **Kipps AK**: Chapter 16 Ebstein's Malformation. In Echocardiographic and Pathological Correlations in Congenital Heart Disease. Md1World.com. May 2022.

ABSTRACTS – Oral Presentations

1. **Kipps AK**, Alexander M, Colan S, Gauvreau K, Smoot L, Crawford L, Darras B, Blume E. The Longitudinal Course of Cardiomyopathy during childhood in Friedreich's Ataxia. American Academy of Pediatrics National Conference in New Orleans, LA October 2003.
2. **Kipps AK**, Wypij D, Thiagarajan RR, Bacha EA, Newburger JW. Blood transfusion prolongs duration of mechanical ventilation in infants undergoing cardiac surgery. American Academy of Pediatrics National Conference in San Francisco, CA October 2007.
3. **Kipps AK**, Lewis E, Graham D, Marx GR, Rhodes J. Cardiac MRI Correlates of Exercise Function in Patients with Ebstein's Anomaly. Oral presentation at the American Heart Association Annual Meeting in Orlando, FL in November 2009.
4. **Kipps AK**, Lewis E, Graham D, Marx GR, Rhodes J. Longitudinal exercise function of patients with a history of Ebstein's anomaly. Oral presentation at the American Academy of Pediatrics National Conference in Washington DC in October 2009.
5. Albert MS, Bomher B, Cheung SW, Feehan S, Kim JJ, Williams GD, **Kipps AK**. Impact of Schedule-Based Family Centered Rounds in a Pediatric Inpatient Cardiology Unit at an Academic Medical Center. Plenary session presentation at Lean Healthcare Academic Conference at Stanford, September 2016
6. Bates KE, Khadr L, Donohue J, Crawford K, Gaies MG, Graupe M, Hanke S, Hlavacek A, Madsen N, Morell E, Pasquali SK, Russel JL, Schachtner SK, Tanel R, Ware AL, **Kipps AK**. Variability in Chest Tube Duration and Length of Stay across Centers in the Pediatric Acute Care Cardiology Collaborative (PAC³) and Pediatric Cardiac Critical Care Consortium (PC⁴). American Heart Association Scientific Sessions, Chicago, IL, November 2018

7. Bates KE, Khadr L, Donohue J, Crawford K, Gaies MG, Graupe M, Hanke S, Hlavacek A, Madsen N, Morell E, Pasquali SK, Russel JL, Schachtner SK, Tanel R, Ware AL, **Kipps AK**. Successful Reduction of Postoperative Chest Tube Duration and Length of Stay After Congenital Heart Surgery: A Multicenter Pediatric Acute Care Cardiology Collaborative (PAC³) and Pediatric Cardiac Critical Care Consortium (PC⁴) Improvement Project. American Heart Association Scientific Sessions, Philadelphia, PA, November 2019
8. Sheth SS, **Kipps AK**, Madsen NL, Khadr L, Graupe M, Tignor A, Figueroa M, Greiten L, Hart S, Jensen M, Mauney J, Morse T, Patel M, St John A, Saudek D, Bates KE. Sustaining and Spreading Success: Longer Term Outcomes and Spread of a Multi-Center Quality Improvement Project to Reduce Post-Operative Chest Tube Duration. American Heart Association Scientific Sessions, (virtual format), November 2020
9. Yang JK, Su F, DeSousa C, Graber A, Hedlin H, Feehan S, Graves A, Palmquist A, Cable R, Madsen NM, **Kipps AK**. Mitigating Alarm Fatigue and Improving the Care Provider, Patient and Family Experience through Reduction in Non-actionable Bedside Alarms. American Heart Association annual meeting, Chicago, November 2022. And World Congress of Pediatric Cardiology and Cardiac Surgery, Washington, DC August 2023
10. **Kipps AK**, Marshall AC, Lopez-Colon D, Sachdeva R, Dalal A, Ehlich M, Ronai C, Stiver C, Chowdhury D, Bauser-Heaton H, Freud L, Choueiter N, Bansal N, Sutton N, Laraja K, Jone P, Owens ST, Jain SS, Co-Vu J. Gender Gap: Variation In Women's Representation Among Leadership Positions In Pediatric Cardiology Programs Across North America. American Heart Association Scientific Sessions, Philadelphia, PA November 2023

ABSTRACTS – Poster Presentations

1. **Kipps AK**, Levine JC. Association of Right Ventricle Dependent Coronary Circulation and Coronary Ostial Atresia with Muscular Infundibular Atresia in Pulmonary Atresia with Intact Ventricular Septum. American Society of Echocardiography Annual Scientific Sessions Washington DC, June 2009.
2. **Kipps AK**, Harrild DM, Lewis E, Graham D, Powell AJ, Rhodes J. Longitudinal Exercise Function of Patients With Repaired Tetralogy of Fallot. American College of Cardiology Annual meeting in Atlanta, March 2010.
3. Anderson FM, Lee H, **Kipps AK**, Brook MM, Moon-Grady AJ. Fetal Echocardiography Can Risk Stratify Need For Prenatal Intervention in Patients with Sacrococcygeal Teratoma and Twin Reversed Arterial Perfusion. American Society of Echocardiography meeting, San Diego, CA June 2010.
4. Lowenthal A, **Kipps AK**, Brook MM, Azakie A, Moon-Grady AJ. Impact of Prenatal Diagnosis of Atrial Restriction on 2-year survival in Hypoplastic Left Heart Syndrome. Presented at American Academy of Pediatrics meeting, San Francisco, CA October 2010.
5. Moon-Grady AJ, Lemley B, **Kipps AK**, Brook MM, Rand L. Prenatal Tricuspid Valve Size as a Predictor of Postnatal Outcome in Patients with Severe Pulmonary Stenosis or Pulmonary Atresia with Intact Ventricular Septum. Presented at Society of Maternal-Fetal Medicine Conference. San Francisco, CA February 2011.

6. Smith B, **Kipps AK**, Meadows J. Diaphragmatic Paralysis After Repair of Congenital Heart Defects in the Current Era: Return of Diaphragm Function in the Post-operative Period Occurs in a Significant Proportion of Patients. American Heart Association annual meeting. Orlando, FL November 2011.
7. Balasubramanian S, **Kipps AK**, Gluhm S, Tacy TA, Selamet Tierney ES. Pediatric echocardiography by work relative value units - is study complexity adequately captured? Presented at the Annual Scientific Sessions of the American College of Cardiology, Washington DC, March 2014.
8. Arunamata A, McElhinney DB, Shin AY, Axelrod DM, Hanley FL, Reddy VM, Olson IL, **Kipps AK**, Selamet Tierney ES. Practice Patterns in Post-operative Echocardiographic Surveillance in Children with Congenital Heart Disease. American Society of Echocardiography Scientific Sessions, Boston, MA, June 2015.
9. Peng DM, **Kipps AK**, Palmon M, Khalapyan TZ, Almond CS, Chen S, Hollander SA, Tacy TA, Rosenthal DN, McElhinney D. Utility of Routine Screening Echocardiogram after Biopsy for Identification of Hemopericardium of Tricuspid Valve Injury. International Society for Heart and Lung Transplantation. Washington DC, in April 2016.
10. Albert MS, Bomher B, Cheung SW, Kim JJ, Williams GD, **Kipps AK**. Impact of Schedule-Based Family Centered Rounds in a Pediatric Inpatient Cardiology Unit at an Academic Medical Center. Society of Pediatric Research, Baltimore, MD April 2016.
11. **Kipps AK**, Poole SF, Slaney C, Feehan S, Longhurst CA, Sharek PJ, Goel VV. Implementation of Data-Driven Vital Sign Parameters to Decrease Monitor Alarm Burden on a Pediatric Acute Care Unit. Western Society of Pediatric Cardiology, Park City, UT, May 2016.
12. Tierney ES, **Kipps AK**, Stefani K, McDonald N, Lee D, Barkoff L, Rosenthal DN. Parental Acquisition of Echocardiographic Images in Pediatric Heart Transplant Recipients: A New Era? American Society of Echocardiography, Seattle, WA June 2016.
13. Heller S, **Kipps AK**. Decreased duration of Chest tube use but similar length of stay in postoperative patients following liberalization of chest tube removal criteria. Lean Healthcare Academic Conference at Stanford, September 2016
14. Dennis K, Christenson K, Schultz L, **Kipps AK**, Snyder M, Dykes JC, Maeda K, Kaufman BD, Hollander SA, Jensen K, Feehan S, Rosenthal DN, Almond, CS. Prevalence and Severity of Malnutrition in Children with End-Stage Heart Failure Listed for Heart transplantation. American Heart Association Scientific Sessions, New Orleans, LA, November 2016
15. Dykes JC, Kruger J, Kaufman BD, Liu E, Dennis K, **Kipps AK**, Yarlagadda V, Chen S, Snyder M, Hollander SA, Rosenthal DN, Almond CS. Fluid overload in Children Hospitalized with Heart Failure: How Common and How much? American Heart Association Scientific Sessions, New Orleans, LA, November 2016
16. Lau M, Tran M, **Kipps AK**, Mak K. Impact of a Bedside Medication Delivery Service for a Pediatric Acute Care Cardiology Service. Heart Center Research Day, in March 2018
17. Taylor AE, Bates KB, **Kipps AK**. Variability in Pediatric Cardiac Post-Operative Chest Tube Management. Heart Center Research Day, March 2018

18. Nunez S, Saks L, Lowe J, Mittal V, Feehan S, Hock P, Brown S, **Kipps AK**. Tele-Health Enabled Multidisciplinary, Standardized Handoff Process for Cardiac Admissions from the Emergency Department. Heart Center Research Day, March 2018
19. Motonaga KS, Purkey NJ, Long J, Reddy CR, **Kipps AK**. Educational Needs Assessment of Pediatric Residents in Pediatric Cardiology at Lucile Packard Children's Hospital. 3rd Annual Stanford Innovations in Medical Education Conference, June 2018
20. Taylor AE, Bates KB, **Kipps AK**. Variability in Pediatric Cardiac Post-Operative Chest Tube Management. Lean Healthcare Academic Conference at Stanford, October 2018
21. Hart SA, Tanel RE, **Kipps AK**, Kolb A, Graupe, M, Cassidy SC, Hlavacek A, Clabby ML, Bush L, Zhang W, Banerjee M, Pasquali SK, Gaies MG, Madsen N. Impact of intensive care unit and acute care unit length of stay on total length of stay following congenital heart surgery: A joint PC⁴ and PAC³ multicenter analysis. American Heart Association Scientific Sessions, Chicago, IL, November 2018
22. Hoerst A, Bakar A, Cassidy SC, Clabby M, DelGrippo E, Graupe M, Harahsheh A, Hart SA, Hlavacek AM, **Kipps AK**, Madsen NL, O'Neil DD, Patel SS, Strohacker CM, Tanel RE. Variation in Care Practice Across Pediatric Acute Care Cardiology Units: Results of the Pediatric Acute Care Cardiology Collaborative (PAC³) Hospital Survey. American Heart Association Scientific Sessions, Chicago, IL, November 2018
23. Jones A, Hoerst A, Patel SS, Bakar A, Cassidy SC, Clabby M, Del Grippo E, Groupe M, Harahsheh A, Hlavacek AM, Hart SA, **Kipps AK**, Madsen NL, O'Neil DD, Strohacker CM, Tanel RE. The Role of the Advanced Practice Provider in Acute Care Pediatric Cardiology: Insights from the Pediatric Acute Care Cardiology Collaborative (PAC³) Hospital Survey. Cardiology 2019: 22nd Annual Update on Pediatric and Congenital Cardiovascular Disease Conference. Huntington Beach, CA, February 2019.
24. Almond CS, Chen CY, Kwong J, Chen S, Hollander SA, Kaufman BD, **Kipps AK**, Profita E, Dykes JC, Rosentahl DN. A simple pediatric heart failure symptom score for children hospitalized with acute decompensated heart failure. Heart Center Research Day, March 2019
25. Harahsheh A, Patel S, Bakar A, Cassidy S, Clabby M, Del Grippo E, Graupe M, Hart S, Hlavacek A, Hoerst A, **Kipps AK**, Madsen N, O'Neil D, Strohacker C, Tanel R. Acuity-based Therapy Variation Across Pediatric Cardiac Acute Care Units: Results from the Pediatric Acute Care Cardiology Collaborative Hospital Survey. Pediatric Academic Society Meeting in Baltimore, MD April 2019.
26. Feehan S, Nunez S, **Kipps AK**. Improving Teamwork, Morale, and Communication on a New Inpatient Cardiovascular Stepdown Unit. Plenary session presentation at Lean Healthcare Academic Conference at Stanford, September 2019
27. Alexander P, Gauvreau K, Gaies M, Dewitt A, Ge S, Ghanayem N, **Kipps AK**, Lasa JJ, Mistry K, Schwartz S, Shin A, Thiagarajan R, Bergersen L. Modeling postoperative intensive care length of stay to improve resource management at congenital heart centers. American Heart Association Scientific Sessions, Philadelphia, PA, November 2019
28. Han B, Yang J, Ling AY, **Kipps AK**, Shin AY, Beshish A. Functional Status Change among Infants and Children Post Cardiac Surgery for Congenital Heart Disease: A single Institution report. Heart Center Research Day at Stanford, March 2020

29. Heller S, Bates KE, Madsen NL, Khadr L, Morelle EM, Tignor A, Graupe M, **Kipps AK**. Successful reduction of Postoperative Chest Tube Duration and Length of Stay after Congenital Heart Surgery at four large centers: A Pediatric Acute Care Cardiology Collaborative and Pediatric Cardiac Critical Care Consortium improvement project. Heart Center Research Day at Stanford, March 2020
30. Olson I, Motonaga KS, Sacks LD, Arunamata A, Kwiatkowski D, Krawczeski C, Axelrod D, Su L, **Kipps AK**, Shenoy R, Bishop R, Grossfield P, Weiderback M, Romero-Villanueva L, Ceresnak SR. Implementation and Utility of a phone-based application for teaching auscultation skills to incoming pediatric cardiology fellows. Assoc. of Pediatric Program Directors annual meeting April 2020 (virtual format).
31. Iqbal MS, **Kipps AK**, Axelrod DM. Using Virtual Reality Heart Models to Teach Congenital Heart Disease to Trainees. Assoc. of Pediatric Program Directors annual meeting April 2020 (virtual format).
32. Zicarelli M, Nunez S, Sacks LD, Slaney C, Besso C, Feehan S, **Kipps AK**. Improving Frontline Nurse Preparedness and Perception during CVICU to Acute Care Transfers. Poster presentation at Lean Healthcare Academic Conference at Stanford, September 2020
33. Heller S, Bates KE, Madsen NL, Khadr L, Morelle EM, Tignor A, Graupe M, **Kipps AK**. Successful reduction of Postoperative Chest Tube Duration and Length of Stay after Congenital Heart Surgery at four large centers: A Pediatric Acute Care Cardiology Collaborative (PAC3) Project. Lean Healthcare Academic Conference at Stanford, September 2020
34. Jones J, Price E, Kameny R, Chavez R, Moyano M, Bell MP, Rey-Ardilla D, **Kipps AK**. Closing An Equity Gap: Improving Language Access in the Pediatric Cardiac Intensive Care Unit. Lean Healthcare Academic Conference at Stanford, September 2021
35. Nicholson M, Mak K, Connelly S, Pham M, **Kipps AK**. Reducing Unnecessary Prescriptions at Discharge. PC4/PAC3 conference. Atlanta, GA May 2022
36. Squires S, **Kipps AK**, Taylor K, Mak K, Spengler M, Nunez S, Connelly S, Escobar V, Gillar W, Chen X, Chadwick W. A Quality Improvement Initiative to Improve Discharge Medication Education on a Pediatric Cardiology Unit. Stanford Pediatrics Research Retreat, April 2022.
37. Ware AL, Jones C, **Kipps AK**, Marcuccio E, Patel SS, Plummer S, Ravishankar C, Figueroa M. Feeding Variation Among Infants in Acute Care Cardiology Units, a report from the Pediatric Acute Care Cardiology Collaborative (PAC3). American Academy of Pediatrics. Anaheim, California, September 2022 and at Heart Center Research Day at Stanford, October 2022.
38. Yang JK, Su F, DeSousa C, Graber A, Hedlin H, Feehan S, Graves A, Palmquist A, Cable R, Madsen NM, **Kipps AK**. Mitigating Alarm Fatigue and Improving the Care Provider, Patient and Family Experience through Reduction in Non-actionable Bedside Alarms. Cardiology 2022 conference. Huntington Beach, CA Sept 2022.
39. Nicholson M, Mak K, Connelly S, Pham M, **Kipps AK**. Reducing Unnecessary Prescriptions at Discharge. Lean Healthcare Academic Conference. Stanford, California, October 2022.

40. Shah A, Cordileone M, Palmon M, Jones J, Bernacki K, Connelly S, Nunez S, Chen C, Arunamata A, **Kipps AK**. Improving Discharge Efficiency on the ACCU, a PAC³ Project Local Experience. 5th Annual Heart Center Research Day. Palo Alto, CA. October 2022. *Awarded 1st Place Rapid Fire Presentation.*
41. Harmeling A, Leonard M, **Kipps AK**, Shin A, Palmon P, Kameny R. Measuring Health Equity in Cardiac Patient Outcomes at Lucile Packard Children’s Hospital, American Heart Association, Scientific Sessions, Chicago, IL, November 2022
42. Tignor A, Sheth S, Khadr L, Madsen N, Bates K, Graupe M, Hassan F, Hendricks K, Pater C, Plummer S, St John A, **Kipps AK**. Spread and Sustain of Multi-center QI: A Learning Network Project to Reduce Chest Tube Duration. Institute for Health Care Improvement National Forum. Orlando, FL, December 2022.
43. Harmeling A, Leonard M, **Kipps AK**, Shin A, Palmon P, Kameny R. Measuring Health Equity in Cardiac Patient Outcomes, Pediatric Cardiac Intensive Care Society Annual Meeting, Miami, FL, December 2022.
44. Squires S, **Kipps AK**, Taylor K, Mak K, Spengler M, Nunez S, Connelly S, Escobar V, Gillar W, Chen X, Chadwick W. A Quality Improvement Initiative to Improve Discharge Medication Education on a Pediatric Cardiology Unit Academic Pediatric Association, Washington DC, April 2023.
45. **Kipps AK**, Tignor A, Khadr L, Madsen N, Bates K, Graupe M, Connelly C, Sheth S. Spread and Sustain of Multi-center QI: A Learning Network Project to Reduce Chest Tube Duration. Stanford Medicine 9th Annual Quality Improvement and Patient Safety forum, Palo Alto, CA, May 2023
46. Birely AE, Hunter-Adamson L, Patel SS, Neal AE, **Kipps AK**. Understanding The Current Status and Opportunities In Onboarding Pediatric Cardiology Advanced Practice Providers. World Congress of Pediatric Cardiology and Cardiac Surgery, Washington, DC August 2023
47. Plummer S, Brunetti M, DiMaria K, Diaz I, B Fernandes B, Figueroa M, Hills BK, Jacobs J, **Kipps AK**, Kulkarni A, Nawathe P, Patel S, Tjoeng YL, Welke K, T Chan T. The Joint Equity, Diversity, and Inclusion Committee: A Unique Collaboration Between Collaboratives to Mitigate Disparities in Pediatric Cardiology. World Congress of Pediatric Cardiology and Cardiac Surgery, Washington, DC August 2023
48. Plummer ST, Patel SS, Schiller A, Elhoff J, Smith A, Becker E, Birely A, Del Grippo E, **Kipps AK**, Lay A, Patel T, Hanke S. Readmissions from the Pediatric Acute Care Cardiology Unit (ACCU): Results from the Pediatric Acute Care Cardiology Collaborative (PAC3) and Pediatric Cardiac Critical Care Consortium (PC4). World Congress of Pediatric Cardiology and Cardiac Surgery, Washington, DC August 2023
49. Nawathe P, Patel S, Kulkarni A, Hills B, Figueroa M, Plummer S, DiMaria K, Diaz I, Jacobs J, Fernandes B, **Kipps AK**, Tjoeng Y, Welke K, Chan T. Diversity In The Pediatric Cardiology And Cardiac Critical Care Workforce - A PC4/PAC3Survey. World Congress of Pediatric Cardiology and Cardiac Surgery, Washington, DC August 2023
50. Gall DB, Cleveland JD, **Kipps AK**. Early Post-operative Wound Management In North American Pediatric Heart Institutes. World Congress of Pediatric Cardiology and Cardiac Surgery, Washington, DC August 2023

51. Gall DB, Cleveland JD, Vergales J, **Kipps AK**. Perioperative Vaccine Practices at North American Pediatric Heart Institutes. World Congress of Pediatric Cardiology and Cardiac Surgery, Washington, DC August 2023
52. Gall DB, Cleveland JD, **Kipps AK**. Mid-term Post-operative Sternal and Wound Management in North American Heart Institutes. World Congress of Pediatric Cardiology and Cardiac Surgery, Washington, DC August 2023
53. Algaze CA, Bailly DK, Connelly C, Hoberman A, Gal V, Reichle G, **Kipps AK**, Dana M, Mueller DM, Schalke A, Bhat AH, Koth AM, Koch JD, Wellnitz C, Ruppe MD, Bushnell J, McCammond AN, Strokacker CM, Whiteside WM, Hoffman OL, Wolovits JS, Daniel L, Diddle JW, Cates M, Dietzman TW, Renna L, Sheth SS, Zachary S, Ghassemzadeh RA, Bickhaus A, Neumayr TM, Valentine KM, Ward E, Shin AY. An Intervention to Improve Variation in Outcomes Among Children Undergoing Congenital Heart Surgery: A Multicenter Learning Collaboration. World Congress of Pediatric Cardiology and Cardiac Surgery, Washington, DC August 2023
54. **Kipps AK**, Marshall AC, Lopez-Colon D, Sachdeva R, Dalal A, Ehrlich M, Ronai C, Stiver C, Chowdhury D, Bauser-Heaton H, Freud L, Choueiter N, Bansal N, Sutton N, Laraja K, Jone P, Owens ST, Jain SS, Co-Vu J. Gender Gap: Variation In Women's Representation Among Leadership Positions In Pediatric Cardiology Programs Across North America. World Congress of Pediatric Cardiology and Cardiac Surgery, Washington, DC Aug 2023

VIII. EDITORIAL SERVICE TO PROFESSIONAL PUBLICATIONS:

2009-current Ad hoc reviewer for Journals: Journal of American College of Cardiology, Pediatrics, Echocardiography, American Heart Journal, Clinical Medicine: Circulatory, Respiratory and Pulmonary Medicine, Clinical Medicine Reviews in Cardiology, Annals of Cardiac Anesthesia, International Journal of Cardiology, Journal of Neonatal-Perinatal Medicine, Pediatric Quality and Safety, Hospital Pediatrics, and International Journal of Pediatrics

IX. UNIVERSITY AND HOSPITAL ADMINISTRATIVE SERVICE

A. COMMITTEE SERVICE

Years	Departmental Service at UCSF
2010-12	Pediatric Cardiology fellowship selection interviews
2010	Curriculum development for Pediatric Cardiology clerkship rotation
2011	Compose the ACGME guidelines for Pediatric Echocardiography training.
2011	Curriculum development for Pediatric Cardiology resident rotation
	Departmental Service at Stanford
2012	Family Centered Rounds initiated for Acute Care Cardiology team
2012	Echocardiography attending liaison to fellowship training: Organization of summer lecture series and year-long training in echocardiography.

2012-current	Primary cardiologist for referrals from Dr. Michael Tran, Dr. Cam Arrington, all pediatric cardiologists at UCSF, and for the cardiology patients from IL, IN, IA, KS, NE
2012-current	Pediatric Cardiology (categorical) fellowship selection interviews
2012-2016	Pediatric Cardiology sub-specialty fellowship selection interviews for Non-invasive imaging 4 th -year position.
2013-2020	Heart Center Professional Practice Evaluation Committee (PPEC)
2013-current	LPCH Quality Improvement Committee
2013-2019	Member of the LPCH Code Committee.
2014-current	Heart center QAPI committee
2014-2017	Pediatric Early Warning System (PEWS) taskforce – Heart Center representative.
2016-2023	Pediatric Residency Program Intern Selection Committee
2016-2017	Packard 2.0 Preparation committees & Move-day Medical direction
2020-current	Fellow in the Stanford Medicine Center for Improvement
2021-current	Stanford School of Medicine Clinical Assistant Appointments and Promotions committee, alternate.
2022	MCHRI Grant reviewer
2022-current	Taskforce chair for Thrive: focused on improving mental health support to families in the Heart Center
2022	Main author of Heart Center Welcome Packet for families, work approved by patient and family advocacy and health literacy groups and translated into 10 languages.
2022-current	Heart Center Taskforce for Diversity, Equity, and Inclusion: Language Access Project Committee & Senior Quality Improvement Advisor
2022-current	Heart Center Supporting Staff Taskforce & Senior Quality Improvement Advisor
2022-current	Heart Center JEDI (Justice, Equity, Diversity, and Inclusion) Committee
2023	14 th Annual Pediatrics Research Retreat Poster Session Chair
2023	Search Committee, Cardiology Acute Care Medical Director
2023	Cardiology division advocacy committee member for Office of Child Health Equity

B. LEADERSHIP ROLES

2010-2012	UCSF Medical School	Director, Pediatric Cardiology Clerkship
2011-2012	UCSF Pediatric Residency	Director, Pediatric Cardiology Rotation
2013-2021	LPCH/Stanford	Medical Director: Acute Care Cardiology Unit

2013-current	LPCH/Stanford	PCU 200 Local Improvement Team Physician Lead
2013-2023	LPCH/Stanford	Co-Director, Pediatric Cardiology Rotation
2020-current	Stanford	Senior leader for Department of Pediatrics Scholarly Community for Quality Improvement
2021-2022	Stanford	Realizing Improvement through Team Empowerment (RITE) Medical Director
2021-current	Stanford	Pediatric Residency Program Coach
2022- current	Stanford	Pediatric Coaching and Mentoring Program mentor for junior faculty.
2023-current	Stanford	Pediatric Cardiology Fellowship Program Quality improvement Course director

X. SERVICE TO PROFESSIONAL ORGANIZATIONS

A. MEMBERSHIPS

2003-2006	American Academy of Pediatrics
2006-2010	American College of Cardiology
2008-current	American Heart Association
2009-2012	American Society of Echocardiography
2015-2022	Pediatric Cardiac Intensive Care Society
2015-current	Pediatric Acute Care Cardiology Collaborative (PAC ³)
2016-current	Pediatric Cardiac Critical Care Consortium (PC ⁴)
2018-current	Cardiac Networks United
2020-current	Fellow of the Stanford Medicine Center for Improvement
2020-current	ACC Women in Cardiology, Pediatric Cardiology chapter member
2021-current	ACC Adult Congenital and Pediatric Cardiology Advocacy Workgroup

B. COMMITTEE SERVICE TO PROFESSIONAL ORGANIZATIONS

2016-current	PAC ³ Executive Board
2016-current	PAC ³ Outreach and Education Committee
2016-current	PAC ³ Quality Improvement Committee
2016-current	PAC ³ Scientific Review Committee
2016-current	PC ⁴ Executive Board
2016-2019	Pediatric Cardiac Intensive Care Society – Quality Improvement Committee

2017	Design and execution of the first PAC ³ Hospital Survey, response rate 31/34 centers (91%) covering wide array of topics including staffing, unit size and structure, admission practices, patient demographics, drugs and therapies offered, policies and pathways.
2018-2019	Congenital heart disease Appropriate Use Criteria Panelist for American College of Cardiology, published in 2020.
2018	PAC ³ Conference Planning Committee: San Francisco, CA May 14-15, 2018
2018	PAC ³ Conference Planning Committee, Cincinnati, Ohio October 15-16, 2018
2019	Design and execution of PAC ³ Hospital Survey 2.0, response rate 31/32 centers (97%) covering wide array of topics including staffing, unit size and structure, admission practices, patient demographics, drugs and therapies offered, policies and pathways.
2019	PAC ³ Conference Planning Committee, Pittsburg, PA May 5-6, 2019
2019	PC ⁴ -PAC ³ Conference Planning Committee: Ann Arbor, MI November 3-5, 2019
2020-current	Stanford Medicine Center for Improvement: Teamwork Advisory Council member
2020	PAC ³ Conference Planning Committee (Originally scheduled for Denver, CO March 14-15)→ rescheduled and planned for virtual format April 22, 2020
2020-current	ACC Women in Cardiology, Pediatric Cardiology Writing Taskforce leader
2020	PC ⁴ -PAC ³ Conference Planning Committee (Virtual): Oct 12-13, 2020
2020-2023	Project design team for PC ⁴ network wide project, Target Based Care
2021-current	Joint Equity, Diversity, and Inclusion (JEDI) Committee for PC ⁴ and PAC ³
2021	PAC ³ Conference Planning Committee: April 28-29, 2021 (Virtual)
2021	Design and execution of PAC ³ Hospital Survey 3.0, response rate 29/38 centers (76%) covering wide array of topics including staffing, unit size and structure, admission practices, patient demographics, drugs and therapies offered, policies and pathways.
2021	PC ⁴ -PAC ³ Conference Planning Committee (Virtual): Oct. 19-20, 2021
2022	PC ⁴ -PAC ³ Conference Planning Committee and CME Committee: Atlanta, GA May 5-7, 2022.
2022	PAC ³ Conference Planning Committee: November 8-9, 2022 (Virtual)
2023	Clinical Practice Guideline writing group: Inpatient treatment of endocarditis in children with congenital heart disease (a PAC ³ project)

- 2023 PC⁴-PAC³ Conference Planning Committee, Toronto, Canada
April 28-30, 2023
- 2023 Design of PAC³ Hospital Survey 4.0
- 2023 Clinical champion auditor for PAC³ registry: Cook Children’s Hospital
audit May 10-11, 2023
- 2023 PAC³ Conference Planning Committee: November 2-3, 2023 (Virtual)

C. LEADERSHIP ROLES IN PROFESSIONAL ORGANIZATIONS & SOCIETIES

2014-current Founder & Co-Director **Pediatric Acute Care Cardiology Collaborative (PAC³)**

Vision: To improve cardiac acute care outcomes by fostering sustainable quality improvement initiatives and optimizing organizational partnerships.

Mission: The mission of the **Pediatric Acute Care Cardiology Collaborative is to improve cardiac acute care outcomes by focusing on quality, value, and experiences** as appreciated by all stakeholders. Success will be measured by our ability to reduce acute care complications, adjusted hospital length of stay, and less than 7-day all-cause readmission rates, as well as improving patient, family, and staff experience. We will employ validated and sustainable quality improvement methods to achieve our aims. PAC³ will intentionally optimize partnerships and build alignment with other collaboratives, medical organizations, and parent-driven advocacy groups. Success will be realized by metrics derived from a validated, audited, and prospective data registry.

Reach: As of 2023, 48 centers in US and Canada with 500 clinical members. The registry has >80,000 encounters from >60,000 patients. Due to PAC³ work, acute care cardiology is now recognized as a distinct sub-specialty in the field of pediatric cardiology. Some programs have established dedicated sub-specialty training tracks.

My role: Oversee all operations for this learning collaborative; lead executive committee to guide the 6 core committees (Quality improvement, Scientific review, Database/Registry, Patient and family advisory, and Education and outreach, Diversity, Equity, and Inclusion).

2017-current Executive council member for Cardiac Networks United

XI. PRESENTATIONS AND TEACHING

A. INVITED LECTURES

International Meetings

2016: **Novel Approaches to Integrating Inpatient and CICU Care: Alarm Fatigue – Is it avoidable?** Pediatric Cardiac Intensive Care Society biannual meeting. December 2016 in Miami, FL

2018: **Collaborative quality improvement project to shorten chest tube duration and length of stay across Centers in the Pediatric Acute Care Cardiology Collaborative (PAC³) and Pediatric Cardiac Critical Care Consortium (PC⁴).** Pediatric Cardiac Intensive Care Society biannual meeting. December 2018 in Miami, FL

2022: **Design for Sustain: Levels of Reliability in Quality Improvement Projects.** PC⁴/PAC³ annual conference, May 2022, in Atlanta, GA.

2022: **Optimal modalities and strategies for monitoring the patient in the Acute care cardiology unit.** Cardiology 2022 conference. Huntington Beach, CA Sept 2022.

2023: **The Improvement Portfolio. A Call to action for collaboratives to foster member's academic advancement.** Presentation and moderator for panel discussion at PC⁴/PAC³ Conference, Toronto Canada, April 2023.

National Meetings: Presentations & Moderated Sessions

2016: **PAC³ Initiative,** Pediatric Cardiac Critical Care Consortium (PC⁴) Annual Meeting, Ann Arbor, Michigan, October 2016

2017: **PAC³ Welcome and Year in review including committee structure, membership and recruitment of centers.** PAC³ & NPC-QIC Conference, Cincinnati, Ohio, May 17, 2017

2017: **Chest Tube Practice Quality Improvement Project update and workshop moderator,** PAC³ & NPC-QIC Conference, Cincinnati, Ohio, May 19, 2017

2017: **PAC³ Initiative,** Pediatric Cardiac Critical Care Consortium (PC⁴) Annual Meeting, The Graduate Hotel, Ann Arbor, Michigan, October 17, 2017

2017: **Chest Tube Practice Quality Improvement Project update and workshop moderator,** Pediatric Cardiac Critical Care Consortium (PC⁴) Annual Meeting, The Graduate Hotel, Ann Arbor, Michigan, October 17, 2017

2018: **Welcome and Year in review,** PAC³ Conference: San Francisco, CA May 14, 2018

2018: **Chest Tube Practice Quality Improvement Project update and workshop moderator,** PAC³ Conference: San Francisco, CA May 15, 2018

2018: **Hospital Practice survey 2.0 creation session leader,** PAC³ Conference, Cincinnati, Ohio, October 15, 2018

2018: **All teach-All learn session moderator,** PAC³ Conference, Cincinnati, Ohio, October 15, 2018

2018: **Chest Tube Practice Quality Improvement Project update and workshop moderator,** PAC³ Conference, Cincinnati, Ohio, October 15, 2018

2019: **Welcome and Year in review,** PAC³ Conference, Pittsburg, PA May 5, 2019

2019: **All teach-All learn session moderator,** PAC³ Conference, Pittsburg, PA May 5, 2019

2019: **Chest Tube Practice Quality Improvement Project session: initiation of second cohort/Spread phase,** PAC³ Conference, Pittsburg, PA May 6, 2019

2019: **Launch of parent involvement in PAC³,** PAC³ Conference, Pittsburg, PA May 6, 2019

2019: **Welcome and Year in review;** PC⁴-PAC³ Conference: Ann Arbor, MI Nov. 3, 2019

2019: **Parent and Family Advocacy Committee launch session**; PC⁴-PAC³ Conference: Ann Arbor, MI November 4, 2019

2019: **Publication library and Advance practice providers Education project design session**, PC⁴-PAC³ Conference: Ann Arbor, MI November 4, 2019

2019: **Chest tube QI project: Pioneer and Spread centers – optimizing results**. PC⁴-PAC³ Conference: Ann Arbor, MI November 5, 2019

2020: **Connecting to our purpose – ignite talk**. PAC³ Conference April 22, 2020 (virtual)

2020: **Model for Improvement: Co-creating a network level Key Driver Diagram**, PAC³ Conference April 22, 2020 (virtual)

2020: **Chest Tube Practice Quality Improvement Project update: spread site engagement and early results**. PAC³ Conference April 22, 2020 (virtual)

2020: **Connecting to our purpose**. PC⁴-PAC³ Conference (Virtual): Oct 12, 2020

2020: **Focus on sustain: Chest tube project and future Path 3 (network wide) projects**, PC⁴-PAC³ Conference (virtual): Oct 13, 2020

2021: **Welcome and Celebration of accomplishments**, PAC³ Conference: April 28, 2021 (virtual)

2021: **Health Equity and PAC³**, PAC³ Conference: April 28, 2021 (virtual)

2021: **All teach, all learn moderator**, PAC³ Conference: April 29, 2021 (virtual)

2021: **Chest tube project sustain update & plan to close project**. PAC³ Conference: April 29, 2021 (virtual)

2021: **Health equity survey results and next steps**, PC⁴-PAC³ Conference (Virtual): October 19-20, 2021

2021: **Acute care cardiology and early literacy: Talking is Teaching program**, PC⁴-PAC³ Conference (virtual): October 19, 2021

2021: **Closing and gratitude session**, PC⁴-PAC³ Conference (virtual): October 20, 2021

2022: **What inspires us: A look back on accomplishments of the year**. PC⁴-PAC³ Conference in Atlanta, GA May 6, 2022.

2022: **Furthering Engagement: Patient and Family Action Committee**; co-lead session at PC⁴/PAC³ annual Conference in Atlanta, GA, May 6, 2022,

2022: **Chest tube Change Package: how to sustain and spread once a multisite collaborative project has concluded**. PC⁴-PAC³ Conference: Atlanta, GA, May 6, 2022.

2022: **Our purpose and our progress**. PAC³ Conference: November 8, 2022 (virtual)

2022: **Talking is Teaching pilot project results and Neurodevelopmental support in Acute Care Cardiology**. PAC³ Conference: November 9, 2022 (virtual)

2023: **A look back to look forward: PAC³ learning collaborative growth and future**. PC⁴-PAC³ Conference, Toronto, Canada April 29, 2023

2023: **Change and Conflict: Fundamentals of Adaptive Leadership.** Lecture for the Department of Cardiology, Boston Children’s Hospital. June 1, 2023

2023: **Inflammatory and infectious cardiac conditions.** Lecture for Fellows in Adolescent Medicine Learning Initiative. October 13, 2023.

Presentations at PAC³ Executive meetings – each attended by 15-30 members representing >20 Heart Centers in US and Canada. Create and facilitate each meeting agenda, presenting specific topics as listed.

2015: November (Orlando, FL): Official kick-off meeting to create the learning collaborative; 15 centers in attendance.

2016: April (Chicago, IL), August and November (by conference call), and December (Miami, FL): Data definitions for registry fields, quality improvement project progress.

2017: January, February, April, May (Cincinnati, OH), June, July, August, September, November: Discuss top goals for organization including launching the PAC3 registry and Chest tube QI project. Design of first comprehensive PAC3 center survey.

2018: February, May, October, December: Discussion of Cardiac Networks United membership, 1- and 5- years goals, registry launch, budget. Presentations on Chest tube QI progress.

2019: February, May, August and November. Creation of “Education and Outreach” committee in January 2019. Collaborative wide survey update and plan to compared to original survey. Presentations on Chest tube QI progress.

2020: April (focused on COVID-19 and impact on acute care cardiology); May, September, November. Establishment of DEI committee

2021: February, June, and November: Fiscal update, Hearts to Home project planning, Learning collaborative maturity grid, Health equity module early planning

2022: June, August, and November: Registry data and supporting research and publications; Updating the network wide key driver diagram, data sharing policy re-fresh

2023: January, April, June, August: Health equity module and version 2 of registry, hospital survey plans, building a risk-adjustment model for data interpretation, expansion of executive committee membership, promoting diverse and junior authorship and conference planning.

Local and Regional Invited Presentations

2016: **The Evaluation of Chest Pain in the Child and Teenager.** Adolescent Division Grand Rounds, Lucile Packard Children’s Hospital at Stanford, October 2016

2016: **Systemic Cardiac problems and Myocardial diseases.** Pediatric Grand Rounds, El Camino Hospital in Mountain View, CA, November 2016

2018: **Approach to the Infant with Congenital Heart Disease.** Pediatric Grand Rounds, Dominican Hospital in Santa Cruz, CA, June 2018

2018: Hospital Council Summit Innovation Challenge Breakout session in Monterrey, CA

2018: **Approach to the Infant with Congenital Heart Disease.** Pediatric Grand Rounds, El Camino Hospital in Mountain View, CA, September 2018

2020: Hodo L., Kipps A., **“Quality Projects Needs Assessment and Obstacles”** Stanford Quality Improvement and Leadership Training (QUILT) Program, Stanford, California, March 2020

2021: **The Power of Learning Networks: The story of Pediatric Acute Care Cardiology Collaborative.** Stanford Medicine Center for Improvement lecture, September 2021

2022: **Equity in Data: The creation of a Health Equity Module for a Pediatric Cardiac Collaborative Data Registry** -- Stanford Medicine’s Building a Culture of Health Equity Summit, May 2022.

2023: **Cyanotic Congenital Heart disease: Diagnosis and initial management.** Pediatric Grand Rounds, Northern California Dignity Hospitals, February 2023

2023: **Pursuing Meaning for a Sustainable Career** – Panelist for Pediatric Coaching and Mentorship session for Department of Pediatrics. March 2023.

B. TEACHING:

Resident, Fellowship, and Faculty Teaching:

Years	Course No. & Title	Contribution
2015-2019	Stanford Pediatric Cardiology Bootcamp – Faculty Facilitator	
2016-current	Pediatric Fundamentals of Quality Improvement – Faculty	
2016; 2022	Pediatric Residency Academic Half Day – Cardiology – Co-director	
2020	Stanford Quality Improvement and Leadership Training Program – Faculty	

Medical Student Clinical Teaching:

5/2010-3/2012	UCSF Pediatric Cardiology rotation	Clerkship Director
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Pre-Clinical Teaching

11/2007-11/08	Harvard Medical School (Cardiology)	Lab session instructor
2/2010-11	UCSF Life Cycle (Pathology 101)	Lab session instructor
9/2010-3/2011	UCSF Foundations of Patient Care	Faculty Facilitator
9/2011-3/2012	UCSF Foundations of Patient Care	Faculty Facilitator
5/2018	Principles of Clinical Medicine for Stanford Medical School MSPA	Lecturer: Heart Sounds
5-6/2018	INDE 221 Science of Medicine I	Case Study Lab instructor
9/2019-3/2020	Early Clinical Engagement (ECE) Course	Faculty mentor
4/2021	Cardiovascular block	Echocardiography Lab session instructor

C. MENTORSHIP:

Junior Faculty Mentorship

Year	Name	Role
2019-current	Anar Shah, DO	Clinical and QI mentor
2020-current	Martha Nicholson, MD	QI academic mentor
2020-current	Jessica Jones, MD	Clinical and QI mentor
2022-current	Sara Szkola, MD	PCAMP mentor
2022-current	Sara Kibrom, MD	PCAMP mentor
2023-current	David Mahoney, MD	PCAMP mentor
2023-current	Brandii Criss, MD	PCAMP mentor

Fellow Mentorship:

Year	Name	Role
2014-2017	Anica Bulic, MD	Fellowship Advisor
2018 – 2021	Heather Giacone, MD	Fellowship Advisor
2019 - 2021	Dana Gal, MD	Fellowship Advisor
2021-current	Azadeh Issapor, MD	Research/QI Mentor
2021-2023	Jeffrey Yang, MD	Research mentor
2022-current	Emily Larimer, MD	Research/QI Mentor & Scholarship Oversight Committee
2022-current	Lyndsay Hunter-Adamson, MD	Research/QI Mentor
2023-current	Priyanka Saha, MD	Research/QI Mentor

Resident Mentorship:

Year	Name	Role
2013-2016	Carmel Bogle, MD	Research Mentor
2014-2017	Alejandro Borquez, MD	Resident Advisor
2017-2019	Anne E. Taylor, MD	Research Mentor
2017-2020	Kimberlee Jacobs, MD	Resident Advisor
2021-2023	Jackson Toth, MD	Resident Coach
2021-	Alexandra Csortan, MD	Resident Coach
2021-	Lauren Rivkin, MD	Resident Coach
2021-	Brendan Wesp, MD	Resident Coach
2021-	Emily Coker, MD	Resident Coach

2022-	Kelly Aluri, MD	Resident Coach
2022-	Juan Pablo Forero, MD	Resident Coach
2022-	Sumana Rallapalli, MD	Resident Coach
2022-	Taylor Vasquez, MD	Resident Coach
2022-	Helen Wei, MD	Resident Coach
2023-	Jon Schur, MD PhD	Resident Coach
2023-	Mustafa Shakir, MD	Resident Coach

Pre-doctoral Student Mentorship:

Year	Name	School/Program	Role
2008-09	Erik Lewis	Children’s Hospital Boston	Supervised research
2009-10	Colin Feuille	UCSF	Supervised research
2019-20	Emily Trimm	Stanford	ECE Mentor
2022	Anna Harmeling	Stanford SURF program	Project mentor
2022	Michael Leonard	Stanford SURF program	Project mentor
2022-23	Blake Thomson	Stanford SOM	ECE Mentor

D. TEACHING TOOLS & COURSES DEVELOPED:

2009: Echo Cards: Flip-book of images for teaching the normal echocardiogram views

2009-11: UCSF Pediatric Cardiology Rotation materials

2009-current: Echo lectures: Collection of lectures on a variety of pediatric cardiology topics for weekly echocardiography teaching conference.

2010: Fellowship reading curricula: Collection of documents, papers, and PowerPoint lectures on a variety of pediatric cardiology topics.

2013: Pediatric cardiology Purple team residency rotation case-based topics and materials to aid weekly fellow-led resident teaching sessions. Project completed with Inger Olson and Anna Harbison.

2013-2016: Write and locally publish the **“3West Purple Team Guidelines Handbook”** a 125-page book geared for pediatrics residents covering topics from logistics of inpatient work, family centered rounds, and patient care to teaching topics on cardiac anatomy and nomenclature, the cardiac exam, common lesions and surgical therapies, and pediatric electrophysiology. The guide has been given to all cardiology fellows, all second-year pediatric residents, and several other learners such as rotating medical students and 3W pharmacists. Edition 3 was published in May 2015 and distributed to all rising junior residents and new cardiology fellows. Edition 4 was released in July 2016.

2014-2019: Co-teach with Inger Olson bi-weekly cardiology exam skills using simulator “HARVEY” for rotating pediatric residents.

2016-18: Complete re-write and organization of ***Pediatric Acute Care Cardiology Handbook*** with Inger Olson, Charitha Reddy, and Neha Purkey. This book covers general principles of cardiology, common complaints such as murmurs and chest pain, congenital heart disease and surgical repairs, EKG interpretation and common arrhythmias, pulmonary hypertension, heart failure, acquired heart disease, and genetic syndromes with an emphasis on questions for self-study.

2018: Pilot **Academic Half Day** – First of any division to design and execute a half day program for all pediatric residents covering several topics in pediatric cardiology. Curriculum design and recruitment of all lecturers, facilitation of sessions, and delivery of introductory lecture.

2018-2023: Design of **15-lecture series** to be used nationally (via Heart University website) for onboarding new Advanced Practice Providers to begin work on Acute Care Cardiology Units. Each topic has a pre/post quiz and CNE credit will be offered. For this I also recorded 2 lectures on cardiac auscultation.

2021: Edition 4 of the ***Pediatric Acute Care Cardiology Handbook*** with new material covering exercise physiology, more cardiac lesions, cardiopulmonary bypass, and other topics.

2021-22: Addition of **Diversity, Equity, and Inclusion curriculum** to the Purple team Rotation website, including 6 videos covering DEI topics that pertain to pediatric cardiology and a parent experience video. Currently 2 noon lectures/month on this topic.

2022: **Academic Half Day**. All pediatric residents participated in one of two 4-hour sessions that covered several topics in pediatric cardiology. Curriculum design and recruitment of all lecturers, facilitation of sessions, and delivery of introductory lecture.

2023: Edition 5 of the ***Pediatric Acute Care Cardiology Handbook*** with new material covering pediatric heart transplantation.

XII. SYSTEMS INNOVATION, QUALITY IMPROVEMENT & PATIENT SAFETY

A. LEADERSHIP ROLES IN QUALITY IMPROVEMENT

2013-current: PCU 200/Acute care cardiology Local Improvement Team Physician Lead

Lead a dedicated multi-disciplinary improvement team including Nurse Co-Lead; IS Representative, Clinical Nurse Specialist, Nurse managers, Nurse Educator, Heart Center RN Director, Quality Manager, Patient Advisory Committee Lead, and Infection Prevention Control representative in QI projects and align unit goals with those of the Heart Center and hospital. Joint work with CVICU LIT on several shared projects. Monthly collaboration with 12 nurses on Nursing Shared Leadership team.

As the original and ongoing medical director for the ACCU LIT, I have worked with several nursing dyad leaders to build one of the most successful LITs at LPCH. The ACCU is often chosen as the pilot unit for hospital-wide efforts due to our track record of effective change management and we participate in national multisite projects to accelerate improvement. In addition to many projects detailed below, this group strives to assure a very low hospital acquired condition rates. The last serious safety event was in February 2018.

2020-current: Senior leader for Department of Pediatrics Scholarly Community for Quality Improvement

Jointly with Lauren Destino, we lead a group of 8 faculty who focus on Quality improvement as their scholarly concentration. As one of the 10 founding PSC leaders, we built the program prior to the first section meetings.

2021-2022: Realizing Improvement through Team Empowerment (RITE) Medical Director:

Teach multidisciplinary improvement teams from across school of medicine the fundamentals of Quality improvement and change management. Each cohort has 10 2-hour teaching sessions delivered over 5 months. I led 2 cohorts (5 and 8 teams each) through the course. All teams graduated and accomplished their project aims.

B. IMPROVEMENT PROJECTS – Leadership role

National/International reach:

2017-2021: Chest tube duration reduction (with PAC³). I lead a collaborative wide project of 18 sites involving >6000 postoperative patients. PAC³ hosted 34 webinars with 50-75 attendees/session. After conclusion of project, I was lead author for a change package to facilitate any program adopting this improvement effort posted on pac3quality.org. LPCH site specific work started in 2012. The Pilot cohort (n=3547) has sustained a 23.7% reduction in chest tube duration (median 88.8 vs 67.7 hours, p<0.001) and a 12.5% reduction in LOS days (median 8 vs 7 days, p=0.005).

2017-2022: CHDcarecompass.com: Auxiliary funded (\$225,000) 5-year project to co-design a parent/patient-facing website to support them on the journey of congenital heart care from fetal diagnosis to living with congenital heart disease as teen/adult. Multisite collaborators and parent videos for logistical assistance and emotional support during CHD care. Fully translated into Spanish (November 2023). Multiple partnerships and endorsements with national organizations, including Ollie Hinkle Heart Foundation and Conquering CHD. In last 12 months, 1867 website users, of which 519 are from outside the US. Most common countries represented include Canada, India, United Kingdom, China, Australia, and Spain.

2021-current: Talking Is Teaching (a program by Too Small to Fail): promotes literacy in a pilot of 4 PAC³ centers, including LPCHS, by distributing books and resources to parents in the ACCU emphasizing the importance of talking, reading, and singing with their young children. National campaign with more participating centers launching in fall 2023.

2022-current: Thrive: improving mental health support for Heart Center families. In collaboration with 5 other heart centers nationally, I built a local team of cardiologists, psychologists, psychiatrists, social workers, family advisors, nurses, advanced practice providers, and child life specialists advocating to build a comprehensive program for psychosocial support across all areas of the heart center. In September 2023 we gained budget approval to hire 2 new faculty psychologists to build this Heart Center team.

Local/Regional Projects with leadership role:

2014-2017: Schedule based family centered rounds. Mean RN attendance increased from 69% to 87% and participation increased from 48% to 80% and families felt more informed and able to attend; their presence at rounds rose from 66% to 85%. Now used in several acute care teams at LPCH. Several other hospitals are adapting this form of rounds.

2015-16: Discharge efficiency project. Standardized communication to accelerate day-of discharge testing (e.g. CXR, echocardiogram), and improved notification of outpatient pharmacy about pending discharges. This eliminated cardiothoracic surgical cancellations related to delays in discharges.

2015-16, 2019-2020, 2022: Compete overhaul of all materials sent to families pre-operatively to prepare for elective cardiothoracic surgery. In 2019 further edits and refinements made to the post-surgery instructions for 3 age groups (neonate, child, teen/adult). In 2022 new booklet created in conjunction with patient and family advocacy and education departments and translated into 6 languages.

2015-16: Permit milrinone and remodulin initiation on acute care. Adapting successful processes at other PAC³ centers. Adding care practices and supporting a higher level of acuity in ACCU facilitates earlier transfer from Cardiovascular ICU and lowers need for back transfers to CVICU.

2015-current: Surgical site infection (SSI) prevention. Littman stethoscope placed at bedside for each patient, SSI bundle implementation and adaption for the acute care cardiology area. With twice daily checks/cleaning, we have had minimal attrition of these stethoscopes allowing us to sustain for >8 years.

2017: Blended oxygen to acute care cardiology. This was needed as a precursor to high flow. Nurse and respiratory therapy education and engagement.

2018: Permit patients on stable or weaning high flow oxygen to transfer from CVICU to acute care cardiology. Required RN education, new policy, critical care oversight and CNO buy in. In 2019, this expanded house wide in acute care, and has helped patient flow from CVICU and PICU to the acute care wards.

2017-2018: Meds-to-Bed pilot program and project to increase accuracy and efficiency of discharge medicine reconciliation. Logistically successful and helped patient/family satisfaction. Will be broadened across LPCH in 2024 due to planned off-site move of outpatient pharmacy.

2019-current: Transfer project 2.0: To address concerns that our ACCU RNs were off the floor for long periods, and for inefficiencies leading to later transfers that are less safe, adjusted the CVICU to 200 transfer process including emphasis on parent preparation for PCU 200, patient physical preparation, simplified the process map, and established standard transfer times to streamline communication.

2019-current: Nursing morale project to bolster teamwork/support and communication, leading to multiple interventions such as new standardized work for charge nurse, staffing augmentations. Lead to combining LIT and Shared Governance meetings monthly to support nursing lead project work. Notable results include improvement in "Teamwork within unit" on our unit Culture of Safety results, recognition of this work from Magnet Surveyors, and award of the Nightingale Award in 2019 for Unit teamwork.

2021-22: High flow nasal cannula oxygen in Acute care (initiation). Launched in ACCU and all acute care areas by mid-November 2022 help offload our ICUs during the RSV/COVID surge winter 2022-23. This addition to our capabilities on ACCU and has prevented several CVICU bouncebacks and between November 2022 and March 2023, this project "saved" ~450 ICU days across LPCHS.

2022-current: Standardization of venous thrombus treatment in inpatient cardiac areas, and minimize the patients discharged home on lovenox by introducing DOAC (apixaban) protocol. I am a key mentor for the senior cardiology fellows class QI project.

2023-current: Weekly **DEI multidisciplinary rounds** for acute care cardiology. Forum created in June 2023 for attendings, RN leadership, social work team, and case managers to discuss each patient and identify language or other barriers to successful efficient discharge and reflect on challenges to providing equitable care and potential unconscious biases affecting patient care.

C. IMPROVEMENT PROJECTS - Participant role

National/International reach:

2012-2014: Cardiovascular Intensive Care Unit to Acute Care Cardiology Unit transfer project. Aligned a standardized iPASS handoff with both teams in person and minimize the time gap between handoff and physical transfer of the patient from CVICU to ACCU. Time between verbal handoff and patient transfer decreased from baseline of 6.5 hours to 25 minutes. Scores for the handoff/transitions domain of a national culture of safety survey doubled. I served as key member of the acute care team and for >10 years, I have lead the sustain phase. Considered exemplary handoff for the rest of LPCH; the PICU has replicated for their transfers. It has spread to several other children's hospitals.

2021-current: creation of the **Joint Equity, Diversity, and Inclusion (JEDI) Committee between PC4 and PAC3** collaboratives to mitigate disparities in pediatric cardiology. This committee is focused on language access, URIM provider recruitment and retention, fostering EDI champions at every heart center, and creating an EDI webinar series.

2022-current: AAP Roadmap Project, the American Board of Pediatrics national effort to support the resilience and emotional health of pediatric patients with chronic conditions, their families, and the medical teams who care for them. I am the local Senior QI lead, mentor to Meaghan Beattie, MD, and direct participant in the national collaborative. Our intent will be to spread this to the entire cardiology outpatient division and facilitate spread across all pediatricians at LPCH who care for children with chronic illness.

2020-2023: Project design team for the **PC⁴ network wide project to spread Target Based Care** intervention to an initiative that integrates historical performance derived site-specific targets into care delivery and aims to reduce variation in outcomes. This 2-year learning collaborative involving 16 centers to assess generalizability of this program and lead to a special cause reduction in aggregate postoperative CICU duration from 3.4 to 3.0 days (12%) and overall hospital duration from 8.0 to 7.7 days (4%).

2020-current: Hearts to Home PAC³ project to improved discharge efficiency. Mentoring Anar Shah, DO to be our site lead (one of 13 sites nationally), we have decreased the average wait time between medical readiness and physical departure of our patients from 8 to 3 hours.

Local/Regional reach:

Clinical effectiveness and testing minimization:

2014-15: Eliminated the standard practice to do an effusion check for infants <6 months old after temporary pacing wire removal, thereby decreasing the total number of postoperative echocardiograms in this population.

2015-16: Eliminated the routine screening by echocardiogram after cardiac biopsy.

2015-current: Pathway and Target based care Clinical effectiveness work. This uses local outcome data to promote a shared mental model among the care team by establishing transparent clinical targets within the hospitalization and transforms data into a continuous learning system. I have been a core member of the heart center CE team from the first pathway to address postoperative care in Tetralogy of Fallot repair to our current state with 12 cardiac surgeries with pathway/TBC targets.

2021-2022: Project to reduce unnecessary prescriptions at hospital discharge. Focused on famotidine and albuterol, we achieved a 32% reduction in FY22 for these non-cardiac medications. I mentored a team of 4 providers in this RITE project.

Prevention of Hospital Acquired Conditions:

2013-current: CLABSI reduction, SSI reduction and other HAC reduction, in conjunction with LPCH-wide efforts. In past 2 years in our ACCU there have been no pressure injuries or catheter related urinary tract infections, and only 5 central line associated blood stream infections for a rate of 0.70/1000 line days (down from 1.76/1000 days in FY21). Last serious safety event was > 5 years ago in February 2018.

2014-2016; 2019-2022: Alarm fatigue minimization: Implementation of data-driven vital sign parameters in acute care cardiology unit safely decreased the total alarm frequency by 21% in the unit. (See publication above). In phase 2, with Value Improvement Project funding, we implemented delays to the oxygen saturation alarms resulting in 73% drop in median alarms per monitored bed day across acute care cardiology and PICU.

2022-current: Mentor for pediatric oncology fellow, Emily Larimer, in a project to improve situational awareness and decrease emergent transfers on the oncology and stem cell transplant floor. Project intervention currently with >95% uptake, outcome data collection ongoing. Conducted a qualitative study of barriers and facilitators to situational awareness through focus groups with over 30 physicians, APPs, and nurses.

Diversity, Equity, Inclusion and Language access:

2021-current: Improve engagement with interpreters >1 time daily by medical and nursing teams by minimizing barriers to having interpreters (in person or virtual) translate all communications to these families. Expanding in FY24 to assure we have interpreters at every CVICU to ACCU handoff for non-English speaking families.

2022-current: Work with SURF students to create an equity dashboard for the various outcomes (e.g. length of stay, readmissions) for the Heart center.

2022-current: Improving discharge medication education on our acute care cardiology unit with pilot of the **Medication Action Plan (MAP)** software which provides customizable medication schedule and translates into 13 languages, features that have been associated with reducing medication errors. MAP use increased from 20% to 75% within 3 months and has sustained >70% for >1 year.