Stanford



Andrew Young Shin

Clinical Professor, Pediatrics - Cardiology

CLINICAL OFFICE (PRIMARY)

- **Pediatric Cardiology CVICU**

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Bio

CLINICAL FOCUS

- Cardiology (Heart), Pediatric
- Pediatric Critical Care Medicine

ACADEMIC APPOINTMENTS

- Clinical Professor, Pediatrics - Cardiology
- Member, Cardiovascular Institute
- Member, Maternal & Child Health Research Institute (MCHRI)

ADMINISTRATIVE APPOINTMENTS

- Executive Director, Innovations & Clinical Effectiveness, (2020- present)
- Associate Chief Quality Officer, Lucile Packard Children's Hospital Stanford, (2019-2020)
- Associate Medical Director, Pediatric Cardiovascular Intensive Care, (2014-2019)
- Medical Director, Systems Design and Utilization Research at Stanford, (2015- present)

HONORS AND AWARDS

- HIMSS Nicholas E. Davies Award of Excellence for Clinical Effectiveness, Healthcare Information and Management Systems Society (2018)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Research Advisory Board, International Sai Prema Foundation (2020 - present)
- Liason, American Heart Association's Leadership Committee of the Council on Quality of Care and Outcomes Research (2019 - present)
- Medical Advisory Board, Pediatric Congenital Heart Association (2019 - present)
- Member, Board of Directors, Quality Safety and Service Committee, Lucile Packard Children's Hospital (2018 - present)
- Member, Pediatric Cardiac Critical Care Consortium (2017 - present)
- Member, Pediatric Cardiac Intensive Care Society (2015 - present)
- Member, American College of Cardiology (2016 - present)

- Member, American Heart Association (2016 - present)

PROFESSIONAL EDUCATION

- Board Certification: Pediatric Cardiology, American Board of Pediatrics (2017)
- Medical Education: University of California San Francisco Registrar Office (1999) CA
- Board Certification: Pediatric Critical Care Medicine, American Board of Pediatrics (2008)
- Fellowship: Boston Children's Hospital (2008) MA
- Fellowship: Boston Children's Hospital (2006) MA
- Board Certification, Boston Children's Hospital , Pediatric Critical Care (2008)
- Residency: Boston Children's Hospital (2003) MA

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

SURF PROGRAM

The SURF program is an innovative collaboration between LPCH, Stanford University Hospital and the Stanford School of Engineering. The program has focused on improving quality and safety of patient care, improving hospital operations and promoting clinical effectiveness utilizing contemporary technologies such as machine learning, mathematical optimization, simulation and a variety of statistical, probabilistic and computational tools. The program has 2 independent funding mechanism to primarily improve patient care/hospital operations and improve academics for faculty within the department of Pediatrics at LPCH.

https://surf.stanford.edu/

CLINICAL EFFECTIVENESS

The Clinical Effectiveness (CE) Program is a funded program that aims to understand and improve unnecessary variation in healthcare delivery in order to optimize quality of care and reduce wasteful expenditures. The CE program has developed innovative programs such as Target Based Care, an award-winning intervention to reduce variation in hospital length of stay and currently a multi-center trial involving more than 20 hospitals in North America. In 2016, the CE program included the first CE fellowship program in a pediatric training program with 3 cycles of graduates. The CE program is supported by LPCH and a philanthropic gift by Susan Choe and Thomas Tobiason.

Teaching

COURSES

2026-27

- Healthcare Operations Management: MS&E 263, PEDS 263 (Win)
- Healthcare Systems Design: MS&E 463, PEDS 463 (Spr)

2025-26

- Healthcare Operations Management: MS&E 263, PEDS 263 (Win)
- Healthcare Systems Design: MS&E 463, PEDS 463 (Spr)

2024-25

- Healthcare Operations Management: MS&E 263, PEDS 263 (Win)

- Healthcare Systems Design: MS&E 463, PEDS 463 (Spr)

Publications

PUBLICATIONS

- **Recommendations for Centers Performing Pediatric Heart Surgery in the United States.** *The Annals of thoracic surgery*
  Backer, C. L., Overman, D. M., Dearani, J. A., Romano, J. C., Tweddell, J. S., Kumar, S. R., Marino, B. S., Bacha, E. A., Jaquiss, R. D., Zaidi, A. N., Gurvitz, M., Costello, J. M., Pierick, et al
  2023

- **Recommendations for Centers Performing Pediatric Heart Surgery in the United States.** *World journal for pediatric & congenital heart surgery*
  Backer, C. L., Overman, D. M., Dearani, J. A., Romano, J. C., Tweddell, J. S., Ram Kumar, S., Marino, B. S., Bacha, E. A., Jaquiss, R. D., Zaidi, A. N., Gurvitz, M., Costello, J. M., Pierick, et al
  2023; 14 (5): 642-679

- **The Association Between Central Line-Associated Bloodstream Infection and Central Line Access.** *Critical care medicine*
  Ward, A., Chemparathy, A., Seneviratne, M., Gaskari, S., Mathew, R., Wood, M., Donnelly, L. F., Lee, G. M., Scheinker, D., Shin, A. Y.
  2023

- **WAVES - The Lucile Packard Children's Hospital Pediatric Physiological Waveforms Dataset.** *Scientific data*
  Miller, D. R., Dhillon, G. S., Bambos, N., Shin, A. Y., Scheinker, D.
  2023; 10 (1): 124

- **Target Based Care: An Intervention to Reduce Variation in Postoperative Length of Stay.** *The Journal of pediatrics*
  Shin, A. Y., Rao, I. J., Bassett, H. K., Chadwick, W., Kim, J., Kipps, A. K., Komra, K., Loh, L., Maeda, K., Mafla, M., Presnell, L., Sharek, P. J., Steffen, et al
  2020

- **Differences in Central Line-Associated Bloodstream Infection Rates Based on the Criteria Used to Count Central Line Days.** *JAMA*
  Scheinker, D., Ward, A., Shin, A. Y., Lee, G. M., Mathew, R., Donnelly, L. F.
  2020; 323 (2): 183–85

- **Cost-effectiveness of Humanitarian Pediatric Cardiac Surgery Programs in Low- and Middle-Income Countries.** *JAMA network open*
  Cardarelli, M., Vaikunth, S., Mills, K., DiSessa, T., Molloy, F., Sauter, E., Bowtell, K., Rivera, R., Shin, A. Y., Novick, W.
  2018; 1 (7): e184707

- **Changes in Efficiency and Safety Culture After Integration of an I-PASS-Supported Handoff Process.** *Pediatrics*
  Sheth, S., McCarthy, E., Kipps, A. K., Wood, M., Roth, S. J., Sharek, P. J., Shin, A. Y.
  2016; 137 (2): 1-9

- **Use of a Checklist and Clinical Decision Support Tool Reduces Laboratory Use and Improves Cost.** *Pediatrics*
  Algaze, C. A., Wood, M., Pageler, N. M., Sharek, P. J., Longhurst, C. A., Shin, A. Y.
  2016; 137 (1): 1-8

- **Exploring Value in Congenital Heart Disease: An Evaluation of Inpatient Admissions.** *Congenital heart disease*
  Shin, A. Y., Hu, Z., Jin, B., Lal, S., Rosenthal, D. N., Efron, B., Sharek, P. J., Sutherland, S. M., Cohen, H. J., McElhinney, D. B., Roth, S. J., Ling, X. B.
  2015; 10 (6): E278-87

- **Hyponatremia among runners in the Boston Marathon** *NEW ENGLAND JOURNAL OF MEDICINE*
  Almond, C. S., Shin, A. Y., Fortescue, E. B., Mannix, R. C., Wypij, D., Binstadt, B. A., Duncan, C. N., Olson, D. P., Salerno, A. E., Newburger, J. W., Greenes, D. S.
  2005; 352 (15): 1550-1556

- **Beyond the Bottom Line: A Novel Value Metric Redefining Performance in Congenital Heart Disease Surgery**
  Johnson, J., Ashour, D., Fierstein, J., Mikesell, K., Banerjee, M., Schumacher, K., Clarke, S., Marino, B. S., Gaies, M., Hart, S., Hall, M., Cooper, D. S., Tabbutt, et al
  LIPPINCOTT WILLIAMS & WILKINS.2026: A14133

- **Beyond Census: Building a Novel Unit-Level Acuity Score for Capacity Assessment and Outcomes Prediction in a Pediatric Cardiovascular Intensive Care Unit**
  Kameny, R., Meng, J., Kim, K., Thomas, H., Dhillon, A., Le, J., Rigby, B., Scheinker, D., Shin, A., Patel, M. D.
  LIPPINCOTT WILLIAMS & WILKINS.2026: A18720

- **Evaluating Large Language Model-Generated Clinical Summaries Through a Dual-Perspective Framework: Retrospective Observational Study.** *JMIR AI*
  Han, B., Barnes, T., Reddy, C. D., Shin, A. Y.
  2026; 5: e85221

- **The Case for the Pediatric Cardiologist-Informaticist.** *Pediatric cardiology*
  Lasa, J. J., Han, B., Shin, A. Y., Dorfman, A., Kheir, J. N., Long, J., Liou, A., Goldsmith, M. P.
  2025

- **Preventing Urgent Pediatric Readmissions:#The Need for and Promise of Real-Time Monitoring.** *JMIR pediatrics and parenting*
  Thapa, I., Han, B., Rosenthal, D. N., Roth, S. J., Shin, A. Y., Bambos, N., Scheinker, D.
  2025; 8: e60802

- **Unplanned reinterventions after congenital cardiac surgery and hospital mortality: a report from the Pediatric Cardiac Critical Care Consortium (PC4).** *The Journal of thoracic and cardiovascular surgery*
  Reddy, R. K., Schumacher, K. R., Ghanayem, N. S., Zhang, W., Mikesell, K., Alten, J. A., Bailly, D. K., Bertrandt, R. A., Blinder, J. J., Buckley, J. R., Chan, T., Chanani, N. K., DeWitt, et al
  2025

- **A parental communication assessment initiative in the paediatric cardiovascular ICU.** *Cardiology in the young*
  Hansen, K., Jenkins, E., Zhu, A., Collins, S., Williams, K., Garcia, A., Weng, Y., Kaufman, B., Sacks, L. D., Cohen, H., Shin, A. Y., Patel, M. D.
  2024: 1-9

- **Recommendations for centers performing pediatric heart surgery in the United States.** *The Journal of thoracic and cardiovascular surgery*
  Backer, C. L., Overman, D. M., Dearani, J. A., Romano, J. C., Tweddell, J. S., Kumar, S. R., Marino, B. S., Bacha, E. A., Jaquiss, R. D., Zaidi, A. N., Gurvitz, M., Costello, J. M., Pierick, et al
  2023

- **Surgical scheduling via optimization and machine learning with long-tailed data : Health care management science, in press.** *Health care management science*
  Shi, Y., Mahdian, S., Blanchet, J., Glynn, P., Shin, A. Y., Scheinker, D.
  2023

- **Team Communication and Expectations Following Pediatric Cardiac Surgery: A Multi-Disciplinary Survey.** *Pediatric cardiology*
  Bushnell, J., Connelly, C., Algaze, C. A., Bailly, D. K., Koth, A., Mafla, M., Presnell, L., Shin, A. Y., McCammond, A. N.
  2022

- **Criteria for Early Pacemaker Implantation in Patients With Postoperative Heart Block After Congenital Heart Surgery.** *Circulation. Arrhythmia and electrophysiology*
  Duong, S. Q., Shi, Y., Giacone, H., Navarre, B., Gal, D., Han, B., Sganga, D., Ma, M., Reddy, C. D., Shin, A., Kwiatkowski, D. M., Dubin, A. M., Scheinker, et al
  2022: e011145

- **Predictive Ability of the Braden QD Scale for Hospital-Acquired Venous Thromboembolism in Hospitalized Children** *JOINT COMMISSION JOURNAL ON QUALITY AND PATIENT SAFETY*
  Gonzalez, A., Mulet, Y., Song, N., Loh, L., Scheinker, D., Shin, A. Y., Donnelly, L. F.
  2022; 48 (10): 513-520

- **Age at surgery and outcomes following neonatal cardiac surgery: An analysis from the Pediatric Cardiac Critical Care Consortium.** *The Journal of thoracic and cardiovascular surgery*
  Smith, A. H., Shin, A. Y., Tabbutt, S., Banerjee, M., Zhang, W., Borasino, S., Elhoff, J. J., Gaynor, J. W., Ghanayem, N. S., Pasquali, S. K., St Louis, J. D., Shashidharan, S., Ruppe, et al
  2022

- **Visualizing Opioid-Use Variation in a Pediatric Perioperative Dashboard.** *Applied clinical informatics*

Safranek, C. W., Feitzinger, L., Joyner, A. K., Woo, N., Smith, V., Souza, E. D., Vasilakis, C., Anderson, T. A., Fehr, J., Shin, A. Y., Scheinker, D., Wang, E., Xie, et al
2022; 13 (2): 370-379

- **Performance of a Commonly Used Pressure Injury Risk Model Under Changing Incidence** *JOINT COMMISSION JOURNAL ON QUALITY AND PATIENT SAFETY*
  Fleming, S., McFarlane, K., Thapa, I., Johnson, A. K., Kruger, J. F., Shin, A. Y., Scheinker, D., Donnelly, L. F.
  2022; 48 (3): 131-138

- **Post-operative Morbidity and Mortality After Fontan Procedure in Patients with Heterotaxy and Other Situs Anomalies.** *Pediatric cardiology*
  Duong, S. Q., Zaniletti, I., Lopez, L., Sutherland, S. M., Shin, A. Y., Collins, R. T.
  1800

- **Leadership and professional development: Creating a culture of collaboration and growth** *JOURNAL OF HOSPITAL MEDICINE*
  Patel, M. D., Shin, A.
  2022

- **Leadership & professional development: Creating a culture of collaboration and growth.** *Journal of hospital medicine*
  Patel, M. D., Shin, A.
  2022; 17 (1): 42-43

- **Workforce demographics and unit structure in paediatric cardiac critical care in the United States.** *Cardiology in the young*
  Horak, R. V., Bai, S., Marino, B. S., Werho, D. K., Rhodes, L. A., Costello, J. M., Cabrera, A. G., Cooper, D. S., Tan, Y., Tabbutt, S., Krawczeski, C. D.
  2021: 1-5

- **Early Functional Status After Surgery for Congenital Heart Disease: A Single-Center Retrospective Study.** *Pediatric critical care medicine : a journal of the Society of Critical Care Medicine and the World Federation of Pediatric Intensive and Critical Care Societies*
  Han, B., Yang, J. K., Ling, A. Y., Ma, M., Kipps, A. K., Shin, A. Y., Beshish, A. G.
  2021

- **Standardized Training for Physicians Practicing Pediatric Cardiac Critical Care.** *Pediatric critical care medicine : a journal of the Society of Critical Care Medicine and the World Federation of Pediatric Intensive and Critical Care Societies*
  Tabbutt, S., Krawczeski, C., McBride, M., Amirnovin, R., Owens, G., Smith, A., Wolf, M., Rhodes, L., Hehir, D., Asija, R., Teele, S. A., Ghanayem, N., Zyblewski, et al
  2021

- **Role of Texting as a Source of Cognitive Burden in a Pediatric Cardiovascular ICU.** *Hospital pediatrics*
  Han, B., Gal, D. B., Mafla, M., Sacks, L. D., Singh, A. T., Shin, A. Y.
  2021

- **Effect of Time of Daily Data Collection on the Calculation of Catheter-associated Urinary Tract Infection Rates.** *Pediatric quality & safety*
  Donnelly, L. F., Wood, M., Loh, L., Tekic, N., Shin, A. Y., Scheinker, D.
  2021; 6 (5): e466

- **Development and Implementation of a Real-time Bundle-adherence Dashboard for Central Line-associated Bloodstream Infections.** *Pediatric quality & safety*
  Chemparathy, A., Seneviratne, M. G., Ward, A., Mirchandani, S., Li, R., Mathew, R., Wood, M., Shin, A. Y., Donnelly, L. F., Scheinker, D., Lee, G. M.
  2021; 6 (4): e431

- **Quantifying Pediatric Intensive Care Unit Staffing Levels at a Pediatric Academic Medical Center: A Mixed Methods Approach.** *Journal of nursing management*
  Ostberg, N., Ling, J., Winter, S. G., Som, S., Vasilakis, C., Shin, A. Y., Cornell, T. T., Scheinker, D.
  2021

- **Quantifying Electronic Health Record Data: A Potential Risk for Cognitive Overload.** *Hospital pediatrics*
  Gal, D. B., Han, B., Longhurst, C., Scheinker, D., Shin, A. Y.
  2021

- **Hyperoxia During Cardiopulmonary Bypass Is Associated With Mortality in Infants Undergoing Cardiac Surgery.** *Pediatric critical care medicine : a journal of the Society of Critical Care Medicine and the World Federation of Pediatric Intensive and Critical Care Societies*
  Beshish, A. G., Jahadi, O., Mello, A., Yarlagadda, V. V., Shin, A. Y., Kwiatkowski, D. M.

2021

- **Assessment of physician training and prediction of workforce needs in paediatric cardiac intensive care in the United States.** *Cardiology in the young*
  Horak, R. V., Marino, B. S., Werho, D. K., Rhodes, L. A., Costello, J. M., Cabrera, A. G., Cooper, D. S., Bai, S., Tabbutt, S., Rao, I., Scheinker, D., Shin, A. Y., Krawczeski, et al
  2021: 1-6

- **"Echo pause" for postoperative transthoracic echocardiographic surveillance.** *Echocardiography (Mount Kisco, N.Y.)*
  Cox, K., Arunamata, A., Krawczeski, C. D., Reddy, C., Kipps, A. K., Long, J., Roth, S. J., Axelrod, D. M., Hanley, F., Shin, A., Selamet Tierney, E. S.
  2019

- **A Quality Bundle to Support High-Risk Pediatric Ventricular Assist Device Implantation.** *Pediatric cardiology*
  Knoll, C., Chen, S., Murray, J. M., Dykes, J. C., Yarlagadda, V. V., Rosenthal, D. N., Almond, C. S., Maeda, K., Shin, A. Y.
  2019

- **The authors reply.** *Critical care medicine*
  Smith, A. H., Anand, V., Banerjee, M., Bates, K. E., Brunetti, M. A., Cooper, D. S., Lehrich, J., Mistry, K. P., Pasquali, S. K., Shin, A. Y., Tabbutt, S., Gaies, M.
  2019; 47 (3): e268–e269

- **Younger age remains a risk factor for prolonged length of stay after bidirectional cavopulmonary anastomosis.** *Cardiology in the young*
  Koth, A. M., Algaze, C. A., Sakarovitch, C., Long, J., Kamra, K., Wright, G. E., Alexander-Banys, B., Maeda, K., Shin, A. Y.
  2019: 1–6

- **Creating a Defined Process to Improve the Timeliness of Serious Safety Event Determination and Root Cause Analysis.** *Pediatric quality & safety*
  Donnelly, L. F., Palangyo, T. n., Bargmann-Losche, J. n., Rogers, K. n., Wood, M. n., Shin, A. Y.
  2019; 4 (5): e200

- **LEVERAGING AGGREGATE DATA AT THE POINT OF CARE REDUCES VARIATION FOR PEDIATRIC NEUROSURGERY PATIENTS**
  Steffen, K., Su, F., Algaze, C., Duethman, L., Jacobs, K., Casazza, M., Chantra, J., Loh, L., Shin, A., Grant, G.
  LIPPINCOTT WILLIAMS & WILKINS.2019

- **Sacrificing the Future for the Sake of the Present.** *Annals of surgery*
  Collins, R. T., Shin, A. Y., Hanley, F. L.
  2019

- **Birth Location of Infants with Critical Congenital Heart Disease in California.** *Pediatric cardiology*
  Purkey, N. J., Axelrod, D. M., McElhinney, D. B., Rigdon, J., Qin, F., Desai, M., Shin, A. Y., Chock, V. Y., Lee, H. C.
  2018

- **Applying Lessons from an Inaugural Clinical Pathway to Establish a Clinical Effectiveness Program.** *Pediatric quality & safety*
  Algaze, C. A., Shin, A. Y., Nather, C., Elgin, K. H., Ramamoorthy, C., Kamra, K., Kipps, A. K., Yarlagadda, V. V., Mafla, M. M., Vashist, T., Krawczeski, C. D., Sharek, P. J.
  2018; 3 (6): e115

- **Variation in Adjusted Mortality for Medical Admissions to Pediatric Cardiac ICUs.** *Pediatric critical care medicine : a journal of the Society of Critical Care Medicine and the World Federation of Pediatric Intensive and Critical Care Societies*
  Gaies, M., Ghanayem, N. S., Alten, J. A., Costello, J. M., Lasa, J. J., Chanani, N. K., Shin, A. Y., Retzloff, L., Zhang, W., Pasquali, S. K., Banerjee, M., Tabbutt, S.
  2018

- **Variation in Case-Mix Adjusted Unplanned Pediatric Cardiac ICU Readmission Rates.** *Critical care medicine*
  Smith, A. H., Anand, V., Banerjee, M., Bates, K. E., Brunetti, M. A., Cooper, D. S., Lehrich, J., Mistry, K. P., Pasquali, S. K., Shin, A. Y., Tabbutt, S., Gaies, M.
  2018

- **Diagnostic errors in paediatric cardiac intensive care** *CARDIOLOGY IN THE YOUNG*
  Bhat, P. N., Costello, J. M., Aiyagari, R., Sharek, P. J., Algaze, C. A., Mazwi, M. L., Roth, S. J., Shin, A. Y.
  2018; 28 (5): 675–82

- **Cost-effectiveness of Humanitarian Pediatric Cardiac Surgery Programs in Low- and Middle-Income Countries** *JAMA Network Open*
  Cardarelli, M., Vaikunth, S., Mills, K., DiSessa, T., Molloy, F., Sauter, E., Bowtell, K., Rivera, R., Shin, A., Novick, W.
  2018

- **The Epidemiology of Health-Care Associated Infections in Pediatric Cardiac Intensive Care Units.** *The Pediatric infectious disease journal*
  Alten, J. A., Rahman, A. F., Zaccagni, H. J., Shin, A., Cooper, D. S., Blinder, J. J., Retzloff, L., Aban, I. B., Graham, E. M., Zampi, J., Domnina, Y., Gaies, M. G.
  2017

- **Programmatic Approach to Management of Tetralogy of Fallot With Major Aortopulmonary Collateral Arteries A 15-Year Experience With 458 Patients** *CIRCULATION-CARDIOVASCULAR INTERVENTIONS*
  Bauser-Heaton, H., Borquez, A., Han, B., Ladd, M., Asija, R., Downey, L., Koth, A., Algaze, C. A., Wise-Faberowski, L., Perry, S. B., Shin, A., Peng, L. F., Hanley, et al
  2017; 10 (4)

- **Practice Patterns in Postoperative Echocardiographic Surveillance after Congenital Heart Surgery in Children: A Single Center Experience** *JOURNAL OF PEDIATRICS*
  Arunamata, A., Axelrod, D. M., Kipps, A. K., McElhinney, D. B., Shin, A. Y., Hanley, F. L., Olson, I. L., Roth, S. J., Tierney, E. S.
  2017; 180: 87-?

- **Haemodynamic profiles of children with end-stage heart failure.** *European heart journal*
  Chen, S. n., Dykes, J. C., McElhinney, D. B., Gajarski, R. J., Shin, A. Y., Hollander, S. A., Everitt, M. E., Price, J. F., Thiagarajan, R. R., Kindel, S. J., Rossano, J. W., Kaufman, B. D., May, et al
  2017; 38 (38): 2900–2909

- **Fluid overload independent of acute kidney injury predicts poor outcomes in neonates following congenital heart surgery.** *Pediatric nephrology (Berlin, Germany)*
  Mah, K. E., Hao, S. n., Sutherland, S. M., Kwiatkowski, D. M., Axelrod, D. M., Almond, C. S., Krawczeski, C. D., Shin, A. Y.
  2017

- **Temporary Circulatory Support in U.S. Children Awaiting Heart Transplantation.** *Journal of the American College of Cardiology*
  Yarlagadda, V. V., Maeda, K. n., Zhang, Y. n., Chen, S. n., Dykes, J. C., Gowen, M. A., Shuttleworth, P. n., Murray, J. M., Shin, A. Y., Reinhartz, O. n., Rosenthal, D. N., McElhinney, D. B., Almond, et al
  2017; 70 (18): 2250–60

- **Unique Molecular Patterns Uncovered in Kawasaki Disease Patients with Elevated Serum Gamma Glutamyl Transferase Levels: Implications for Intravenous Immunoglobulin Responsiveness** *PLOS ONE*
  Wang, Y., Li, Z., Hu, G., Hao, S., Deng, X., Huang, M., Ren, M., Jiang, X., Kanegaye, J. T., Ha, K., Lee, J., Li, X., Jiang, et al
  2016; 11 (12)

- **Web-based Real-Time Case Finding for the Population Health Management of Patients With Diabetes Mellitus: A Prospective Validation of the Natural Language Processing-Based Algorithm With Statewide Electronic Medical Records.** *JMIR medical informatics*
  Zheng, L., Wang, Y., Hao, S., Shin, A. Y., Jin, B., Ngo, A. D., Jackson-Browne, M. S., Feller, D. J., Fu, T., Zhang, K., Zhou, X., Zhu, C., Dai, et al
  2016; 4 (4)

- **Exploring the Role of Polycythemia in Patients With Cyanosis After Palliative Congenital Heart Surgery.** *Pediatric critical care medicine*
  Siehr, S. L., Shi, S., Hao, S., Hu, Z., Jin, B., Hanley, F., Reddy, V. M., McElhinney, D. B., Ling, X. B., Shin, A. Y.
  2016; 17 (3): 216-222

- **Prospective stratification of patients at risk for emergency department revisit: resource utilization and population management strategy implications.** *BMC emergency medicine*
  Jin, B., Zhao, Y., Hao, S., Shin, A. Y., Wang, Y., Zhu, C., Hu, Z., Fu, C., Ji, J., Wang, Y., Zhao, Y., Jiang, Y., Dai, et al
  2016; 16 (1): 10-?

- **NLP based congestive heart failure case finding: A prospective analysis on statewide electronic medical records.** *International journal of medical informatics*
  Wang, Y., Luo, J., Hao, S., Xu, H., Shin, A. Y., Jin, B., Liu, R., Deng, X., Wang, L., Zheng, L., Zhao, Y., Zhu, C., Hu, et al
  2015; 84 (12): 1039-1047

- **Development, Validation and Deployment of a Real Time 30 Day Hospital Readmission Risk Assessment Tool in the Maine Healthcare Information Exchange** *PLOS ONE*

Hao, S., Wang, Y., Jin, B., Shin, A. Y., Zhu, C., Huang, M., Zheng, L., Luo, J., Hu, Z., Fu, C., Dai, D., Wang, Y., Culver, et al
2015; 10 (10)

- **Innovation in Pediatric Cardiac Intensive Care: An Exponential Convergence Toward Transformation of Care.** *World journal for pediatric & congenital heart surgery*
  Maher, K. O., Chang, A. C., Shin, A., Hunt, J., Wong, H. R.
  2015; 6 (4): 588-596
- **Online Prediction of Health Care Utilization in the Next Six Months Based on Electronic Health Record Information: A Cohort and Validation Study** *JOURNAL OF MEDICAL INTERNET RESEARCH*
  Hu, Z., Hao, S., Jin, B., Shin, A. Y., Zhu, C., Huang, M., Wang, Y., Zheng, L., Dai, D., Culver, D. S., Alfreds, S. T., Rogow, T., Stearns, et al
  2015; 17 (9)
- **Utility of Clinical Biomarkers to Predict Central Line-associated Bloodstream Infections After Congenital Heart Surgery.** *Pediatric infectious disease journal*
  Shin, A. Y., Jin, B., Hao, S., Hu, Z., Sutherland, S., McCammond, A., Axelrod, D., Sharek, P., Roth, S. J., Ling, X. B.
  2015; 34 (3): 251-254
- **Real-time web-based assessment of total population risk of future emergency department utilization: statewide prospective active case finding study.** *Interactive journal of medical research*
  Hu, Z., Jin, B., Shin, A. Y., Zhu, C., Zhao, Y., Hao, S., Zheng, L., Fu, C., Wen, Q., Ji, J., Li, Z., Wang, Y., Zheng, et al
  2015; 4 (1)
- **Development, Validation and Deployment of a Real Time 30 Day Hospital Readmission Risk Assessment Tool in the Maine Healthcare Information Exchange.** *PloS one*
  Hao, S., Wang, Y., Jin, B., Shin, A. Y., Zhu, C., Huang, M., Zheng, L., Luo, J., Hu, Z., Fu, C., Dai, D., Wang, Y., Culver, et al
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PRESENTATIONS

- Natural Language Processing for Clinical Registries - American College of Cardiology (10/28/2020)
- Promoting Quality within Conglomerate Healthcare Systems - Conquering CHD (9/9/2020)
- Improving Safety Around Central Venous Lines - Lucile Packard Children's Hospital Stanford (4/2020)
- Neurolinguistic Programming/Artificial Intelligence to Automate Data Abstraction for Clinical Registries - PC4/PAC3 Conference (10/2019)
- Target Base Care: A National QI Intervention - 1st Annual Cardiac Networks United (CNU) Conference (10/2019)
- Internal Transparency in Surgical Outcomes - Nationwide Children's Hospital (9/2019)
- Utilizing EHR Data to Derive Internal Benchmarks - Massachusetts Institute of Technology (MIT) (7/2019)
- Leverage EHR Data to Improve Outcomes - Ann & Robert Lurie Children's Hospital (6/2019)
- Understanding Big Data in Medicine - UCSF Benioff Children's Hospital (5/2019)
- Leveraging the EHR at the Point of Care Improves Value for Patients Undergoing Congenital Heart Surgery - American Heart Association (11/2018)
- Clinical Effectiveness in Congenital Heart Surgery - American College of Cardiology (11/2018)
- Redesigning Clinical Effectiveness - Stanford University Medical Center (8/2017)
- Predicting Life-Threatening Events Among Hospitalized Patients Through the Application of Convolutional Neural Networks to Physiologic Waveform Data - INFORMS Healthcare (7/2017)
- Leveraging Aggregate Patient Data at the Point of Care Improves Value for Patients undergoing Congenital Heart Surgery - 7th World Congress of Pediatric Cardiology and Cardiac Surgery (8/2017)
- What is Healthcare Value? - Pediatric Congenital Critical Care Consortium (10/2016)
- Statewide Consortium Utilizing PC4: A Case of California - Pediatric Congenital Critical Care Consortium (10/2016)
- Understanding Big Data: Applications in Clinical Medicine - Cedars Sinai Medical Center (5/2016)
- Understanding Healthcare Value - Oriental Congress of Pediatrics (12/2019)
- Big Data in the Cardiac Intensive Care Unit - Pediatric Cardiac Intensive Care Symposium (12/2014)
- Leveraging Big Data to Understand Physiology and Outcomes in Patients with Hypoplastic Left Heart Syndrome - Data Intelligence Symposium (5/2014)
- Mining the Electronic Medical Record - Children’s Hospital of Orange County (5/2014)
- Exploring Value in Healthcare - Children’s Hospital of Orange County (1/2014)
- Big Data in Healthcare - Boston Medical Center (10/2013)

- Leveraging Big Data in Healthcare: Possibilities and Pitfalls of the Electronic Medical Record - Zhejiang University
- Clinical Bioinformatics: Present and Future - Beijing University
- Big Data in Clinical Medicine - National Conference Center
- Leveraging Big Data in Healthcare: A Case Study in Congenital Heart Disease - Lucile Packard Children's Hospital Stanford
- Value Based Care and the Electronic Health Record - The Hospital for Sick Children
- Adult Patients with Congenital Heart Disease in a Pediatric Cardiac Intensive Care Unit - Western Society Pediatric Cardiology Society
- Local Improvement Teams - The Pediatric Cardiac Intensive Care Society
- The High-Risk Infant with Hypoplastic Left Heart Syndrome - American College of Cardiology
- Crisis Simulation in a Tertiary CVICU - California Perfusion Society
- The Boston Marathon Study - Children’s Hospital, Boston. Harvard Medical School
- Standardizing Hand-off: Improving Communication between Healthcare Teams - Stanford University
- Neuro-developmental Outcome in Congenital Heart Surgery - University of New Mexico Children’s Hospital