



ZOE CO

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cozoe@med.umich.edu | www.zoe-co.com | Ann Arbor, MI

PROFESSIONAL SUMMARY

I am a first-year PhD student in the Health Infrastructures and Learning Systems (HILS) program at the University of Michigan. Through my previous research experience and current PhD training, the overall goal of my research is to use implementation science and clinical informatics methods to further advance the effective uptake of clinical decision support (CDS) tool into practice. As patient care becomes further digitized, it is vital to continually evaluate and develop effective methods for integrating clinician feedback into the design of alerts, in the pursuit of preventing patient harm and promoting patient safety and quality.

WORK HISTORY

Consultant | University of Utah and The Leapfrog Group **01/2024 - CURRENT**

- Maintain and update clinical content used in the CPOE Evaluation Tool
- Strategy development for testing new content focused on decision support
- Analyze and disseminate results from the CPOE Evaluation Tool

Project Coordinator | Brigham and Women's Hospital **10/2017 – 08/2023**

- Ensured all tasks and deliverables were completed promptly
- Managed stakeholder communication
- Led the development and piloting of new testing modules
- Prepared/authored manuscripts and conference presentations showcasing the development and analyses from our tool

EDUCATION

University of Michigan, Ann Arbor, MI **08/2023 - CURRENT**
PhD: Health Infrastructures and Learning Systems (HILS)

University of Pittsburgh, Pittsburgh, PA **04/2017**
Bachelor of Science: Biological Sciences

AWARDS

Brigham and Women's Hospital – *Honorable Mention* for Research at the Division of General Internal Medicine's Research Day (2019)

Mass General Brigham - *Partners In Excellence* Award for Research on "Building Safer Electronic Health Records" (2018)

**PEER REVIEWED
JOURNAL
ARTICLES**

Wasserman RL, Seger DL, Amato MG, **Co Z**, et al. Straight to the point: evaluation of a Point of Care Information (POCI) resource in answering disease-related questions. *J Med Libr Assoc*. 2024;112(1):13-21. doi:10.5195/JMLA.2024.1770

Co Z, Classen DC, Cole JM, et al. How Safe are Outpatient Electronic Health Records? An Evaluation of Medication-Related Decision Support using the Ambulatory Electronic Health Record Evaluation Tool. *Appl Clin Inform*. 2023;14(5):981-991. doi:10.1055/s-0043-1777107

Nuckols TK, Berdahl CT, Henreid A, Schnipper JL, Rauf A, Ko E, Nguyen A, **Co Z**, Fanikos J, Kim JH, Leang D, Matta L, Mulligan K, Ray A, Shane R, Wassef K, Pevnick JM, and the PHARM-DC Group. Comprehensive Pharmacist-led Transitions-of-care Medication Management around Hospital Discharge Adds Modest Cost Relative to Usual Care: Time-and-Motion Cost Analysis. *Inquiry*. 2023;60:469580231218625. doi:10.1177/00469580231218625

Syrowatka A, Song W, Amato MG, Foer D, Edrees H, **Co Z**, Kuznetsova M, Dulgarian S, Seger DL, Simona A, Bain PA, Purcell Jackson G, Rhee K, Bates DW. Key use cases for artificial intelligence to reduce the frequency of adverse drug events: a scoping review. *Lancet Digit Health*. 2022;4(2):e137-e148. doi:10.1016/S2589-7500(21)00229-6

Co Z, Holmgren AJ, Classen DC, et al. The Development and Piloting of the Ambulatory Electronic Health Record Evaluation Tool: Lessons Learned. *Appl Clin Inform*. 2021;12(1):153-163. doi:10.1055/s-0041-1722917

Semanik, MG, Kleinschmidt, PC, Wright, A, Willett, DL, Dean, SM, Saleh, SN, **Co, Z**, Sampene, E, Buchanan, JR. Impact of a problem-oriented view on clinical data retrieval, *J Am Med Inform Assoc*, 2021;, ocaa332, <https://doi.org/10.1093/jamia/ocaa332>

Levine, D.M., Lipsitz, S.R., **Co, Z**, et al. Derivation of a Clinical Risk Score to Predict 14-Day Occurrence of Hypoxia, ICU Admission, and Death Among Patients with Coronavirus Disease 2019. *J GEN INTERN MED* (2020). <https://doi.org/10.1007/s11606-020-06353-5>

Co Z, Holmgren AJ, Classen DC, Newmark L, Seger DL, Danforth M, Bates DW. The tradeoffs between safety and alert fatigue: Data from a national evaluation of hospital medication-related clinical decision support. *J Am Med Inform Assoc*. 2020 Aug 1;27(8):1252-1258. doi: 10.1093/jamia/ocaa098. PMID: 32620948.

- Featured journal article in *JAMIA*, Volume 27. Issue 8, August 2020
- Featured in the “Year in Review” presentation at the 2020 AMIA Symposium

Levine DM, **Co Z**, Newmark LP, Groisser AR, Holmgren AJ, Haas JS, Bates DW. Design and testing of a mobile health application rating tool. *NPJ Digit Med*. 2020 May 21;3:74. doi: 10.1038/s41746-020-0268-9. PMID: 32509971; PMCID: PMC7242452.

Classen DC, Holmgren AJ, **Co Z**, Newmark LP, Seger D, Danforth M, Bates DW. National Trends in the Safety Performance of Electronic Health Record Systems From 2009 to 2018. *JAMA Netw Open*. 2020 May 1;3(5):e205547. doi: 10.1001/jamanetworkopen.2020.5547. PMID: 32469412; PMCID: PMC7260621.

Holmgren AJ, **Co Z**, Newmark L, Danforth M, Classen D, Bates D. Assessing the safety of electronic health records: a national longitudinal study of medication-related decision support. *BMJ Qual Saf*. 2020 Jan;29(1):52-59. doi: 10.1136/bmjqs-2019-009609. Epub 2019 Jul 18. PMID: 31320497.

CONFERENCE PRESENTATIONS

Co Z, Newmark LP, Classen DC, Cole JM, Bates DW. Development and Piloting of a Human Factors Survey Based on I-MeDeSA through the Ambulatory EHR Evaluation Tool. Oral presentation presented at: AMIA 2022 Annual Symposium; November 2022; Washington, D.C.

Co Z, Newmark LP, Classen DC, Seger DL, Danforth M, Bates DW. Healthcare System Performance on Unsafe Medication Orders in the 2019 CPOE Evaluation Tool. Poster presented at: AMIA 2021 Annual Symposium; November 2021; San Diego, CA

Co Z, Classen DC, Pon B, Zimmer K, Seger DS, Cole JM, Bates DW. Pilot Results from the Ambulatory Flight Simulator Tool: Lessons Learned. Poster presented at: AMIA 2020 Virtual Annual Symposium; November 2020

Co Z, Holmgren AJ, Newmark L, Seger D, Classen DC, Danforth M, Bates DW. Hospital Performance on Unsafe Medication Orders in the 2017-2018 CPOE Evaluation Tool. Poster presented at: AMIA 2019 Annual Symposium; November 2019; Washington D.C.

Holmgren AJ, **Co Z**, Newmark L, Danforth M, Classen D, Bates D. Building Safer EHRs: Hospital Medication Order Safety Performance. Oral presentation at: AMIA 2019 Annual Symposium; November 2019; Washington D.C.

Co Z, Holmgren AJ, Newmark L, Seger D, Classen DC, Danforth M, Bates DW. Variable Performance in the Computerized Physician Order Entry (CPOE) Tool: Areas for Improvement. Oral presentation at: The 7th International Jerusalem Conference on Health Policy; September 2019; Jerusalem, Israel

Co Z, Seger D, Newmark L, Classen DC, Danforth M, De Silva L, Bates DW. Results from the 2017 CPOE Evaluation Tool: Areas for Improvement. Poster presented at: AMIA 2018 Annual Symposium; November 2018; San Francisco, CA.