



## VCLIC News and Happenings, Volume 43

Welcome to our first newsletter of the year! We hope you all enjoyed the holiday season and had a restful break. We are looking forward to 2024 and all of the opportunities, clinical informatics and otherwise, it brings.

We are kicking off the year with a new release of VCLIPS! Please see below for the additions to our video library!

This month, we are featuring **Jessica Ancker, PhD, MPH, FACMI**, Professor and Vice Chair for Educational Affairs in DBMI. We are thankful for Jessica's wonderful contributions to VCLIC and are happy to spotlight her this month!

Finally, and per usual, we have several Center members who have **received awards**, been mentioned in the **news**, presented **lectures** and at conferences, **published papers**, have had **abstracts** accepted to conferences, and had **honors or fellowships** bestowed on them.

If you have any questions or would like to engage with our team, please email Elise ([elise.russo@vumc.org](mailto:elise.russo@vumc.org)).

## 2024 VCLIPS



Hope your semester is off to a great start. [Vanderbilt Clinical Informatics Center](#) (VCLIC) is proud to announce our next round of [Vanderbilt Clinical Informatics Practical Shorts](#) (VCLIPS). These are bite-size instructional videos on practical clinical informatics topics from expert VCLIC faculty (and staff). This semester, we're adding:

- [Agile Methods for Leading a Clinical or Research Informatics Team](#) (Alvin Jeffery, PhD)
  - o Learn about Agile methodology for product management to optimize team performance and project success

- [Medication Data Tools](#) (Joey LeGrand, PharmD, MS)
  - o Learn about drug terminology and classification using RxNorm as well as how to use the tool SageRx to work with drug data more easily
- [Patient Reported Outcome Measures](#) (Justin Bachmann, MD; Emily Burnell; Emma Barnes, MPH)
  - o Learn about Patient Reported Outcome Measures (PROMs), the process for requesting PROMs at Vanderbilt, and how to leverage PROM data

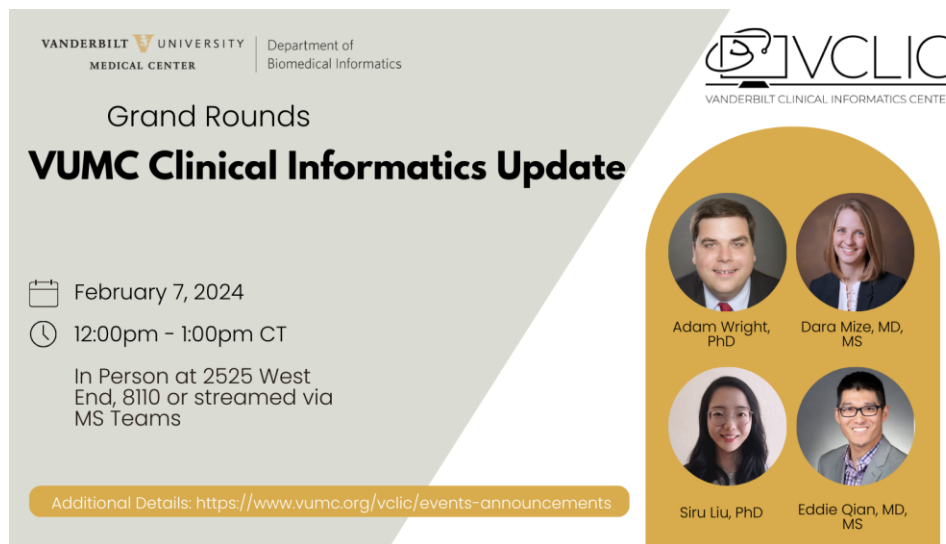
These build on our prior releases: [Introduction to Epic and Build Capabilities](#), [Data Resources](#), [Human Centered Design Principles and Processes](#), [Evaluation and Dissemination of HealthIT Interventions](#), [Exempt IRB Research](#), [Address Geocoding](#), [Using Epic to Support Clinical Research](#), and [Signal Data](#). We're also finalizing some additional VCLIPS on qualitative research and SlicerDicer, and hope to release these a bit later in the semester.

**We also have two requests for you.** First, we'd love to collect some VCLIPS success stories, so if you viewed any of these and found them helpful or shared them, please let us know – that helps build momentum for new content. Second, if you have ideas for additional VCLIPS topics, please send them our way – if it's something you know well, feel free to self-nominate :-). If it's something you'd just like to learn, we will track down the VUMC experts and invite them to make a video.

Thanks for your support of VCLIC and clinical informatics activities at Vanderbilt!

## VCLIC Events

Our next DBMI and VCLIC Grand Rounds presentation will be **February 7th from 12:00-1:00 pm** at 2525 West End, 8110 (and streamed on MS Teams) and will feature several VUMC Clinical Informatics researchers (physicians, and leaders). **Dr. Adam Wright** will provide an overview of the state of the Vanderbilt Clinical Informatics Center (VCLIC) and the programs that VCLIC coordinates. **Dr. Eddie Qian** will review the ACORN trial, a pragmatic trial in the EHR published recently in JAMA. **Dr. Siru Liu** will review efforts to improve CDS using generative and explainable AI. **Dr. Dara Mize** will review HealthIT's activities and roadmap.



The graphic is a promotional poster for a VCLIC Grand Rounds event. It features the Vanderbilt University Medical Center logo and the VCLIC logo. The event title is "Grand Rounds VUMC Clinical Informatics Update". The date and time are "February 7, 2024" and "12:00pm - 1:00pm CT". The location is "In Person at 2525 West End, 8110 or streamed via MS Teams". A URL for additional details is provided: "https://www.vumc.org/vclic/events-announcements". On the right side, there are four circular portraits of the speakers: Adam Wright, PhD; Dara Mize, MD, MS; Siru Liu, PhD; and Eddie Qian, MD, MS.

VANDERBILT UNIVERSITY | Department of Biomedical Informatics  
MEDICAL CENTER

VCLIC  
VANDERBILT CLINICAL INFORMATICS CENTER

Grand Rounds  
**VUMC Clinical Informatics Update**

February 7, 2024  
12:00pm - 1:00pm CT

In Person at 2525 West End, 8110 or streamed via MS Teams

Additional Details: <https://www.vumc.org/vclic/events-announcements>

Adam Wright, PhD  
Dara Mize, MD, MS  
Siru Liu, PhD  
Eddie Qian, MD, MS

[Teams Link](#)

We are also excited to announce another upcoming Grand Rounds talk: Please join us and former VCLIC Member (now a Clinical Assistant Professor of Pediatrics-Neonatology at University of Iowa Health Care), **Lindsey Knake, MD, MS**, on March 6th , 2024 in person and via Teams as she talks us through the work she is doing using Epic's Cosmos tool. More details to come soon.

VCLIC & DBMI Grand Rounds



## Epic Cosmos

📅 March 6th, 2024  
🕒 12:00pm - 1:00pm CT  
In Person at 2525 West  
End in Room 8110, and Via  
MS Teams

Additional Details: <https://www.vumc.org/vclic/events-announcements>



**Speaker:**  
**Lindsey Knake, MD, MS**  
Clinical Assistant Professor,  
Pediatrics-Neonatology  
University of Iowa Health Care

Featured Member: Jessica Ancker, PhD, MPH, FACMI



**Jessica S. Ancker, MPH, PhD, FACMI**, is Professor of Biomedical Informatics and Vice Chair for Educational Affairs in DBMI. She is an associate editor at the *Journal of the American Medical Informatics Association (JAMIA)* and *Medical Decision Making*, and a fellow of the [American College of Medical Informatics](#).

Jessica's first career was as a journalist, working for several newspapers and the [Associated Press](#) wire service. After becoming fascinated with how people use – and misuse – statistical information in important decisions, she earned her master's degree in biostatistics from Columbia's Mailman School of Public Health, and her PhD in biomedical informatics from Columbia's Vagelos College of Physicians and Surgeons.

Jessica's research centers on the optimal use of information and information technology to improve decision-making. She has a strong interest in health disparities and health equity. The [Making Numbers Meaningful Project](#), funded by an R01 from the National Library of Medicine, is an ongoing effort to synthesize best evidence about how to present health-related data to patients. Additionally, our [Comparative Effectiveness of Telemedicine in Primary Care](#) project, funded by the Patient-Centered Outcomes Research Institute (PCORI), is examining the impact of the abrupt transition to telehealth experienced by much of the United States at the beginning of the COVID-19 epidemic in 2020. Other research focuses on health numeracy and data communication, health equity, human factors in clinical decision support, and health services research, especially the effect of health information technologies on healthcare quality.

Teaching is central to Jessica's identity, and she was the founding director of the health informatics graduate programs at Weill Cornell Medical College, where she taught evaluation research methods and introductory biostatistics. Jessica currently teaches Foundations of Biomedical Informatics at Vanderbilt.

In her own words:

**How are you involved/how did you become involved with VCLIC?**

"I joined Vanderbilt DBMI in 2021 and was immediately welcomed by Adam Wright and the whole VCLIC team."

**What areas of clinical informatics are you interested in?**

"When it comes to electronic health records, we can do great work on both the front end (applying human factors methods) and the back end (applying health services research methods to analyze EHR data). What's exciting about this type of work is that we can both advance the science of informatics by learning the answer to important new questions and also implement real changes in support of a genuine learning health system. I have done several experiments with EHR design to reduce effort and specifically to make a recommended action easier than a non-recommended one. One example of this 'nudge' research was to eliminate certain clicks so that choosing the CDC-recommended option for opioids took less work than choosing longer duration prescriptions. Another example was to encourage prescribing of generics by making the brand-name drug require one more keystroke than the generic equivalent. I'm currently involved in a project to see if we can apply these types of 'nudges' to design low-effort, high-yield randomized clinical trials. I also have a longstanding interest in designing useful information for patients and evaluating how people use patient portals and other novel technologies using quantitative methods and qualitative ones. I'm currently collaborating with VCLIC members to develop and implement a shared decision-making tool for choosing medications when there are high risks from drug-drug interactions."

**How would you like to collaborate with others?**

"Ask me to collaborate! I enjoy serving as a coinvestigator and as a mentor to trainees and junior faculty, and also just helping colleagues address methodological challenges in applying quantitative or qualitative methods. I run DBMI's K award workshop to help folks launch their independent research careers, and I'm always happy to discuss K proposals (I don't have to be a named mentor on the proposal)."

## Upcoming Conference Submission Deadlines

- [Anesthesiology Annual Meeting \(ASA\)](#)
  - Problem Based Learning Discussion Sessions: February 6, 2024
- [Society for Industrial and Applied Mathematics \(SIAM\) Annual Meeting](#)
  - Contributed Lecture, Poster, Miniposterium, and Minisymposium Presentation  
Abstracts Submission Deadline: January 31, 2024
- [International Conference on Machine Learning \(ICML\)](#)
  - Full Paper Submission Deadline: February 1, 2024
- [American Society of Clinical Oncology \(ASCO\) Annual Meeting](#)
  - Abstract Submission Deadline: February 6, 2024

Details on upcoming conferences and conference deadlines can be found on our Confluence page, [here](#).

**For those of you attending conferences and presenting posters, we have a template on our [Confluence page](#) that we would encourage you to use.**

## Presentations, Interviews, Honors, and Awards

### Honors/Awards

- Congrats to **Jon Wanderer, MD** for being selected to chair the Anesthesia Quality Institute's EHR Vendor Integration Workgroup last month!
- Congrats to **Dara Mize, MD**, Paul Harris and **Travis Osterman, DO, MS** whose [new appointments in 2023 strengthened VUMC's core missions](#)! They were each mentioned in the *VUMC Reporter*.
- VUMC recently began testing AI for assisting health care documentation with a 10-physician pilot involving a system called [DAX Copilot](#), from Nuance, a Microsoft subsidiary. **Dara Mize, PhD** [discussed the program in the VUMC Reporter](#).
- Drew Wilimitis and **Colin Walsh, MD, MA** published a tutorial "[Practical Considerations and Applied Examples of Cross-Validation for Model Development and Evaluation in Health Care](#)" in *JMIR Publications*.
- DBMI's **Laurie Novak, PhD, MHSA**, **Megan Salwei, PhD**, **Colin Walsh, MD, MA**, Brad Malin, Sharon Davis, **Adam Wright, PhD**, Michael Matheny, Amanda Mixon and team, led by Peter Embi, were awarded funding from the Augmented Intelligence in Medicine and Healthcare Initiative (AIM-HI) Coordinating Center at Kaiser Permanente for our project "[Advancing Novel Approaches and Best Practices for Effective AI-Enabled Diagnosis using Randomized Trials, Algorithmovigilance, and Proactive Risk Assessment](#)"

### Conferences and Other Presentations

- **Alvin Jeffery, PhD** discussed his recent paper "[Inpatient nurses' preferences and decisions with risk information visualization](#)" for the *JAMIA* Journal Club on Jan. 11.
- Papautsky E. Militello L. Voigtman B. **Salwei M.E.** "Understanding Patient Work through a Naturalistic Decision Making Lens." Accepted Panel Presentation, International Conference on Naturalistic Decision Making (NDM), Auckland, New Zealand, July 2024.
- **Cauley M.R.** "Interdisciplinary Systems Theories May Restore the Clinician Need to Experience Helping." Accepted Paper, Journal of Management Studies Conference Professional Development Workshop, March 2024.

## Publications

Mudumbai SC, Gabriel RA, Howell S, Tan JM, **Freundlich RE**, Shah VO, Kendale S, Poterack K, Rothman BS.. [Public Health Informatics and the Perioperative Physician: Looking to the Future](#). *Anesth Analg*. 2024;138(2):253-272. doi:10.1213/ANE.0000000000006649

Niarchou M, Sanchez-Roige S, Reddy IA, **Reese TJ**, Marcovitz D, Davis LK. [Medical and genetic correlates of long-term buprenorphine treatment in the electronic health records](#). *Transl Psychiatry*. 2024;14(1):20. doi:10.1038/s41398-023-02713-x

Gao G, Vaclavik L, **Jeffery AD**, et al. [Developing a Quality Improvement Implementation Taxonomy for Organizational Employee Wellness Initiatives](#). *Appl Clin Inform*. 2024;15(1):26-33. doi:10.1055/s-0043-1777455

Holodinsky JK, **Wrenn JO**, Trivedi S, Hess E, Lang E. [When you have a hammer, everything looks like a nail: but what kind of hammer is ChatGPT?](#) *CJEM*. Published online January 9, 2024. doi:10.1007/s43678-023-00631-x

Perez MN, Ferrantella A, **Johnson KN**, Goldstein SD. [Intercostal spinal nerve cryoablation for analgesia following pectus excavatum repair](#). *Semin Pediatr Surg*. 2024;33(1):151382. doi:10.1016/j.sempedsurg.2024.151382

**Johnson KN**, Vacek J, Carter S. [Applications for ultrasound in pediatric surgery](#). *Semin Pediatr Surg*. 2024;33(1):151383. doi:10.1016/j.sempedsurg.2024.151383

Gaines LS, Kappelman MD, Schwartz DA, **Horst SN**, Beaulieu DB, Scoville ES, Dalal RL, Pabla BS, Slaughter JC.. [The Comorbidity of Patient-Reported Crohn's Disease Activity and Depression: The Role of Health Behavior Mediators](#). *Crohn's Colitis* 360. 2024;6(1):otad080. doi:10.1093/crocol/otad080

Pauw EK, Stubblefield WB, **Wrenn JO**, Brown SK, Cosse MS, Curry ZS, Darcy TP, James TE, Koetter PE, Nicholson CE, Parisi FN, Shepherd LG, Soppet SL, Stocker MD, Walston BM, Self WH, Han JH, **Ward MJ**. [Frequency of cardiotoxicity following intramuscular administration of epinephrine in emergency department patients with anaphylaxis](#). *J Am Coll Emerg Physicians Open*. 2024;5(1):e13095. doi:10.1002/emp2.13095

Adams RS, Forster JE, Gradus JL, Hoffmire CA, Hostetter TA, Larson MJ, Smith AA, **Walsh CG**, Brenner LA. [Divergent Trends in Accidental Deaths Since Return from an Afghanistan/Iraq Deployment among Army Soldiers](#). *Ann Epidemiol*. Published online January 5, 2024:S1047-2797(24)00002-4. doi:10.1016/j.annepidem.2024.01.002

Gardner J, Hammond S, Jensen R, Gibson A, **Krantz MS**, Ardern-Jones M, Phillips EJ, Pirmohamed M, Chadwick AE, Betts C, Naisbitt DJ. [Glycolysis: An early marker for vancomycin-specific T-cell activation](#). *Clin Exp Allergy*. Published online January 4, 2024. doi:10.1111/cea.14423

Kyler KE, Hall M, Antoon JW, Goldman J, Shah SS, Tang Girdwood S, **Williams DJ**, Feinstein JA. [Major Drug-Drug Interaction Exposure Among Medicaid-Insured Children in the Outpatient Setting](#). *Pediatrics*. Published online January 4, 2024:e2023063506. doi:10.1542/peds.2023-063506

Patel T, Chaise A, Hanna J, Patel K, Kochendorfer K, Chandawarkar A, Yu P, Conrad S, Youens K, Medford RJ, **Mize D**, Melnick ER, Hron JD, Pandita D, Leu MG, Ator G, Genes N, Baker C, Bell DS, Pevnick J, Rogers KM, Kaelber DC, Singh I, Levy B, Finnell JT, Kannry J, Pageler N, Mohan V, Lehmann CU. [Structure and Funding of Clinical Informatics Fellowships: A National Survey of Program Directors](#). *Appl Clin Inform*. Published online January 3, 2024. doi:10.1055/a-2237-8309

Vnencak-Jones CL, Saucier LAG, Liu M, Gatto CL, **Peterson JF**. [Pharmacogenomics: Genotype-Driven Medicine](#). *J Appl Lab Med*. 2024;9(1):183-186. doi:10.1093/jalm/jfad064

Wang C, Liu S, Li A, Liu J. [Text Dialogue Analysis for Primary Screening of Mild Cognitive Impairment: Development and Validation Study](#). *J Med Internet Res*. 2023;25:e51501. doi:10.2196/51501

Cates AC, **Freundlich RE**, Clifton JC, Lorinc AN. [Response to Letters to the Editor regarding "Analysis of the factors contributing to residual weakness after sugammadex administration in pediatric patients under 2 years of age."](#) *Paediatr Anaesth*. Published online December 27, 2023. doi:10.1111/pan.14832

McNeil AJ, Parks K, Liu X, Jiang B, Coco J, McCool K, Fabbri D, Duhaime EP, Dawant BM, **Tkaczyk ER**. [Crowdsourcing Skin Demarcations of Chronic Graft-Versus-Host Disease in Patient Photographs: Training Versus Performance Study](#). *JMIR Dermatol*. 2023;6:e48589. doi:10.2196/48589

**Nelson SD**. [Artificial intelligence and the future of pharmacy](#). *Am J Health Syst Pharm*. Published online December 23, 2023:zxad316. doi:10.1093/ajhp/zxad316

De Castro GC, Slatnick LR, Shannon M, Zhao Z, Jackson K, **Smith CM**, Whitehurst D, Elliott C, Clark CC, Scott HF, Friedman DL, Demedis J, Esbenshade AJ. [Impact of Time-to-Antibiotic Delivery in Pediatric Patients With Cancer Presenting With Febrile Neutropenia](#). *JCO Oncol Pract*. Published online December 21, 2023:OP2300583. doi:10.1200/OP.23.00583

Hartch CE, Dietrich MS, Lancaster BJ, Stollendorf DP, **Mulvaney SA**. [Effects of a medication adherence app among medically underserved adults with chronic illness: a randomized controlled trial](#). *J Behav Med*. Published online December 21, 2023. doi:10.1007/s10865-023-00446-2

Doyle JD, Garg S, O'Halloran AC, Grant L, Anderson EJ, Openo KP, Alden NB, Herlihy R, Meek J, Yousey-Hindes K, Monroe ML, Kim S, Lynfield R, McMahan M, Muse A, Spina N, Irizarry L, Torres S, Bennett NM, Gaitan MA, Hill M, Cummings CN, Reed C, Schaffner W, Talbot HK, Self WH, **Williams D**. [Performance of established disease severity scores in predicting severe outcomes among adults hospitalized with influenza-FluSurv-NET, 2017-2018](#). *Influenza Other Respir Viruses*. 2023;17(12):e13228. doi:10.1111/irv.13228

**Smith JC**, Williamson BD, Cronkite DJ, Park D, Whitaker JM, McLemore MF, Osmanski JT, Winter R, Ramaprasan A, Kelley A, Shea M, Wittayanukorn S, Stojanovic D, Zhao Y, Toh S, **Johnson KB**, Aronoff DM, Carrell DS. [Data-driven automated classification algorithms for acute health conditions: applying PheNorm to COVID-19 disease](#). *J Am Med Inform Assoc*. Published online December 18, 2023:ocad241. doi:10.1093/jamia/ocad241



## Accepted/In Press

Gao, G., Vaclavik, L., **Jeffery, A.D.**, Kock, E.C., Schafer, K., Cimiotti, C.P., Pathak, N., Duva, I., Martin, C.L., Simpson, R.L. (2024). A proposed quality improvement implementation taxonomy (QIIT) and architecture for multisite interprofessional employee wellness initiatives. *Applied Clinical Informatics*, 15(1), 26-33.

## Reminder to Send Updates for Recognition

**If you (or another VCLIC Member) publishes a paper; has an abstract accepted at a conference; are interviewed for or written up in a news article; receive any awards, accolades, or honors; or completed/are currently undertaking any projects you would like to highlight, please email me with or forward this information:**

- Names of VCLIC members/VUMC staff who participated in or worked on the project, paper, or abstract (or who received the award/honor)
- The title of the Project, Paper, Abstract, Article, or Award
- The journal, conference, or news publication (this can be podcasts, radio, or more “traditional,” news mediums)

Nothing is too big or too small to celebrate, and this information will be featured on the [News section of our website](#) as well. As time goes on, I am hoping to also improve our Twitter presence, so feel free to add, tag, or tweet us at [@VUMC\\_VCLIC](#) too!

**Thank you, and see you soon!**