

CASEY E. PELZL

(née Dunne)

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EDUCATION

San Diego State University – San Diego, CA

Masters of Public Health, Epidemiology and Biostatistics

May 2013

Thesis: Failures in Prescription Stewardship: Understanding the Patient, Physician, and Clinical Factors Associated with Inappropriate Use of Antimicrobials

University of Notre Dame – Notre Dame, IN

Bachelor of Science, Pre-Medicine Studies; Supplemental Major in Philosophy

May 2006

PROFESSIONAL EXPERIENCE

Hunt to Eat

Freelance Conservation Contributor; Copy & Content Editor

August 2020 - present

- Contributing articles that aggregate and distill highly scientific literature about species and habitat conservation for layperson consumption
- Editing content and copy for blog posts and publication submissions

Trauma Research, LLC , Denver, CO

April 2019 - present

Clinical Epidemiologist

- Formulating robust research hypotheses and designing clinical research studies (retrospective, prospective, longitudinal, observational, descriptive, etc.) alongside attending and resident trauma surgeons at various hospital across CO, KS, and TX
- Conducting exhaustive literature searches on various trauma topics for presentations and publications
- Submitting and updating all necessary documentation required by hospitals' IRBs
- Collecting, entering, cleaning, and analyzing data using Excel, SAS, and REDCap
- Building large datasets, merging from multiple registries (hospital, state, disease state) and EHR sources
- Facilitating company-wide switch from in-house EDc system to REDCap Cloud, including completing data migration and serving as company's data steward and program administrator
- Drafting, editing, and submitting manuscripts to multiple peer-reviewed journals for publication
- Presenting research findings to clinician leaders at national conferences through podiums and posters

Forte Information Resources, Denver, CO

October 2018 - March 2019

Senior Analyst

- Served as Account Supervisor for all analytical, writing, and data collection needs for one of the country's top pharmaceutical companies
- Managed requests from 50+ pharmaceutical account executives on 6 disease states
- Assembled presentations for account executives and managers using nationwide hospital discharge and claims datasets
- Acquired, amalgamated, and cleaned large datasets, holding millions of data points including HCUP and other AHRQ datasets, as well as Medicare and Medicaid claims datasets
- Created data dashboards used for efficient and accurate depiction of nationwide pharmaceutical usage
- Authored multiple sections within the 2019 Managed Care Digest Series
- Helped Analyst and Design teams re-organize production track to streamline duties and deliver published materials more efficiently

Precision Medicine Alliance, LLC, Denver, CO

June 2018 - October 2018

Clinical Data Analyst Lead

- Led transfer of data from multiple hospitals, outpatient facilities, and independent labs to outside precision oncology vendor in order to provide oncology clinicians increased decision support
- Integrated oncology patient data across several EHR and Registry sources from two of the largest nonprofit healthcare providers in the nation (Dignity Health and Catholic Health Initiatives, now CommonSpirit)
- Implemented technical workflows and data governance protocols to maintain HIPAA compliance among all data-transfer operations
- Improved data quality with frequent independent QC and validation processes
- Learned SQL basics independently in order to aid Business Intelligence team with data joining and transfer

Scripps Mercy Hospital, San Diego, CA

June 2013 - May 2018

Research Epidemiologist – Trauma Research

- Generated hypotheses, conceived statistical methodology, and led data analysis for multiple studies that resulted in peer-reviewed publications and conference presentations
- Calculated statistical results using multiple software suites including Stata, SAS, and SPSS
- Constructed all table/figure imagery for national presentations and manuscript publications
- Coordinated data collection among multiple research centers for multi-institutional trials using secure REDCap research electronic data capture website
- Compiled comprehensive literature reviews and appropriate source annotation for publications with exhaustive searches in PubMed and Embase
- Responsible for teaching advanced statistics and research methodology to US Navy Resident Research Fellows
- Conceptualized and oversaw all research, from inception to completion, by US Navy Resident Research Fellows
- Cleaned and categorized many millions of data points from California's Office of Statewide Health Planning and Development (OSHPD) for data analysis and extraction
- Bridged ICD-9 and ICD-10 coding for all study-specific injuries, diagnoses, and procedures
- Led construction of multiple data-entry interfaces and surveys within REDCap
- Authored protocols and workflows for data collection, analysis, resident didactics, and manuscript publication
- Created study-specific data extraction rubrics for review of patient medical records
- Filed and co-authored necessary IRB applications for various projects
- Maintained and updated necessary Privacy, Ethics, and Audit & Compliance documentation
- Ensured ethical and legal standards for data-sharing in multi-institutional trials through Data Use Agreements
- Organized and extracted all metrics for Community Benefit Reports, Suicide & Injury Prevention, and Methamphetamine Task Force for the trauma research director
- Designed Pivot Table-enabled spreadsheets for managing the research departments' human resources
- Inducted as Associate Member of the Western Trauma Association (2018)

Scripps Mercy Hospital, San Diego, CA

May 2012 - May 2013

Intern – Clinical Epidemiology & Infection Control

- Monitored hospital-wide physician adherence to California's SB 1058 (MRSA surveillance)
- Maintained MRSA surveillance related databases, both in-hospital and for the county Department of Public Health
- Provided data analytics and developed presentations for provider education on catheter-associated urinary tract infections, central line-associated bloodstream infections, and surgical site infections
- Led educational interventions concerning proper hand hygiene among physicians and nurses
- Extracted all data for Central-Line Insertion Practices, CDC Lab Identified Events, and ventilator-/line- related events and reported to CDC
- Maintained vital hospital-wide databases (Excel and EpiInfo) for MRSA, VRE, and ESBL infections reported to CDC via NHSN web interface

EMD Millipore (f/k/a EMD Chemicals, Inc.)

May 2009 - August 2011

R&D Immunoassay Scientist I

- Developed assays for manufacture (ELISA, Luminex Bead-Based Assays)
- Established and maintained several adherent and suspension cell lines (e.g. A451, HeLa, HEPG2, 143B, etc.)
- Streamlined and updated older assay kits and protocols therein
- Led efforts in production department to alleviate backorders after company restructuring
- Piloted QC efforts for introducing new products and bridging new reagents
- Invented and instituted inventory for pertinent reagents, chemicals, and lab materials
- Instituted new calibration and monthly/annual maintenance of lab equipment
- R&D Department representative in the company's Safety Committee
- Extremely knowledgeable in Kaizen events and 5S methods of organization

Vical, Inc.

April 2007 - May 2009

Research Associate I, Vaccinology – Clinical Immunoassay Team

- Developed ELISA assays for research on vaccines against cytomegalovirus and pandemic influenza (H5N1)
- Handled, isolated, and maintained clinical samples of human PBMCs and sera
- Gathered and evaluated data using ELISA assays for Phase I, II, and III clinical trials
- Maintained calibrations and validations on lab equipment, reagent lots, and supply stocks using GMP/GLP standards
- Wrote protocols, SOPs, and technical reports for individual assays and large multi-assay studies

PUBLICATIONS (some publications under maiden name “Dunne”)

Pelzl CE, Salottolo K, Banton K, Madayag RM, Hamilton D, Duane TM, Carrick M, Lieser M, Berg G, Bar-Or D. COVID-19 and Trauma: How Social Distancing Orders Altered the Patient Population Using Trauma Services During the 2020 Pandemic. *TSACO*. [Accepted - in press.]

Wessels LE, Calvo RY, **Dunne CE**, Bowie JM, Butler WJ, Bansal V, Sise CB, Sise MJ. Outcome in Adhesive Small Bowel Obstruction from a Large Statewide Database: What to Expect after Non-Operative Management. *J Trauma Acute Care Surg*. 2019 Apr;86(4):651-657.

Bowie JM, Baidee J, Calvo RY, Sise MJ, Wells LE, Butler WJ, **Dunne CE**, Sise CB, Bansal V. Outcome after Single-Look Trauma Laparotomy: A Large Population-Based Study. *J Trauma Acute Care Surg*. 2019 Apr;86(4):565-572.

Calvo RY, Bansal V, **Dunne CE**, Badiee J, Sise CB, Sise, MJ. A population-based analysis of outcomes after repair of thoracic aortic emergencies in trauma. *J Surg Res*. 2018 Nov;231:352-360.

Burlew CC, Sumislawski JJ, Behnfield CD, McNutt MK, McCarthy J, Sharpe JP, Croce MA, Bala M, Kashuk J, Spalding MC, Beery PR, John S, Hunt DJ, Harmon L, Stein DM, Callcut R, Wybourn C, Sperry J, Anto V, Dunn J, Veith JP, Brown CVR, Celiu A, Zander TL, Coimbra R, Berndtson AE, Moss TZ, Malhotra AK, Hazelton JP, Linden K, West M, Alam HB, Williams AM, Kim J, Inaba K, Moulton S, Choi YM, Warren HL, Collier B, Ball CG, Savage S, Hartwell JL, Cullinane DC, Zielinski MD, Ray-Zack MD, Morse BC, Rhee P, Rutherford EJ, Udekwu P, Reynolds C, Toschlog E, Gondek S, Ju T, Haan JM, Lightwine KL, Kulvatunyou N, Coates B, Khouqeer AF, Todd SR, Zarzaur B, Waller CJ, Kallies KJ, Neideen T, Eddine SBZ, Peck KA, **Dunne CE**, Kramer K, Bokhari F, Dhillon TS, Galante JM, Cohen MJ. *J Trauma Acute Care Surg*. 2018 Nov;85(5):858-866.

Martin MJ, Bush LD, Inaba K, Byerly S, Schreiber M, Peck KA, Barmparas G, Menaker J, Hazelton JP, Coimbra R, Zielinski MD, Brown CV, Ball CG, Cherry-Bukowiec JR, Burlew CC, Dunn J, Minshall CT, Carrick MM, Berg GM, Demetriades D, Long W, **WTA C-Spine Study Group**. Cervical spine evaluation and clearance in the intoxicated patient: A prospective Western Trauma Association Multi-Institutional Trial and Survey. *J Trauma Acute Care Surg*. 2017 Dec;83(6):1032-1040.

Shackford SR, **Dunne CE**, et al. The evolution of care improves outcome in blunt thoracic aortic injury: A Western Trauma Association multicenter study. *J Trauma Acute Care Surg*. 2017 Dec;83(6):1006-1013.

Lewis PR, Dunne CE, et al. Routine neurosurgical consultation is not necessary in mild blunt traumatic brain injury. *J Trauma Acute Care Surg*. 2017 Apr;82(4):776-780.

Lewis, PR, Badiee J, Sise MJ, Calvo RY, Brill JB, Wallace JD, Shackford SR, **Dunne CE**, et al. "Delay to operating room" fails to identify adverse outcomes at a Level I trauma center. *J Trauma Acute Care Surg*. 2017 Feb;82(2):334-337.

Inaba K, Byerly S, Bush LD, Martin MJ, Martin D, Peck KA, Barmparas G, Bradley MF, Hazelton JP, Coimbra R, Choudhry AJ, Brown CV, Ball CG, Cherry-Bukowiec JR, Burlew CC, Joseph B, Dunn J, Minshall CT, Carrick MM, Berg GM, Demetriades D, **WTA C-Spine Study Group**. Cervical Spinal Clearance: A Prospective Western Trauma Association Multi-Institutional Trial. *J Trauma Acute Care Surg*. 2016 Dec;81(6):1122-1130.

Lewis PR, **Dunne CE**, et al. Attenuation of cardiovascular stress with sympatholytics does not improve survival in patients with severe isolated traumatic brain injury. *J Trauma Acute Care Surg*. 2016 Apr;80(4):643-647.

Olson EJ, Bandle J, Calvo RY, Shackford, SR, **Dunne CE**, et al. Heparin versus enoxaparin for prevention of venous thromboembolism after trauma: A randomized noninferiority trial. *J Trauma Acute Care Surg*. 2015 Aug;79(2); 961-968.

Zander AL, VanGent JM, Olson EJ, Shackford SR, Badiee J, **Dunne CE**, et al. Venous thromboembolic risk assessment models should not solely guide prophylaxis and surveillance in trauma patients. *J Trauma Acute Care Surg*. 2015 Aug;19(2);194-198.

Peck KA, Calvo RY, Sise CB, Johnson J, Yen JW, Sise MJ, **Dunne CE**, et al. Death after discharge: predictors of mortality in older brain-injured patients. *J Trauma Acute Care Surg*. 2014 Dec;77(6);978-983.

VanGent JM, Zander AL, Olson EJ, Shackford SR, **Dunne CE**, et al. Pulmonary embolism without deep venous thrombosis: De Novo or missed deep venous thrombosis? *J Trauma Acute Care Surg*. 2014 May;76(5);1270-1274.

Smith, Larry R., et al. Phase 1 Clinical Trials of the Safety and Immunogenicity of Adjuvanted Plasmid DNA Vaccines Encoding Influenza A Virus H5 Hemagglutinin. *Vaccine* 28. 13 (2010): 2565-2572.

IN SUBMISSION

Willis J, Pelzl CE, Berg G, Corrigan C, Madayag R, Reynolds C, Tanner II A, Marshall G, Lieser M, Bar-Or D. Significant Variations in Preoperative Fluid Resuscitation Volumes Delivered to Elderly Hip Fracture Patients at Six Level 1 Trauma Centers: An Observational Descriptive Study. *J Ortho Trauma*. Submitted 27 Jan 2021.