Mustafa Steven Ascha

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Education

Case Western Reserve University – Ph.D. Clinical and Translational Science – May 2019 Case Western Reserve University – M.S. Medical Physiology – June 2016

Work

Senior Quantitative Scientist - Flatiron Health, Inc; Jul. 2019 - present

I wrote and implemented statistical analysis plans to assess drug exposure as it relates to healthcare resource utilization and endpoints such as overall/progression-free survival using linked EHR-claims datasets. In March of 2022, I was promoted to Senior Quantitative Scientist from Quantitative Scientist.

Biomedical Data ETL Specialist - Cleveland Institute for Computational Biology; Mar. 2018 – Jul. 2019

Publications

Reiss SN, **Ascha MS**, Yerram P, Asfaw AA, Brake S, Bouzit L, Wadé NB. Association Between Antibiotic Exposure and Survival Among Patients Diagnosed With Advanced Melanoma or Advanced Non-Small Cell Lung Cancer (NSCLC) Treated With Immune Checkpoint Inhibitor (ICI) Therapy. ISPOR Europe 2022, Vienna, Austria.

I designed and implemented this study of antibiotic exposure and overall/progression-free survival among cancer patients treated with immunotherapy. This work used an EHR-claims linkage and included inverse probability of treatment weighting to account for potential nonrandom allocation to antibiotic exposure.

Ascha MS, Ostrom QT, Wright J, Kumthekar P, Bordeaux JS, Sloan AE, Schumacher FS, Kruchko C, Barnholtz-Sloan JS. Lifetime Occurrence of Brain Metastases Arising from Lung, Breast, and Skin Cancers in the Elderly: A SEER-Medicare Study. Cancer Epidemiol Biomarkers Prev May 1 2019 (28) (5) 917-925; DOI: 10.1158/1055-9965.EPI-18-1116

I designed this study and processed about 100GB of Medicare insurance claims records to identify patients diagnosed with brain metastases, and compared results of that procedure to cancer registry data.

Ascha, MS, Manzoor, N., Gupta, A., Semaan, M., Megerian, C. and Otteson, T.D., 2017. Vestibular aqueduct midpoint width and hearing loss in patients with an enlarged vestibular aqueduct. JAMA Otolaryngology–Head & Neck Surgery, 143(6), pp.601-608.

Hearing loss progression is difficult to predict in patients with EVA because EVA is rare and fluctuates enough that advanced modeling approaches are required to achieve statistical significance. I **designed this study** and collected an average of 5 hearing tests for 53 patients and used **mixed-effects models** to identify relationships between inner ear anatomy and hearing loss.

Mustafa Steven Ascha: Curriculum Vitae

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2016-2019 Case Western Reserve University

Center for Clinical Investigation

Department of Epidemiology and Biostatistics PhD, Clinical and Translational Science

GPA: 4.00

2014-2016 Case Western Reserve University

Center for Clinical Investigation

Department of Epidemiology and Biostatistics Graduate Certificate in Clinical Research

GPA: 4.00

2014-2016 Case Western Reserve University

Department of Physiology and Biophysics Master's of the Sciences, Medical Physiology

GPA: 3.95

2007 – 2011 Case Western Reserve University

Bachelor's of the Arts, Economics

Minor, Philosophy

GPA: 3.04

WORK AND RESEARCH

March 2022 – Present Flatiron Health, Inc

Headquarters: New York City, NY Working office: San Francisco, CA Title: Senior Quantitative Scientist

July 2019 – March 2022 Flatiron Health, Inc.

Headquarters: New York City, NY Working office: San Francisco, CA

Title: Quantitative Scientist

May 2018 – July 2019 Cleveland Institute for Computational Biology

Case Western Reserve University, Cleveland Ohio

Supervisor: Mark Beno, MSM

Title: Biomedical and Patient-Centric Data ETL Specialist

Mar 2016 – July 2019 University Hospitals Case Medical Center, Cleveland, Ohio

Ear, Nose, and Throat Institute

Resume + CV: Mustafa S Ascha

Department of Otolaryngology – Head & Neck Surgery

Supervisor: Todd D. Otteson, MD, MPH

Title: Clinical Research Specialist

Donor Funded -- Enlarged Vestibular Aqueduct Research Program Submitted and earned approval for EVAR to be listed on ClinicalTrials.gov

o https://clinicaltrials.gov/ct2/show/study/NCT02798783

Authored and submitted manuscripts and abstracts for publication and presentation

Conceived, implemented, and wrote manuscript for a retrospective study of hearing loss in EVA patients

- Designed study to reflect longitudinal nature of hearing loss progression
- Used repeated measures of hearing to construct linear mixed-effects models
- o Examined the impact of inner ear morphology on hearing loss Consulted with ENT residents to design and implement several retrospective studies
 - Wrote reproducible reports with methods and results for residents to use writing manuscripts

2014 - present Cleveland Clinic Foundation, Digestive Disease Institute, Cleveland, Ohio

PI: Ibrahim Hanouneh, MD

Authored and submitted manuscripts and abstracts for publication and presentation

2010-2011 Louis Stokes Veterans Affairs Medical Center, Cleveland, Ohio

Spinal Cord Injury and Disorders Department

Supervisor: Christine Woo, MS

Developed telehealth program materials Participated in manuscript revision

2008 - 2010 Cleveland Clinic Foundation, Digestive Disease Institute, Cleveland, Ohio

PI: Nizar Zein. MD

Designed experiments based on questions discovered during literature

search

Retrieved and pre-processed data

Authored and submitted manuscripts and abstracts for publication and

presentation

BIBLIOGRAPHY

Peer Reviewed Publications

1. Ford A, **Ascha M**, Wilkinson B, Verbus E, Montague M, Morris J, Arora KS. Nonfulfillment of desired postpartum permanent contraception and resultant maternal and pregnancy health

- outcomes. AJOG Global Reports. 2023 Feb 1;3(1):100151. https://doi.org/10.1016/j.xagr.2022.100151
- Mohyuddin GR, Chakraborty R, Calip GS, Ascha MS, Wang X, Rubinstein SM, Tuchman S, Costa L, Haaland B, Giri S, Mian H. Prognostic value of translocation 11; 14 in patients with relapsed/refractory myeloma receiving anti-CD38 therapy. Blood Cancer Journal. 2022 Dec 16;12(12):168. https://doi.org/10.1038/s41408-022-00769-4
- 3. Canavan ME, Wang X, **Ascha MS**, Miksad RA, Calip GS, Gross CP, Adelson KB. Systemic Anticancer Therapy at the End of Life-Changes in Usage Pattern in the Immunotherapy Era. JAMA Oncol. 2022 Oct 20:e224666. doi: 10.1001/jamaoncol.2022.4666. PMID: 36264566; PMCID: PMC9585458.
- Whitaker KD, Wang X, Ascha M, Showalter TN, Lewin HG, Calip GS, Goldstein LJ. Racial inequities in second-line treatment and overall survival among patients with metastatic breast cancer. Breast Cancer Res Treat. 2022 Nov;196(1):163-173. doi: 10.1007/s10549-022-06701-5. Epub 2022 Aug 26. PMID: 36028783; PMCID: PMC9550747.
- Thornton M, Ascha MS, Arora KS. Addressing fluidity in contraceptive decision-making: a key component of patient-centered contraceptive counseling. Am J Obstet Gynecol. 2022 Jul;227(1):99-100. doi: 10.1016/j.ajog.2022.02.031. Epub 2022 Mar 3. PMID: 35248572; PMCID: PMC9557756.
- Rose J, Dong W, Kim U, Hnath J, Statler A, Saroufim P, Song S, Ascha M, Menegay H, Tian Y, Beno M, Koroukian SM. An informatics infrastructure to catalyze cancer control research and practice. Cancer Causes Control. 2022 Jun;33(6):899-911. doi: 10.1007/s10552-022-01571-0. Epub 2022 Apr 5. PMID: 35380304.
- 7. Aguilar Palacios D, Wilson B, Michael P, Saarela O, **Ascha M**, Song S, DeWitt-Foy ME, Lawson K, Barnholtz-Sloan J, Finelli A, Campbell SC. A Novel Metric for Hospital Quality in Kidney Cancer Surgery: A Veterans Affairs National Health System Validation of Concept. Urology Practice. 2022 May;9(3):237-45.
- 8. Calip GS, Yerram P, **Ascha MS**. Nonrandomized Comparison of Adverse Events Following Facility- and Home-Infused Biologics Using Real-World Data. JAMA Netw Open. 2021;4(6):e2111156. doi:10.1001/jamanetworkopen.2021.11156 PMID: 34081142
- 9. Arora KS, **Ascha M**, Wilkinson B, Verbus E, Montague M, Morris J, Einstadter D. Association between neighborhood disadvantage and fulfillment of desired postpartum sterilization. BMC Public Health. 2020 Dec;20(1):1-9. DOI: 10.1186/s12889-020-09540-5 PubMed PMID: 32962666
- 10. Aguilar Palacios D, Wilson B, **Ascha M**, Campbell RA, Song S, DeWitt-Foy ME, Campbell SC, Abouassaly R. New Baseline Renal Function after Radical or Partial Nephrectomy: A

- Simple and Accurate Predictive Model. The Journal of Urology. 2020 Nov 14:10-97.
- Huded JM, Lee A, McQuown CM, Song S, Ascha MS, Kresevic DM, Maloney GE, Smith TI. Implementation of a geriatric emergency department program using a novel workforce. The American journal of emergency medicine. 2020 Oct 24:S0735-6757. DOI: 10.1016/j.ajem.2020.10.039 PubMed PMID: 33129647
- 12. Bhide S, **Ascha M**, Wilkinson B, Verbus E, Montague M, Morris J, Arora KS. Variation in effectiveness of planned postpartum contraception at two time points from prenatal to postpartum care. Contraception. 2020 Oct 1;102(4):246-50. DOI: 10.1016/j.contraception.2020.06.002 PMID: 32540241 PMCID: PMC7572620 (available on 2021-10-01)
- Kocharyan A, Mark ME, Ascha MS, Murray GS, Manzoor NF, Megerian C, Mowry SE, Semaan MT. Cochlear Implantation in Patients With Menière's Disease: Does Disease Activity Affect the Outcome?. Otology & Neurotology. 2020 Oct 1;41(9):1296-304. DOI: 10.1097/MAO.000000000002750 PubMed PMID: 32925864
- 14. Kurlander DE, Ascha M, Marshall DC, Wang D, Ascha MS, Tripi PA, Reeves HM, Downes KA, Ahuja S, Rotta AT, Lakin GE. Impact of multidisciplinary engagement in a quality improvement blood conservation protocol for craniosynostosis. Journal of Neurosurgery: Pediatrics. 2020 Jun 12;26(4):406-14. DOI: 10.3171/2020.4.PEDS19633 PubMed PMID: 32534483
- 15. Archibald LK, **Ascha MS**, Bordeaux JS. Why it's hard to see a dermatologist for a skin exam: the patient perspective. Archives of dermatological research. 2020 May 12:1-3. DOI: 10.1007/s00403-020-02080-3 PubMed PMID: 32399708
- Thuener JE, Clancy K, Scher M, Ascha M, Harrill K, Ahadizadeh E, Rezaee R, Fowler N, Lavertu P, Teknos T, Zender C. Impact of perioperative pain management protocol on opioid prescribing patterns. The Laryngoscope. 2020 May;130(5):1180-5. DOI: 10.1002/lary.28133 PubMed PMID: 31188488
- 17. **Ascha MS**, Funk K, Sloan AE, Kruchko C, Barnholtz-Sloan JS. Disparities in the use of stereotactic radiosurgery for the treatment of lung cancer brain metastases: a SEER-Medicare study. Clinical & experimental metastasis. 2020 Feb;37(1):85-93. DOI: 10.1007/s10585-019-10005-2 PubMed PMID: 31705229
- 18. Borsting E, DeSimone R, **Ascha M**, Ascha M. Applied deep learning in plastic surgery: Classifying rhinoplasty with a mobile app. Journal of Craniofacial Surgery. 2020 Jan 1;31(1):102-6. DOI: 10.1097/SCS.000000000005905 PubMed PMID: 31633665
- Coombs DM, Ascha MS, Ascha M, Gatherwright J, Knackstedt R, Gurunluoglu R. Revisiting the "July Effect" in Plastic Surgery: New Data to Support Resident Autonomy. Annals of plastic surgery. 2020 Jan 1;84(1):95-9. DOI: 10.1097/SAP.00000000001999

PubMed PMID: 31688117

- Ascha M, Ascha MS, Gatherwright J. The Importance of Reproducibility in Plastic Surgery Research. Plastic and reconstructive surgery. 2019 Jul 1;144(1):242-8. DOI: 10.1097/PRS.000000000005784 PubMed PMID: 31246840
- 21. **Ascha MS**, Ostrom QT, Wright J, Kumthekar P, Bordeaux JS, Sloan AE, Schumacher FS, Kruchko C, Barnholtz-Sloan JS. Lifetime Occurrence of Brain Metastases Arising from Lung, Breast, and Skin Cancers in the Elderly: A SEER-Medicare Study. Cancer Epidemiol Biomarkers Prev May 1 2019 (28) (5) 917-925; DOI: 10.1158/1055-9965.EPI-18-1116
- Ruthberg J, **Ascha MS**, Kocharyan A, Gupta A., Murray GS, Megerian CA, Otteson TD. Sex-specific enlarged vestibular aqueduct morphology and audiometry. American Journal of Otolaryngology. 2019 Mar 29. https://doi.org/10.1016/j.amjoto.2019.03.008.
- 23. Hanouneh M, Ritchie MM, Ascha M, **Ascha MS**, Chedid A, Sanguankeo A, Zein NN, Hanouneh IA. A review of the utility of tacrolimus in the management of adults with autoimmune hepatitis. Scand J Gastroenterol. 2019 Jan 16:1-5. doi: 10.1080/00365521.2018.1551498. PubMed PMID: 30650311.
- 24. Archibald HD, **Ascha M,** Gupta A, Megerian C, Otteson T. Hearing loss in unilateral and bilateral enlarged vestibular aqueduct syndrome. Int J Pediatr Otorhinolaryngol. 2018 Dec 19;118:147-151. doi: 10.1016/j.ijporl.2018.12.023. PubMed PMID: 30634102.
- 25. Wilkinson B, **Ascha M**, Verbus E, Montague M, Morris J, Mercer B, Arora KS. Medicaid and receipt of interval postpartum long-acting reversible contraception. Contraception. 2019 Jan;99(1):32-35. doi: 10.1016/j.contraception.2018.08.017. Epub 2018 Sep 5. PubMed PMID: 30194927; PubMed Central PMCID: PMC6289711.
- 26. Raina R, Chauvin A, Fox K, Kesav N, Ascha M, Vachharajani TJ, Krishnappa V. Effect of Immunosuppressive Therapy on the Occurrence of Atypical Hemolytic Uremic Syndrome in Renal Transplant Recipients. Ann Transplant. 2018 Sep 7;23:631-638. doi: 10.12659/AOT.909781. PubMed PMID: 30190449; PubMed Central PMCID: PMC6248048.
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- 28. Tamaki A, Manzoor NF, Babajanian E, **Ascha M**, Rezaee R, Zender CA. Clinical Significance of Sarcopenia among Patients with Advanced Oropharyngeal Cancer. Otolaryngol Head Neck Surg. 2018 Aug 14:194599818793857. doi: 10.1177/0194599818793857. [Epub ahead of print] PubMed PMID: 30105922.
- 29. Montague M, **Ascha M**, Wilkinson B, Verbus E, Morris J, Mercer BM, Arora KS. Role of Bridge Contraception in Postpartum Long-Acting Reversible Contraception and Sterilization

- Fulfillment Rates. Obstet Gynecol. 2018 Sep;132(3):583-590. doi: 10.1097/AOG.000000000002803. PubMed PMID: 30095782; PubMed Central PMCID: PMC6105446.
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- 31. Patel AV, Thuener JE, Clancy K, **Ascha M**, Manzoor NF, Zender CA. Submental artery island flap versus free flap reconstruction of lateral facial soft tissue and parotidectomy defects: Comparison of outcomes and patient factors. Oral Oncol. 2018 Mar;78:194-199. doi: 10.1016/j.oraloncology.2018.01.027. Epub 2018 Feb 20. PubMed PMID: 29496050.
- 32. Arora KS, Wilkinson B, Verbus E, Montague M, Morris J, **Ascha M**, Mercer BM. Medicaid and fulfillment of desired postpartum sterilization. Contraception. 2018 Jun;97(6):559-564. doi: 10.1016/j.contraception.2018.02.012. Epub 2018 Feb 25. PubMed PMID: 29490290; PubMed Central PMCID: PMC5963995.
- 33. Nayfe R, **Ascha MS**, Rehmus EH. Esophageal Squamous Cell Carcinoma Presenting with Streptococcus intermedius Cerebral Abscess. Case Rep Pathol. 2017;2017:5819676. doi: 10.1155/2017/5819676. Epub 2017 Aug 15. PubMed PMID: 28894616; PubMed Central PMCID: PMC5574295.
- 34. Ahadizadeh E, **Ascha M**, Manzoor N, Gupta A, Semaan M, Megerian C, Otteson T. Hearing loss in enlarged vestibular aqueduct and incomplete partition type II. Am J Otolaryngol. 2017 Nov Dec;38(6):692-697. doi: 10.1016/j.amjoto.2017.06.010. Epub 2017 Jun 23. PubMed PMID: 28793961.
- 35. Ascha M, **Ascha MS**, Tanenbaum J, Bordeaux JS. Risk Factors for Melanoma in Renal Transplant Recipients. JAMA Dermatol. 2017 Nov 1;153(11):1130-1136. doi: 10.1001/jamadermatol.2017.2291. PubMed PMID: 28746700; PubMed Central PMCID: PMC5710441.
- 36. Ascha M, **Ascha MS**, Gastman B. Identification of Risk Factors in Lymphatic Surgeries for Melanoma: A National Surgical Quality Improvement Program Review. Ann Plast Surg. 2017 Nov;79(5):509-515. doi: 10.1097/SAP.00000000001152. PubMed PMID: 28650410.
- 37. **Ascha MS**, Manzoor N, Gupta A, Semaan M, Megerian C, Otteson TD. Vestibular Aqueduct Midpoint Width and Hearing Loss in Patients With an Enlarged Vestibular Aqueduct. JAMA Otolaryngol Head Neck Surg. 2017 Jun 1;143(6):601-608. doi: 10.1001/jamaoto.2016.4522. PubMed PMID: 28334328; PubMed Central PMCID: PMC5824227.

- 38. **Ascha MS**, Ascha ML, Hanouneh IA. Black Ascites: An interesting presentation of pancreatic duct leak. Case Reports in Internal Medicine. 2016: 3(4):18-21. doi: 10.5430/crim.v3n4p18.
- 39. Nayfe R, **Ascha MS**, Ismail M, Salvino R. Gastrocolic Fistula as a Presentation of Concomitant Gastric and Colon Cancer in a Patient with a History of Metastatic Pancreatic Adenocarcinoma. J Gastrointest Cancer. 2017 Dec;48(4):379-381. doi: 10.1007/s12029-016-9841-5. PubMed PMID: 27251299.
- 40. Ascha M, Hanouneh M, **Ascha MS**, Zein NN, Sands M, Lopez R, Hanouneh IA. Transjugular Intrahepatic Porto-Systemic Shunt in Patients with Liver Cirrhosis and Model for End-Stage Liver Disease ≥15. Dig Dis Sci. 2016 May 6. PMID: 27154510.
- 41. Ascha M, Wang Z, **Ascha MS**, Dweik R, Zein NN, Grove D, Brown JM, Marshall S, Lopez R, Hanouneh IA. Metabolomics studies identify novel diagnostic and prognostic indicators in patients with alcoholic hepatitis. World J Hepatol. 2016 Apr 8;8(10):499-508. doi: 10.4254/wjh.v8.i10.499. PubMed PMID: 27057307; PubMed Central PMCID: PMC4820641.
- 42. **Ascha MS**, Ascha ML, Hanouneh IA. Management of immunosuppressant agents following liver transplantation: Less is more. World J Hepatol. 2016 Jan 28;8(3):148-61. doi: 10.4254/wjh.v8.i3.148. Review. PubMed PMID: 26839639; PubMed Central PMCID: PMC4724578.
- 43. **Ascha M**, Ascha M, Zein NN, Alkhouri N, Eghtesad B, Abu-Elmagd K, Diago T, Hanouneh IA. Treatment of Recurrent Hepatitis C Genotype-4 Post-Liver Transplantation with Sofosbuvir plus Simeprevir. Int J Organ Transplant Med. 2015;6(2):86-90. PubMed PMID: 26082832; PubMed Central PMCID: PMC4464282.
- 44. **Ascha MS**, Hanouneh IA, Lopez R, Tamimi TA, Feldstein AF, Zein NN. The incidence and risk factors of hepatocellular carcinoma in patients with nonalcoholic steatohepatitis. Hepatology. 2010 Jun;51(6):1972-8. doi: 10.1002/hep.23527. PubMed PMID: 20209604.

<u>Abstracts</u>

- 1. Kaur M, Frahm F, **Ascha M**, Guadamuz J, Gottesman A, Leybovich B, Sondhi A, Zhao Y, Meropol NJ, Royce TJ. Trial eligibility criteria (EC) and diversity among patients with advanced non small cell lung cancer (advNSCLC). Journal of Clinical Oncology 41, no. 16_suppl (June 01, 2023) 1566-1566. DOI: 10.1200/JCO.2023.41.16_suppl.1566
- 2. Canavan M, Wang X, **Ascha M**, Miksad RA, Showalter TN, Calip GS, Gross CP, Adelson KB. Survival analysis of patients treated at oncology practices with more aggressive end-of-life practice patterns. 6562-6562. Journal of Clinical Oncology 41, no. 16_suppl. June 01, 2023. DOI: 10.1200/JCO.2023.41.16 suppl.6562
- 3. **Ascha MS**, Asfaw AA, Yerram P, Reiss SN, Brake SD, Wadé NB. Claims-derived comorbidities associations with real-world overall survival (rwOS) among patients with metastatic breast cancer in an electronic health record-claims linked dataset. San Antonio

- Breast Cancer Symposium, San Antonio, Texas. 2022 December 6-10. https://www.sabcs.org/Portals/SABCS2016/2022%20SABCS/Tuesday.pdf?ver=2022-11-21-075605-843
- Asfaw AA, Ascha M, Yerram P, Reiss S, Brake S, Wadé NB. (2022 November 6-9). Comparison of Comorbidity Indices Between Electronic Health Records (EHR) Derived Database and Claims Data Among Patients With Metastatic Breast Cancer [Poster Presentation]. ISPOR Europe 2022, Vienna, Austria. https://www.ispor.org/heor-resources/presentations-database/presentation/euro2022-3565/ 121245
- Reiss S, Ascha M, Yerram P, Asfaw AA, Brake S, Bouzit L, Wadé NB. (2022 November 6-9). Association Between Antibiotic Exposure and Survival Among Patients Diagnosed With Advanced Melanoma or Advanced Non-Small Cell Lung Cancer (NSCLC) Treated With Immune Checkpoint Inhibitor (ICI) Therapy [Poster Presentation]. ISPOR Europe 2022, Vienna, Austria. https://www.ispor.org/heor-resources/presentations-database/presentation/euro2022-3568/ 121523
- Ascha M, Yerram P, Wang J, Reiss S, Royce T, Brake S, Calip GS. Characterization of a novel oncology electronic health records-derived data linkage to commercial claims. InPHARMACOEPIDEMIOLOGY AND DRUG SAFETY 2022 Sep 1 (Vol. 31, pp. 546-546). 111 RIVER ST, HOBOKEN 07030-5774, NJ USA: WILEY. ISPE 38th International Conference on Pharmacoepidemiology & Therapeutic Risk Management, Copenhagen, Denmark. https://cdmcd.co/v9KpzK
- 7. Guadamuz J, Ascha M, Mohyuddin GR, Chiu BCH, Patel PR, Sweiss K, Rohrer R, Pierre A, Seymour E, Sborov D, Calip GS. 2022, September. Comparison of Denosumab versus bisphosphonates on progression-free and overall survival in newly diagnosed multiple myeloma: A new user, active comparator analysis of real-world data. In PHARMACOEPIDEMIOLOGY AND DRUG SAFETY (Vol. 31, pp. 108-109). 111 RIVER ST, HOBOKEN 07030-5774, NJ USA: WILEY. ISPE 38th International Conference on Pharmacoepidemiology & Therapeutic Risk Management, Copenhagen, Denmark.
- Calip GS, Ascha MS, Wang X, Pierre AE, Maignan K, Wadé NB, Leng S, Seymour EK, Chiu BCH, Sweiss K, Patel PR, Neparidze N. Racial and Age-Related Differences in Impacts of High-Risk Cytogenetic Abnormalities on Survival in Multiple Myeloma in a Nationwide Electronic Health Record-Derived Database. Blood, Volume 138, Supplement 1, 2021, Page 4121, ISSN 0006-4971, https://doi.org/10.1182/blood-2021-152774. (https://www.sciencedirect.com/science/article/pii/S0006497121060353)
- Adelson KB, Wang X, Ascha M, Miksad RA, Showalter TN, Calip GS, Gross CP, Canavan M. Differences by race in systemic oncologic end-of-life (EOL) care among patients with cancer. DOI: 10.1200/JCO.2020.39.28_suppl.137 Journal of Clinical Oncology 39, no. 28_suppl (October 01, 2021) 137-137. Published online September 21, 2021. ASCO Quality of Care Symposium 2021.
- 10. Canavan M, Wang X, **Ascha M**, Miksad RA, Showalter TN, Calip GS, Gross CP, Adelson KB. Trends in end-of-life (EOL) systemic oncologic treatment in contemporary clinical practice: Insights from real-world data. DOI: 10.1200/JCO.2020.39.28_suppl.253 Journal of Clinical Oncology 39, no. 28_suppl (October 01, 2021) 253-253. Published online

- September 21, 2021. ASCO Quality of Care Symposium 2021
- 11. Wang X, Ascha MS, Green T, Lewin HG, Showalter TN, Goldstein LJ, Calip GS, Whitaker KD. Racial disparities in second-line (2L) treatment and overall survival among patients (pts) with hormone receptor positive HER2 negative (HR+HER2-) metastatic breast cancer (mBC) treated in routine practice. DOI: 10.1200/JCO.2021.39.15_suppl.6541 Journal of Clinical Oncology 39, no. 15 suppl (May 20, 2021) 6541-6541.
- 12. Palacios DA, Wilson B, Saarela O, **Ascha M**, Song S, DeWitt-Foy ME, Lawson K, Barnholtz-Sloan J, Finelli A, Campbell SC, Abouassaly R. MP66-10 HOSPITAL-LEVEL QUALITY INDICATORS FOR KIDNEY CANCER SURGERY: A VETERAN'S AFFAIR NATIONAL HEALTH SYSTEM VALIDATION OF CONCEPT. The Journal of Urology. 2020 Apr;203(Supplement 4):e986-7.
- 13. Palacios DA, Wilson B, Ascha M, Song S, DeWitt-Foy ME, Campbell SC, Abouassaly R. MP80-12 A SIMPLIFIED EQUATION TO ESTIMATE NEW BASELINE RENAL FUNCTION AFTER RADICAL OR PARTIAL NEPHRECTOMY: DEVELOPMENT AND VALIDATION. The Journal of Urology. 2020 Apr;203(Supplement 4):e1229-30.
- 14. Aguilar Palacios D, Wilson B, Saarela O, Ascha M, Song S, DeWitt-Foy ME, Lawson K, Barnholtz-Sloan J, Finelli A, Campbell S, Abouassaly R. Hospital-level quality indicators for kidney cancer surgery: A Veteran's Affairs national health system validation of concept. DOI: 10.1200/JCO.2020.38.6_suppl.667 Journal of Clinical Oncology 38, no. 6_suppl (February 20, 2020) 667-667.
- 15. Wilson B, Ascha MS, O'Hagan J, Donskey C. 2367. Selecting Testing Frequency for Estimation of Incubation Periods: A Simulation Study Based on Clostridioides difficile Observations. InOpen Forum Infectious Diseases 2019 Oct (Vol. 6, No. Suppl 2, p. S816). Oxford University Press.
- Kurlander DE, Ascha M, Marshall D, Wang D, Ascha M, Tripi PA, Reeves, HM, Downes, KA, Ahuja S, Rotta AT, Tomei, K, 2017. Striving for Transfusion-Free Open Cranial Vault Remodeling: A Novel Protocol. *Plastic and Reconstructive Surgery Global Open*, 5(9 Suppl). PMCID: PMC5636509
- 17. Manzoor NF, Hoppe K, **Ascha MS**, Mowry SE, Megerian CA, Otteson TD, Semaan MT; Delineating hearing loss at radiographic diagnosis in enlarged vestibular aqueduct syndrome. AOS 150th Annual Meeting, April 2017.
- 18. Manzoor NF, Clancy K, Rezaee RP, **Ascha MS**, Zender CA, Lavertu P, Megerian CA, Semaan MT; Multidisciplinary management of head and neck malignancies involving the lateral skull base. ANS 52nd Annual Spring Meeting, April 2017.

Oral Presentations – Meetings and Conferences

 Ascha MS. "make Dissertation: Reproducibility in Research". Cyberinfrastructure Day 2018. UTech Research Computing and Cyberinfrastructure Team. April 13, 2018. Presented by Ascha MS.

- 2. Arora KS, Wilkinson B, Verbus E, Montague M, Morris J, **Ascha M**, Mercer B. "Two-Tiered Reproduction Normative and Quantitative Analysis of Barriers to Equitable Postpartum Sterilization." American Society for Bioethics and the Humanities Annual Meeting. October 2017.
- 3. Ascha M, **Ascha MS**, Gastman B. "Identification of Risk Factors in Lymphatic Surgeries for Melanoma: A NSQIP Review." Ohio Valley Society of Plastic Surgeons 60th Annual Meeting, Pittsburgh, PA (June 2, 2017). Presented by Ascha M.
- 4. Ascha M, Hanouneh M, Ascha MS, Zein NN, Sands M, Lopez R, Hanouneh IA. "Transjugular Intrahepatic Portosystemic Shunt in Patients with Liver Cirrhosis and Model for End-Stage Liver Disease ≥ 15." Lepow Day 2016, Case Western Reserve University School of Medicine, Cleveland, OH (August 18, 2016). Presented by Ascha M.
- Ascha M, Ascha MS, Dweik R, Zein N, Brown M, Marshall S, Hazen S, Wang Z, Grove D, Hanouneh I. "Metabolomics Studies Identify Novel Prognostic Indicators in Patients with End-Stage Liver Disease." Translational and Basic Science Research Plenary Session, Digestive Disease Week, Washington, DC (May 17, 2015). Presented by Ascha M.
- Ascha ML, Ascha MS, Hanouneh IA. "Treatment of recurrent hepatitis C genotype 4
 post-liver transplantation with sofosbuvir plus simeprevir: a case series." Case Western
 Reserve University QGrad LGBT Symposium, Cleveland, Ohio (April 23, 2015).
 Presented by Ascha MS.
- 7. Ascha ML, **Ascha MS**, Dweik R, Zein NN, Brown M, Marshall S, Hazen S, Wang Z, Grove D, Hanouneh IA. "Metabolomics: Identifying novel prognostic indicators in patients with end-stage liver disease." Case Western Reserve University QGrad LGBT Symposium, Cleveland, Ohio (April 23, 2015). Presented by Ascha MS.
- 8. **Ascha MS**, Hanouneh IA, Lopez R, Abu-Rajab Tamimi TI, Albeldawi M, Feldstein AE, McCullough AJ, Zein NN. "Cumulative Incidence and Risk Factors of Hepatocellular Carcinoma (HCC) in Patients with END-Stage Liver Disease Secondary to Nonalcoholic Steatohepatitis (NASH)." Gastroenterology, Volume 136, Issue 5, Supplement 1, May 2009, Page A-797, ISSN 0016-5085, http://dx.doi.org/10.1016/S0016-5085(09)63676-3. Presented by Ascha MS.

Oral Presentations - Academic

- Ascha MS, Saroufim P, Beno M, Barnholtz-Sloan JS. "Health Informatics and Big Data".
 Case Western Reserve University School of Medicine, Systems and Scholarship Session 3, April 23 and 25, 2019.
- 2. **Ascha MS**, Saroufim P, Beno M, Barnholtz-Sloan JS. "Health Informatics and Big Data". Case Western Reserve University School of Medicine, Systems and Scholarship Session 2, April 9 and 11, 2019.
- 3. **Ascha MS**. "Finding data and working with it in R: An interactive coding session". Fundamentals of Clinical Information Systems, Systems Biology, Case Western Reserve Resume + CV: Mustafa S Ascha

- University. October 2, 2018. Instructor: Colin Drummond. https://gist.github.com/mustafaascha/1812b1d13c6b5b9b4564c323c47c1c70
- 4. **Ascha MS**, Saroufim P, Beno M, Barnholtz-Sloan JS. "Health Informatics and Big Data". Case Western Reserve University School of Medicine, Systems and Scholarship Session 1, August 29 and 30, 2018.
- Ascha MS. "Working with NHANES data in R: An interactive coding session".
 Fundamentals of Clinical Information Systems, Systems Biology, Case Western Reserve University. October 3, 2017. Instructor: Colin Drummond. https://gist.github.com/mustafaascha/4fdf4a9971f957f6bd0dfe10b3563a12

Software and Reproducibility Materials

- Ascha MS. (2018, August 5). mustafaascha/nsqipr: Plastic Surgery and the presence of a July Effect (Version v0.0.0.9003). Zenodo. https://doi.org/10.5281/zenodo.1209963
- Ascha MS. (2018, August 5). mustafaascha/brain-mets-seer: Reproducibility repository for a study of brain metastases in SEER-Medicare (Version v1.0.2). Zenodo. https://doi.org/10.5281/zenodo.1300052

Poster Presentations

- Ascha MS, Ostrom QT, Bordeaux JS, Sloan AE, Schumacher F, Kruchko C, Barnholtz-Sloan JS; CMET-41. Lifetime lung, breast, and skin cancer brain metastases incidence: a reproducible SEER-Medicare study, Neuro-Oncology, Volume 20, Issue suppl_6, 5 November 2018, Pages vi62, https://doi.org/10.1093/neuonc/noy148.251
- Wang JF, Ascha MS, Sloan A, Kruchko C, Barnholtz-Sloan JS. Bevacizumab for the treatment of lung cancer with brain metastases. Irwin H. Lepow Medical Student Research Day, Case Western Reserve University, September 20, 2018. Cleveland, Ohio. Presented by Wang JF.
- 3. **Ascha MS**, Ostrom QT, Wright J, Kumthekar P, Bordeaux J, Schumacher FR, Sloan A, Kruchko C, Barnholtz-Sloan JS. Lifetime occurrence of brain metastases arising from breast, lung, and melanoma cancers: A reproducible SEER-Medicare study. Case Comprehensive Cancer Center Retreat, July 26-27, 2018. Presented by Ascha MS.
- 4. Wang JF, **Ascha MS**, Sloan A, Kruchko C, Barnholtz-Sloan JS. Bevacizumab for the treatment of lung cancer with brain metastases. Case Comprehensive Cancer Center Retreat, July 26-27, 2018. Presented by Wang JF.
- 5. Yong V, **Ascha MS**, Awan M, Abrol Anish, Zender C. Interpreting Indeterminate Post-Treatment PET/CT Results in Patients with Head and Neck Squamous Cell Carcinoma. American Head and Neck Society, Combined Otolaryngological Spring

- Meeting. April 18 19, 2018. National Harbor, Maryland. Presented by Yong V.
- Archibald H, Ascha MS, Otteson TD. "Unilateral enlarged vestibular aqueduct syndrome may reflect a different disease process than bilateral". American Society of Pediatric Otolaryngology, Combined Otolaryngological Spring Meeting. April 18 - 22, 2018. H078. Presented by Archibald H.
- Arora KS, Wilkinson B, Verbus E, Montague M, Morris J, **Ascha M**, Mercer B.
 "Disparities in Postpartum Sterilization Fulfillment for Women Covered by Medicaid Versus Private Insurance." MetroHealth Research Day. November 2017. Presented by Arora KS.
- 8. Arora KS, Wilkinson B, Verbus E, Montague M, Morris J, **Ascha M**, Mercer B. "Disparities in Postpartum Sterilization Fulfillment for Women Covered by Medicaid Versus Private Insurance." North American Forum on Family Planning. October 2017. Presented by Arora KS.
- Ruthberg J, Ascha MS, Gupta A, Otteson TD. Sex-specific differences and hearing fluctuation in patients with an enlarged vestibular aqueduct. Irwin H. Lepow Medical Student Research Day, Case Western Reserve University, September 20, 2018. Cleveland, Ohio. Presented by Ruthberg J.
- 10. Johnson A, **Ascha MS**, Manzoor NF, Gupta A, Semaan M, Megerian C, Otteson T. "Operculum width and hearing loss in patients with enlarged vestibular aqueduct". Case Western Reserve University Irwin H. Lepow Medical Student Research Day. August 2017. Presented by Johnson A. Winner of a poster prize.
- 11. Johnson A, **Ascha MS**, Manzoor NF, Gupta A, Semaan M, Megerian C, Otteson T. "Air-bone gap in patients with enlarged vestibular aqueduct". Case Western Reserve University Irwin H. Lepow Medical Student Research Day. August 2017. Presented by Johnson A.
- 12. Ahadizadeh E, **Ascha MS**, Manzoor NF, Gupta A, Semaan M, Megerian C, Otteson T. "Hearing loss in enlarged vestibular aqueduct and incomplete partition type II. Case Western Reserve University Irwin H. Lepow Medical Student Research Day. August 2017. Presented by Ahadizadeh E.
- 13. Marshall D, Kurlander DE, Ascha M, Wang D, **Ascha M**, Tripi PA, Reeves, HM, Downes, KA, Ahuja S, Rotta AT, Tomei, K . Striving for Transfusion-Free Open Cranial Vault Remodeling: A Novel Protocol. Case Western Reserve University Irwin H. Lepow Medical Student Research Day. August 2017. Presented by Marshall D.
- 14. **Ascha MS**, Ascha ML, Hanouneh IA. "Black ascites: an interesting presentation of pancreatic duct leak". American College of Gastroenterology, October 17, 2016. Las Vegas, Nevada. Presented by Ascha MS.
- 15. Ascha ML, Hanouneh M, **Ascha MS**, Zein NN, McCullough A, Hanouneh IA. "The utility of tacrolimus in the management of adults with difficult-to-treat autoimmune hepatitis: review of literature". American College of Gastroenterology, October 18, 2016, Las

Vegas, Nevada. Presented by Ascha MS.

- 16. Ascha M, Hanouneh M, Ascha MS, Zein NN, Sands M, Lopez R, Hanouneh IA. "Transjugular Intrahepatic Porto-Systemic Shunt in Patients with Liver Cirrhosis and Model for End-Stage Liver Disease ≥ 15." Department of Medicine Research Day, Case Western Reserve University, Cleveland, OH (May 6, 2016). Presented by Ascha M.
- 17. Ascha ML, **Ascha MS**, Hanouneh IA. "Treatment of recurrent hepatitis C genotype 4 post-liver transplantation with sofosbuvir plus simeprevir: a case series." Case Western Reserve University Department of Physiology and Biophysics Retreat, Cleveland, Ohio (September 25, 2015). Presented by Ascha MS.
- 18. Ascha MS, Hanouneh IA, Lopez R, Feldstein AE, Zein NN. "Risk score for predicting the lack of response to antiviral treatment in patients with chronic HCV infection." American College of Gastroenterology, Orlando, Florida (October 3 – 8, 2008). Presented by Ascha MS

TEACHING EXPERIENCE

Summer 2016

Teaching Assistant, Introduction to R Programming

Case Western Reserve University, Clinical Research Scholars Program

Course Director: Steven Lewis, MS, MBA

Met with students to review core R Programming concepts

Graded and designed homework assignments Lectured regarding the use of R Markdown

o https://github.com/mustafaascha/rmarkdownTutorial

Fall 2016, Spring 2017

Teaching Assistant, Statistics I and Statistics II

Case Western Reserve University, Department of Epidemiology and

Biostatistics

Course Director: Thomas Love, PhD

Updated course notes and assignment solutions to reflect modern R practices

- Re-wrote figures to use the R package ggplot2
- o Re-wrote code to use the R package dplyr

Converted R Markdown notes for use with the R package bookdown

o Organized notes for use both in website or PDF format

Wrote exploratory data analysis convenience functions

Summer 2017

Teaching Assistant, Epidemiology Clinical Research Block

Cleveland Clinic Lerner College of Medicine at Case Western Reserve

University

Course Director: Paola Raska, PhD

Aided in clinical research training for medical students

Responsibilities included explaining measures of disease frequency, identifying confounding, direct and indirect adjustment, and clinical study design

Provided guidance for students pursuing their own projects; this involved helping develop testable hypotheses, perform power analysis, and implement analysis using R and JMP

COMMUNITY SERVICE

Jan. – Jun. 2013 Volunteer, Perioperative Care Center

Hillcrest Hospital, Cleveland Clinic Health System, Mayfield Heights, Ohio

Prepared rooms for post-surgery patients
Transported patients to hospital exit for pick-up

2015 Volunteer, Preventing Incident Delirium in the Elderly (PRIDE) Program

University Hospitals Case Medical Center, Cleveland, Ohio

Re-oriented elderly patients to place and time Spent time in conversation with elderly patients

Languages: Conversant in French and Syrian Arabic

Interests: Playing guitar, working with electronics, computer science