



# Encounters after loss to cardiology follow-up among patients with congenital heart disease

Brandon Wright, MD;<sup>1,2</sup> Carly Fassler, BS;<sup>3</sup> Nathanael Johnston, MA<sup>3</sup> Dmitry Tumin, PhD;<sup>2</sup> Lauren A. Sarno, MD<sup>4</sup>  
<sup>1</sup>Vidant Medical Center <sup>2</sup>Department of Pediatrics, Brody School of Medicine at East Carolina University <sup>3</sup>Brody School of Medicine at East Carolina University <sup>4</sup>Department of Pediatrics, Pediatric Cardiology, Brody School of Medicine at East Carolina University

Carly Fassler  
East Carolina University  
Greenville, North Carolina  
fasslerc20@students.ecu.edu

## INTRODUCTION

- Nearly 1% of all children in the United States are born with a congenital heart defect (CHD)<sup>1</sup>
- Due to advancements in the medical field, 69% of patients with critical CHD (requiring intervention before age 1) now survive into adulthood<sup>2</sup>
- Regular long-term follow-up with cardiology vastly improves health outcomes<sup>3-6</sup>
- Maintaining follow-up adherence as patients age is difficult

## OBJECTIVE

- To determine how frequently patients with CHD who have been lost to cardiology follow-up continued receiving care within the broader health system at inpatient, ED, or outpatient settings

## MATERIALS & METHODS

- We are collecting data from patients with CHD who had at least one visit at the ECU pediatric cardiology clinic from 1 January 2015 to 31 December 2019
- Loss to follow-up was defined as not being seen for at least 6 months past the most recent recommended follow-up date
- Among patients lost to follow-up, we will examine attendance at any other encounter within the same health system until 31 December 2020

## DISCUSSION

- We are screening patients charts for eligibility and will be collecting outcome data in the upcoming semester

## NEXT STEPS

- With this analysis we hope to demonstrate the areas within the broader health system in which CHD patients could be identified and re-enrolled in care with cardiology
- These data will provide context for future interventions needed to improve follow-up rates among patients requiring lifelong cardiology care

## ACKNOWLEDGMENTS

We thank the James and Connie Maynard Children's Hospital at Vidant Medical Center for sharing data used in this study. Funding provided by the SSRP at Brody School of Medicine. Special thanks to Dr. Dmitry Tumin and Dr. Lauren Sarno for their mentorship and guidance.

## REFERENCES

- Hoffman JI, Kaplan S. The incidence of congenital heart disease. *J Am Coll Cardiol.* 2002;39(12):1890-1900. doi:10.1016/s0735-1097(02)01886-7
- Oster ME, Lee KA, Honein MA, Riehle-Colarusso T, Shin M, Correa A. Temporal trends in survival among infants with critical congenital heart defects. *Pediatrics.* 2013;131(5):e1502-e1508. doi:10.1542/peds.2012-3435
- Cohen M, Fuster V, Steele PM, Driscoll D, McGoon DC. Coarctation of the aorta. Long-term follow-up and prediction of outcome after surgical correction. *Circulation.* 1989;80(4):840-845. doi:10.1161/01.cir.80.4.840
- Yeung E, Kay J, Roosevelt GE, Brandon M, Yetman AT. Lapse of care as a predictor for morbidity in adults with congenital heart disease. *Int J Cardiol.* 2008;125(1):62-65. doi:10.1016/j.ijcard.2007.02.023
- Mackie AS, Rempel GR, Kovacs AH, et al. Transition Intervention for Adolescents With Congenital Heart Disease. *J Am Coll Cardiol.* 2018;71(16):1768-1777. doi:10.1016/j.jacc.2018.02.043
- Kempny A, Diller GP, Dimopoulos K, et al. Determinants of outpatient clinic attendance amongst adults with congenital heart disease and outcome. *Int J Cardiol.* 2016;203:245-250. doi:10.1016/j.ijcard.2015.10.081