

# Clinical Outcomes After Pediatric Lung Transplantation at Cystic Fibrosis Care Centers

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# Disclosures

The authors report no financial conflicts of interest.

# Introduction

- Cystic fibrosis is one of the most common indications for lung transplantation in children & adolescents
- Pediatric lung transplantation is a very complex procedure with high morbidity and mortality, however most centers perform few, if any pediatric transplants each year
- The Cystic Fibrosis Foundation designates Cystic Fibrosis Care Centers (CFCCs) which provide specialized, multidisciplinary care for patients with CF

# Research Question

In **pediatric** patients with cystic fibrosis, is **lung transplantation at a Cystic Fibrosis Care Center (CFCC)** associated with **improved clinical outcomes** compared to transplantation at other centers?

# Methods

- Retrospective cohort study using the Scientific Registry of Transplant Recipients & Cystic Fibrosis Patient Registry
- Patients: Pediatric (age <18 years) patients with cystic fibrosis undergoing lung transplantation (2005-2018) at either a CFCC or non-CFCC facility
- Outcomes: Graft survival, overall survival
- Analysis: Multivariable Cox Proportional Hazards Regression

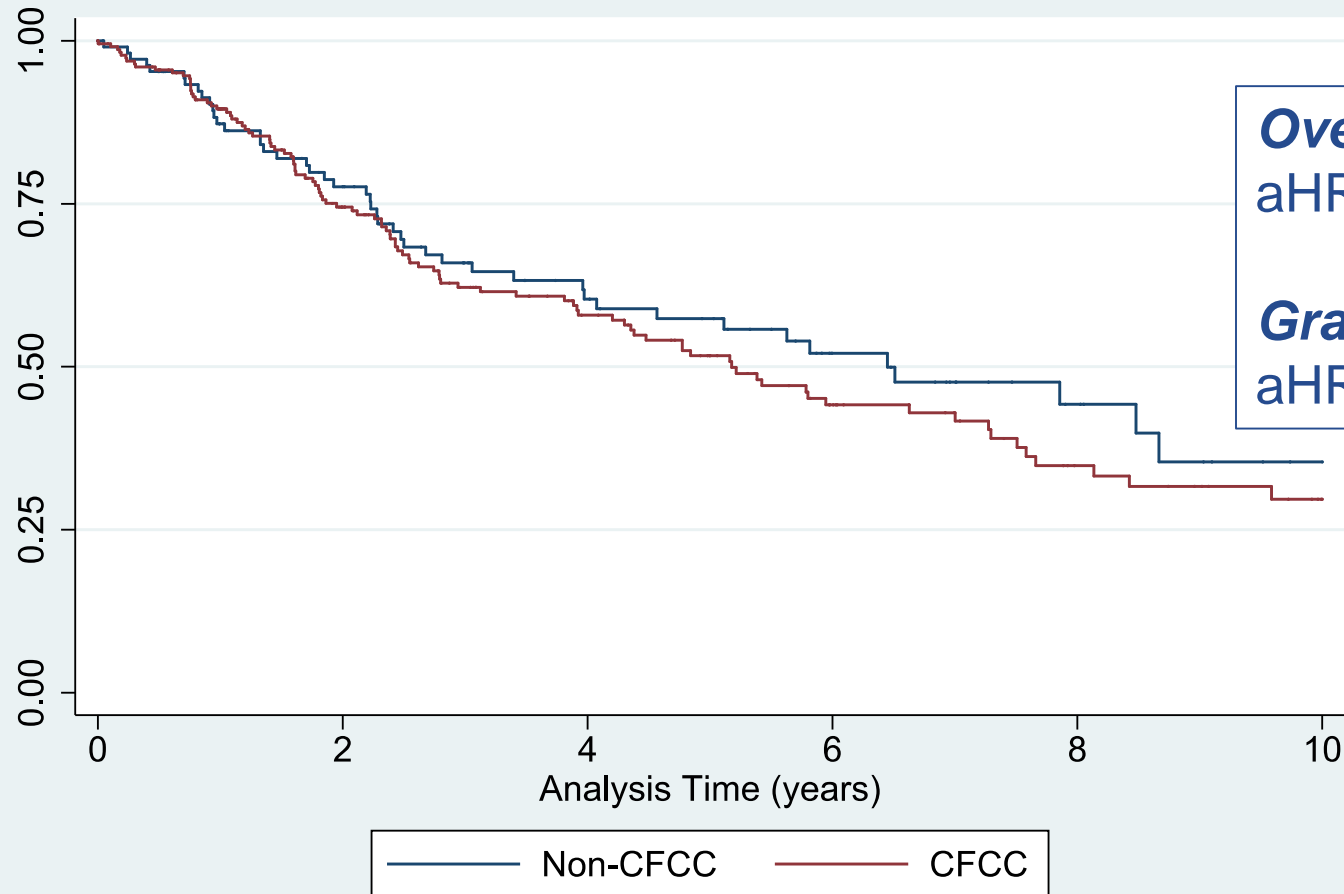
# Demographics, by Center Type



Characteristic, n (%)	Non-CFCC N=107	CFCC N=229
Age, m (sd)	14.1 (3)	14.4 (3)
Male	43 (40)	75 (33)
FEV1, m (sd)	28.1 (11)	32.2 (18)
FVC, m (sd)	40.7 (13)	42.9 (17)
Transplant Type		
Single	2 (2)	3 (1)
Double	105 (98)	226 (99)

**Note:** CFCC - Cystic Fibrosis Care Center, FEV1 - forced expiratory volume in 1 second, FVC - forced vital capacity, m - mean, sd - standard deviation

## Overall Survival



**Overall Survival**  
aHR 1.10 (0.77-1.57)

**Graft Survival**  
aHR 1.13 (0.82-1.56)

# Summary

- **No difference in overall or graft survival associated with lung transplantation at CFCCs vs. non-CFCCs in pediatric patients with CF**
- Limitation: Unmeasured confounding factors may impact facility choice & clinical outcomes
- Despite no change in survival, specialized care at a CFCC may improve other aspects of care which are not captured by this analysis.



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