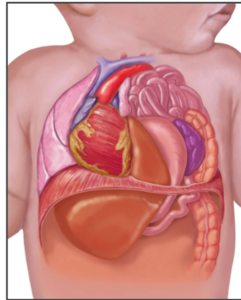


# The Business of ECMO in CDH: Cost Contributors and Reimbursement Patterns in Professional and Hospital Billing

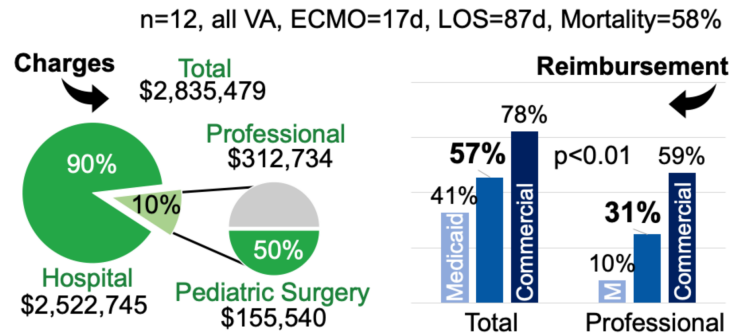
Alejandra M. Casar Berazaluze, MD; Jason S. Frischer, MD. \*Cincinnati Children's Hospital Medical Center, Cincinnati, OH.

## BACKGROUND

- Congenital diaphragmatic hernia (CDH) is an expensive diagnosis.
- The use of ECMO in CDH has led to increasing costs without significant changes in survival.
- We sought to identify its greatest cost contributors and patterns of reimbursement.



## RESULTS



## CONCLUSIONS

- The main drivers of ECMO cost are unrelated to ECMO supplies, surgery, monitoring, or blood products.
- Using protocols with high quality evidence can make a difference in healthcare expenditure.
- We need to define the role of iNO in ECMO/CDH due to its high cost and limited benefits, as use is widespread.

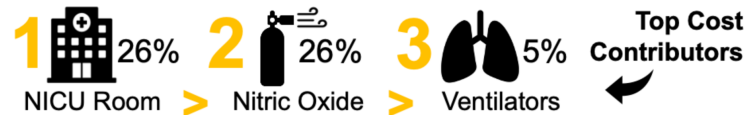


## METHODS



- Retrospective review of itemized hospital and professional bills from 2015-2017 as part of a QI project.
- Descriptive statistics obtained.
- Reimbursement rates calculated.
- Professional ECMO charges and payments summarized.
- Hospital charges ranked.

Pediatric Surgery	Description	Charge	Payment
Initiation	VA Initiation	\$1,855	35%
	VA Daily Management	\$1,284	32%
Cannulation	Central	\$4,650	11%
	Open Peripheral	\$2,611	46%
Decannulation	Central	\$2,961	15%
	Open Peripheral	\$1,736	44%
	Percutaneous Peripheral	\$1,508	15%



## CONTACT INFORMATION

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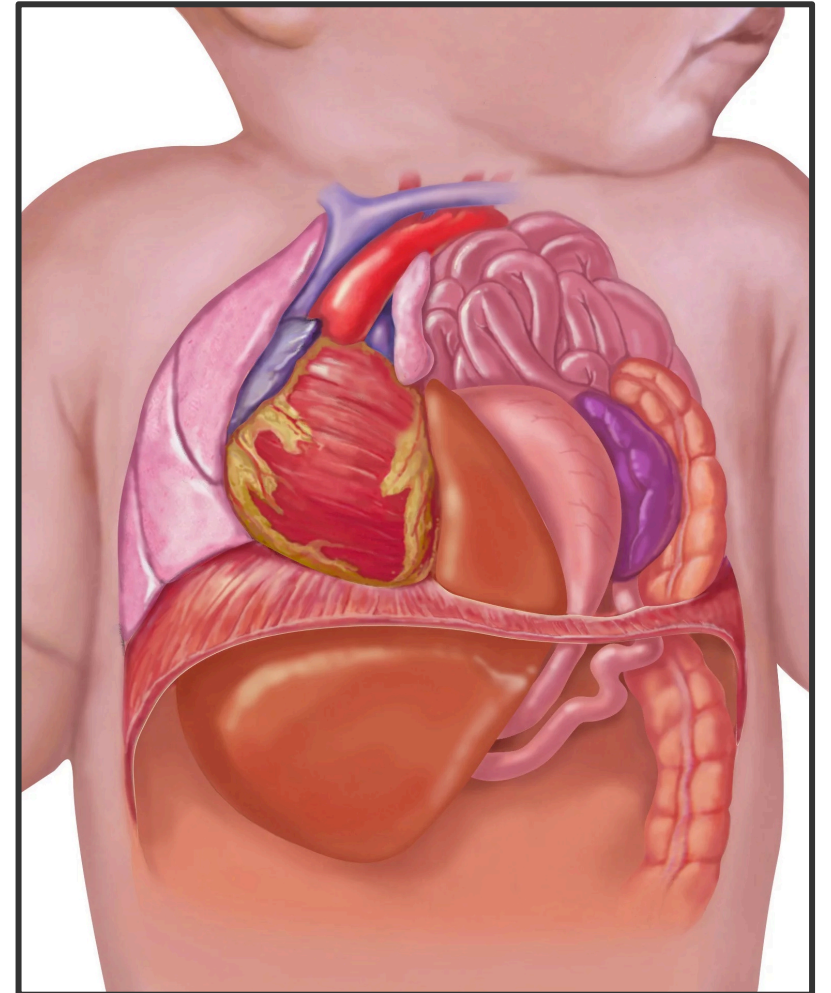


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# BACKGROUND

- **Congenital diaphragmatic hernia (CDH)** is an expensive diagnosis.
- The use of **ECMO** in CDH has led to **increasing costs without significant changes in survival.**
- We sought to identify its greatest **cost contributors** and patterns of **reimbursement.**



# METHODS



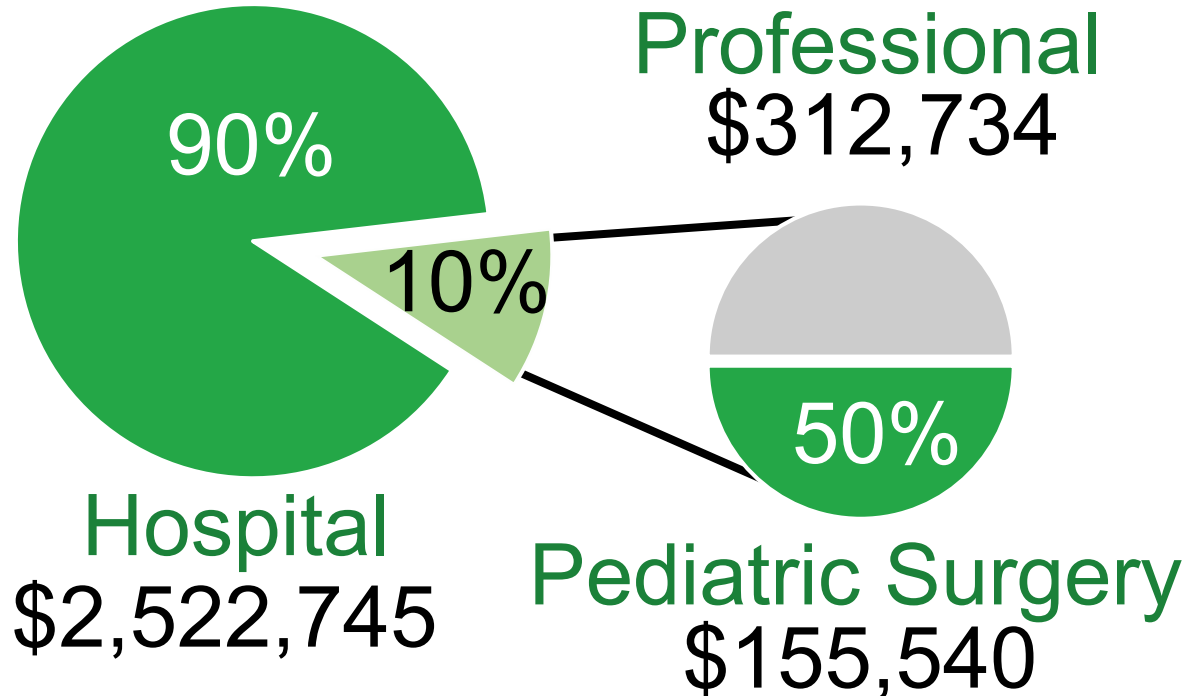
- **Retrospective review** of itemized hospital and professional bills from **2015-2017** as part of a **QI project**.
- **Descriptive statistics** obtained.
- **Reimbursement** rates calculated.
- **Professional ECMO charges** and **payments** summarized.
- **Hospital charges** ranked.

# RESULTS

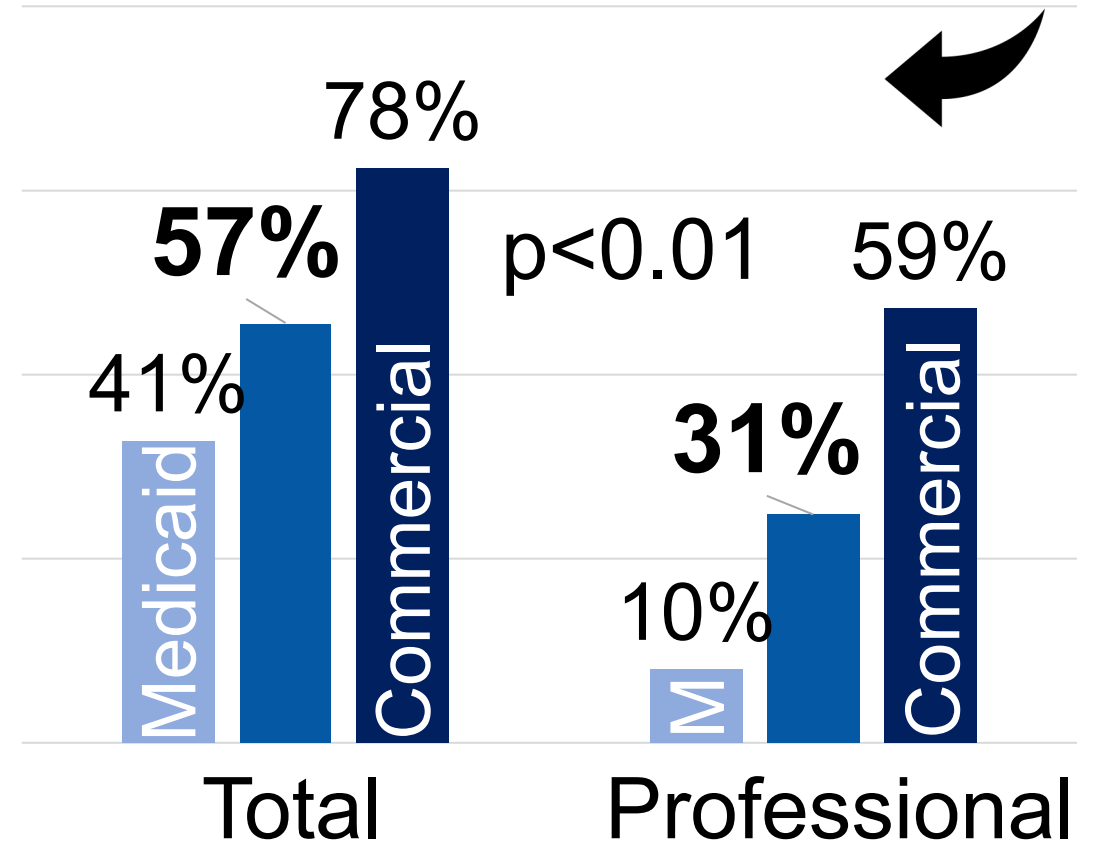
n=12, all VA, ECMO=17d, LOS=87d, Mortality=58%

## Charges

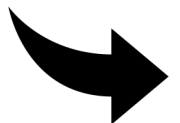
**Total**  
\$2,835,479



## Reimbursement



# Pediatric Surgery



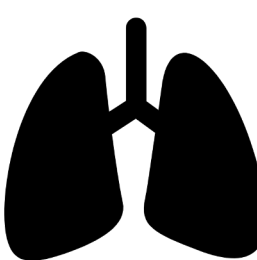
	Description	Charge	Payment
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Decannulation	Open Peripheral	\$1,736	44%
	Percutaneous Peripheral	\$1,508	15%

**1**  26%  
NICU Room



**2**  26%  
Nitric Oxide



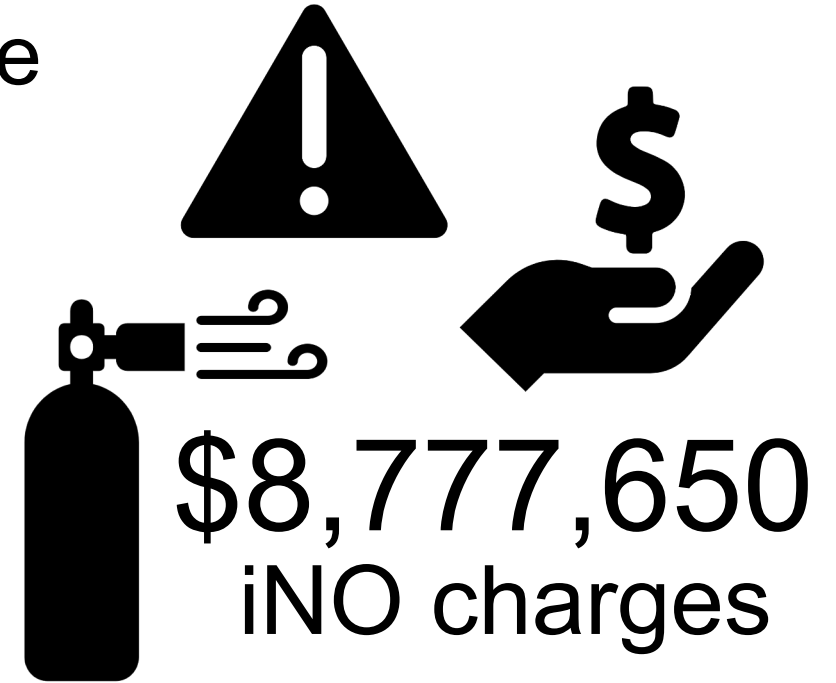
**3**  5%  
Ventilators

**Top Cost Contributors**

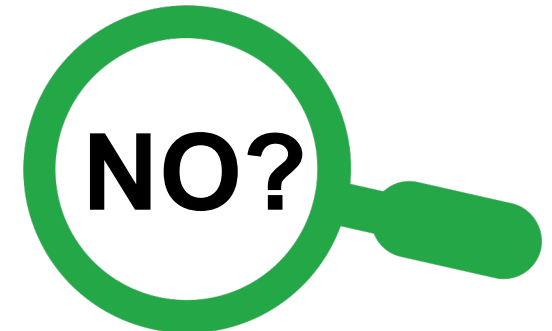


# CONCLUSIONS

- The **main drivers of ECMO cost** are unrelated to ECMO supplies, surgery, monitoring, or blood products.
- Using **protocols** with high quality evidence **can make a difference** in healthcare expenditure.
- We need to **define the role of iNO** in ECMO/CDH due to its **high cost** and **limited benefits**, as use is widespread.



\$8,777,650  
iNO charges






# CONTACT INFORMATION

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