Volumes & Outcomes Summary 2021

The Fetal Care Center is one of few comprehensive fetal care centers in the world. Led by physicians from Cincinnati Children’s, TriHealth and University of Cincinnati Medical Center, our team specializes in treating complex and rare fetal conditions and is at the forefront of innovation in fetal diagnosis and intervention therapies. Our experience and expertise is shown in our volume and outcomes.

Information in this document is based on data from fetal patients cared for by Cincinnati Children’s Fetal Care Center from February 1, 2004 through June 30, 2021, except where otherwise noted.

Care for the Full Spectrum of Fetal Conditions

Total Evaluations ........................................ 7,422

- Twin-Twin Transfusion Syndrome (TTTS) ........................................ 2,130
- Bladder Outlet Obstruction (BOO)/Posterior Urethral Valves (PUV) .... 511
- Myelomeningocele (MMC)/Spina Bifida ........................................ 433
- Congenital Diaphragmatic Hernia (CDH) ........................................ 383
- Congenital Pulmonary Airway Malformation (CPAM/CCAM) ......... 379
- Fetal Tumors ........................................................................ 144
- Twin Reversed Arterial Perfusion (TRAP) Sequence ..................... 129
- Amniotic Band Syndrome (ABS) ................................................. 65
- Chorioangioma .................................................................... 25
- Other ................................................................................... 3,223

Experience When Needed Most

We have performed the following procedures, in addition to amnioinfusions, amnioreductions, intrauterine transfusions, amniocentesis, and shunts.

Total Procedures ........................................ 1,850

Ultrasound-Based Procedures

- Radiofrequency Ablation (RFA) ................................................... 125

Surgical Procedures

- Fetoscopic ........................................................................ 1,599
- Open Fetal Surgeries (excluding EXIT) ........................................ 83

Delivery Interventions

- Cesarean with ECMO standby .................................................... 75
- Ex-utero Intrapartum Treatment (EXIT) ...................................... 71
- Delivery with Procedures on Placental Support (POPS)* ............. 22

Special Delivery Unit Deliveries ........................................ 445


Our team has performed more fetoscopic procedures than any other program in the nation.
Our Center is the first of a few centers in the nation to offer the Carpediem™ Machine—a breakthrough technology providing dialysis for newborns in our NICU.

**Congenital Diaphragmatic Hernia (CDH)**

All patients with CDH are cared for by our dedicated CDH team of maternal-fetal medicine specialists, neonatologists, pediatric surgeons, pediatric cardiologists, ECMO specialists, nurses, nutritionists and therapists. After birth, these patients can continue their care in our CDH Program.

**Total Evaluations** ........................................... 383

**Survival to Discharge**

- **Low Risk CDH** .......................... 100%*
- **Severe CDH (post FETO)** ..................... 86%

All survivors, post FETO treatment, were discharged without oxygen supplementation to date.

Survival data includes CDH patients with other fetal anomalies from July 1, 2016 through June 30, 2021.

* Low Risk CDH survival data is approaching 100%

**Bladder Outlet Obstruction (BOO)/ Posterior Urethral Valves (PUV)**

**Total Evaluations** ........................................... 511

- **Fetoscopic Interventions** .......................... 26
- **Amniopoint for Serial Amnio-infusions** ................... 24*

Our team has also performed several hundreds of vesicoamniotic shunting, bladder taps, percutaneous needle amnioinfusion, and peritoneal-amniotic shunting for urinary ascites.

* Data includes amnioports for serial amnio-infusions from January 1, 2011 – June 30, 2021.

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**Fetoscopic Endoluminal Tracheal Occlusion (FETO)**

We provide FETO intervention for Left and Right sided CDH based on criteria and patient evaluation.

The fetoscope instrument is guided through a small incision in the mother’s uterus and into the fetal trachea.

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Our surgeons have performed more than 40 FETO procedures.
Twin-Twin Transfusion Syndrome (TTTS)

Total Evaluations ........................................ 2,130
Twins .......................................................... 2,033
Triplets ........................................................ 97
Fetoscopic Interventions ........................................ 1,357

Survival Rates for Patients Undergoing FLP Procedures

Quintero Stages I, II, III
All patients including placental insufficiency/growth restriction and patients with short cervix.
Survival of at Least One Twin ........................................ 93%
Survival of Both Twins ............................................. 73%
Overall Survival .................................................... 83%

Quintero Stage IV
All patients including placental insufficiency/growth restriction and patients with short cervix.
Survival of at Least One Twin ........................................ 90%
Survival of Both Twins ............................................. 79%
Overall Survival .................................................... 85%

* All patients including selective fetal growth restriction, hydrop fetalis, and patients with short cervix.
Data reflects twin gestations from July 1, 2011 to June 30, 2021.
Myelomeningocele (MMC)/Spina Bifida

Total Evaluations ........................................... 433
Prenatal MMC Repairs ........................................ 109
Fetoscopic Prenatal MMC Repairs* .......................... 52
Fetoscopic Prenatal MMC Repairs Delivered Vaginally* .......................... 40%

* Data reflects repairs starting in 2016.

Congenital Pulmonary Airway Malformation (CPAM)

Total Evaluations ........................................... 379

Procedures by Type
Open Fetal Surgery ............................................... 7
EXIT-to-Resection ............................................. 11
Shunt Placement ............................................... 35

Fetal patients diagnosed with low risk CPAM and treated at our Center have a 100% survival rate.

Twin Reversed Arterial Perfusion (TRAP) Sequence

Total Evaluations ........................................... 129
Fetal Interventions ........................................... 89

Fetal patients diagnosed with TRAP Sequence and treated at our Center have a 98% survival rate.

The exposed nerves and neural placode are carefully released from their attachment and then they are protected and covered with a double layer of neural-substitute patch, before the skin is sutured in the midline for primary repair, if possible. Otherwise, a skin-substitute patch can be sutured to cover the skin defect.

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Cincinnati Children’s is ranked #1 in the Midwest and is a top 5 hospital in the nation among Honor Roll hospitals.