An experienced team with proven outcomes

The UM/Jackson Fetal Therapy Center is led by Dr. Rubén Quintero, professor of obstetrics and gynecology and director of the Division of Maternal-Fetal Medicine at the University of Miami Miller School of Medicine. He introduced the staging system of twin-twin transfusion syndrome (TTTS) used worldwide and pioneered the field of operative fetoscopy by designing minimally-invasive surgical instruments and techniques to treat birth defects in utero.

Dr. Eftichia Kontopoulos, associate professor of obstetrics and gynecology, is a maternal-fetal medicine specialist and fetal surgeon working alongside Dr. Quintero. She is the author of numerous scientific articles and has co-authored chapters on the topic of fetal therapy and twin-twin transfusion syndrome.

The fetal therapy team also includes highly specialized University of Miami Miller School of Medicine and Jackson Memorial Hospital nurses, sonographers and clinical and research support staff. The team works closely with all pediatric subspecialties from the University of Miami Miller School of Medicine and Holtz Children’s Hospital: neonatology, surgery, urology, nephrology, radiology, cardiology, cardiovascular surgery, cardiovascular interventional radiology, neurology, neurosurgery, ear-nose-and-throat, developmental specialists, and obstetric and pediatric anesthesia.

Dr. Rubén Quintero and Dr. Eftichia Kontopoulos.

Visit www.umjacksonfetaltherapy.com to learn more about our landmark procedures and our excellent outcomes.

Call 305-585-6636 to refer a patient.
A referral center for the world’s most complex cases

As the only fetal therapy center in the region and one of few comprehensive centers in the nation, the Fetal Therapy Center at the University of Miami/Jackson Memorial Medical Center serves as a referral center for the world’s most complex fetal therapy cases. Our surgeons have treated a large volume of fetal therapy patients and are experienced in managing dozens of rare conditions.

Jackson Memorial Hospital, founded in 1918, provides care driven by the latest advances in the field and by research conducted at the UM Miller School of Medicine. Jackson’s Holtz Children’s Hospital is ranked among the nation’s best by U.S. News & World Report for its neonatology, diabetes and endocrinology programs. Post-natal care for infants is provided by a team of experienced neonatal and pediatric specialists. The neonatal intensive care unit (NICU) is one of the largest in the country and is staffed by UM Miller School of Medicine neonatalogists.

University of Miami Miller School of Medicine, founded in 1952, was the first medical school in the state of Florida. The school is located on the 100-acre University of Miami/ Jackson Memorial Medical Center complex in downtown Miami. The medical center includes three university-owned hospitals: University of Miami Hospital, Sylvester Comprehensive Cancer Center and Bascom Palmer Eye Institute. The UM Miller School of Medicine is affiliated with Jackson Memorial Hospital, Holtz Children’s Hospital and the Miami VA Medical Center.

What is fetal therapy?

Fetal therapy is a highly specialized field that involves assessment and treatment of certain birth defects and high-risk conditions while the baby is still in the womb. In most cases, the life or health of the fetus is in danger unless the fetus receives therapy.

Who should be referred for fetal therapy?

Birth defects occur in 2-3% of all pregnancies. Some birth defects are so severe they are beyond the scope of medicine, while some are more benign and do not need to be treated until after birth. However, some birth defects or high-risk conditions can result in death or long-term consequences. Depending on the condition, different diagnostic or therapeutic techniques are offered.

What conditions do we treat?

- Fetal anemia
- Twin-twin transfusion syndrome
- Fetal bladder outlet obstruction
- Placental chorioangioma
- Cystic adenomatoid malformation of the lung and pulmonary sequestration
- Congenital diaphragmatic hernia
- Fetal tumors
- Amniotic bands
- Pleural effusions
- Iatrogenic ruptured membranes
- Prevalent spontaneous ruptured membranes

What procedures do we offer?

All patients undergo a thorough ultrasound evaluation to confirm the diagnosis. Most diagnostic procedures are conducted in our state-of-the-art fetal therapy ultrasound suites. All surgeries and some diagnostic procedures are performed in our dedicated fetal therapy operating rooms at Jackson Memorial Hospital, the University of Miami Miller School of Medicine’s primary teaching hospital.

Depending on the condition, different diagnostic or therapeutic techniques are offered:

- High resolution ultrasound, including 3-D, Color and Pulsed Doppler
- Fetal MRI
- Amniocentesis
- Chorionic villus sampling and placental biopsy
- Cordocentesis
- Vessicoentesis
- Thoracocentesis
- Diagnostic fetoscopy
- Fetal cystoscopy
- Intravascular fetal transfusion
- Selective laser photocoagulation of communicating vessels for twin-twin transfusion syndrome
- Fetal shunting procedures including the Q-shunt, for treatment of lower urinary tract obstruction (LUTO); shunt created at UM/Jackson
- Percutaneous intraluminal tracheal occlusion for congenital diaphragmatic hernia (CDH) using the Quintero modified Z-stent
- Fetal cardiac surgery for critical aortic stenosis, pulmonary stenosis, hypoplastic left heart with intact atrial septum
- Laser surgery for type II Vasa Previa
- Treatment of complicated monochorionic twins including twin reverse arterial perfusion (TRAP) and selective intrauterine growth restriction (SIUGR)
- Minimally invasive therapy for cystic adenomatoid malformation of the lung (CCAM)/pulmonary sequestration

Procedures include:

- Minimally invasive therapy for cystic adenomatoid malformation of the lung (CCAM)/pulmonary sequestration
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Delivery

Most patients are referred back to be delivered by their referring obstetrician or maternal-fetal medicine specialist. However, some patients are transferred for further care and delivery at Jackson Memorial Hospital. The labor and delivery units and operating rooms at Jackson’s Holtz Children’s Hospital are located adjacent to the neonatal intensive care unit (NICU). The NICU at Jackson’s Holtz Children’s Hospital is one of the largest in the country with a national and international reputation for excellent care.

Research

The U/M/Jackson Fetal Therapy Center is part of the USFetus Consortium, which carries out clinical trials in fetal therapy at UM/Jackson and at the University of Southern California, Children’s Hospital Los Angeles, at Hollywood Presbyterian Medical Center. The physicians involved in the partnership have extensive experience in fetal therapy and are leaders in the development of new technologies and protocols for the management and treatment of a full spectrum of fetal anomalies. Visit www.usfetus.org for more details.

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