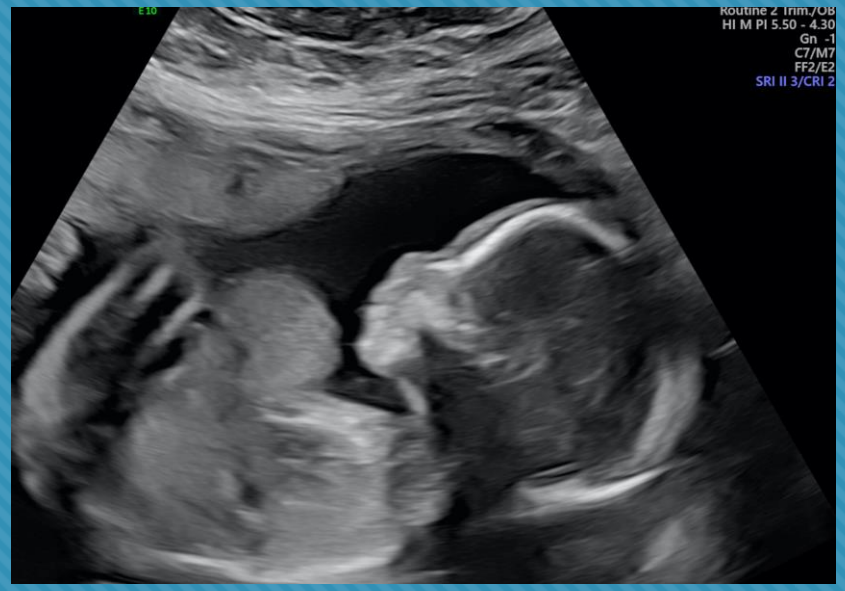
The Scope of Care at a Fetal Center



Jennifer A. Jolley, MD
Associate Clinical Professor
Department of Obstetrics & Gynecology
Division of Maternal-Fetal Medicine
UC Irvine Health

Disclosure

- I have no financial disclosure or conflicts of interest with the material discussed in this presentation.

Objectives

- Define the role of Maternal-Fetal Medicine specialists in patient care
- Recognize indications for referral to a fetal center
- Augment patient care with multidisciplinary approach to management of high-risk pregnancies

What is a MATERNAL-FETAL MEDICINE (MFM) subspecialist?

A physician who has advanced knowledge and training in

medical, surgical, obstetrical, fetal, and genetic complications of pregnancy

& their effects on both the woman and fetus.

MFM Subspecialists provide

1. **consultations**
2. **co-management**
3. **transfer of care**

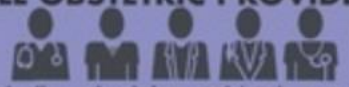
for **women with complex conditions before, during, and after pregnancy.**

MFM Subspecialists provide **peer and patient education;**

AND

perform research on innovative approaches and treatments.

MFM subspecialists work with **ALL OBSTETRIC PROVIDERS**



including physician assistants, nurses, NPs, CNMs/CMs, family physicians, and obstetrician-gynecologists to manage **HIGH-RISK PREGNANCIES.**

What is a HIGH-RISK PREGNANCY?

SICK WOMEN get pregnant

One that threatens the **HEALTH OR LIFE** of the **WOMAN OR HER FETUS.**

PREGNANT WOMEN get sick

1 EXISTING CONDITIONS,

such as **high blood pressure, obesity, diabetes,** or being **HIV-positive**

Rates of **Gestational Diabetes (GDM) and pre-GDM** have **DOUBLED** in the last 14 years.

Over the last 30 years, **first trimester use of prescription medications has increased** more than 60%

60% of women of reproductive age are **obese or overweight.**

2 COMPLICATIONS from PREVIOUS PREGNANCIES

e.g. preterm birth, preeclampsia, IUGR

3 MULTIPLE GESTATION

In 2014, **3.5% of all babies born** were **TWINS, TRIPLETS OR HIGHER-ORDER MULTIPLES,**

accounting for almost **140,000 births** in the U.S.

The number of **MULTIPLES Born in The U.S.** is at an **ALL-TIME HIGH,** according to the National Center for Health Statistics.

4 PROBLEMS with THE FETUS

Birth defects affect **one in every 33 babies** born in the U.S. each year.

Birth defects are the leading cause of infant deaths, accounting for **20% of all infant deaths.**

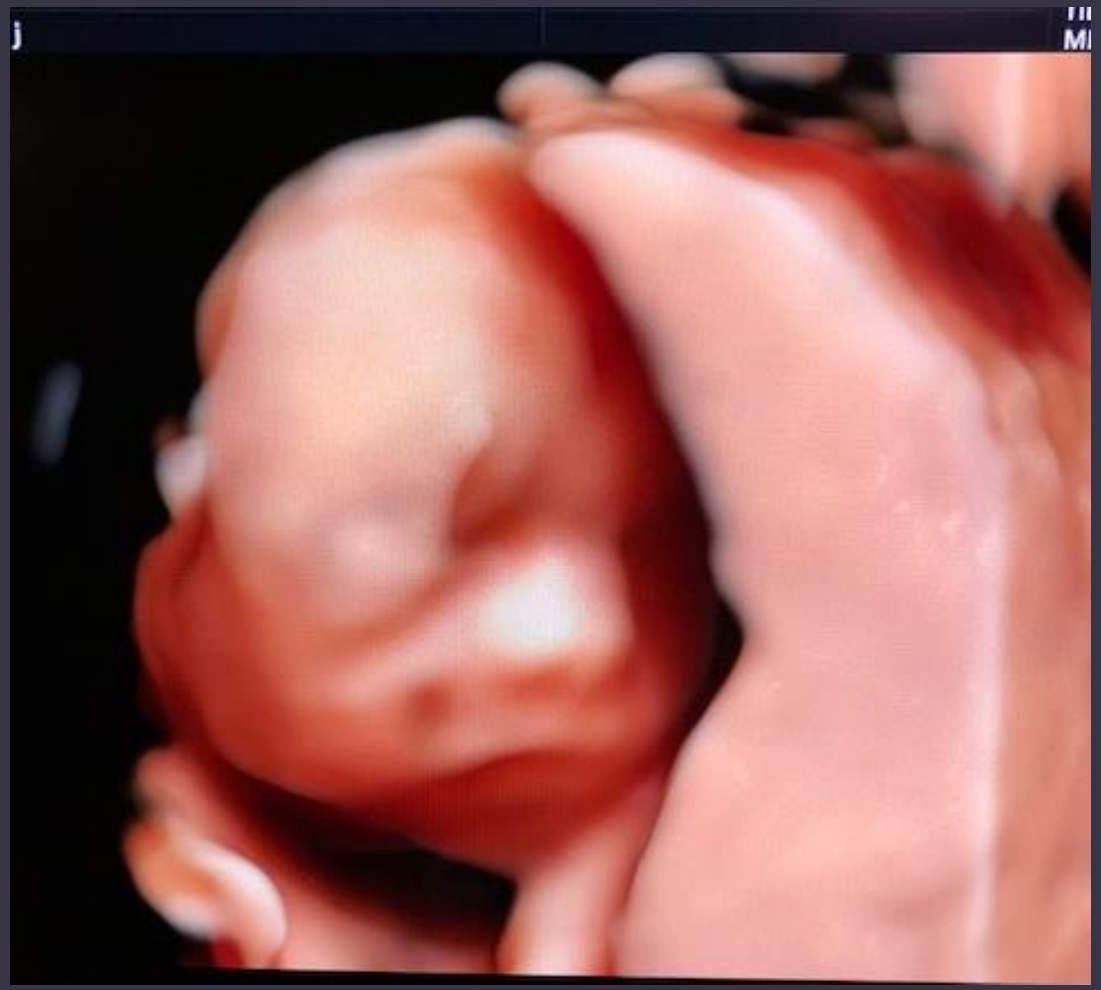
Society for Maternal-Fetal Medicine

High-risk pregnancy experts

The Maternal-Fetal Medicine subspecialists' role within a health care system

- To promote early access and sustained adequate prenatal care for all pregnant women, we encourage collaboration with obstetricians, family physicians, certified midwives, and other providers
  - Preconception, prenatal and postpartum care counseling and coordination
- The MFM subspecialist functions most effectively within a fully integrated and collaborative health care environment

SMFM Special Report. Am J Obstet Gynecol. 2014 Dec; 211(6): 607-16.



SMFM Special Report. Am J Obstet Gynecol. 2014 Dec; 211(6): 607-16.

TABLE 1

Scope of maternal-fetal medicine

The discipline of maternal-fetal medicine includes preconception care, specialized prenatal care and intrapartum care, obstetric and medical complications of pregnancy, diagnosis and management of fetal anomalies, fetal complications, and fetal testing. Within this scope of practice, it is recommended that, when consultation with a maternal-fetal medicine subspecialist is needed, the obstetric care provider consults with the subspecialist as soon as the condition is identified. It is recognized that the training and experience acquired by obstetric care providers may allow them to manage some complicated pregnancies. Some items listed below may not constitute high-risk conditions (eg, breast-feeding, contraception), but are part of the continuum of care provided by maternal-fetal medicine subspecialists as well as other obstetric care providers.

Preconception care

Preconception evaluation of women to optimize maternal and perinatal outcomes. Examples include women with underlying illness, previous adverse pregnancy outcome, or considering advanced reproductive technology.

Specialized prenatal care

1. Evaluation of pregnant women needing counseling regarding prenatal care issues and nutrition
2. Ultrasound: standard, limited, and specialized (eg, detailed sonography, fetal echocardiogram, Doppler studies)
3. Prenatal diagnosis, aneuploidy screening, and fetal therapy (CVS, amniocentesis, fetal blood sampling and transfusion, fetal thoracentesis and thoracoamniotic shunt placement, fetal vesicocentesis and vesicoamniotic shunt placement, laser, fetal surgery)
4. Genetic screening for women at increased risk for genetic disorders

Labor and delivery and associated complications

Any antepartum patient admitted for "other than delivery" support for intrapartum care including before labor; first-, second-, and third-stage issues; intrapartum fetal monitoring; anesthesia and analgesia; operative vaginal delivery, cesarean delivery; trial of labor after cesarean

Obstetric complications

1. Recurrent pregnancy loss
2. PTB prevention
   a. Asymptomatic (eg, prior second-trimester loss, possible cervical insufficiency); prior PTB; mullerian abnormalities; short cervical length; issues related to cerclage, pessary, progesterone, or other interventions for prevention of PTB
   b. Symptomatic (PTL or PPROM) <34 wk' gestation
3. Meconium complications
4. Malpresentation and malposition
5. Shoulder dystocia
6. Abnormal third stage of labor
7. Placenta accreta, increta, percreta
8. Second- or third-trimester vaginal bleeding
9. Preeclampsia with severe elements/eclampsia with HELLP syndrome or end-organ damage
10. Severe postpartum hemorrhage
11. Cesarean hysterectomy
12. Acute fatty liver of pregnancy
13. Amniotic fluid embolism

Maternal complications

1. Hypertensive disorders
2. Cardiac disease
   a. Congenital heart disease
   b. Arrhythmias
   c. Valve disease
   d. Cardiomyopathy
   e. Pulmonary hypertension
   f. Coronary artery disease
   g. Heart transplant

SMFM. MFM subspecialists' role within a health care system. Am J Obstet Gynecol 2014. *(continued)*

Fetal anomalies

1. Structural abnormalities
2. Family history of abnormality
3. Aneuploidy or increased risk for aneuploidy
4. Teratogen exposure

Fetal complications

1. Threatened miscarriage (including medical and surgical management)
2. Multifetal pregnancies (including, but not limited to, mono/di twins, mono/mono twins, higher-order multiples; fetal growth restriction of 1 fetus; twin-twin transfusion syndrome; fetal reduction)
3. Growth disorders
   a. Growth restriction
   b. Macrosomia
4. Infections (eg, cytomegalovirus, toxoplasmosis, parvovirus, Herpes, varicella)
5. Fetal death
6. Hemolytic disease (red cell alloimmunization)
7. Neonatal alloimmune thrombocytopenia
8. Nonimmune hydrops

Fetal testing

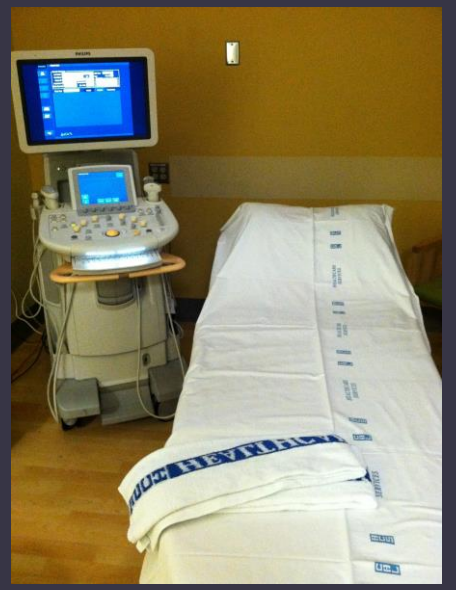
1. Antepartum fetal monitoring
2. Sonographic assessment of amniotic fluid abnormalities
   a. Oligohydramnios
   b. Hydramnios
3. Fetal blood sampling/intrauterine transfusion
4. Screening for fetal anemia
5. Fetal muscle/organ biopsy
6. Fetal skin sampling
7. Fetal surgery; fetoscopy/embryoscopy

CONDITIONS APPROPRIATE FOR MANAGEMENT AT A FETAL CENTER

SMFM Special Report. Am J Obstet Gynecol. 2014 Dec; 211(6): 607-16.

Advances in maternal-fetal care

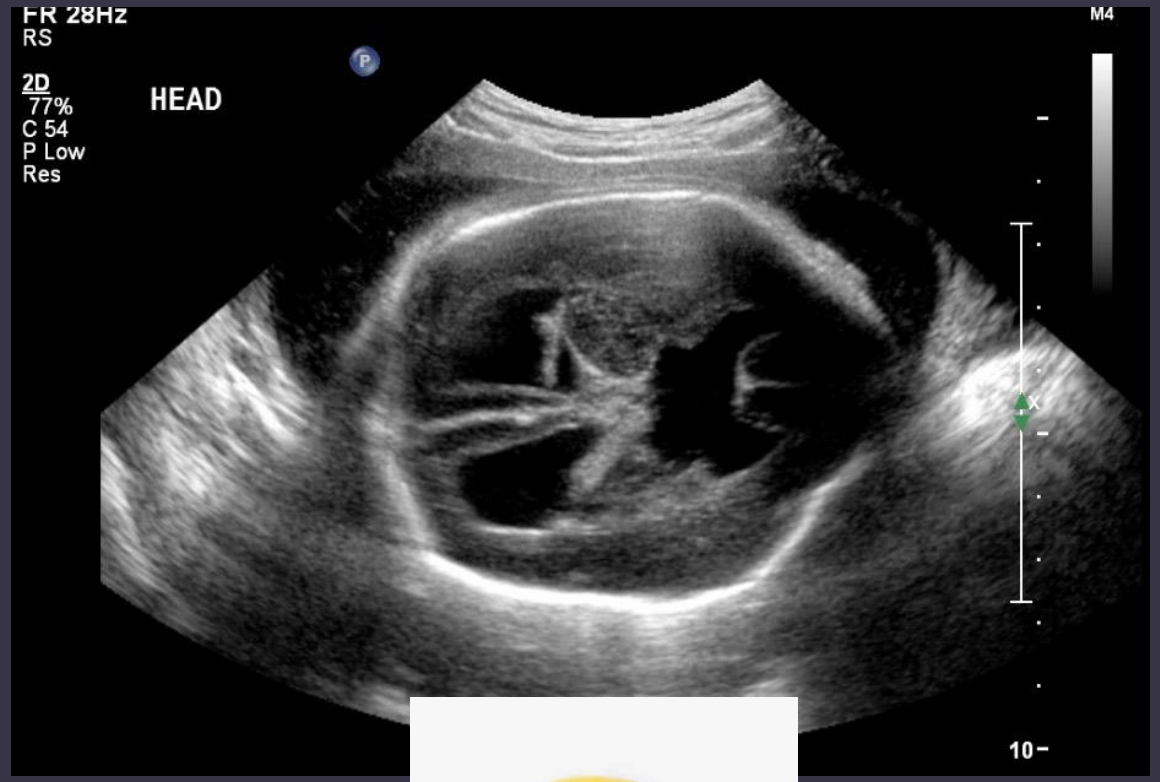
- The specialty of MFM has evolved significantly over the last few decades including advances in prenatal diagnosis and fetal intervention
- Ultrasound
  - MRI
- Improvements in minimally invasive techniques
  - Instrumentation
- Treatments for otherwise lethal fetal disease
- Treatments to improve long-term outcome for non-lethal fetal disease
- Expertise

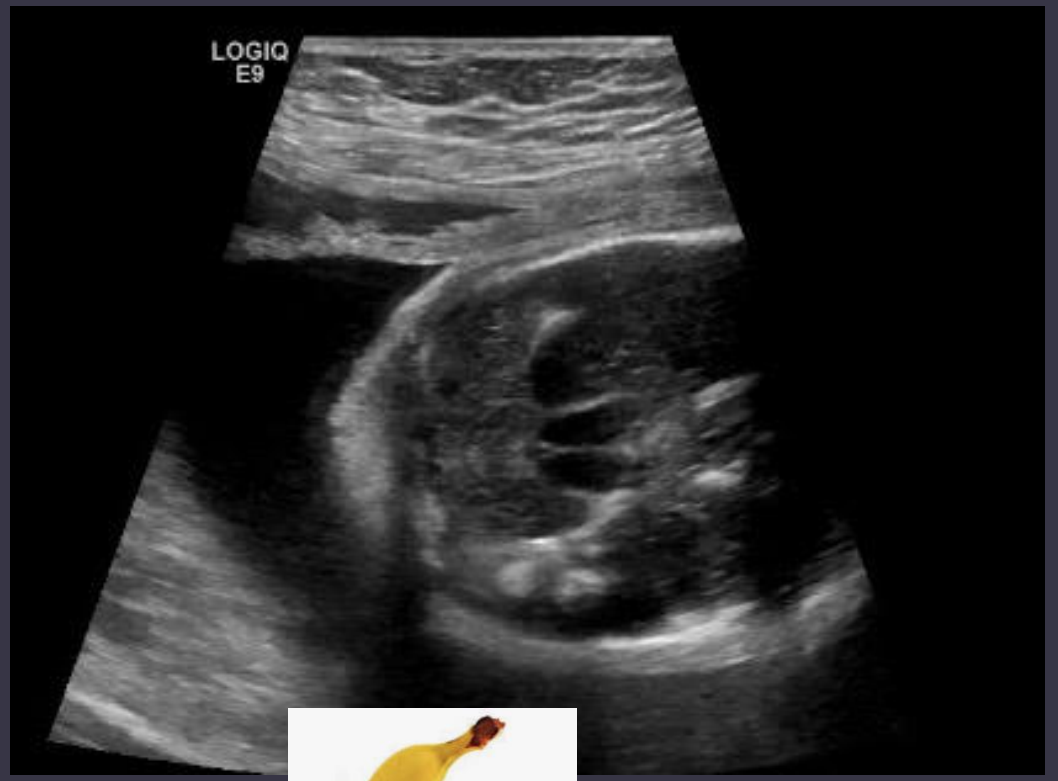


Diagnosis of a fetal anomaly

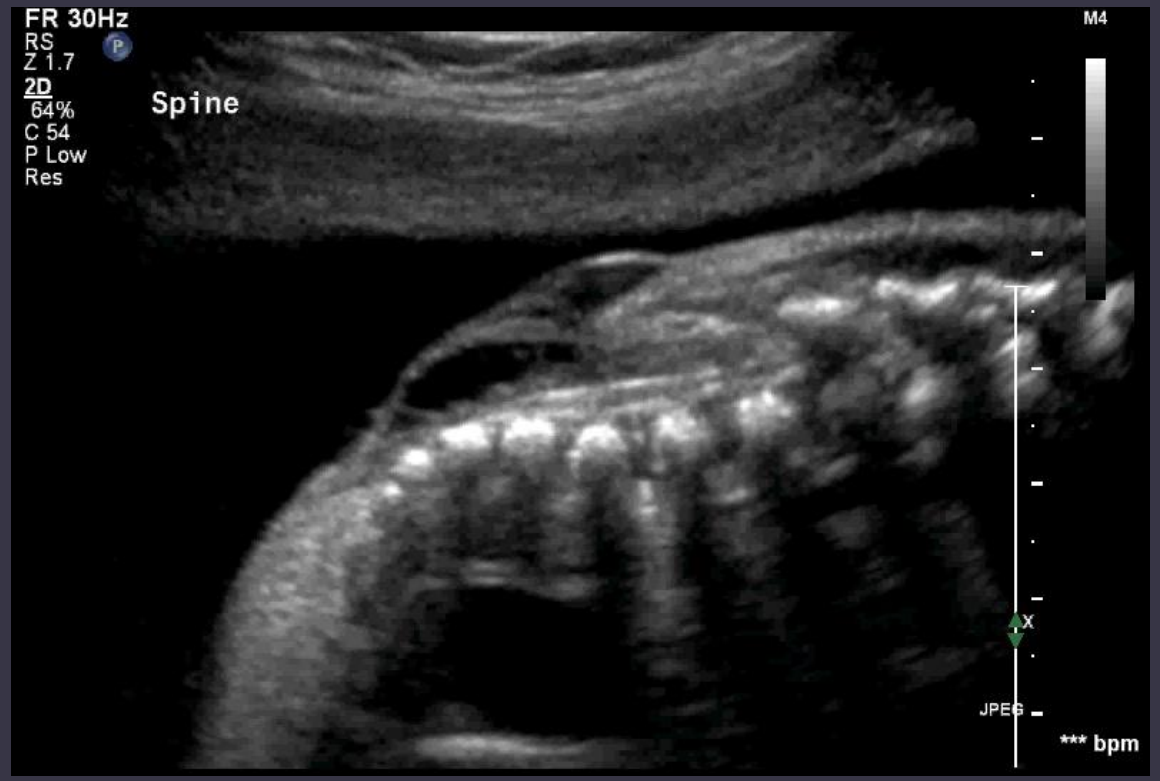
- Fetal anomalies affect 3% of all babies born in the United States each year
  - Leading cause of infant deaths (20%)
- Majority are diagnosed at time of anatomy survey between 18-20 weeks
- Impact on family at the time of diagnosis ranges from surprise to life-altering distress

https://www.cdc.gov/ncbddd/birthdefects/data.html





Meningomyelocele

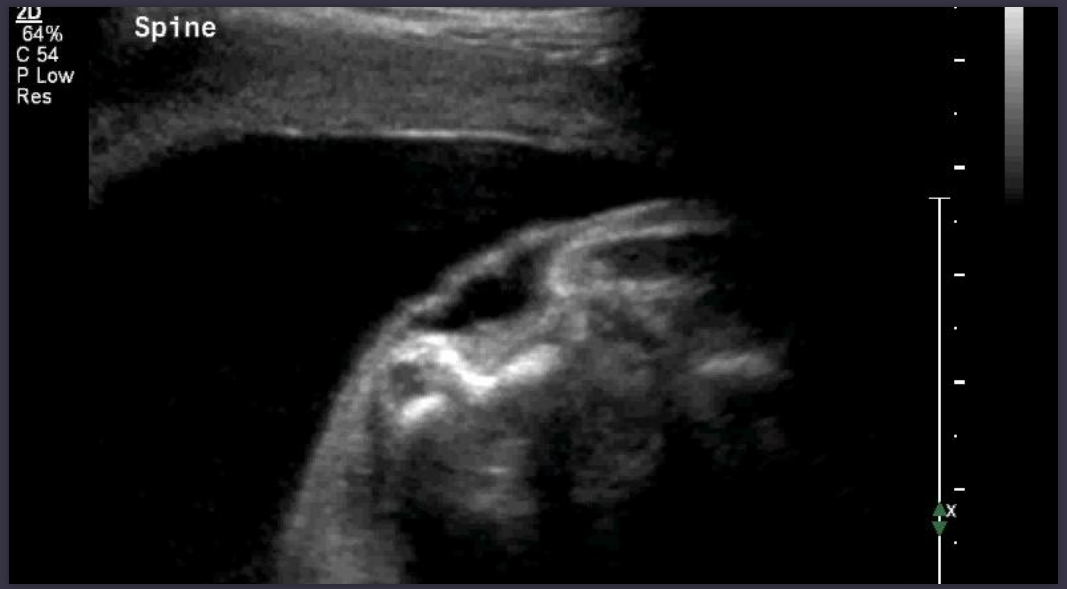


What does this mean?

What can we do?

Who do we talk to?

Where do we go?



Fetal Center

Rationale for in utero repair of myelomeningocele

- "Two hit hypothesis" of resulting damage
  - Failure of closure of the spine
  - During course of pregnancy with trauma from fetal movement and chemical damage from fluid
- Sonographic evidence that central and peripheral nervous system insults may be progressive
  - Chiari malformation & ventriculomegaly often worsen
  - Lower extremity movement can be seen early (<17-20 weeks) then not seen later
  - Clubbing of the feet appears to be progressive
- Plasticity greatest in the young brain and nervous system

Meningomyelocele

- Patient care coordinator
- Genetic counseling and testing
- Ultrasound and MRI
- Fetal echocardiogram
- Consultation with Pediatric Neurosurgery
- Consultation with Pediatric Urology
- Options for prenatal intervention
- Recommendations for management of antenatal surveillance and delivery planning
- Expectations for neonatal treatment and ongoing care

March 17, 2011

MOMS
Management of Myelomeningocele Study

The NEW ENGLAND JOURNAL of MEDICINE

A Randomized Trial of Prenatal versus Postnatal Repair of Myelomeningocele

N. Scott Adzick, M.D., Elizabeth A. Thom, Ph.D., Catherine Y. Spong, M.D., John W. Brock III, M.D., Pamela K. Burrows, M.S., Mark P. Johnson, M.D., Lori J. Howell, R.N., M.S., Jody A. Farrell, R.N., M.S.N., Mary E. Dabrowiak, R.N., M.S.N., Leslie N. Sutton, M.D., Nalin Gupta, M.D., Ph.D., Noel B. Tulipan, M.D., Mary E. D'Alton, M.D., and Diana L. Farmer, M.D., for the MOMS Investigators*

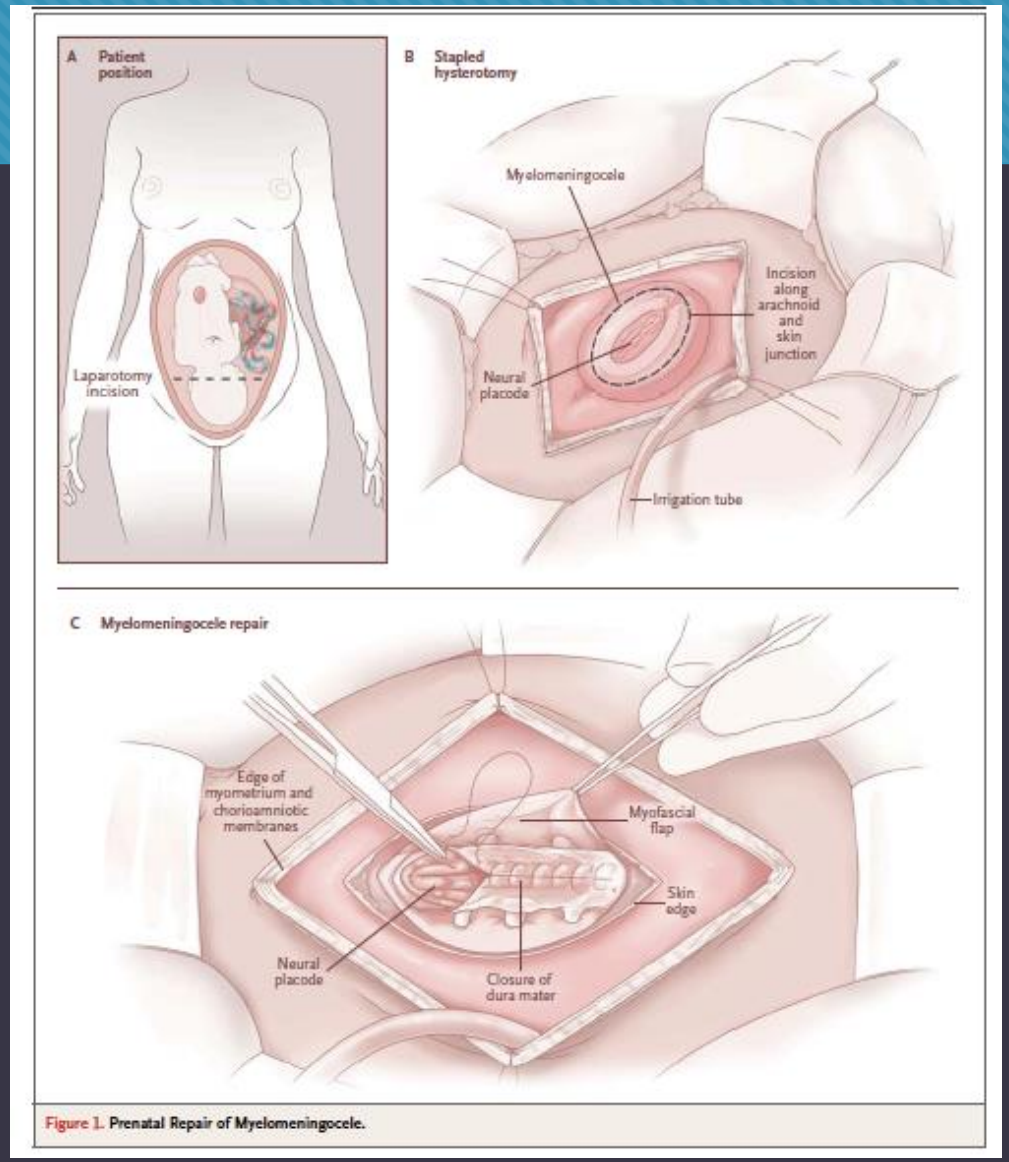


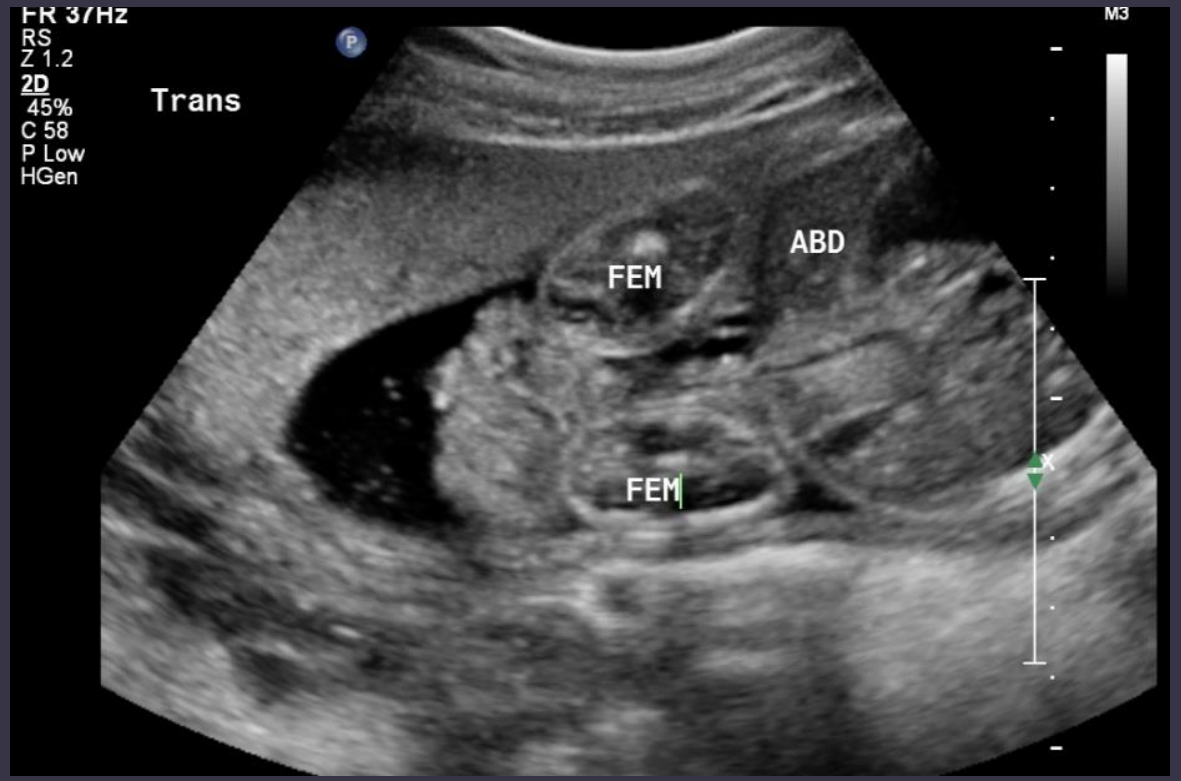
Figure 1. Prenatal Repair of Myelomeningocele.

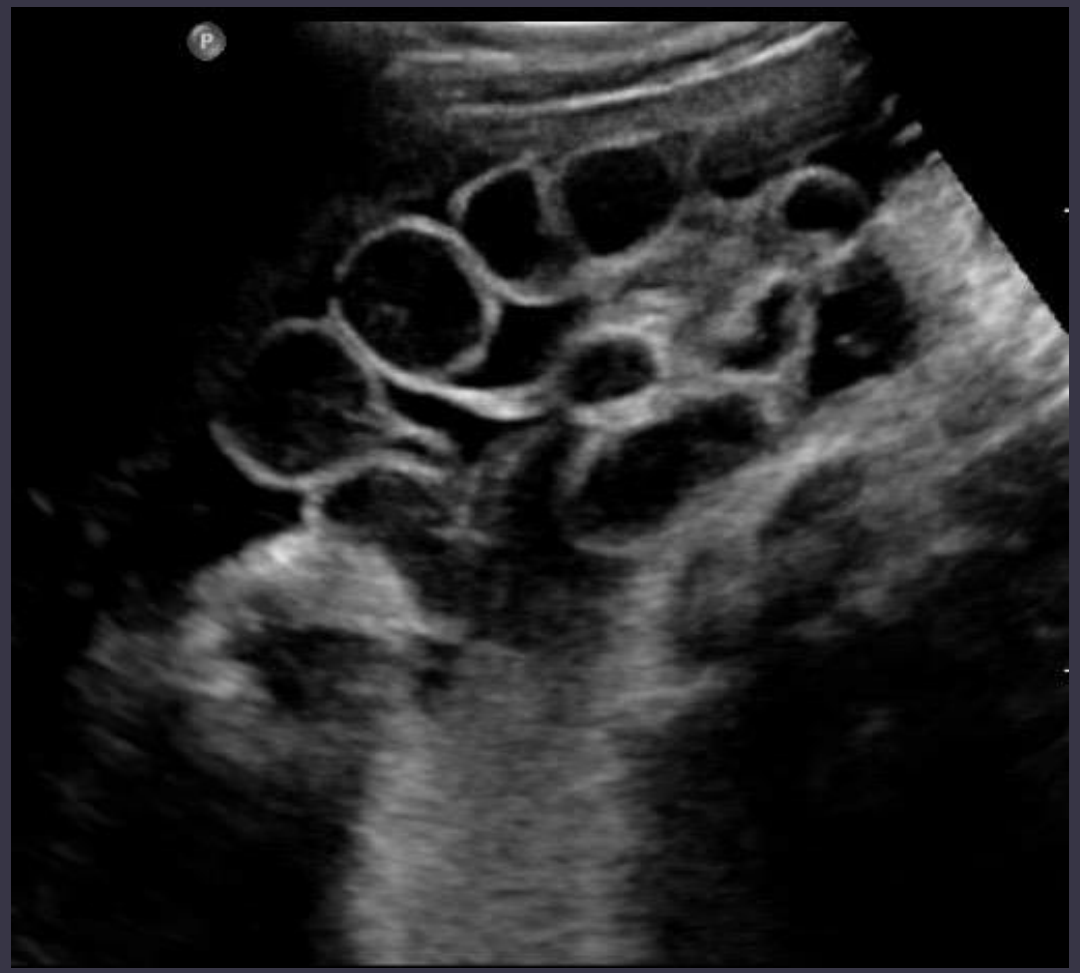
Adzick NS et al. N Engl J Med. 2011 Mar 17;364(11):993-1004

Option for prenatal intervention

- Prenatal repair group had significantly fewer patients who needed shunt placement by 12 months
  - 68% vs. 98% (RR 0.70, 97.7% CI 0.58-0.84)
- Prenatal surgery group had less
  - Moderate or severe hindbrain herniation
  - Brainstem kinking
  - Abnormal 4th ventricle location
- Prenatal surgery group more likely to be able to walk independently
  - 42% vs. 21% (p=0.01)

Adzick NS et al. N Engl J Med. 2011 Mar 17;364(11):993-1004





Gastroschisis

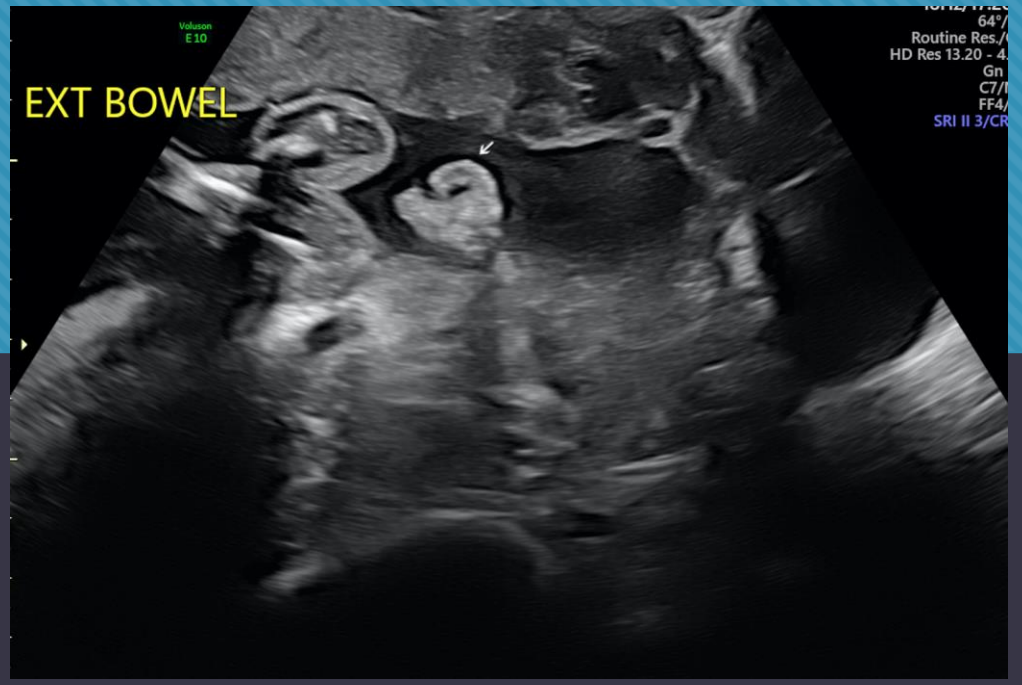
Gastroschisis

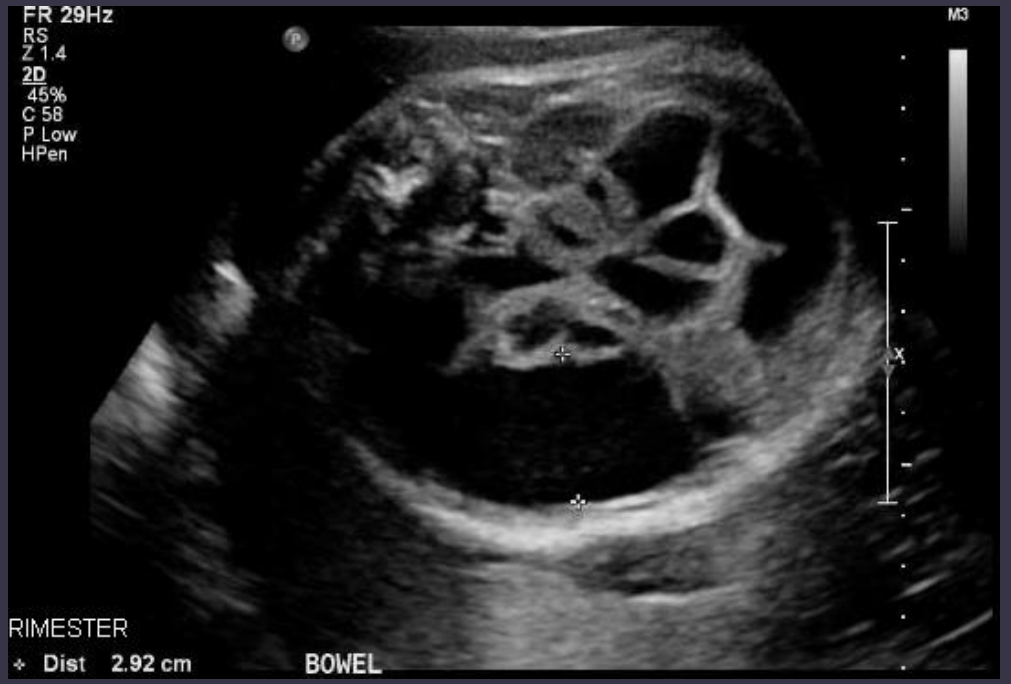
- Paraumbilical abdominal wall defect associated with evisceration of fetal intestine
- Incidence 5.3/10,000 births in 2012 in California
- Additional gastrointestinal issues present in 15-25%
  - Malrotation, atresia, stenosis
  - May be due to vascular disruption caused by herniated bowel
- Most favorable prognosis for abdominal wall defects because most cases are not complicated by concomitant anomalies or aneuploidy
- Survival has been reported as high as 97.8%

Anderson JE et al. *JAMA Surg*. 2018;153(11):1053-1055.

Vanishing gastroschisis

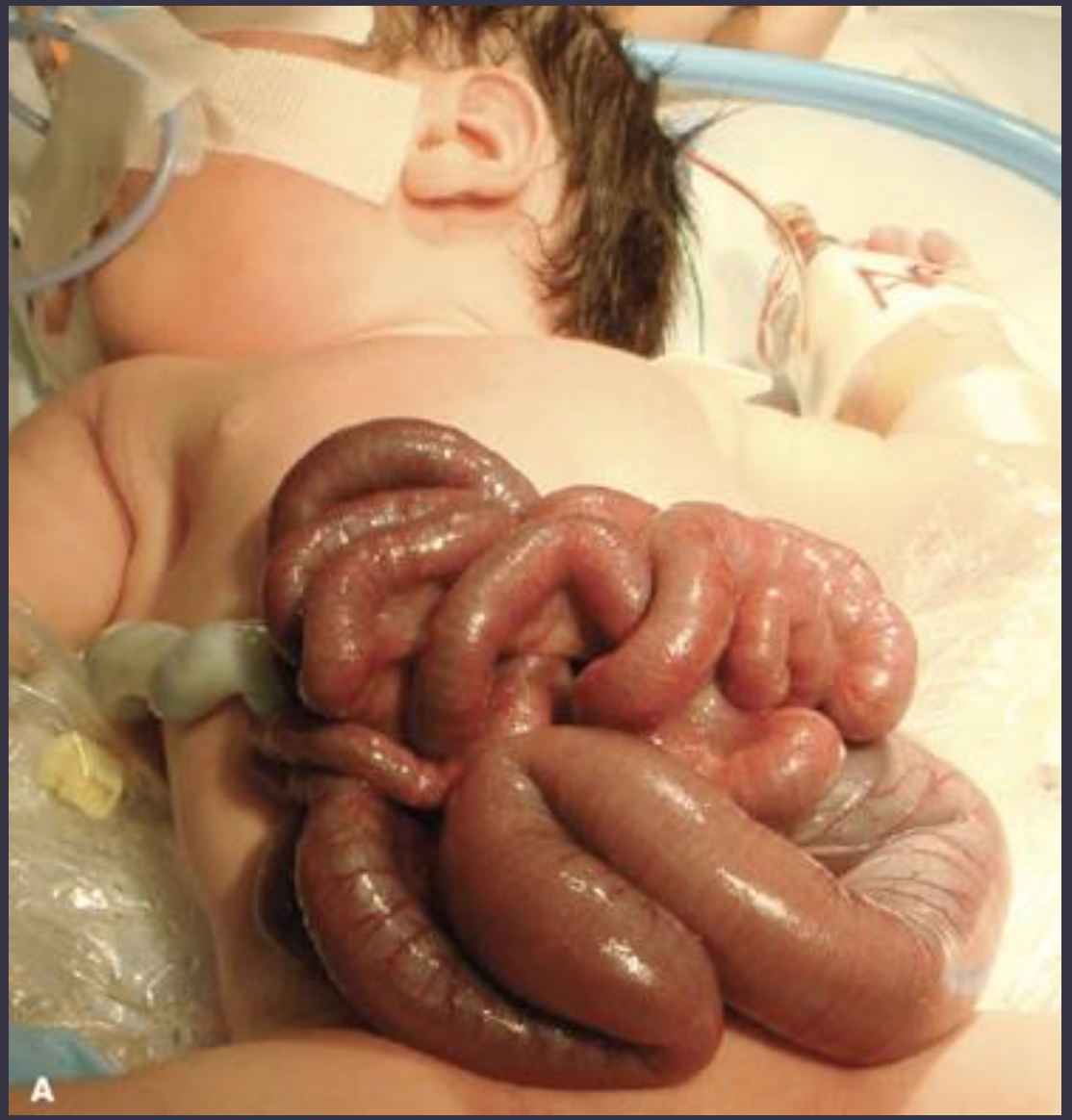
- Ultrasound
  - Small amount of external bowel
  - Intraabdominal bowel dilation

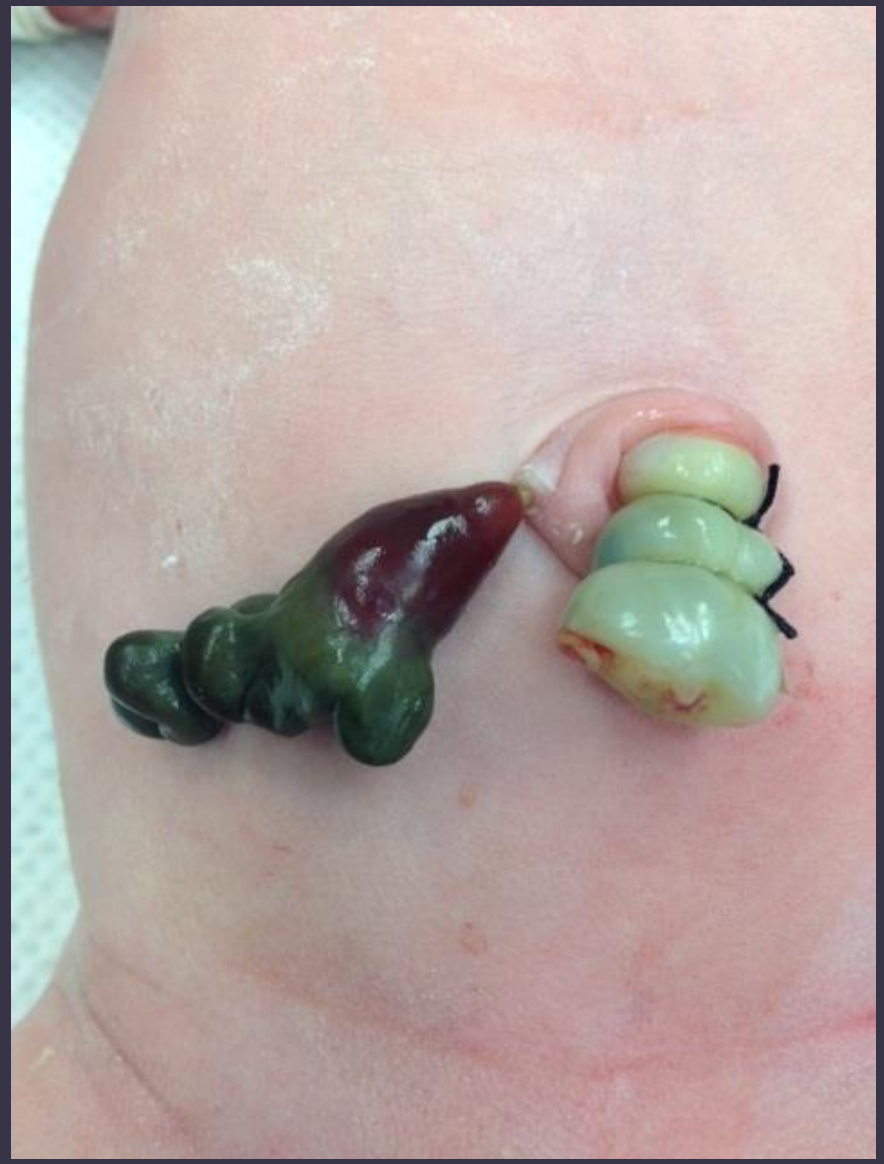




Vanishing gastroschisis

- 4-6% gastroschisis cases
- Defect can contract or close in utero, leading to strangulation of eviscerated bowel
- Leads to short gut syndrome
  - Extreme short gut <25 cm
  - Long term TPN→ liver failure→ liver and small bowel transplants
- Mortality rate reported up to 27-70%
- Standard "uncomplicated" gastroschisis mortality rate <10%

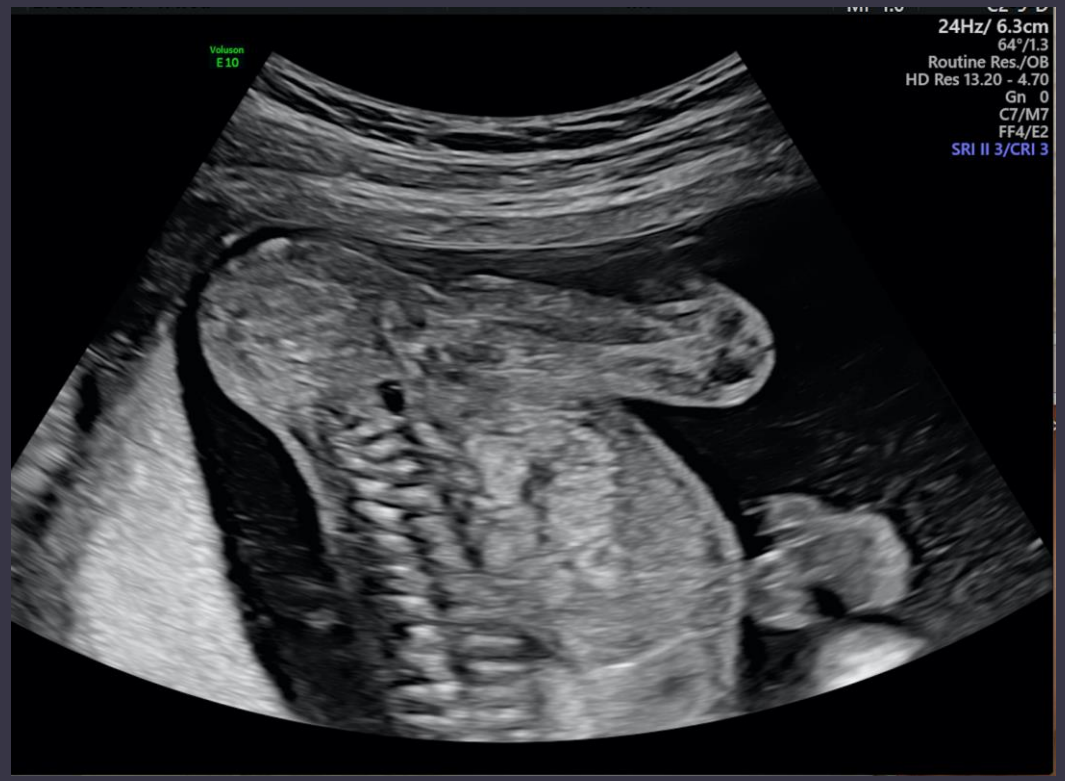


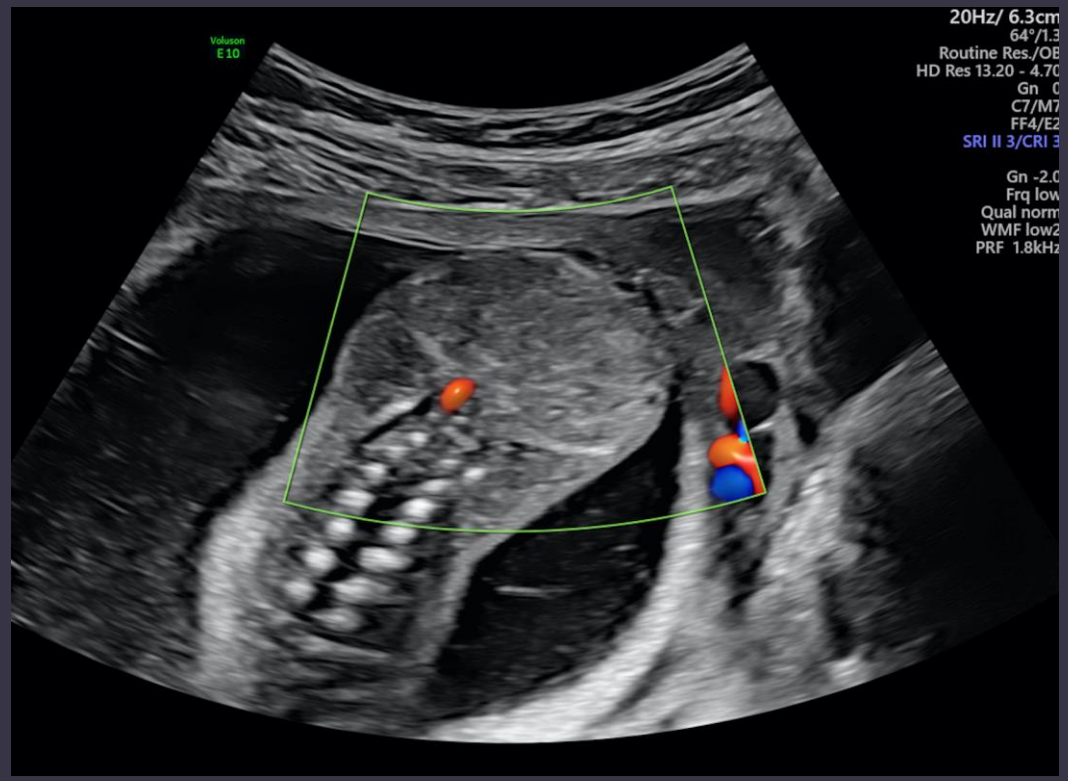


www.pediatricsconsultant360.com

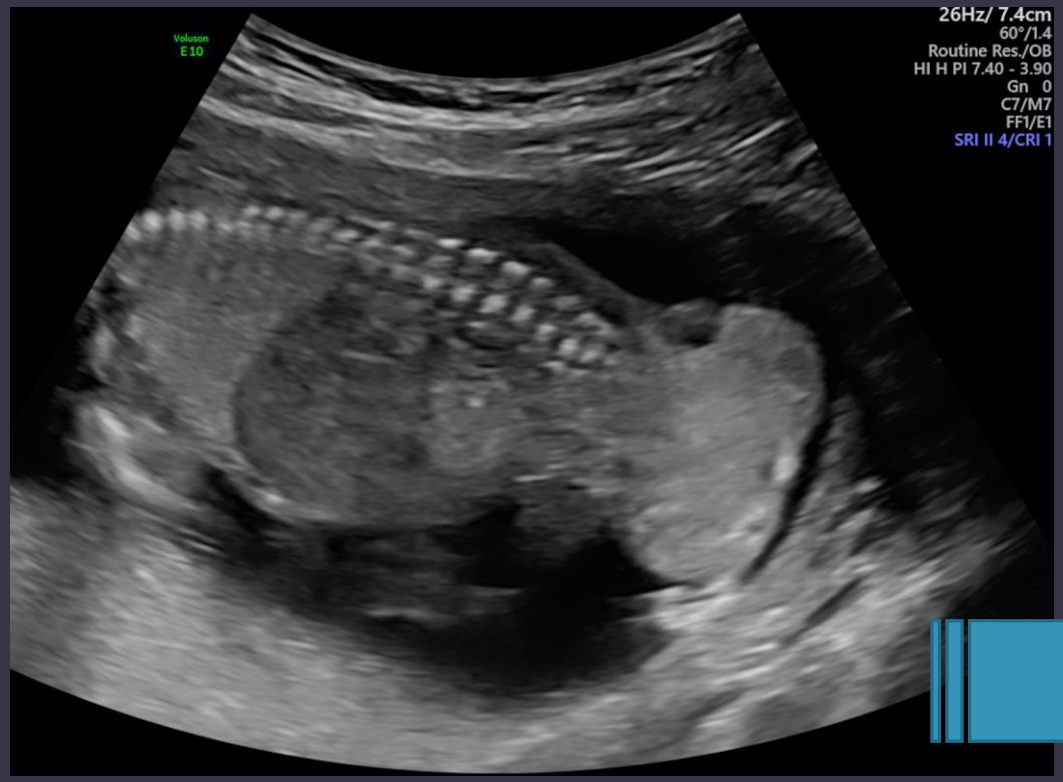
Vanishing gastroschisis

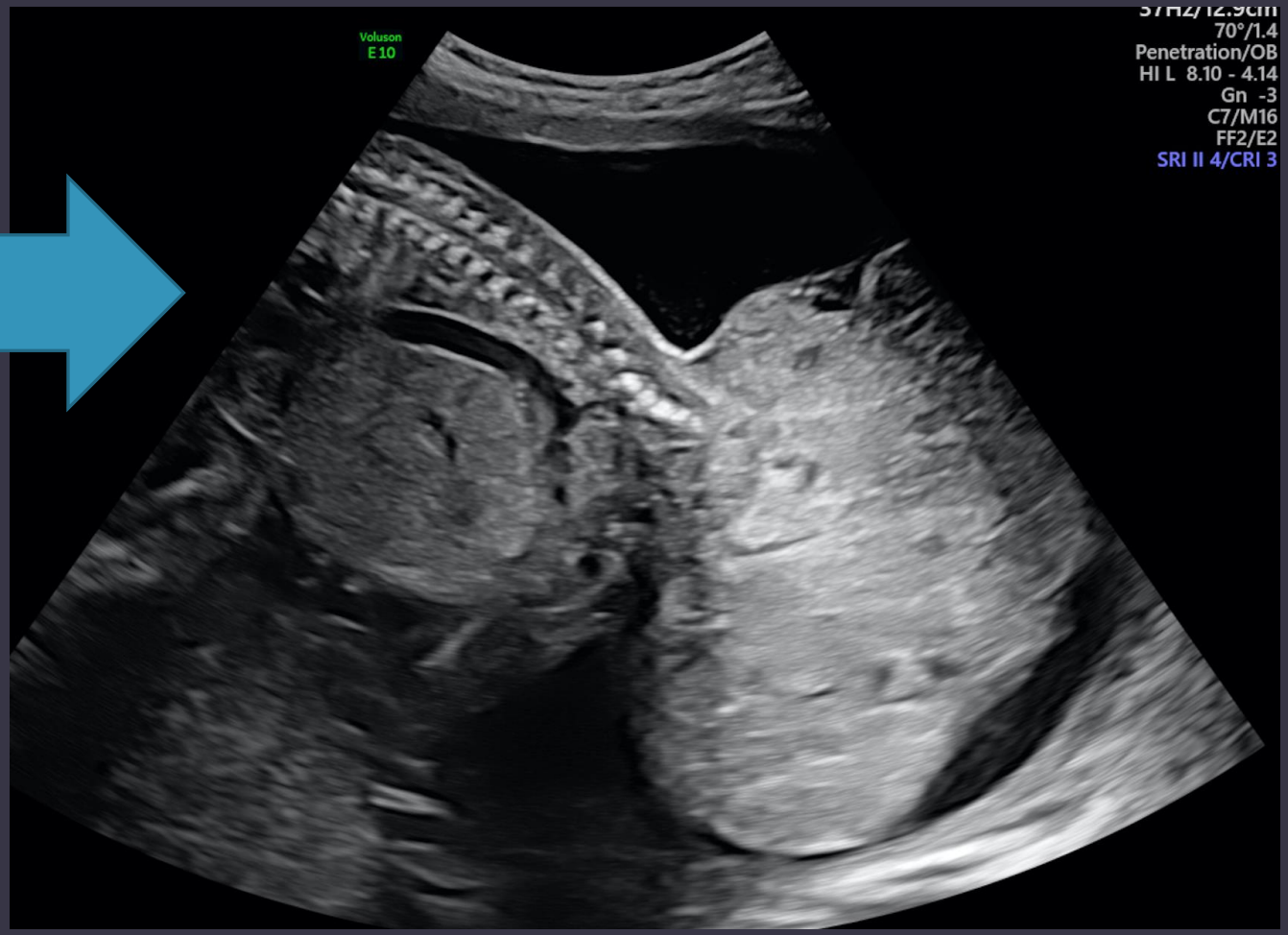
- Patient care coordinator
- Genetic counseling and testing
- Consultation with Pediatric Surgery
- Repeat consultation with Pediatric Surgery
- Recommendations for management of antenatal surveillance
- Multidisciplinary delivery planning
- Expectations for neonatal treatment and ongoing care





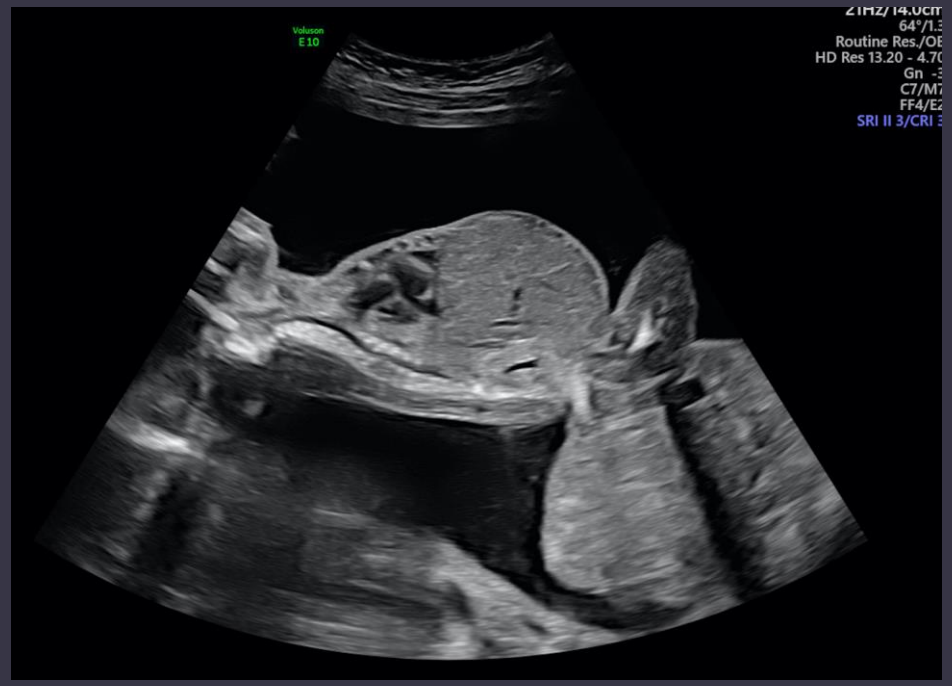
Sacrococcygeal teratoma

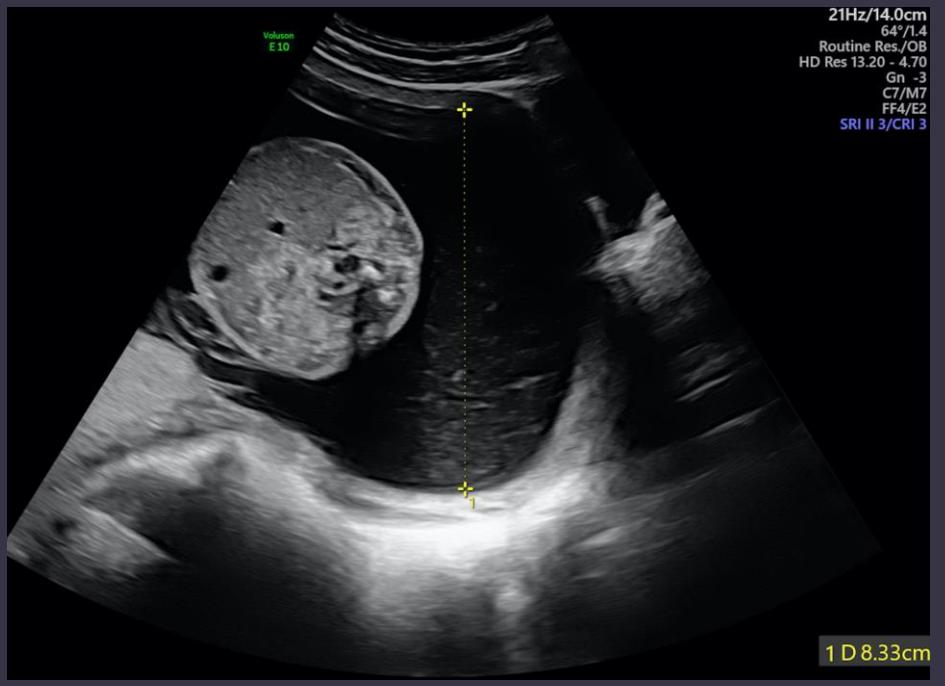

Voluson
E 10
26Hz/ 7.4cm
60°/1.4
Routine Res./OB
HI H PI 7.40 - 3.90
Gn 0
C7/M7
FF1/E1
SRI II 4/CRI 1

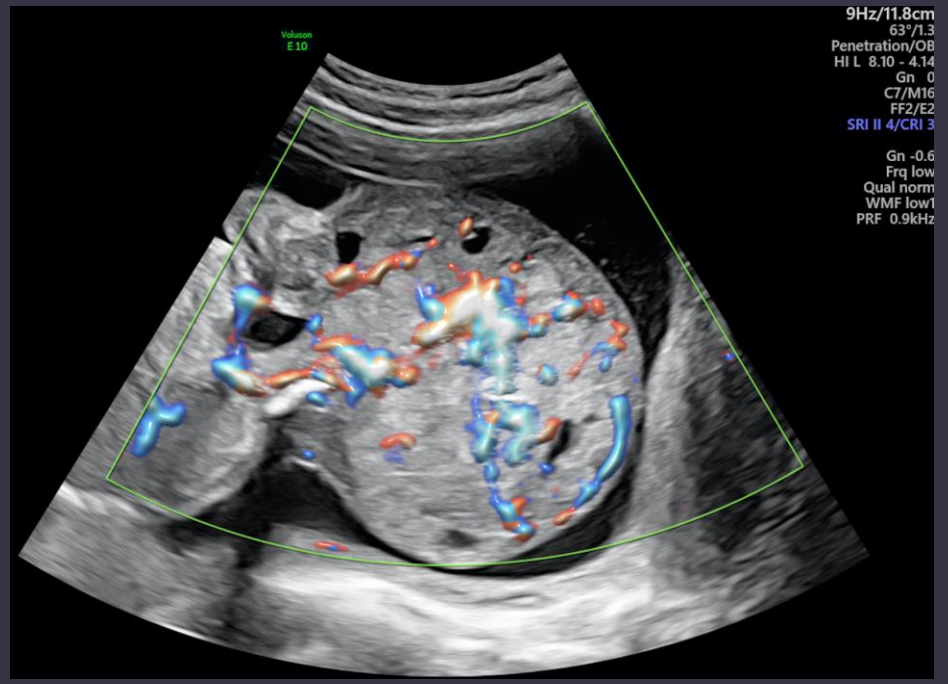

Voluson
E 10
70°/1.4
Penetration/OB
HI L 8.10 - 4.14
Gn -3
C7/M16
FF2/E2
SRI II 4/CRI 3

Sacrococcygeal teratoma

- Tumor volume to fetal weight ratio >0.12 before 24 weeks: poor prognosis
- Risks to fetal and maternal health
  - Continued growth of mass→ vascular steal→ high output cardiac failure, hydrops
  - Solid lesions >10 cm carry high perinatal mortality rate
  - Maternal mirror syndrome
  - Polyhydramnios→ preterm labor
- Prenatal surgery option
- Postnatal surgical removal/ repair
  - Could be disfiguring
  - Urinary/ fecal incontinence
  - Malignancy


Voluson
E10
Routine Res./OB
SRI II 3/CRI 3


Voluson
E10
21Hz/14.0cm
64°/1.4
Routine Res./OB
HD Res 13.20 - 4.70
Gn -3
C7/M7
FF4/E2
SRI II 3/CRI 3
1 D 8.33cm


Voluson
E10
9Hz/11.8cm
63°/1.3
Penetration/OB
HI L 8.10 - 4.14
Gn 0
C7/M16
FF2/E2
SRI II 4/CRI 3
Gn -0.6
Frq low
Qual norm
WMF low1
PRF 0.9kHz

Sacrococcygeal teratoma

- Patient care coordinator
- Genetic counseling and testing
- Ultrasound and MRI
- Fetal echocardiogram
- Recommendations for management of antenatal surveillance and delivery planning
- Consultation with Pediatric Surgery
- Consultation with Pediatric Urology
- Options for prenatal intervention
- Expectations for neonatal treatment and ongoing care

Original Paper

Fetal Diagnosis and Therapy

Fetal Diagn Ther
DOI: 10.1159/000487542

Received: January 8, 2018
Accepted after revision: January 29, 2018
Published online: May 7, 2018

Preemptive Delivery and Immediate Resection for Fetuses with High-Risk Sacrococcygeal Teratomas

Heron D. Baumgarten Juliana S. Gebb Nahla Khalek Julie S. Moldenhauer Mark P. Johnson William H. Peranteau Holly L. Hedrick N. Scott Adzick Alan W. Flake

Department of Surgery, Children's Hospital of Philadelphia, Philadelphia, PA, USA

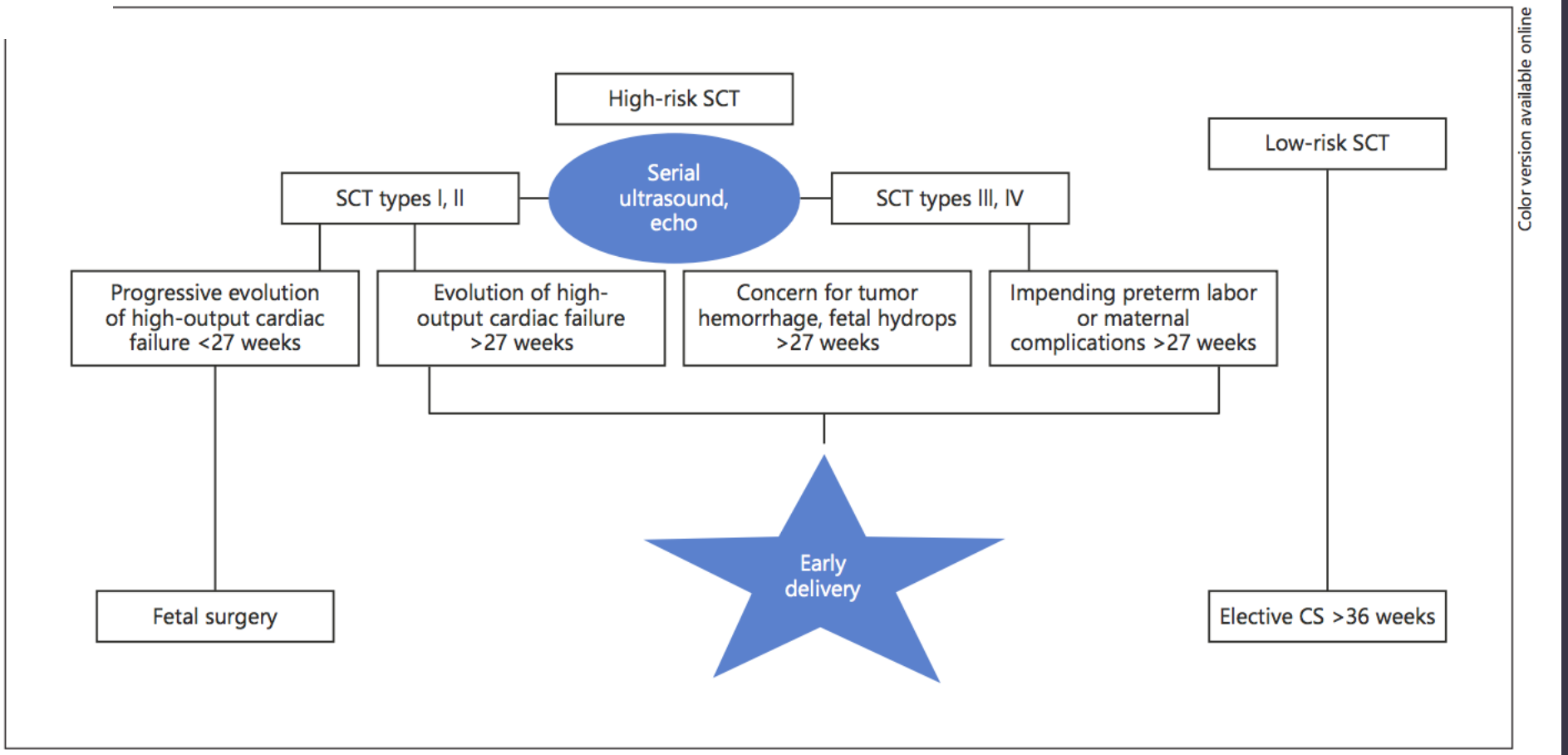
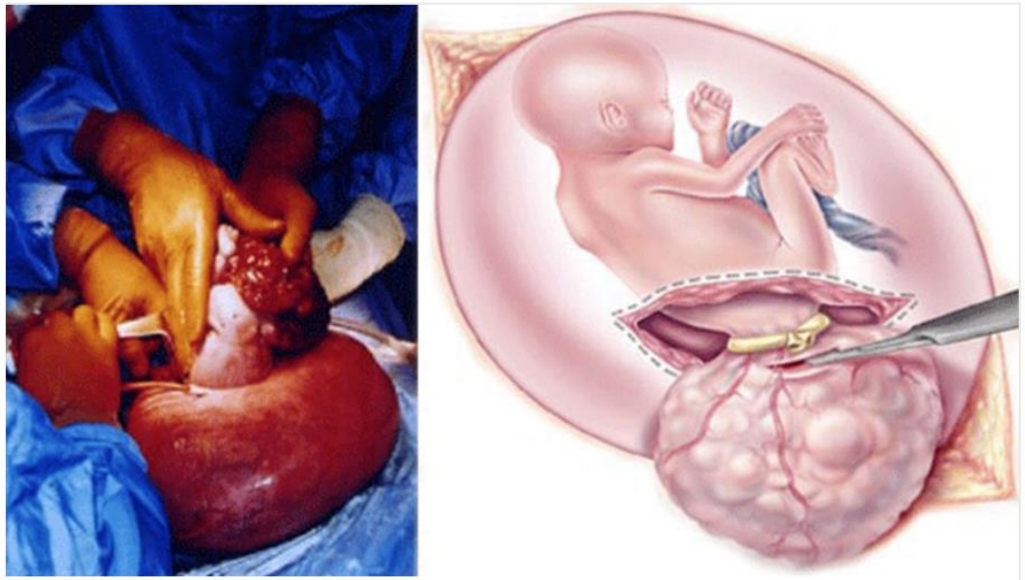


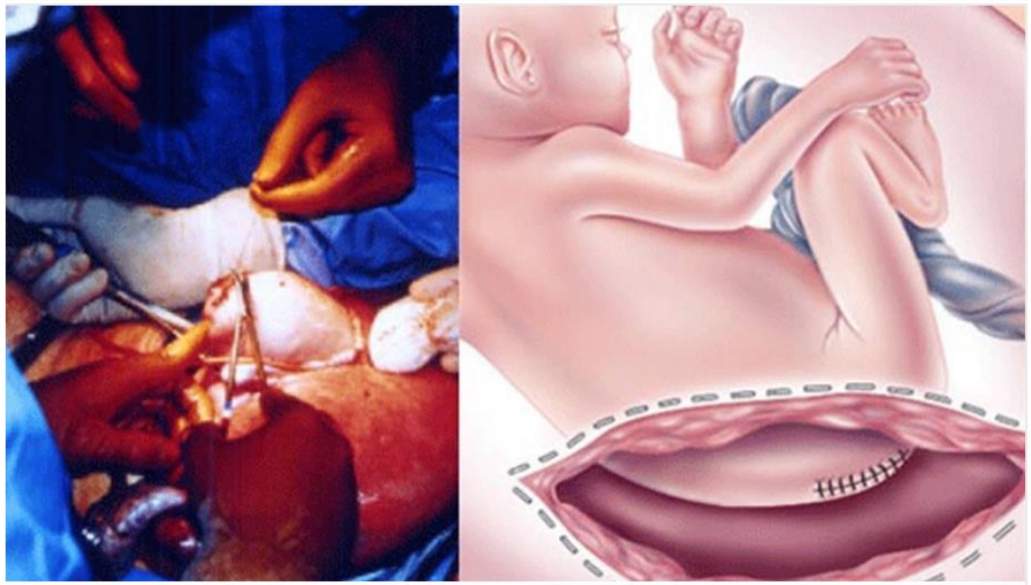
Fig. 1. Management algorithm for fetal sacrococcygeal teratoma (SCT).

Sacrococcygeal Teratoma (SCT) Treatment



Exposure of 26-week fetus through hysterotomy revealing Sacrococcygeal Teratoma (SCT)

Sacrococcygeal Teratoma (SCT) Treatment

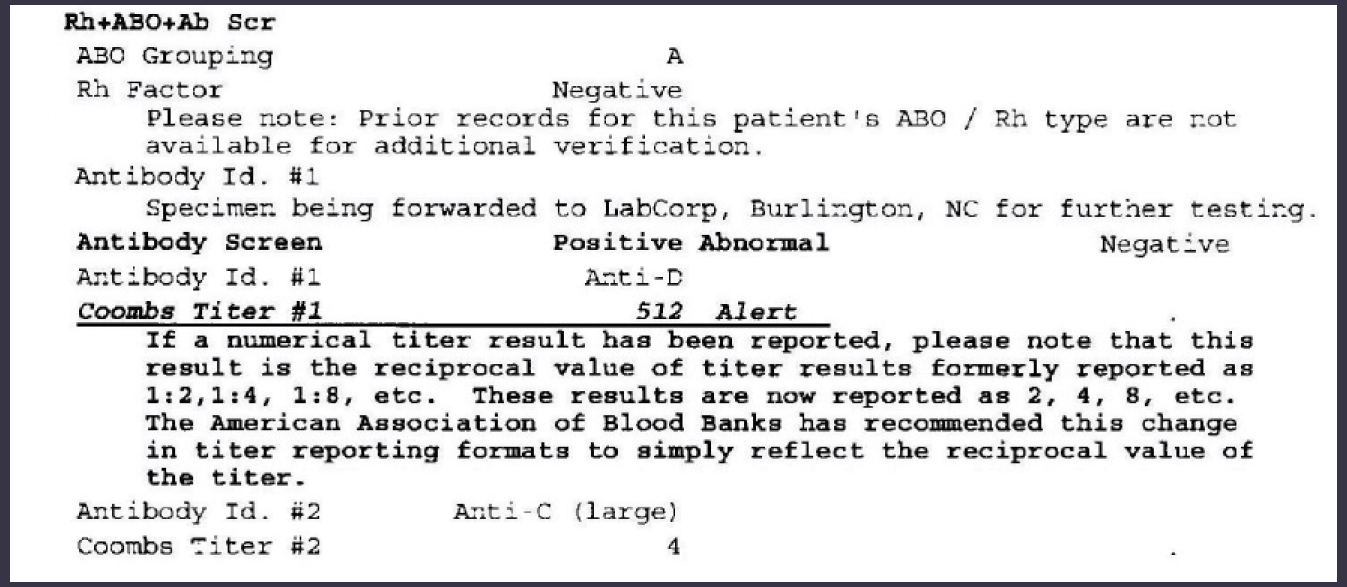


Closure of skin flaps after resection

https://www.chop.edu/treatments/fetal-surgery-sacrococcygeal-teratoma-sct/about

Other fetal conditions requiring in utero treatment

- 32 yo G3P2 establishes prenatal care at 8 weeks gestation
- She reports history of her prior infant requiring phototherapy for elevated bilirubin levels



Rh+ABO+Ab Scr

ABO Grouping A

Rh Factor Negative

Please note: Prior records for this patient's ABO / Rh type are not available for additional verification.

Antibody Id. #1

Specimen being forwarded to LabCorp, Burlington, NC for further testing.

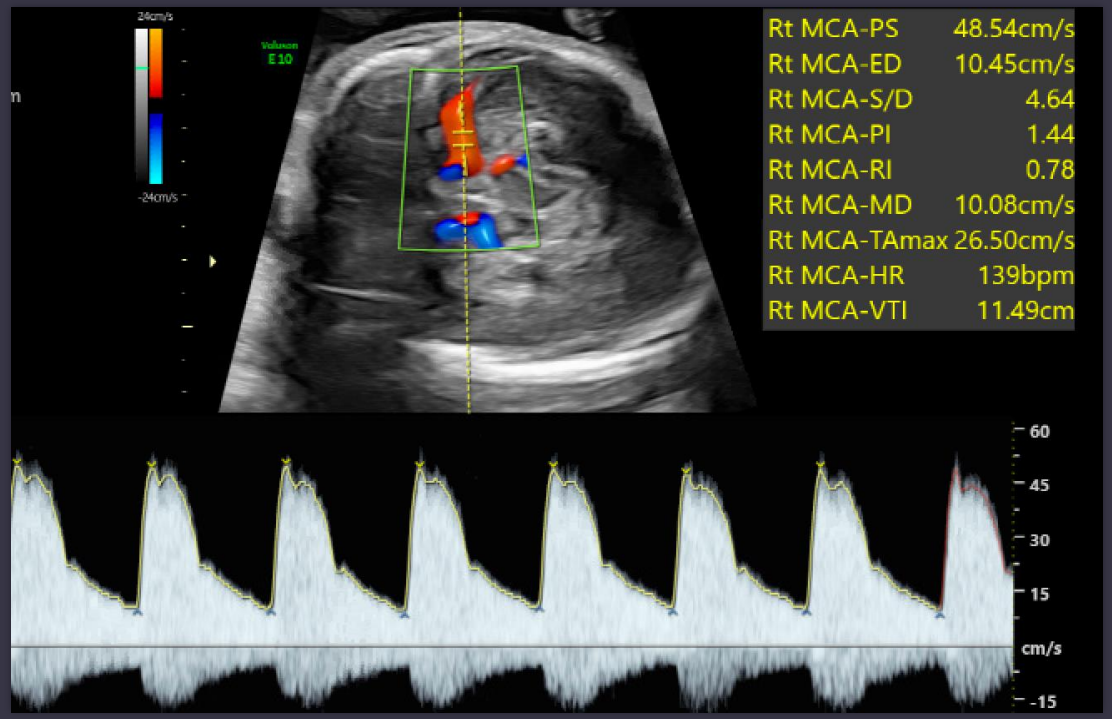
Antibody Screen	**Positive Abnormal**	Negative
Antibody Id. #1	Anti-D	
Coombs Titer #1	***512 Alert***	

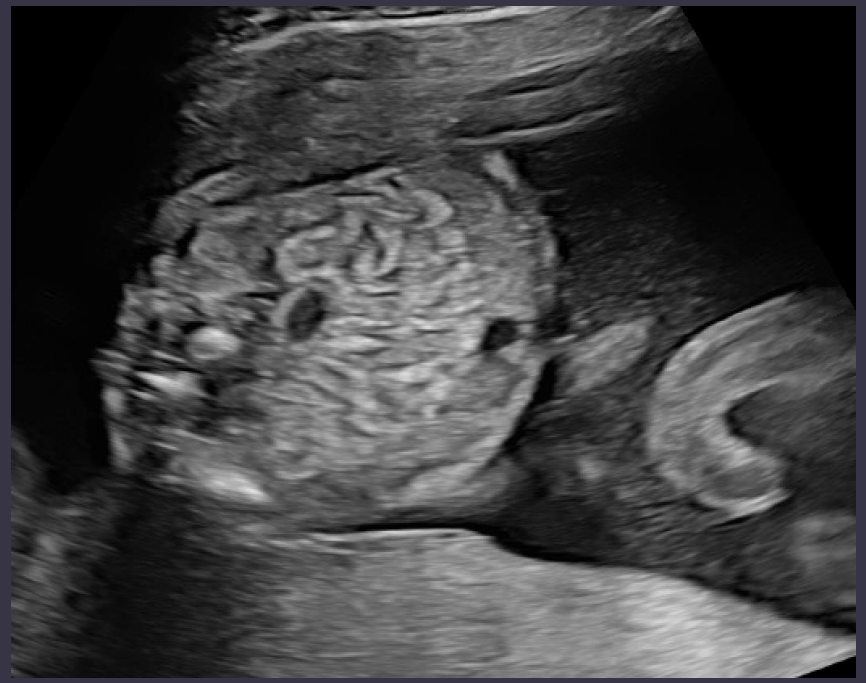
If a numerical titer result has been reported, please note that this result is the reciprocal value of titer results formerly reported as 1:2,1:4, 1:8, etc. These results are now reported as 2, 4, 8, etc. The American Association of Blood Banks has recommended this change in titer reporting formats to simply reflect the reciprocal value of the titer.

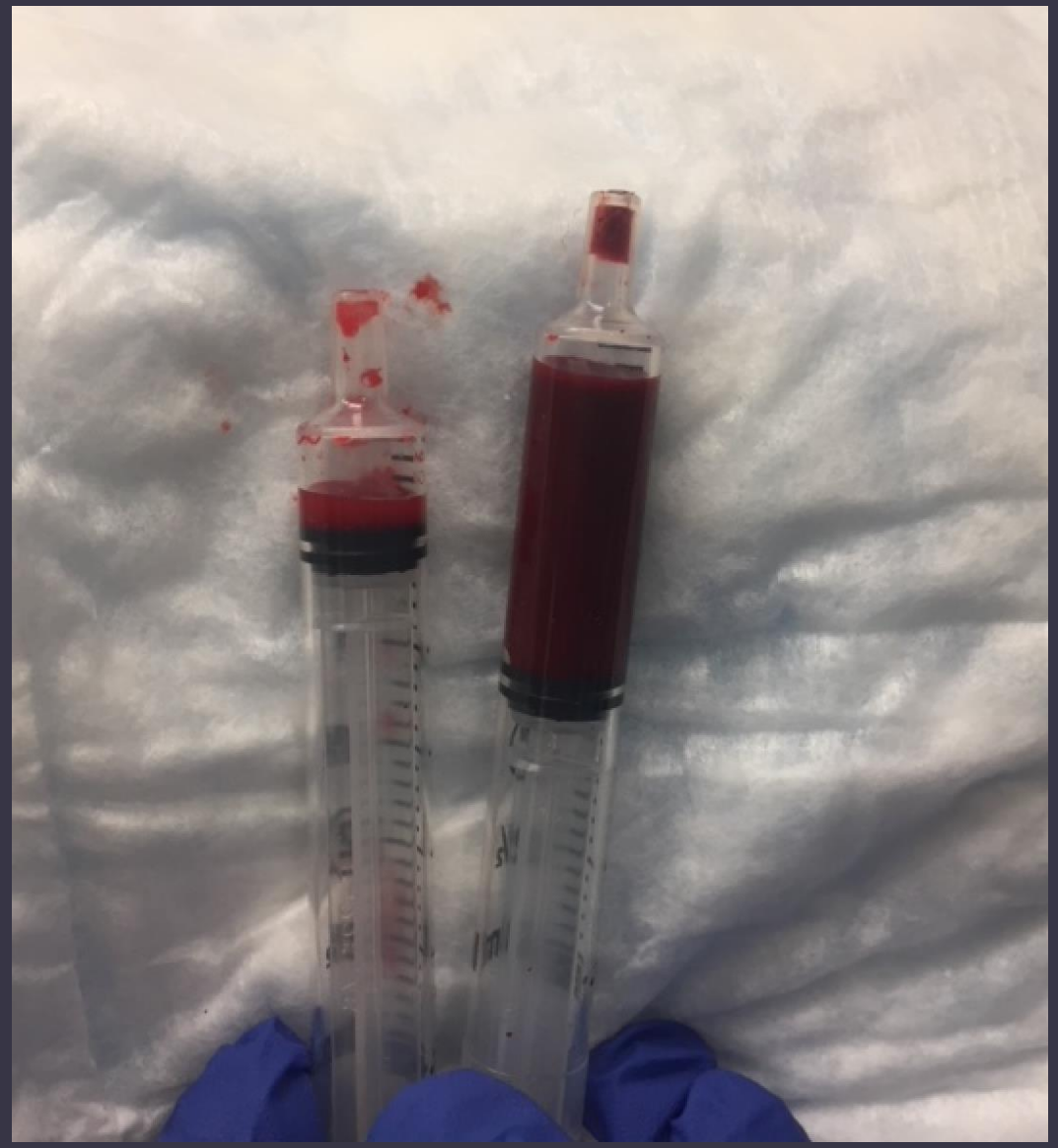
Antibody Id. #2	Anti-C (large)	
Coombs Titer #2	4	

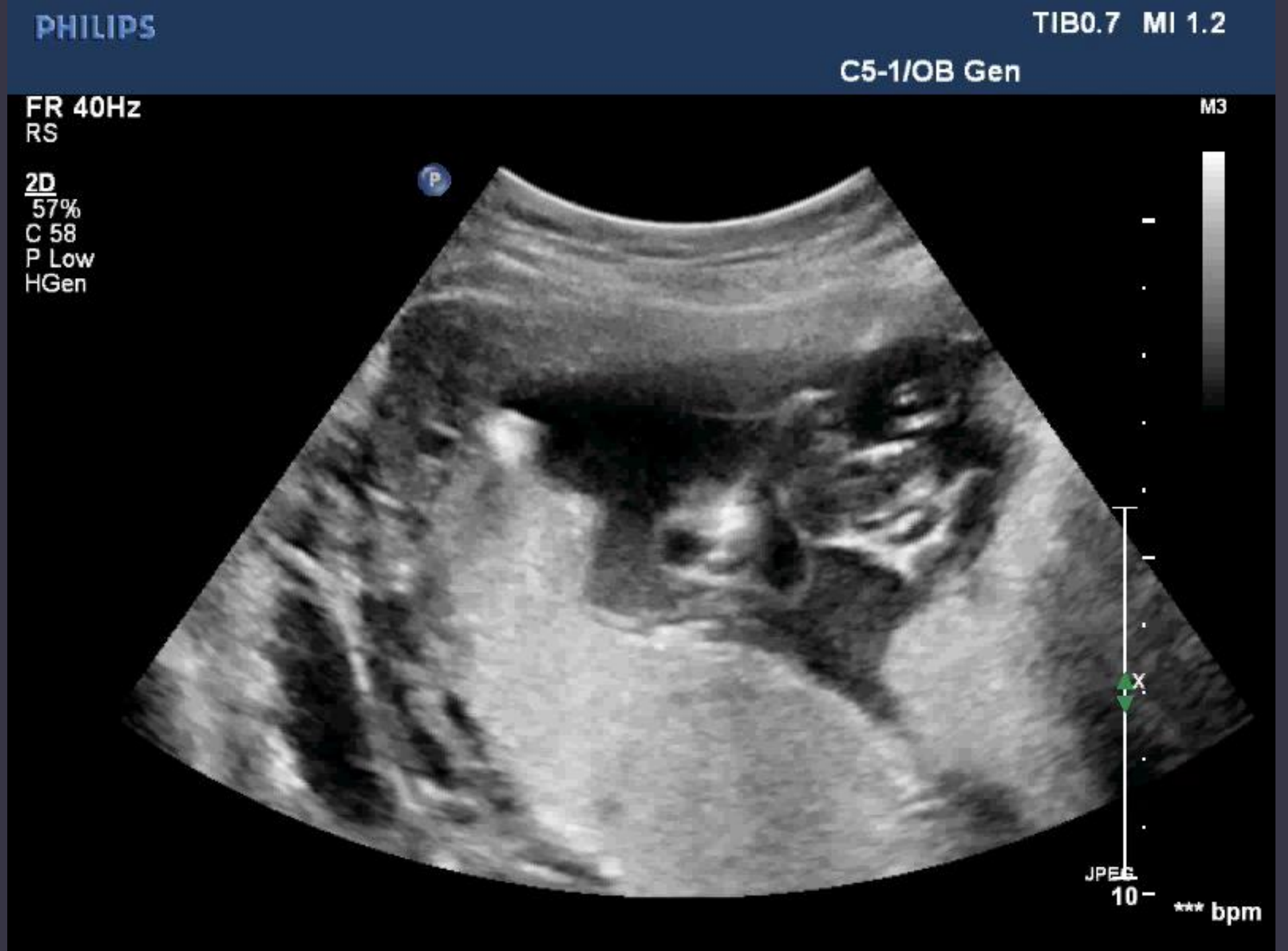
Rh isoimmunization

- Managed with serial MCA Doppler evaluation








PHILIPS
TIB0.7 MI 1.2
C5-1/OB Gen
FR 40Hz
RS
2D
57%
C 58
P Low
HGen
M3
JPEG
10
*** bpm

Modern scope of interventions

- Fetal blood sampling and intrauterine transfusion
- Vesico- or thoracoamniotic shunt placement
- Cardiac balloon valvuloplasty and stent placement
- Vascular occlusion procedures including laser ablation and RFA for complicated monochorionic twins
- Prenatal stem cell transplantation
- Fetoscopy for laser treatment of twin-twin transfusion syndrome
- Tracheal balloon occlusion for diaphragmatic hernia
- Open fetal surgery for meningomyelocele, CPAM, sacrococcygeal teratoma
- Ex-utero intrapartum treatment (EXIT) for airway obstruction

Moon Grady AJ, et al. Fetal Treatment 2017: The Evolution of Fetal Therapy Centers . Fetal Diagn Ther. 2017;42(4):241-248.

What is a *Fetal Center*?

- Multidisciplinary clinic where pregnant women can receive diagnostic services, pregnancy management, prenatal consultation with subspecialists and coordinated planning for delivery
- Single site
  - Many maternal–fetal medicine divisions already provide coordinated fetal care
    - Patients may travel to multiple subspecialist visits
- Provide advanced imaging services
- Provide variety of established fetal therapies
- Innovative approaches to fetal disease
- Support services including social work, palliative care and perinatal hospice services, ethics
  - Complex emotional stressors for families considering options for pregnancy management
- Conduct, facilitate or participate in research if appropriate

ACOG Committee Opinion Number 501 (Reaffirmed 2020). Obstet Gynecol. 2011 Aug;118(2 Pt 1):405-410.
Moon Grady AJ, et al. Fetal Treatment 2017: The Evolution of Fetal Therapy Centers . Fetal Diagn Ther. 2017;42(4):241-248.

Table 1. Fetal Think Tank Recommendations for Levels of Fetal Care

Level	Activities	Lead	Personnel	Facilities	Additional Organizational Activities	Reporting of Outcomes
I	Diagnosis and management of most congenital anomalies CVS Amniocentesis Vesicocentesis	MFM	Genetic counselors (certified) Palliative care team Access to pediatric subspecialists	Level II ACOG obstetric unit Level III NICU (AAP certified) Ultrasound unit (AIUM certified)	Monthly multidisciplinary case conferences	None
II	Same as level I + midlevel therapy Intrauterine transfusion Laser for TTTS Selective reductions in MC twins Shunt placements	MFM with additional training in fetal intervention OR pediatric surgeon with additional training in fetal intervention	Same as level I + Access to pediatric radiologist with additional training in fetal MRI Access to pediatric cardiologist with additional training in fetal cardiology Dedicated nurse coordinators	Level III ACOG obstetric unit Level IV NICU Ultrasound unit (AIUM certified) Access to fetal MRI Access to fetal echocardiography	Database and IT support Weekly multidisciplinary case conferences Internal quality improvement program	Transparent de-identified outcomes reporting
III	Same as level II + Full availability of all evidenced-based maternal–fetal interventions Additional developing interventions Cardiac interventions Fetoscopic tracheal occlusion Fetoscopic MMC repair	Co-directorship with both above individuals	Same as level II + Full-time pediatric radiologist with additional training in fetal MRI Full-time pediatric cardiologist with additional training in fetal cardiology Anesthesiologist with experience in uterine relaxation techniques Ethicist Research coordinators (certified) Full complement of pediatric subspecialists Child-life specialist	Same as level II center + Level I pediatric surgery certification (ACS) Immediate 24-h availability of MFM services Fetal MRI unit (ACR certified) Fetal echocardiography unit (AIUM or IAC certified)	Same as level II + Medical school affiliation GME-approved MFM fellowship rotations OR fellowship in fetal intervention (latter preferred) Ongoing research efforts in clinical trials or animal research Innovation approval committee	Transparent de-identified outcomes reporting

CVS, chorionic villus sampling; MFM, maternal–fetal medicine; ACOG, American College of Obstetricians and Gynecologists; NICU, neonatal intensive care unit; AAP, American Academy of Pediatrics; AIUM, American Institute of Ultrasound in Medicine; TTTS, twin–twin transfusion syndrome; MC, monochorionic; MRI, magnetic resonance imaging; IT, information technology; MMC, myelomeningocele; ACS, American College of Surgeons; ACR, American College of Radiology; IAC, Intersocietal Accreditation Commission; GME, graduate medical education.

Moise KJ, et al. Obstet Gynecol. 2020 Jan;135(1):141-147.

Who is caring for mother and fetus?

Maternal-Fetal Medicine specialist

Anesthesiologist

Pediatric Surgeon

No one specialist can take sole responsibility for the treatment of a mother and fetus with a complex condition

Special Care Nurse

Sonologist

Neonatologist

Geneticist

Box 1. Components of Experienced Fetal Care Team

- Functional team experienced in collaborative patient care with a designated leader
- Care coordinator
- Fetal echocardiographer
- Fetal surgeon—with experience performing hysterotomy and closure (this could be a pediatric surgeon or a perinatologist)
- Genetic counselor
- Magnetic resonance imaging—equipment and expertise to perform and interpret fetal cases
- Maternal fetal medicine specialist
- Neonatology
- Obstetric anesthesia
- Pediatric anesthesia
- Pediatric neurosurgeon
- Social work
- Ultrasound—equipment and expertise to perform and interpret fetal cases

Reprinted from Cohen AR, Couto J, Cummings JJ, et al. Position statement on fetal myelomeningocele repair. Am J Obstet Gynecol 2014;210:107–11. Copyright 2014, with permission from Elsevier.

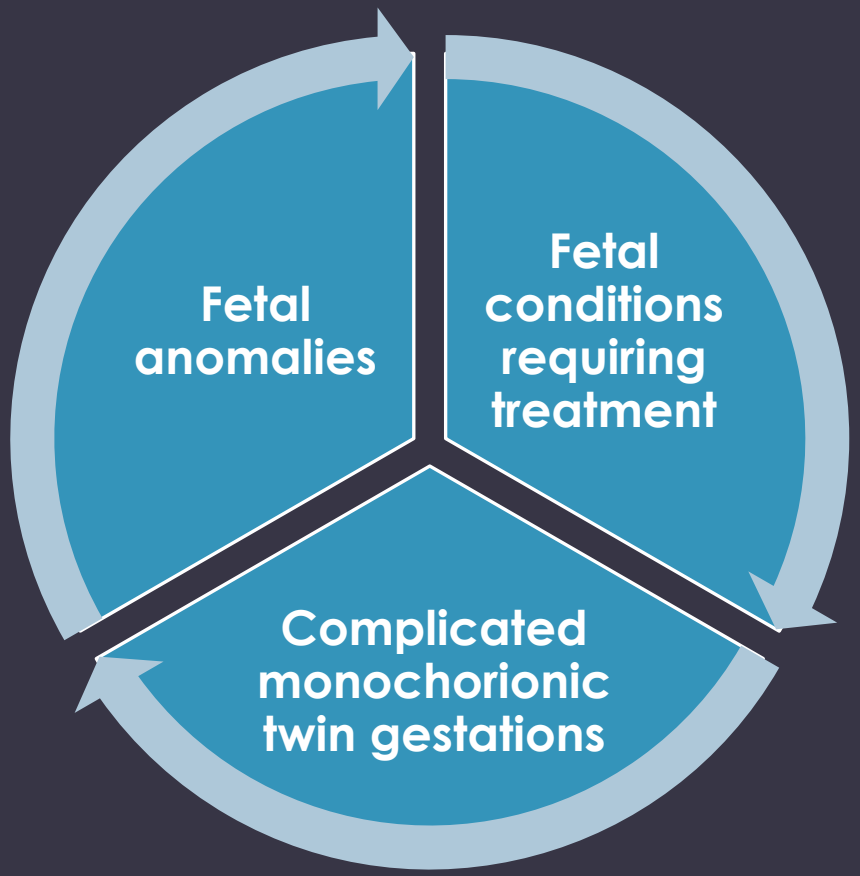
Fetal Treatment 2017: The Evolution of Fetal Therapy Centers – A Joint Opinion from the International Fetal Medicine and Surgical Society (IFMSS) and the North American Fetal Therapy Network (NAFTNet)

- Consider both maternal and fetal well-being
- Ensure proper training, credentialing, infrastructure and support are in place
- Mechanisms for provision of training, regulation and oversight should be developed
- Collaborative registries and research
- Development of training programs
- Balance between development of new centers, skills, and patient access

Why chose a fetal center?

- Advanced prenatal diagnosis
  - Ultrasound and MRI
- Fetal intervention and treatment if indicated
- Preparation for continuity of care from fetal life, through delivery, neonatal stabilization and management, and even early childhood
- In most cases a fetal care center does not assume care, but rather ***augments*** care

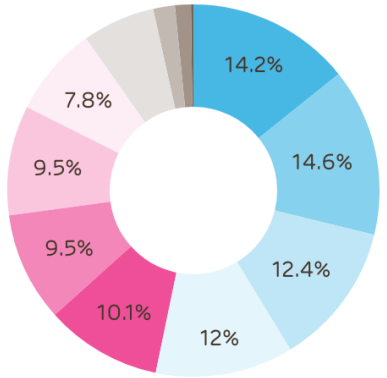
Indications for referral to a fetal center



Conditions We Treat at the Center for Fetal Diagnosis and Treatment

Total cases: 26,831

- Complicated Multiples: 3,817
- Miscellaneous: 3,916
- Neurologic Abnormality: 3,340
- Congenital Heart Disease: 3,216
- Myelomeningocele (Spina Bifida): 2,712
- Lung Lesion: 2,547
- Genitourinary Defects: 2,556
- Gastrointestinal Anomalies: 2,099
- Congenital Diaphragmatic Hernia: 1,695
- Neck Mass: 505
- Sacrococcygeal Teratoma: 372
- Hematologic/Immune: 56



Types of birth defects, by percentage and number, referred to the Center for Fetal Diagnosis and Treatment (CFDT) at CHOP (1995 - December 2020). Congenital heart disease is evaluated by the Fetal Heart Program, in collaboration with the CFDT.

https://www.chop.edu/centers-programs/center-fetal-diagnosis-and-treatment/volumes-outcomes

Patient-centered fetal care centers

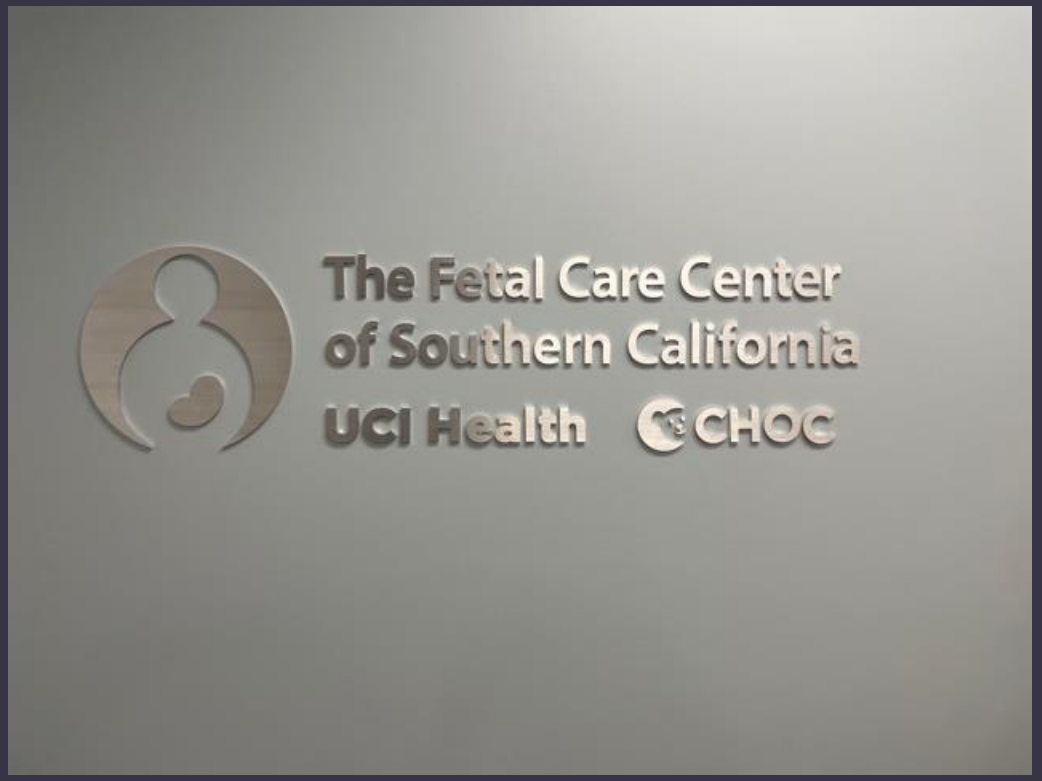
- "Our goal will be to present an opinion that encourages the advancement of thoughtful practice, ensuring that current and future patients have realistic access to centers with a range of fetal therapies with appropriate expertise, experience, subspecialty and institutional support while remaining focused on excellence in care, collaborative scientific discovery, and maternal autonomy and safety."

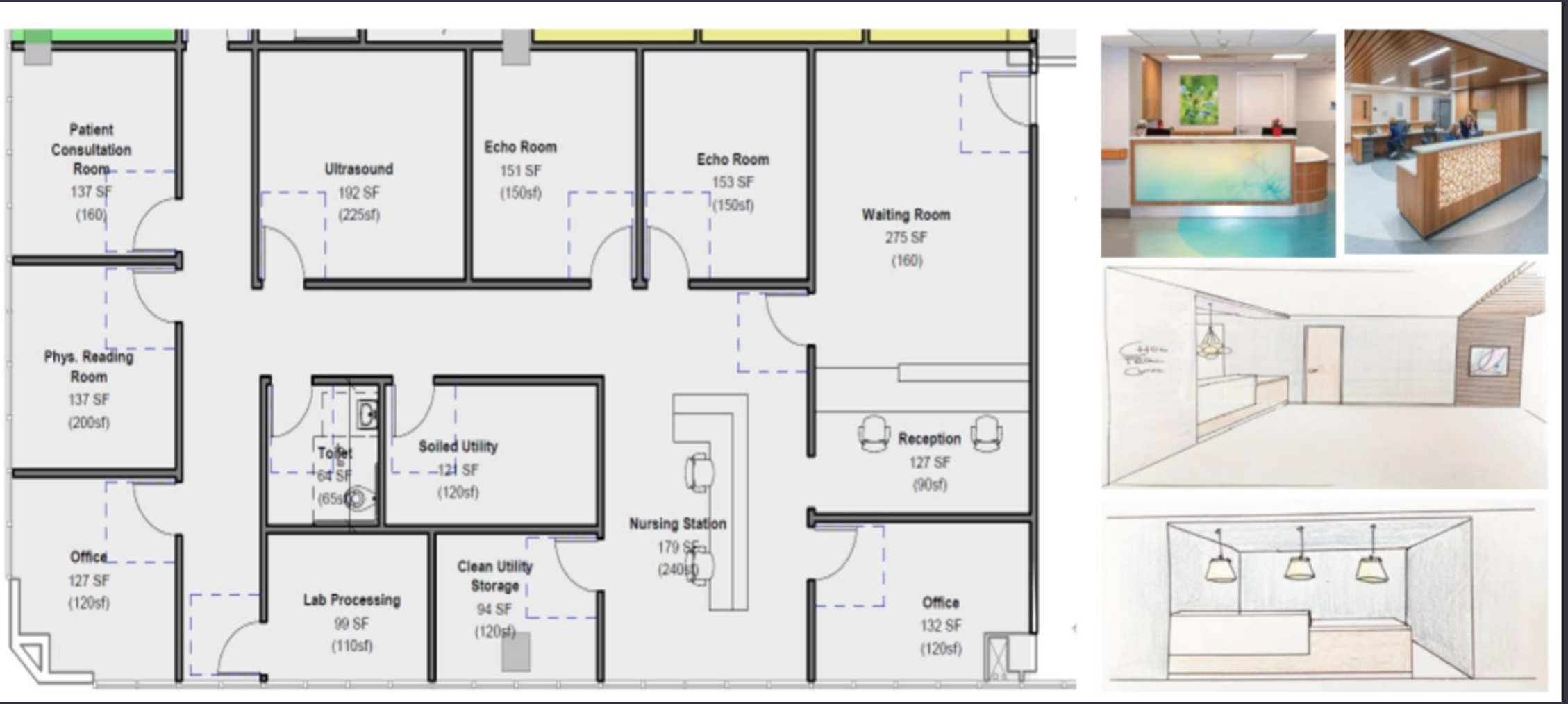
Moon Grady AJ, et al. Fetal Treatment 2017: The Evolution of Fetal Therapy Centers . Fetal Diagn Ther. 2017;42(4):241-248.

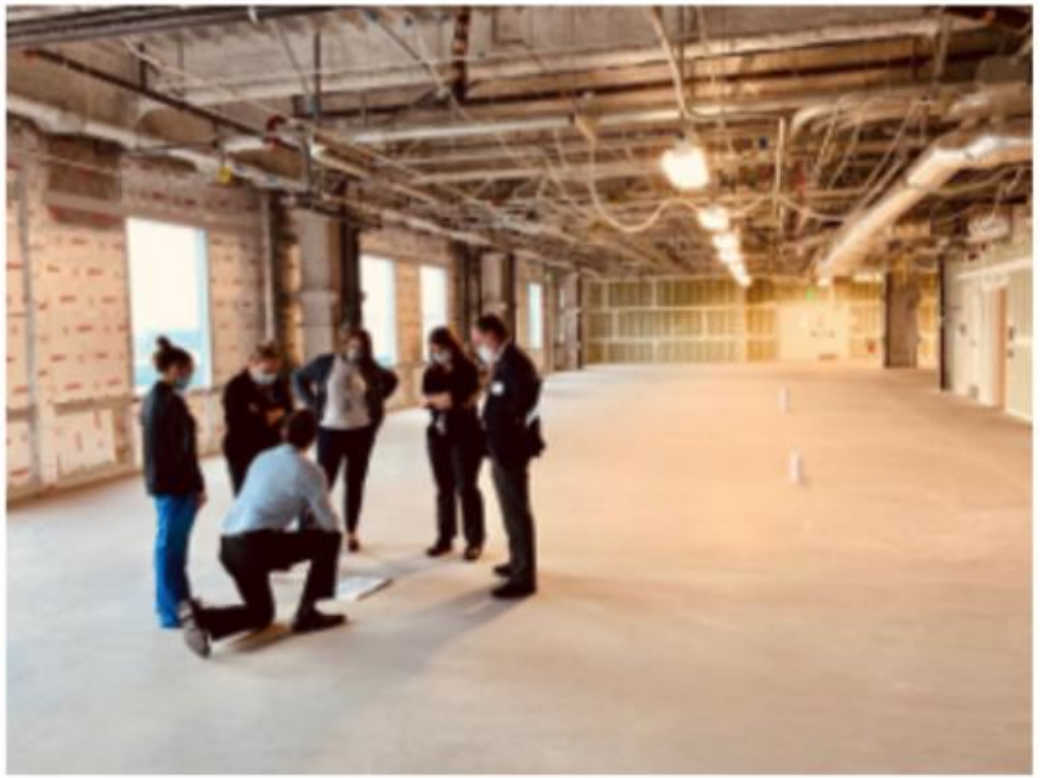
CHOC Children's AND UC Irvine Health

HAVE COMMITTED TO DEVELOPING THE FIRST COMPREHENSIVE FETAL DIAGNOSTIC AND TREATMENT PROGRAM IN THE REGION

UCI Health | CHOC




Patient Consultation Room
137 SF
(160)
Ultrasound
192 SF
(225sf)
Echo Room
151 SF
(150sf)
Echo Room
153 SF
(150sf)
Waiting Room
275 SF
(160)
Phys. Reading Room
137 SF
(200sf)
Toilet
64 SF
(65sf)
Soiled Utility
121 SF
(120sf)
Reception
127 SF
(90sf)
Nursing Station
179 SF
(240sf)
Office
127 SF
(120sf)
Lab Processing
99 SF
(110sf)
Clean Utility Storage
94 SF
(120sf)
Office
132 SF
(120sf)



FUTURE SPECIAL DELIVERY

The Fetal Care Center of Southern California

UCI Health CHOC

(714) 509-3696
1-833-OC FETAL

FOR APPOINTMENTS


The Fetal Care Center
of Southern California
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Practice Information

The Fetal Care Center of Southern California

CHOC Commerce Tower

505 S. Main St., Suite 650

Orange, CA 92868

Appointments: 714-509-3696

Phone: 833-OC-FETAL

Fax: 714-509-9516

Email: FETAL@choc.org