



SYRACUSE HEALTHY START NEWSLETTER

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Center for Maternal and Child Health

EDITION 11

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In collaboration with:

- Onondaga County Health Department/
Syracuse Healthy Start
- SUNY Upstate Medical University,
Center for Maternal and Child Health

Syracuse Healthy Start
at a Glance

Term: Refunded for years 2005-2009

Grantee: Onondaga County Health Department

Goal: Eliminate disparities in Perinatal health

Project area: City of Syracuse

Target population: Pregnant and/or parenting women with children under the age of 2

COMPONENTS

- Outreach
- Case Management/Care Coordination
- Health Education
- Consortium
- Addressing depression during the Perinatal period
- Interconception Care

OBJECTIVES

- Conduct intensive outreach to individuals at risk/
minority women, to better link them with health
and human services;
- Provide integrated case management services to
enhance the care coordination, intervention for
identified risks, and cultural competence of the
services
- Increase provider competence in addressing multi-
faceted risks faced by participants
- Empower consumers through education

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Fetal Death

According to the definition of fetal death used in New York State, IntraUterine Fetal Death (IUFD) includes a death at a gestational age of 20 completed weeks or greater, or if fetal weight is 300 g or more.

However, this definition is by no means the only definition in use. There are variations proposed by the World Health Organization (fetal weight 500 g or more), the American College of Obstetricians and Gynecologists (22 weeks of gestation or greater), and the US National Center for Health Statistics (350 g or more or 20 weeks of gestation or greater). In addition, reporting practices vary among states (Lindsey, 2006).

Prevalence

The US rate of IUFD (number per 1,000 live births plus fetal deaths) has been steadily declining over the last fifty years, and reached 6.2 deaths in 2003.

Rate of IUFD in the United States (per 1,000 live births and fetal deaths):

1950	—	20
1970	—	14
1990	—	7.5
2000	—	6.6
2004	—	6.2

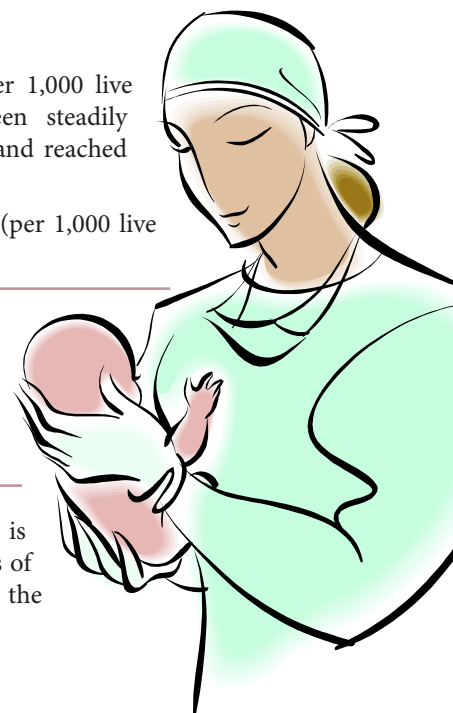
Although the overall rate of IUFD is declining, early IUFD (20-27 weeks of gestation) did not improve during the last ten years (Fig. 1 & 2, page 2).

Local Prevalence of IUFD

	USA	NYS	Onondaga Cty.	
2000	6.6	7.7	6.5	
2005	6.2*	6.8	5.8	*2004

According to our regional Fetal-Infant Mortality/Morbidity Review/Registry (FIMMRR), IUFD rate was 5.6 in Onondaga County in 2006-2007. The incidence of fetal death varied by gestational age and birthweight, with early IUFD (less than 28 weeks) comprising 54 percent and IUFD with fetal weight of less than 1,000 g comprising 65 percent of all IUFD.

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Etiologic and Risk Factors

Among demographic and socioeconomic risk factors, advanced maternal age, multiple gestation, and non-white race (especially African-Americans) have the strongest correlation with IUFD, followed by unmarried status, young (teen) age, and other socioeconomic factors.

The major potential etiologic factors contributing to IUFD can be classified into four groups, as follows:

A. Maternal (20±%)

- Chronic Hypertension/Preeclampsia 10±%
- Endocrine Disorders (Diabetes, Thyroid) 2±%
- Substance Abuse (Opiates, Cocaine) 2±%
- Trauma 2±%
- AntiPhospholipid Syndrome/S.L.E. 1±%
- Thrombophilia 1±%

B. Placental/Cord/Membranes (30±%)

- Abruptio/Previa/Infarct(s) 10±%
- Chronic Placental Insufficiency/IUGR 8±%
- Acute Placental Insufficiency/Intrapartal Asphyxia 5±%
- Feto-Maternal Hemorrhage 5±%
- Cord Accident – prolapse, tight cord around neck, knot 1±%
- Twin-Twin Transfusion Syndrome 1±%

C. Fetal (30±%)

- Anatomical Anomaly 10±%
- Chromosomal Anomaly 5±%
- Bacterial Infection – Chorioamnionitis 5±%
- Birth Trauma 5±%
- Other Infections - TORCH, Syphilis 5±%
- Blood Factor Sensitization 1±%

D. Unknown (20±%)

According to our FIMMRR, the most common causes of IUFD in Central New York (CNY) and Onondaga County in 2006-2007 were as follows:

	CNY	Onondaga County
Placenta Abruptio/Infarct	17%	10%
Chorioamnionitis	8%	12%
Twin-Twin Transfusion Syndrome	7%	8%
Cord Accident	7%	5%
Fetal-Maternal Hemorrhage	3%	5%
Intrapartal Asphyxia	3%	3%
IUGR	2%	2%
Other	11%	11%
Unknown	17%	17%

Diagnosis

Diagnosis and timing of fetal death is based on:

- Decreased/absent fetal activity if gestation age is more than 28 wks.
- No fetal heart activity detectable (Doptone, Sono scan).
- Abnormalities on formal OB sonogram, including absent fetal heart activity, reduced or absent amniotic fluid, subcutaneous oedema, abnormal fetal head shape, hyperflexion or extension of spinal column, etc.
- Femoral Length can be used to estimate the gestational age at which IUFD occurred
- Overlapping skull bones on sonogram/x-ray appears if death occurred more than 24 hours ago

Management and Workup

Initial management should include the following:

- Fully inform & counsel parents
- Allow time for adjustment
- Answer all questions
- Agree upon a care plan
- Provide sensitive delivery and postpartum care
- Obtain consent for examination of newborn

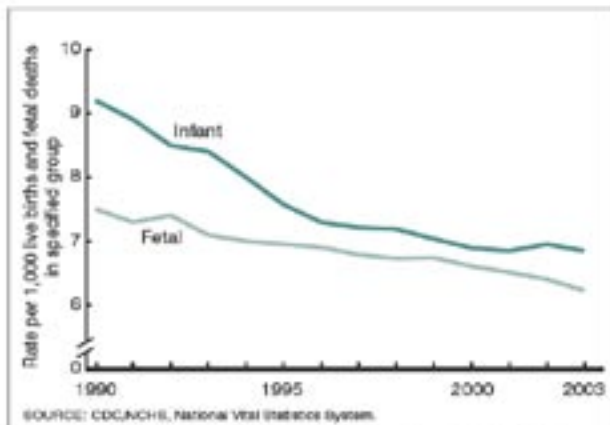


Figure 1. Fetal and infant mortality rates: United States, 1990-2003

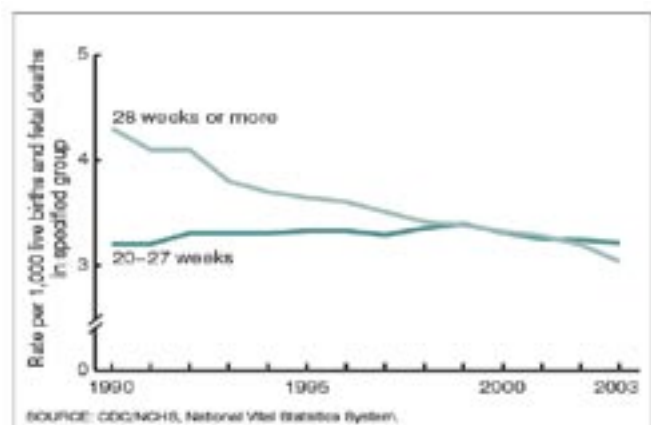


Figure 2. Fetal mortality rates by period of gestation: United States, 1990-2003

* National Vital Statistics Reports, 55 (6), February 2007

Sensitivity is needed when obtaining autopsy consent

- Be aware of any cultural or religious beliefs.
- Know patient history and the presumptive cause of death.
- Remember the obvious is not always the actual cause.
- Know when the results will be available and how they will be communicated to the mother.
- Be prepared to listen. This is not just another consent form.

Recommended workup

Recommended workup is presented in the CNY Perinatal Program Guideline flowchart (see insert).

Every case should have an autopsy, and permission for it should be earnestly and sensitively sought. In some cases, consider partial autopsy, x-rays, MRI, or ultrasound.

If autopsy is approved, karyotype will be done if requested or strong suspicion of aneuploidy based on presence of multiple anomalies or family/personal history of chromosomal problems. Chromosomal analysis should also be considered in patients with multiple pregnancy losses, especially with a history of second- and third-trimester losses or when a parent has a balanced translocation or mosaic chromosomal pattern.

If no autopsy consent is obtained or fetus is macerated, obtain a sample of fetal fascia lata or sample of chorion from placenta near insertion of cord. Every case should have a formal placental pathology exam. For other lab tests, see insert.

Administrative follow-up

1. **Death Certificate** needs to be filed with the State within 72 hours. It requires important details and cause of death, if known. If not, note "Pending Autopsy/Pathology/Laboratory reports" or simply "Unknown".
2. **Quality Assurance Review**
 - a. Internal—Peers need to review record to identify contributing factors and to learn/implement ways to avoid such outcomes.
 - b. External—The hospital-affiliate of the Regional Perinatal Center is required to review the case for quality assurance determination and advise about ways to avoid such outcomes.

Outpatient Care After Delivery

- Establish telephone contact with the patient.
- Schedule a follow-up appointment in 1-2 weeks.
- Review all details of clinical course, labs, autopsy, etc. with patient/parents over a number of postpartum visits during the next 2-3 months.
- Complete any further tests as needed.
- Provide counseling about the implications of the event for the patient's health, preconceptional counseling, and family planning.
- Screen for depression.
- Provide grieving supports.

Prevention

Prevention of IUFD is one of the main goals of obstetric care. It includes optimizing pre-pregnancy health through preconception/interconception care (PIC); providing accessible, early, comprehensive, continuity based, culturally sensitive, high quality

prenatal/perinatal care; and having informed and committed parents.

Prevention Components in Prenatal Care:

General

- Risk Assessment
- Confirmation of EDD by sonogram at 20 weeks
- Optimal lifestyle/behavior
- Optimal care of medical problems
- Monitoring weight gain, hematocrit trend, and fundal height
- Daily fetal motion recording after 28 weeks of gestation

Specific

- Third trimester sonogram for growth, symmetry, and AFI (if poor weight gain or fundal growth)
- NST/AFI every 1-2 wks from 32-36 wks and weekly thereafter in high risk pregnancies
- Doppler flow S/D ratio if IUGR is suspected
- BioPhysical Profile (BPP) if NST non-reassuring
- If AFI <5, S/D >4 or BPP <5, consider delivery
- Deliver all by 41 completed weeks

Grief Support

Fetal death is a true family tragedy, and parents of a deceased neonate need grief support. The perinatal grief process is a physical, social and psychological reaction to the loss of a baby, regardless of gestational age. It is an individualized response dependent on the unique perception of the loss. Grief is a natural expected reaction and its absence may be indicative of a pathology (Rando, 1991).

Myths regarding grief

- All losses are the same.
- Grief declines steadily over time.
- Grief never resurfaces.
- Infant death is easier to resolve.
- It takes two months to get over grief.

Maximizing healthy grief

- Be aware of the individual styles of grieving.
- Provide emotional support in a chaotic environment.
- Provide grief assessment and counseling.
- Coordinate efforts.
- Inform staff.

Talking with grieving families (Copeland Closure Co.)

Do's

- Do remember that you can't take away their pain, but you can share it and help them feel less alone.
- Do treat the couple equally. Fathers need as much support as mothers.
- Do be available, especially to listen.
- Do say you're sorry about what happened to their child, about their pain.
- Do accept their moods whatever they may be, you are not there to judge.
- Do allow them to talk about the child that has died as much and as often as they want.

Grief Support, continued from page 3

- Do send a personal note or letter or make a contribution to a charity that is meaningful to the family.

Don'ts

- Don't avoid parents because you feel helpless or uncomfortable, or don't know what to say.
- Don't push the parents through the grieving process, it takes a long time to heal and they never forget.
- Don't ask them how they feel if you aren't willing to listen.
- Don't say you know how they feel and don't tell them what they should feel or do
- Don't try to find something positive in the child's death.
- Don't point out that at least they have their other children.
- Don't say that they can always have another child.

Avoid the following clichés

- “Be brave, don't cry.”
- “It was God's will” or “It was a blessing.”
- “Get on with your life. This isn't the end of the world.”
- “You must be strong for the other children.”
- “You're young, you'll get over it.”
- “Time will heal.”

The Perinatal Bereavement Checklist developed by the CNY Regional Perinatal Program is provided on this newsletter insert.

Summary

IUFD remains to be one of the major obstetric problems, which requires proper management and complete workups. Prevention of IUFD by providing high quality comprehensive and continuing prenatal and preconception/interconception care is a major goal in obstetric care. ❖

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- Lindsey, J.L. (2006, February 27). Evaluation of fetal death. Retrieved from www.emedicine.com/med/TOPIC3235.htm
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