Fetal Kicks Count program in Delaware

Every Kick Counts!

Counting kicks is a simple and effective way to monitor your baby's health and may reduce the risk of stillbirth.

10 in 2 kicks in 2 hours

Your baby's kicks are telling you something!

1. Pick your baby's active time, which is usually after a meal.
   Count kicks at the same time every day.

2. Escoge el momento de actividad de tu bebé, el cual es usualmente después de comer.
   Contar tus pataditas a la misma hora cada día.

Start counting your baby's kicks at 24 weeks.

Comenzar a contar sus pataditas a las 24 semanas.
Fetal Deaths Later in Pregnancy:

The Conception and Roll-Out

Problem/Issue Identified
Over half of the 48 FIMR fetal death cases (53%) reviewed from July 2009 to June 2010 occurred at or after 28 weeks gestation. This proportion is higher than infant deaths occurring at or above 28 weeks gestation: in Delaware, from 2002 to 2006, 41% of infant deaths occurred to babies born in the third trimester. Also of concern, of the 26 FIMR maternal interviews conducted with women who had a fetal death after 24 weeks gestation, only 19% (5 women) went to the hospital or doctor’s office the same day when they noted decreased fetal movements. Forty-two percent of women (11 women) waited one or two days after noticing decreased fetal movements before contacting a health care provider. If signs of fetal distress are recognized early, interventions may be available to avert some of these stillbirths especially for the viable, late term fetus.

Gestational age distribution (in weeks) of FIMR fetal deaths, infant deaths and a comparison group of all infant deaths in Delaware over a five-year period

- FIMR fetal deaths (n=48)
  - <28: 46%
  - 28-36: 37%
  - 37+: 15%
  - No Info: 2%

- FIMR infant deaths (n=56)
  - <28: 37%
  - 28-36: 25%
  - 37+: 18%
  - 37+: 22%

- DE 2002-06 infant deaths (n=485)
  - <28: 57%
  - 28-36: 25%
  - 37+: 18%
  - 37+: 22%

Recommendation
Support prenatal education on fetal movement tracking as a standard of obstetric care.

Action/Intervention
In 2011, the Division of Public Health and the Delaware Healthy Mother and Infant Consortium developed the Fetal Kicks Count program, a social marketing campaign that targets health care providers and pregnant women with the message that fetal movement tracking, beginning at 24 weeks gestation, is an important indicator of fetal health.

Outcomes
The Fetal Kicks Count program was developed and implemented in less than six months after discussion and a recommendation made at a FIMR CRT meeting. Toolkits—including education brochures and Kicks Count tracker pocket booklets for recording a baby’s daily movements—were distributed to prenatal providers statewide in 2011. A perinatal collaborative education coordinator also provides support to ensure providers have the Kicks Count toolkits and are comfortable implementing the clinical follow-up for decreased fetal movements. The FIMR database will continue to track the proportion of women with documented prenatal education on fetal movement tracking.

Support prenatal education on fetal movement tracking as a standard of obstetric care.
**Implementation and Evaluation**

**Problem/Issue Identified**

In some populations, initiation of fetal movement counting has resulted in a 50% decrease in the stillbirth rate. As a result of the work of the Delaware Child Death, Near Death and Stillbirth Commission’s Fetal-Infant Mortality Review maternal interview program, we identified a high number of cases of stillbirth for which the mother did not seek or receive attention when experiencing decreased fetal movement. The Delaware Healthy Mother & Infant Consortium (DHMIC), acting as the Community Action Team, in conjunction with the Division of Public Health, developed a toolkit entitled “Kicks Count” to address this deficit. The brochures for this program were distributed to the obstetrical providers in the community accompanied by a letter of introduction from the Director of the Division of Public Health that highlighted the problem. Despite the wide circulation of this toolkit, we were uncertain as to how well the program was being received and implemented.

**Recommendation**

The Delaware Chapter of the March of Dimes, using funding from the Delaware Division of Public Health, hired a nurse educator of the Perinatal Cooperative of the Delaware Healthy Mother & Infant Consortium. The nurse educator disseminated the Kicks Count toolkits to each obstetrical provider in the State and provided appropriate education. At a later date, the nurse educator distributed a survey to evaluate the use of the Kicks Count toolkit in the community.

**Survey Questions**

1. Do you currently use the Fetal “Kicks Count” packet in your practice?
   - Yes
   - No

2. If you answered yes to #1, during which time period do you give the “Kicks Count” packets to your patients?
   - < 20 weeks EGA
   - 20–24 weeks EGA
   - 24–28 weeks EGA
   - 28–32 weeks EGA
   - 32–36 weeks EGA
   - > 36 weeks EGA

3. Which explanation do you routinely provide with respect to fetal kick counting?
   - As described in the packet (10 movements in 2 hours).
   - If not 10 movements in 2 hours, repeat again in the next hour.
   - No discussion provided: I just give the packet and tell the patient to read it.
   - Other (describe).

4. Has the “Kicks Count” program increased the number of phone calls you have received for decreased fetal movement?
   - Yes
   - No

5. Who routinely explains fetal kicks counting to the patients in your practice?
   - OB provider (MD, DO, CNM, NP)
   - RN/LPN
   - MA
   - Other [Explain]

6. Comments/Suggestions: ____________________________

**Outcomes**

Seventy-five percent of respondents stated they used the Kicks Count materials in their practices.

**Action/Intervention**

The nurse educator visited each practice and hospital in the state and distributed the brochures and provided education regarding their use. Approximately one year after the initial mailing of the materials to the providers. The nurse educator distributed a survey to each provider concerning their practice with regard to fetal movement counting. The results of the survey were compiled by the Division of Public Health and analyzed by APS Healthcare.
Discussion

Fetal movements are generally first perceived at 18 to 22 weeks’ gestation. Obstetricians have traditionally used fetal movement counting as a relatively informal method of determining fetal well-being. This “low-tech” approach to fetal monitoring has not been rigorously studied, but is recommended by the American Congress of Obstetricians and Gynecologists. Decreased fetal movement has been associated (although not invariably) with an increased risk for stillbirth. According to the Guidelines for Perinatal Care, “Whether programs of fetal movement assessment actually can reduce the risk of stillbirth is unclear.” Of note, however, is a Norwegian study that found a nearly 50% reduction in the rate of stillbirth among women who had performed fetal movement counting after experiencing decreased fetal movement.

One technique advocated by the Guidelines for Perinatal Care is to “have the woman count distinct fetal movements on a daily basis. The perception of ten distinct movements within two hours is considered to be reassuring. In the absence of a reassuring count, the fetus is assessed by means of a non-stress test and AFI, biophysical profile or contraction stress test.” We chose to adopt that technique, but to teach it to all pregnant women in the state between 24 and 28 weeks gestation, given the current definition of viability. Having implemented this program throughout the state, we endeavored to determine the acceptability of the program by obstetrical providers and to survey the instructions they provided their patients.

In general, we found that the Kicks Count program was well received by providers and was not perceived to be overly disruptive to their practice. We were able to identify some opportunities to improve the program regarding providers’ understanding of the process and the implementation of the program for their patients. Although we feel that this program has increased the awareness of our patients for the activity of their fetuses, we are yet uncertain as to the effectiveness of this relatively new program. We hope to make use of Vital Statistics and the FIMR data collected under the Delaware Child Death, Near Death and Stillbirth Commission to further study the effectiveness of the program. The successful implementation of this program by means of a nurse educator should provide a model for other communities. The suggestions of providers and the lessons we have learned will permit us to fine-tune this program and hopefully contribute to an improvement in the infant mortality rate in our state.

Comments/Suggestions

Of the 72 respondents, 10 (13.9%) wrote in comments and/or suggestions. These comments and/or suggestions are as follows:

“Emphasize this is not 10 kicks every hour.”

“Nice packet.”

“Provide data to providers that monitoring fetal movement assessment prevents complications in low-risk pregnancy.”

“Many patients showing up to L&D triage with concern of decreased fetal activity but actually have normal fetal activity but basically have increased anxiety.”

“Currently we are also using the kicks count actively in the acute care hospital setting (L&D triage).”

“Most patients are alarmed if it takes them 2 hours to get adequate kicks.”

“I feel we should not tell patients to begin kicks counts at 28 weeks, but should begin at 32 weeks.”

“I am concerned that my patients may misinterpret instructions and will just show up to the ER and L&D when they don’t get called back in 10 minutes or some other unreasonable expectation. I understand the instructions are as they are, but it can be a concern.”

The suggestions of providers and the lessons we have learned will permit us to fine-tune this program and hopefully contribute to an improvement in the infant mortality rate in our state.
To order the Kicks Count toolkit, go to:
http://dethrives.com/order-materials