Another Set of Eyes: Remote Fetal Monitoring
Surveillance Aids the Busy Labor and Delivery Unit
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Background
ANGELS at the University of Arkansas for Medical Sciences (UAMS) piloted an innovative new fetal heart monitoring program called Angel Shield. Angel Shield is housed in the ANGELS Call Center which provides 24/7 phone consultation, triage, and transport facilitation to providers and patients throughout Arkansas. A section of the call center houses a computer with multiple screens where the fetal monitoring tracings from labor and delivery are transmitted. Experienced L&D nurses remotely monitor the fetal monitoring tracings.

Protocols
Protocols were developed collaboratively between the L&D nurses and Angel Shield nurses. Protocols specify when the Angel Shield nurse is to contact the L&D and who to call when the L&D nurse is unavailable.

- Fetus is “off the monitor” for > or = 5 minutes without documentation of “RN/MD at bedside”
- Fetal heart rate <110 for greater than 5 minutes
- Fetal tachycardia
- Recurrent variable decelerations
- Recurrent late decelerations
- Prolonged deceleration without documentation of “RN/MD at bedside”
- Minimal variability when fetus is > or = 32wks gestation. (Unless fetus has diagnosis that would have expected minimal variability, i.e., anencephaly)
- Marked variability in the absence of pushing.
- Tetanic contractions (defined as a contraction > 90sec) – will call if a recurrent pattern ( > 1 tetanic contraction in 10 minutes
- Hypertonic uterine baseline (using IUPC only)
- Uterine tachysystole averaged over a 30 minute period
- Intrauterine pressure catheter off baseline > 10 minutes

Future Plans
Increase the days and times of the remote fetal heart surveillance program
- Test program in rural hospitals
- Determine the cost-effectiveness of remote fetal heart rate surveillance
- Gain nurse and physician perspectives related to the program

Contact Information
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“I was comforting knowing that an experienced L&D Nurse was also watching my FM strip, and would recognize a problem even if I missed it.”
Quoted from an Antepartum Nurse