Interdisciplinary Integrated Consultations for Prenatally Diagnosed Congenital Heart Disease

**Background:** Prenatal counseling for families receiving a fetal anomaly diagnosis can have a significant impact on parental anxiety, confidence in the medical team and their perception of the child’s prognosis and acceptable treatment options. The aim of interdisciplinary prenatal care is to improve communication with the team and to educate families on palliative or correctable surgery options, potential complications, quality of life and future medical needs with a family centered care approach. Although the interdisciplinary care model has been developed and studied in multiple pediatric populations such as oncology, the use of nurse practitioner led interdisciplinary fetal consultations has been rarely reported.

**Innovation:** Interdisciplinary integrated consultations (IC) can be used to prepare families for delivery and care of their fetus diagnosed with congenital heart disease (CHD) and other complex medical issues. Since 2011, our institution has performed 1,573 ICs across all specialties and an average of 116 cardiac and complex consults per year. The nurse practitioner (NP) or nurse coordinator prepares families at their first visit for what to expect during the IC and provides continuity during all prenatal care. To provide family centered care and communication, the IC is attended by a fetal cardiology physician, neonatologist, social worker, palliative care provider as applicable, and a genetic counselor. For complex patients diagnosed with extracardiac anomalies, providers from additional specialty services are also present. In addition, the NP facilitates the consultation by reviewing pertinent cardiac anatomy and preparing the care team with patient information regarding diagnoses and fetal testing, as well as functioning as a parental advocate. The IC session typically occurs at a follow-up fetal echocardiogram appointment four weeks after initial diagnosis when families have a peak in anxiety. This also allows the family time to process and prepare questions for providers. The work done by the nursing team with preparation and coordination of this pre-visit planning is vital for the throughput of the patient during the hour-long IC visits.

**Conclusions:** The pre-counseling session with the providers allows for a unified and clear plan across various disciplines. The interdisciplinary component is both time-efficient for the family as well as comprehensive. This model also prepares families for the interdisciplinary family centered rounding approach utilized by inpatient teams in the intensive care unit and cardiology floor where the child will be after birth. This model of care can be adapted to other fetal health centers as well as pediatric specialties through use of an integrated consultation preparation. Future research ideas include developing quantitative methods to measure the IC impact on parental understanding of fetal diagnoses and assessing the impact on prenatal anxiety and confidence in the care team. Interdisciplinary care for prenatally diagnosed CHD is a replicable model that provides a family centered team approach with the medical and nursing staff.

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INTRODUCTION

Prenatal counseling for families receiving a fetal anomaly diagnosis can have a significant impact on parental anxiety, confidence in the medical team and their perception of the child’s prognosis and acceptable treatment options. The Children’s Mercy Hospital Fetal Cardiology Program and Elizabeth J. Ferrell Fetal Health Center developed an innovative nurse practitioner (NP)-led integrated consultation (IC) model to advance prenatal education for expectant parents of children with congenital anomalies. The aim of interdisciplinary prenatal care is to improve communication with the team and to educate families on palliative or correctable surgery options, potential complications, quality of life and future medical needs with a family centered care approach. Congenital heart disease makes up the largest portion of yearly integrated consultations and fetal health center deliveries at Children’s Mercy Hospital.

LITERATURE REVIEW

Although the interdisciplinary care model has been developed and studied in multiple pediatric populations such as oncology, the use of NP-led interdisciplinary fetal consultations has been rarely reported. The framework of the integrated consult is based on principles from the literature:

- Interdisciplinary prenatal counseling for congenital anomalies has been shown to decrease parental anxiety.
- Counseling is perceived as most effective for parents when personally tailored to both education level and the specific situation.
- Parental understanding is improved through use of multiple counseling sessions as parents are often overwhelmed during the initial diagnosis and consultation.
- The pre-counseling session with the providers allows for a unified and clear plan across various disciplines. This pre visit work is also vital for the throughput of the patient during the hour-long IC visits.
- Time-efficient and comprehensive care plan is created for the family while preparing them for family centered rounding approach utilized by inpatient teams after birth.
- This model of care can be adapted to other fetal health centers as well as pediatric specialties through use of an integrated consultation preparation.
- Future research ideas include developing quantitative methods to measure the IC impact on parental understanding of fetal diagnoses and assessing the impact on prenatal anxiety and confidence in the care team.

CONCLUSIONS

The NP or nurse coordinator prepares families at their first fetal health center visit for what to expect during the IC and provides continuity during all prenatal care. To provide family centered care and communication, the IC is attended by a fetal cardiology physician, neonatologist, social worker, palliative care provider as applicable, and a genetic counselor. For complex patients diagnosed with extracardiac anomalies, providers from additional specialty services are also present. In addition, the NP facilitates the consultation by reviewing pertinent cardiac anatomy and preparing the care team with patient information regarding diagnoses and fetal testing, as well as functioning as a parental advocate. During the IC, the family is educated on their child’s diagnosis and spectrum of possible surgical and care needs. At the end of the IC, the family is given tours of the units their child will be in the future and a letter summarizing the consult discussion is sent to referring providers.

References