



AMERICAN SOCIETY FOR REPRODUCTIVE MEDICINE
2024 SCIENTIFIC CONGRESS & EXPO

**THIRD PARTY REVIEW OF REQUESTS FOR MULTIPLE EMBRYO TRANSFER SIGNIFICANTLY
LOWERS THE RATE OF MULTIPLE GESTATION WITHOUT COMPROMISING PREGNANCY RATE**

Keri Bergin, Celine Toder, Joseph A. Lee, Danielle Soltesz, Janet Choi, Alan B. Copperman

1. Reproductive Medicine Associates of New York, New York, NY
2. Icahn School of Medicine at Mount Sinai, New York, NY
3. Progyny, Inc., New York, NY

OBJECTIVE:

Multiple gestation pregnancies carry an increased risk of miscarriage, preterm delivery, hypertensive disorders, and cesarean section. Currently American Society for Reproductive Medicine (ASRM) practice guidelines recommend single embryo transfer (SET) in the vast majority of clinical scenarios. However, a significant number of multiple embryo transfers (MET) are still performed annually, frequently resulting in multiple implantations and high-risk pregnancies. The purpose of this study is to evaluate the adoption of a curated, credentialed network of providers, in collaboration with a benefit solution organization that allows for data sharing to understand and adhere to best practices. This study evaluates how introduction of a policy empowers a medical advisory board (MAB) to review and pre-authorize requests for MET and how it affects clinical decision making and ultimately, clinical outcomes.

MATERIALS AND METHODS:

Embryo transfers from 233 clinics between July 1, 2021 and June 30, 2023 were included. The MET review process was implemented July 1, 2022 and involved MAB review in cases requesting transfer of >1 embryo. Data was evaluated for the 1 year before and 1 year after policy change. SET, multiple pregnancy and total ongoing pregnancy rates were compared. A sub-analysis was performed on post-policy cycles where a MET was planned. METs beyond the scope of ASRM guidelines were supported when a consensus was met by a MAB. Patients that underwent MET versus patients that initially planned for MET, but after peer review ultimately underwent SET were compared. Chi-square analysis was performed on outcomes.

RESULTS:

There was a total of 11,860 embryo transfers in Group 1 (July 1, 2021-June 30, 2022) and 17,247 embryo transfers in Group 2 (July 1, 2022 – June 30, 2023). SET rate was higher after the policy change (93.0% vs 96.2%, $p < 0.0001$). The ongoing clinical pregnancy rate was higher in



Group 1 (58.3%) compared to Group 2 (57.1%) ($p = 0.033$). Excluding pregnancies with monozygotic splitting, the multiple gestation pregnancy rate was significantly higher in Group 1 compared to Group 2 (1.5% vs 0.5% $p = <0.0001$). In Group 2 when MET was initially planned, there was no difference in ongoing clinical pregnancy rate after MET ($n = 657$) versus SET ($n = 107$) (45.7% vs 49.5%, $p = 0.456$). The multiple gestation pregnancy rate was significantly higher after MET at 13.2% versus 0.9% in SET (monozygotic splitting) ($p=0.0002$).

CONCLUSIONS:

A comprehensive benefit solution organization that values evidence-based medicine can collaborate with expert providers to facilitate improved adherence to guidelines. The implementation of MET pre-review lowered the rate of multiple gestation pregnancies, while maintaining high ongoing clinical pregnancy rates. Requests for MET that ultimately were converted to SET resulted in ongoing pregnancy rates similar to METs, with a significant concomitant reduction in multiple gestation pregnancies.

IMPACT STATEMENT:

A MET policy guided by the collaboration between a benefit solution organization and a MAB prioritizes patient safety and clinical outcomes. A team approach ensures best practices to lower the risk of multiple gestation pregnancies from IVF.

REFERENCES:

N/A