USE OF AN ALGORITHM TO DETERMINE IV SEDATION DOSING DURING FIRST-TRIMESTER SURGICAL ABORTION

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First trimester surgical abortion is associated with moderate pain, and much research has focused on figuring out the best way to control pain during abortion. General anesthesia appears to produce the best pain control, but only 21% of abortion providers offer general anesthesia in their practices. Intravenous conscious sedation is more broadly available, and it appears to be more effective for pain control than paracervical block alone or oral narcotics and anxiolytics in concert with paracervical block. However, there is no standardized way to adjust a patient's IV sedation dose so that it takes into consideration her personal characteristics.

For this study, we developed an algorithm that calculated IV sedation dose based on a patient's personal characteristics. We then enrolled 196 participants into a single-blinded study that randomized patients to have their IV sedation dosing calculated using the algorithm or in the standard way. In order to evaluate the effectiveness of this algorithm, we looked at patients' self-reported pain scores at different times during their surgical abortion procedures, and also at side effects and patient satisfaction with their pain control. With this study we hoped to show that a simple and easy-to-use tool (the algorithm) can result in improved pain control during first trimester abortion without increasing side effects or adverse events.

To date, our preliminary study results have not shown a difference in pain scores between patients being given IV sedation in the standard way or according to our algorithm. There are, however, additional analyses ongoing looking at adverse events, side effects, need for additional medication and patient and physician satisfaction. We may find other benefits of the algorithm that will make it a useful tool for clinical practice. Additionally, all of the providers in our study were highly experienced providers who are comfortable with administering IV sedation, but this is not the case everywhere. Given that this algorithm provides, at the least, equivalent pain control, a well-studied standardized way of administering IV sedation may be beneficial to some providers, especially those with more limited experience. With an algorithm that is easy to use and safe, more providers might be willing to administer IV sedation overall, which would be a great benefit to women seeking abortion in this country.