A Proposal to Change the Method for Determining the Outcome According to the SART Statistic—Pregnancy Rate per Retrieval

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The subspecialty of reproductive endocrinology and infertility is one of the few subspecialties where statistics on a therapeutic procedure, i.e., in vitro fertilization (IVF)–embryo transfer (ET) are published by all Society of Assisted Reproductive Technology (SART) members so that the information is available to consumers. This enables a consumer to seek an IVF center that is not merely geographically convenient, but one that is cost-effective.

It is therefore important to provide categories in the interpretation of the statistics that are easily understood by the consumer and not misleading. Multiple categories are thus needed to fully assess the performance of a given IVF center.

One category that is evaluated in SART reporting is the pregnancy rate (PR) per transfer. But supposing a given IVF center has a poor embryology laboratory but good transfer technique? The statistics of PR per transfer would not allow the consumer to see that many of the oocyte retrievals do not progress to transfer. Thus the category of PR per retrieval is added.

It is my opinion, however that the category of PR per retrieval is extremely misleading and should be modified to be fair to IVF centers that emphasize cryopreservation. One of the biggest risks that women have when undergoing controlled ovarian hyperstimulation for IVF–ET is the ovarian hyperstimulation

syndrome (OHSS). One way to reduce the potential severity of OHSS is to cryopreserve all embryos and defer the transfer to a later time since the secretion of human chorionic gonadotropin (hCG) by the pregnant woman magnifies intensity and duration of the syndrome. However, under the present method of calculating PR per retrieval a woman who conceives on her first transfer (but was a deferred frozen ET) is counted as a failure to conceive per retrieval. The average couple undergoing IVF–ET would not realize this. Thus a couple may choose an IVF center over another because of a higher PR per retrieval which may be falsely higher merely related to the center not chosen being more concerned about women's well-being and making the decision to freeze all the embryos and not transfer fresh embryos when confronted with an increased risk of OHSS.

Unfortunately not all IVF centers do well with frozen ETs. Thus, though it may be admirable that a given IVF center may not risk OHSS for a patient, the patient needs to know if this safety measure is at the ultimate expense of a reduction in PR.

Thus my suggestion to allow the consumer not to be misled by the present method of reporting PR per transfer would be to allow the IVF center to record the outcome of the first ET, whether it be fresh or frozen, from a given oocyte retrieval. If the frozen ET would not occur in the same year, the retrieval would count as being performed in the year of the ET. If a miscarriage occurred, but a subsequent success occurred on the second frozen cycle, only the miscarriage would count.

Some physicians performing IVF–ET will be also influenced by the fact that patients have access to

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success rates of IVF centers that are members of SART, and the penalty of reduced PRs per retrieval imposed for deferring fresh transfer may influence their judgments which may not always be in the best interest of the patient. Possibly, an IVF center will be more willing to risk the patient developing OHSS and transfer fresh embryos realizing that the failure to do so could markedly decrease the PR per retrieval. Similarly, the decision to transfer with an inadequate endometrial thickness may be made. Sometimes a physician may cancel the hCG injection and oocyte retrieval causing the patient expense for medication and monitoring, and time loss, for risk of severe OHSS that may occur with pregnancy but may be more willing to take that risk for the shorter duration and intensity seen when women are not pregnant, if this decision would not falsely lower the PR per retrieval.

This is not the first time that a suggestion has been made to use the results of frozen ETs when calculating the PR per retrieval. However, these suggestions have not influenced the SART committee to change the method of calculating outcome in this category. This may be related to the complexity of the suggestions, i.e., even estimating the likelihood of future planned

pregnancies from the supernumerary frozen embryos. For even greater fairness it would seem to be more appropriate to calculate the PR per oocyte harvest, i.e., consider a failure to establish a pregnancy only if all embryos generated by a given harvest were transferred without success. This could also be a more fair way to assess programs that limit the number of embryos transferred to reduce the risk of multiple births but under the present system shows up as a lower PR per retrieval and per transfer. However, this would add certain extra complexities and could be a reason for rejection of the idea by SART. This I hope that the simple suggestion to include the first frozen ET for calculating the outcome when fresh ET is deferred may be adopted as policy by SART.

Perhaps the simplicity of this suggestion might be sufficient to stimulate a change in the rules of SART for this category. Hopefully this published opinion will encourage other IVF centers to write to SART to change the present system of calculating PR per retrieval which is very unfair to centers favoring cryopreservation of embryos. Possibly this opinion may result in other suggestions that will improve the interpretation of "pregnancy rate per retrieval" to a greater extent than the one I am proposing.