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Cumulative live birth rates following assisted reproduction: the younger, the better? A response

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We appreciate Dr Chetkowski's interest in our study regarding the lower success rates of in vitro fertilization (IVF) in younger women, using their own oocytes.¹ This same phenomenon has also been documented in large studies using IVF registries from the United Kingdom² and Australia and New Zealand.³

The lower success rates in younger women may be because of selection bias in those who undergo assisted reproductive technology (ART). Women who initiate an IVF cycle at a younger age may represent patients with more severe infertility diagnoses, which could lower their probability of live birth. Unfortunately, we have limited ability to directly evaluate this hypothesis in the Centers for Disease Control and Prevention's National ART Surveillance System (NASS) because it does not collect granular detail on specific infertility diagnoses.

Another explanation is misclassification of some long-term fertility preservation cycles in younger women. The NASS criteria for classifying cycles as long-term fertility preservation include documented intent, no embryo transfers within a year of procedure, the retrieval of at least 1 oocyte, and cryopreservation of at least 1 oocyte or embryo. Failure to document these criteria or the selection of a different category to report these cycles in NASS (eg, "other reasons") may lead to the misclassification of some true long-term preservation cycles as unsuccessful cycles, which would result in artificially lower success rates. Consistent with this hypothesis, cancer-associated descriptions are often written in

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as free text for the “other reasons” for IVF among younger patients, which may represent long-term preservation cycles.

Ultimately, we agree with Dr Chetkowski that “the younger, the better” is a maxim that may not necessarily be supported by current NASS data. Future research is needed to better explain the full extent of this phenomenon and whether there are biological explanations⁴ for the lower success rates in younger patients.

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