

New study finds stronger regulations of in vitro fertilization may save lives

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The number of couples struggling with infertility is on the rise, and these couples often use assisted reproductive technologies, like in vitro fertilization (IVF), to get pregnant. Although IVF can be successful, it can also increase the risk of multiple pregnancies (i.e., twins or triplets), which are often caused by transferring more than one embryo. Twins and triplets are likely to be born prematurely, and, as a result, many have medical complications. A new study soon to be published in *The Journal of Pediatrics* finds a major decrease in risk, as well as cost, if single embryo transfers are mandated for IVF.

Dr. Keith Barrington and colleagues from the University of Montreal reviewed information from hospital records from the neonatal [intensive care unit](#) (NICU) at the Royal Victoria Hospital in Quebec, Canada. Their objective was to find out how many infants admitted to the NICU from July 2005 to July 2007 were from multiple births resulting from IVF, and how many of these infants had complications or required medical interventions.

The authors discovered that 82 infants (17%), admitted to this NICU during the two-year period were from [multiple births](#) resulting from some form of assisted reproductive technology. Of these, 75 were twins or triplets whose mothers used IVF. As Dr. Barrington notes, "Among these 75 babies, there were 6 deaths, 5 babies who developed a brain bleed, and 4 babies who developed a potentially blinding eye condition."

Using the information gleaned from the medical records, the authors

calculated the estimated reduction of complications and costs if doctors administering IVF were to transfer only one embryo at a time.

According to Dr. Barrington, "Across Canada, there would be as many as 840 fewer babies admitted to the NICU, 40 deaths avoided, 46 fewer brain injuries, and 42,400 fewer days of NICU hospitalization."

Considering that each day an infant stays in the NICU costs roughly \$1000, the savings would be considerable if single embryo transfers were mandatory. Because there were roughly 20 times as many IVF procedures performed in the United States than in Canada in 2008, the savings in the US would be even greater.

The authors strongly advocate regulations restricting the number of embryos to be transferred during IVF. However, because they recognize that IVF procedures are both costly and challenging for the mother, they advocate accompanying regulation with reimbursement of any additional costs incurred. As Dr. Barrington notes, "Since July 2010, all of the fertility centers in Quebec have adopted this approach, and preliminary results show that twin gestation rates have dropped from 30% to 3.8%."

More information: "The Epidemic of Multiple Gestations and NICU use: The Cost of Irresponsibility" by Annie Janvier, MD, PhD, Bridget Spelke, BSc, and Keith Barrington, MB, ChB, appears in *The Journal of Pediatrics*, [DOI 10.1016/j.jpeds.2011.02.017](https://doi.org/10.1016/j.jpeds.2011.02.017)

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