Frequency of High Oocyte Yield (≥35 Oocytes) in Donor Oocyte Cycles Amongst Commercial Egg Banks: A SART-CORS Analysis (ID#609)

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Objective

This study aimed to characterize the frequency of high-yield oocyte retrieval cycles (≥35 oocytes) among commercial egg banks (CEBs) in the United States and compare practices to fresh donor cycles.

Study Design

Retrospective analysis of donor oocyte cryopreservation cycles reported to SART CORS (2018–2021), with non-shared fresh donor cycles serving as controls.

10,995 cycles were reviewed. The 5 most common CEBs were labeled A–E; 16 remaining banks were grouped as "Other." Descriptive statistics were used to assess the percentage of cycles falling into each yield category (35–44, 45–54, 55–64, 65–74, ≥75 oocytes) by bank.

Results

The proportion of cycles yielding ≥35 eggs ranged from 21% (fresh) to 48% (Bank C). Bank D had the highest rates in the 35–44 and 45–54 egg categories (24.4% and 16.1%) but reported no cycles exceeding 64 eggs. Bank C led all categories above 54 eggs, with 3.2% of cycles yielding ≥75 oocytes. All banks except D and E exceeded fresh cycles in the ≥75 oocyte category.

Oocyte retrieval by egg bank (encounter level)

	Fresh	Bank A	Bank B	Bank C	Bank D	Bank E	Other
Encounters	16,040	2,554	2,269	950	397	349	1,347
Age (mean±SD)	26.3±3.2	26.7±3.1	25.2±3.5	25.8±2.8	26.6±3.2	25.3±3.6	27.0±3.6
Eggs (mean±SD)	26.2±12.3	32.4±13.6	29.9±11.8	36.6±16.4	33.0±12.3	31.7±13.3	28.8±12.5
35–44 eggs	2,106 (13.1%)	520 (20.4%)	450 (19.8%)	214 (22.5%)	97 (24.4%)	68 (19.5%)	222 (16.5%)
45–54 eggs	854 (5.3%)	274 (10.7%)	148 (6.5%)	117 (12.3%)	64 (16.1%)	35 (10.0%)	83 (6.2%)
55–64 eggs	303 (1.9%)	88 (3.4%)	62 (2.7%)	71 (7.5%)	18 (4.5%)	19 (5.4%)	22 (1.6%)
65–74 eggs	98 (0.6%)	36 (1.4%)	15 (0.7%)	24 (2.5%)	0 (0.0%)	5 (1.4%)	19 (1.4%)
≥75 eggs	46 (0.3%)	29 (1.1%)	9 (0.4%)	30 (3.2%)	0 (0.0%)	0 (0.0%)	5 (0.4%)

Conclusions

Significant variation in high-yield stimulation cycles exists among CEBs. As some prior studies have suggested a potential negative impact of excessive oocyte yield on blastocyst development, these bank-specific practices may warrant further scrutiny. Additional analysis of donor complication rates and intended-parent live birth outcomes is recommended.

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