

PROBABILITY OF ATTAINING A 60% AGED-BASED LIVE BIRTH RATE (LBR) WITH THE FIRST ELECTIVE OOCYTE CRYOPRESERVATION (EOC) CYCLE

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INTRODUCTION

- Data for evidenced-based counseling of women considering EOC is scarce
- Realistic expectations for oocyte yield and LBR is critical in allowing women to appropriately estimate the physical and financial investment necessary to achieve their reproductive goals

OBJECTIVES

- Calculate the probability of cryopreserving a cohort of oocytes sufficient for a 60% age-based LBR with the 1st EOC cycle

METHODS

- Retrospective cohort study
- All EOC cycles (n=1108) performed from 3/2016-4/2018 at Extend Fertility Medical Practice, a large single-center oocyte cryo-preservation program
- Demographic, clinical, and embryologic data categorized from EMR
- Oocyte thresholds per age group were calculated for 50, 60, and 70% LBR using data from Doyle et al
- 60% LBR results are presented here
- Associations made with X2, student's t-test, Mann-Whitney U, and Kruskal Wallace
- ROC curves used to determine appropriate cutoff values for bivariate analyses

REFERENCES

- Doyle JO, Fertility & Sterility, Feb 2016
- Goldman RH, Human Reproduction, April 2016

RESULTS

	AMH Median (IQR)	MII/cycle Mean (SD)	# of cycles Mean (95%)
Total (N=764)	2.03 (2.38)	15.26 (9.08)	1.42 (1.37-1.48)
≤34 (N=253)	2.46 (3.11)	17.2 (9.7)	1.27(1.19-1.34)
35-37 (N=333)	2.03 (2.27)	15.48 (8.7)	1.42 (1.34-1.50)
38-40 (N=135)	1.73 (1.9)	12.87 (7.5)	1.58 (1.45-1.71)
≥41 (N=43)	0.89 (1.87)	9.67 (8.47)	1.88 (1.54-2.21)

Table 1: Cohort by age group

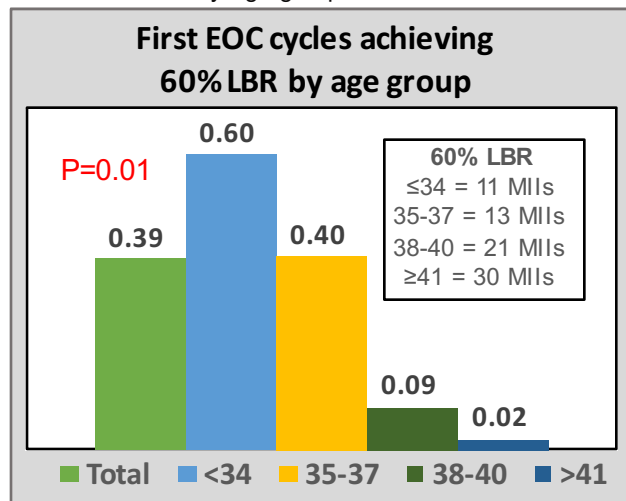


Figure 1: % of first cycles that yielded enough MII's to achieve a 60% LBR by age group

	60% LBR 1 cycle N=298	60% LBR > 1 cycle N=466	p
Age Mean (SD)	34.2±2.9	34.2±2.9	<0.01
AMH Median (IQR)	3.4(3.6)	1.5 (1.5)	<0.01
Total GND IU Mean (SD)	2847.9±1200.5	3827.0±1542.1	<0.01

Table 2: Characteristics of subjects achieving 60% LBR with 1st cycle compared to those who did not

Independent predictors of 60% LBR threshold in first cycle:
 Age <35 (RR 2.2 95% CI 1.9-2.7)
 AMH >2.6 (RR 2.4 95% CI 2.0-2.8)

CONCLUSIONS

- Even with a conservative LBR of 60%, less than half the subjects met the threshold with their 1st cycle.
- Women seeking EOC, especially at high-cost programs, may be financially limited to a single cycle.
- Counseling should include individualized estimates for first cycle oocyte yield, associated LBR, and the probability of needing more than one cycle to achieve their reproductive goals.