

SUPPLEMENTARY FILE S2 — BASELINE CHARACTERISTICS OF THE ANALYSIS COHORTS

Manuscript: An independent generative verification agent for IVF outcome prediction:

conditional score-based diffusion modelling to cross-check black-box classifiers

Values are median [interquartile range] unless stated otherwise.

Table S2.1 Characteristics by cohort

Characteristic	Development (n = 13,673)	Held-out test set (n = 1,520)	Prospective (n = 96)	External (n = 489)
Maternal age, years	35 [33–39]	35 [33–40]	37 [33–41]	34 [30–37]
Follicles at retrieval	10 [5–17]	9 [5–17]	10 [6–14]	9 [5–13]
Oocytes retrieved (COC)	9 [4–15]	8 [4–14]	8 [5–12]	10 [5–15]
Mature (MII) oocytes	7 [4–12]	6 [3–11]	8 [5–11]	6 [3–10]
2PN zygotes	5 [2–9]	5 [2–8]	not retained	not recorded
Total blastocysts	2 [0–5]	1 [0–5]	not retained	not recorded
Good-quality blastocysts	1 [0–3]	0 [0–3]	not retained	not recorded
Oocyte-retrieval rate	0.90 [0.71–1.00]	0.89 [0.70–1.00]	not retained	not recorded
Fertilization rate	0.76 [0.57–0.92]	0.75 [0.56–0.91]	not retained	not recorded
KPIScore	17 [13–21]	17 [13–21]	not recorded	not recorded
Anti-Müllerian hormone	available	available	not available	not available
Antral follicle count	available	available	not available	not available
Body mass index	available	available	not available	not available
Cycles recorded as attempt ≥ 2	46.5%	45.1%	82.3%	6.3%
Clinical pregnancy (event rate)	33.4%	34.0%	45.8%	29.0%

"not retained" — the variable exists in the source record but was not carried into the archived prediction export for that cohort, because predictions were generated before embryo culture and the export preserved only the inputs available at prediction time. "not recorded" — the variable does not exist in the source dataset.