Appendix 1 Probabilities for single embryo transfer estimated from the ESTEEM report.

There were 525/811 (0.64735) aneuploid embryos in the test group and it was assumed that none would result in a live birth. From all embryos transferred (single and dual embryo transfer, fresh and frozen) the test group had 57/249 (0.22892) live born offspring and the control group had 57/440 (0.12955). Had the 440 embryos in the control group been tested, the proportion of the results that were true normal (live born and a euploid test result) was estimated to be 0.08073 [(1 - 0.64735) x 0.22892] and the proportion that were false normal (no live birth and a euploid test result) to be 0.27192 (1 - 0.64735 – 0.08073). The proportion that were false abnormal results (live born and an aneuploid test result) was estimated to be 0.04882 (0.12955 – 0.08073) and the proportion that were true abnormal results (no live birth and an aneuploid test result) to be 0.59853 (0.64735 – 0.04882). The prevalence of non-viable transferable embryos was estimated to be 87.0% (0.27192 + 0.59853) and the test positive predictive value (PPV, the proportion of abnormal test results that correctly predict no live birth) was estimated to be 92.5% (0.59853 / 0.64735). The test negative predictive value (NPV, the proportion of normal test results that correctly predict a live birth event) and the live birth rate for a single embryo transferred were estimated to be 22.9% (0.08073 / 0.35265). The live birth rate for single embryo transfer without testing was estimated to be 13.0% (0.08073 + 0.04882). Expressed as the proportion of clinical pregnancies, the miscarriage rate was estimated to be 37.5% (27/72) in the control group and 21.9% (14/64) in the test group. The freeze-thaw survival rate was assumed to be 94%.