SpermMorph

"Strict Morphology" Pre-Stained Human Sperm
Quality Control Microscope Slides for Manual Application

QC Protocol

Equipment Needed: 1000x light microscope with oil and micrometer.

Set Includes: Slide 1: Fertile; > 14% normal forms (normal pattern)
Slide 2: Subfertile; 5 - 14% normal forms (g-pattern)
Slide 3: Subfertile; 0 - 4% normal forms, proven failed fertilization (pattern)

Per request, non-labeled slides may be purchased for blind surveys.

Protocol: Performing QC in your laboratory is extremely important because it improves precision and accuracy which translates into improved clinical results.[1] A minimal 100 cells (100-200) are required for complete analysis with results expressed using "Tygerberg Strict Criteria." Low variability per slide exists with inter-technician (0.86 c.c) and intra-technician (0.96 c.c.) using the "Spearman Rank Correlation Coefficient."

(c.c. = Correlation Coefficient)

Strict Criteria for a Normal Sperm Cell[2,5]

Length: 4 - 5.5 microns[6]
Width: 2.5 - 3.5 microns[6]
Shape: Smooth Oval (acorn)[2,5]
Acrosome: 40 - 70% of head[2,5]
Midpiece: 6 - 10 microns
Tail: +/- 45 microns
Other Criteria: Slightly amorphous (borderline) forms = abnormal[2,5,6]
No severe neck, midpiece or tail defects are allowed[2,5,6]

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[1] Oehninger S, Acosta AA, Morshedi M, veeck LL, Swanson RJ, Simmons K, Rosenwaks Z: Corrective Measures and pregnancy outcome in in vitro fertilization in patients with severe sperm morphology abnormalities. Fertil Steril 1988:50:283
[2] Kruger TF, Menkveld R, Stander FSH, Lombard CJ, Van der Merwe JP, Van Zyl JA, Amith K: Spem Morphology features as prognostic factor in in vitro fertilization. Fertil Steril 1986; 46:1118.
[3] Van der Merwe JP, Kruger TF, Swart Y, Lombard CJ: The role of oocyte maturity in the treatment of infertility because of teratozoospermia and normozoospermia with gamete intrafallopian transfer. Fertil Steril 1992; Vol 58, No 3.
[4] Kruger TF, Swanson RJ, Hamilton M, Simmons K, Acosta AA, Matta JF, Oehninger S, Morshedi M: Abnormal sperm morphology and other semen parameters related to the results of the hamster oocyte human sperm penetration assay. Int J Androl 1988:11:107.
[5] Menkveld R, Stander FSH, Kotze TJvW, Kruger TF, Van Zyl JA: The evaluation of morphological characteristics of human spermatozoa according to stricter criteria.
[6] World Health Organization. Laboratory manual for the examination of human semen and sperm-cervical mucus interaction. Cambridge University Press, 3rd Edition 1992.

Manufactured by MQ Medical, Tygerberg-Capetown, South Africa