

Supplementary File 3. Raw data

Section 3: Technical aspects of sperm DNA fragmentation (SDF) testing

Q29. Which of the following SDF assays do you order? (If you use more than one, choose the most commonly ordered test in your practice)		
Terminal deoxynucleotidyl transferase dUTP nick end labeling (TUNEL)	120	28.60%
Sperm chromatin structure assay (SCSA)	101	24.10%
Sperm chromatin dispersion (SCD)	80	19.10%
Comet	22	5.30%
Other test	14	3.30%
Not applicable	82	19.60%
Total	419	100.00%

Q30. Which of the following factors determine your choice of the assay? [Select all that apply]		
Availability	294	70.00%
Cost of performing	185	44.05%
Accuracy	149	35.48%
Evidence provided in literature on each assay	108	25.71%
Training of staff and personnel	107	25.48%
Additional cost for patient	91	21.67%
Short time needed to obtain result	79	18.81%
Ease of interpretation	77	18.33%
Ease of performing by biologists	73	17.38%
Not applicable	57	13.57%

Q31. Which of the following thresholds do you use to interpret the test results?		
20% or higher is elevated SDF	40	9.50%
25% or higher is elevated SDF	77	18.30%
30% or higher is elevated SDF	142	33.70%
Other	6	1.40%
Threshold determined by my lab	47	11.20%
Threshold provided by testing lab	67	15.90%
Not applicable	42	10.00%
Total	421	100.00%

Q32. Do you recommend an abstinence period before SDF testing (including last discarded ejaculation if applicable)?		
No	28	6.60%
Yes, less than 24 hours	22	5.20%
Yes, 24–48 hours	99	23.50%
Yes, 3–5 days	226	53.60%
Yes, 6 days or more	5	1.20%
Not applicable	42	10.00%
Total	422	100.00%

Section 5: Barriers and limitations in incorporating SDF testing into clinical practice:

Q61. Which of the following factors limit YOUR ABILITY to order SDF testing? [Select all that apply]		
Cost of testing	223	56.60%
Not covered by insurance	163	41.37%
Unavailability of assays	139	35.28%
Lack of clear recommendations for testing	127	32.23%
Lack of standardized SDF measurement technique	121	30.71%
No agreed reference and cut-off values	106	26.90%
Concern about interpretation of results	74	18.78%
Lack of information on SDF testing	63	15.99%
Patients not convinced of additional tests	55	13.96%
I have no limitations in ordering SDF testing	50	12.69%
I am not convinced of SDF testing	21	5.33%
Not applicable	35	8.88%

Q62. Assuming all resources are available, do you BELIEVE (regardless of your actual practice) SDF should be ordered in the evaluation of infertile men? [Select all that apply]		
Yes, for all men with causes and risks known to elevate SDF	186	46.97%
Yes, after failure of ART for all cases	173	43.69%
Yes, for all men with UMI	151	38.13%
Yes, for all men with IMI	137	34.60%
Yes, after natural RPL	130	32.83%
Yes, for surgery decision on clinical varicocele with normal semen parameters	126	31.82%
Yes, for all infertile men	114	28.79%
Yes, before referral for ART in all cases of male infertility	90	22.73%
Yes, after first natural pregnancy loss	65	16.41%
Yes, for surgery decision on subclinical varicocele	60	15.15%
No, SDF testing should occur only for select few patients after careful evaluation	37	9.34%
No, SDF testing should have no role in evaluation of male infertility	7	1.77%
Not applicable	18	4.55%

Q63. In your opinion, why is there a delay in incorporating SDF testing into clinical practice? [Select all that apply]		
No clear recommendations by society guidelines	247	62.69%
No globally accepted reference ranges	198	50.25%
No reliable results and large variability between labs	195	49.49%
Too expensive in time and/or material to be used routinely	144	36.55%
Unavailable SDF testing	138	35.03%
Insurance companies will not cover costs of testing	121	30.71%
Resistance by many clinicians to incorporate this new technology into their practice	104	26.40%
Difficulty in performing SDF testing	103	26.14%
Poor quality research available regarding the topic	90	22.84%
Economic drawbacks of SDF testing outweigh the benefits that may be conferred to patients	73	18.53%
For large number of SDF tests conducted, only a small proportion of patients will benefit	54	13.71%
Knowing whether SDF is high or low will typically not affect the management plan	36	9.14%
Not applicable	19	4.82%

Q64. In your opinion and based on your experience, why should SDF testing be incorporated more into clinical practice? [Select all that apply]		
Provide an explanation to many unknown causes of male infertility	296	75.32%
Provide basis for counselling patients, especially regarding lifestyle risks	247	62.85%
Allow targeted treatment approaches and personalized medicine	217	55.22%
Avoid unnecessary cost, time, and resources of ART	160	40.71%
Availability of commercial assays that are relatively affordable and easy to interpret	101	25.70%
I do not believe it should be incorporated more into clinical practice	26	6.62%
Not applicable	19	4.83%