



Karnataka State Obstetrics and Gynecology Association



KSOGA

Fertility Flash



Dr. Rajshree Paladi
President



Dr. Shobha Gudi
Secretary General



Dr. Rekha Rajendrakumar
EC Member



Dr. Shilpa Haresh
Chairperson,
Infertility & ARTC & REC

Fertility Flash #10
KSOGA 2026-27

“Count Alone Misleads: Think TMSC!”

Why This Matters

WHO semen parameters highlight Count, Motility, Morphology separately. But for clinical decision-making & patient counselling, the Total Motile Sperm Count (TMSC) is far more meaningful.



What is TMSC?

TMSC = Volume × Sperm Concentration × Progressive Motility (%)

☞ Represents the actual number of motile sperm available to reach and fertilize the oocyte.

Example (Same Count, Different Reality)

Parameter	Patient A	Patient B
Volume	2 ml	2 ml
Count	20 mill/ml	20 mill/ml
Motility	50%	10%
TMSC	20 million	4 million

☞ Same count, but fertility potential is vastly different

! Why Count Alone is Misleading

- High count with poor motility = functionally low fertility
- Normal count ≠ Normal fertility potential
- Morphology is subjective and less predictive in isolation

✓ **TMSC integrates quantity + quality**

🎯 Clinical Relevance and Decision Making of TMSC

>20 million →
Good chances of natural conception



>5–20 million →
Ideal case for IUI



>1–5 million →
Consider IVF/ICSI



📝 Technique Box: How to Calculate TMSC

- 1 Note semen volume (ml)
- 2 Multiply by concentration (million/ml)
- 3 Multiply by progressive motility (%) / 100

☞ Simple formula for OPD use:

$$\text{TMSC} = \text{Volume} \times \text{Count} \times \text{PR motility} (\%)$$

💡 Key Takeaways

- ✓ TMSC = Most practical predictor of severity of male infertility
- ✓ Integrates count + motility → functional sperm number
- ✓ Essential for treatment planning (Natural vs IUI vs IVF/ICSI)
- ✓ Improves patient counselling clarity & compliance



📖 Reference

- J A M Hamilton et al. Hum Reprod. 2015 May. <https://pubmed.ncbi.nlm.nih.gov/25788568/>



Content Coordinator:
Dr. Sujay Heranjal