**TECHNICAL BULLETIN: SEMI-AUTOMATED TESTING OF LOW COUNT and POST VASECTOMY SAMPLES ON THE SQA-V**

**For SQA-V GOLD w/ Visualization (All Versions) | Wednesday, January 21st, 2015**

## BACKGROUND:

The WHO 5th edition manual provides recommendations for testing post-vasectomy semen samples.

## OVERVIEW:

Per the WHO 5th edition manual, it is not recommended to centrifuge the post-vasectomy sample if the technician is searching for motile spermatozoa, as centrifugation impacts sperm motility. If no spermatozoa are found in the ejaculate it is recommended to re-assess the sample after centrifuging and re-suspending the pellet in a small volume of seminal plasma.

## INITIAL "FAST SCAN":

Prepare a standard slide per the user guide instructions (10 µl liquefied ejaculate, 22mm x 22mm coverslip, 1" x 3" slide). Load the slide into the SQA-V slide adapter and search for spermatozoa using the visualization system. NOTE: Zoom should be set at full "**Zoom Out**" (300x).

- **If 1-2 MOTILE spermatozoa are found in each field of view:**
  - Run the sample in the SQA-V Post-vasectomy mode following all on-screen instructions.

- **If >=2 MOTILE spermatozoa are found in each field of view:**
  - Run the sample in the SQA-V FRESH mode

- **If only IMMOTILE spermatozoa are found:**
  - Count the sperm cells manually using the SQA-V visualization system set at full Zoom Out per user guide instructions. Count in duplicate using the same slide. Compute the total number of sperm divided by the number of assessed fields of view. This will roughly represent the sperm concentration in millions per ml.

- **If NO spermatozoa are found:**
  - Centrifuge the semen sample at 3000g for 15 minutes.
  - Decant most of the supernatant.
  - Re-suspend the sperm pellet in approximately 50µl of seminal plasma.
  - Test the sample manually in duplicate using a standard slide under a microscope or on the SQA-V visualization system.
  - The presence of spermatozoa indicates cryptozoospermia; the absence of spermatozoa indicates azoospermia.
  - This method cannot be used to determine sperm concentration or total sperm number (present / absent only).

**Dr. Lev Rabinovitch, CTO MEDICAL ELECTRONIC SYSTEMS**

**Distribution: All SQA-V Users**