## TITLE: Semen Analysis: Post Vasectomy

### PRINCIPLE

Post vasectomy semen specimens are examined for the presence or absence of sperm 6-8 weeks following surgery to determine the effectiveness of the vasectomy.

***\*New\****

*The American Urological Association (AUA) Vasectomy Guideline recommends a careful evaluation of an uncentrifuged specimen, and does not recommend centrifugation of the specimen for further assessment. The AUA Guideline also recommends reporting both the presence and absence of sperm and the presence or absence of sperm motility on the patient report. If no sperm are seen in the uncentrifuged specimen, the guideline recommends reporting that the presence of sperm is below the limit of detection.*

# PERSONNEL

Medical Technologists and Technicians

# SPECIMEN

###### Patient Preparation: The semen sample should be collected by masturbation following a

###### two (2) to seven (7) day period of abstinence, 3 days is ideal; or as the doctor has directed, from any form of ejaculation.

Type of Specimen: The entire seminal ejaculate is collected by masturbation into a sterile plastic

container provided by the physician or obtained at the Out Patient Lab, along with instructions

and transported to the laboratory within one hour of collection. **\*See Procedural Notes\***

**Unacceptable specimens: Greater than 48 hours old or specimens transported in a condom. Cancel the test with a comment as to the reason.**

Handling Precautions: Handle all specimens using Standard Precautions.

## REAGENT PREPARATION & EQUIPMENT

10uL pipette and tips

Glass slides, cover slips, disposable transfer pipette, and microscope

## QUALITY CONTROL

We examine a Negative control smear and a Positive control smear and record on the QC log sheet. Slides are in plastic slide holders in the drawer between the microscopes.

To verify the accuracy of the procedure, the test will be performed in duplicate by reviewing 2 slides made from the well mixed sample.

We participate in the CAP program: CAP Survey - SEM

## CALIBRATION

N/A

### STEPWISE PROCEDURE

1. Mix the specimen and transfer entire amount with a transfer pipette to a conical centrifuge tube and cap (from Urinalysis).
2. Record the volume on our worksheets; this result is not reported out.
3. Mix the sample well and make 2 wet prep smears with 10uL of the specimen to observe for presence/absence of sperm and motility.
4. Make 1 more smear, pull style to stain with Wright-Giemsa stain. Label with a small label from the M27\_Hemo label printer. The slide will be retained with our body fluid smears.
5. Cover slip the wet prep smears and using the high dry lens, examine at least 25 fields on each smear for presence of sperm and motility.

# CALCULATIONS

None

# NORMALS

Below the limit of detection

# REPORTING RESULTS

Report results through the Laboratory Information System.

1. If sperm are present, indicate amount present on the wet prep. Example: Rare, Few, Mod or Many. (Rare: 0-1 sperm/hpf; Few: 1-3 sperm/hpf; Mod: 3-6 sperm/hpf; Many: Greater than 6 sperm/hpf.
2. Resulting is through the use of the keypad built for the Post V. The choices are “@PVAS, Rare, Few, Moderate or Many”. In addition to the quantization another keypad will come up so you can add “non motile sperm or motile sperm” to the quantity.
3. If no sperm are observed on the wet prep, click in the result field and choose @PVAS that states (“The presence of sperm is below the limit of detection, consistent with azoospermia”).
4. There is an interpretive message built for the test that says: “The specimen received was not concentrated to examine for the presence of sperm. The American Urological Association (AUA) Vasectomy Guideline recommends a careful evaluation of an

uncentrifuged specimen, and does not recommend centrifugation of the specimen for further assessment. If no sperm are seen in the uncentrifuged specimen, the guideline recommends reporting that the presence of sperm is below the limit of detection.

Reference Range: The Normal Reference Range is "Below the limit of detection".**”**, this is on all Post Vasectomy results reported out; you do not need to add that canned message.

# PROCEDURAL NOTES

The samples for Post Vasectomy examination do not have the urgency for delivery within

1 hour of collection, **however**; ideally the samples should be received within 4 hours.

Prolonged delays may affect the results. Some labs accept specimens only if stored at room temperature. **Samples that have been delayed in delivery or variant temperature storage prior to delivery cannot have any comment as to the motility of the sperm. State only the quantity present and a disclaimer about the motility.**

Make a comment on the patient's results and our worksheet of any delay in delivery or temperature variations.

# REFERENCES

1. Body Fluids, by Carl P. Kjeldsberg and Joseph A. Knight, Second edition, pp. 118-119.

## WHO. WHO Laboratory Manual for the Examination and processing of human semen, 5th ed., WHO 2010

1. CAP, 04.21.2014; HEM.35661