HealthPartners/GHI

Semen Analysis Specimen Collection Procedure **Fertility and Post Vas (with and without motility)**	**Attachments** ☐ Yes ☒ No
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APPROVAL(S) Laboratory Medical Director	

Semen Analysis: Fertility
Clinic Lab Procedure (Pages 1-4)
Computer Test (Page 5)

I. PURPOSE/PRINCIPLE

Semen is a composite solution formed by the testes and the accessory male reproductive organs. It consists of spermatozoa suspended in seminal fluid. Examination of the semen is usually performed as part of a fertility workup.

II. POLICY

Laboratory Staff will follow the approved techniques outlined in this procedure.

Specimen:

Patient is given written instructions and sterile urine container. If patient can only collect sample through intercourse, a non-spermaticidal condom must be used. Lubricants for collection are not recommended, but if requested, **only use** the lubricant supplied by Mayo.

Some males experience retrograde ejaculation due to neuroanatomic disease. This patient is instructed to empty his bladder into the toilet, then ejaculate, and re-empty his bladder into a sterile specimen cup.

1. **Fertility**: It is recommended that the semen sample be collected following a 2-7 day period of abstinence.

   NOTE: Fertility samples can only be received Mondays-Thursday before 2:00 pm. Specimens received later than 2:00 pm or on weekends and holidays will be rejected and need to be recollected.

2. **Post-Vasectomy**: To ensure the success of the procedure, it is recommended that 2 specimens show no sperm.

Reagents/Materials

- Sterile graduated cylinder provided by Mayo
- pH Paper: Range 6.0-8.0
- Sterile pipet
- 50 ml tube containing Mayo semen dilution medium: store at 2-8˚C.
- Specimen Collection Cup
- Mayo Semen dilution media kit (Supply #T178)
- Mayo Lubricant (Supply #T035 FTL/IVF Lubricant)

III. PROCEDURES

1). Fertility or Post-Vas with Motility

a. Upon specimen arrival, obtain Mayo specimen dilution medium from the refrigerator and allow it to come to ROOM TEMPERATURE for 45-60 minutes.

b. When semen is ejaculated in a liquid form, it quickly becomes a gel or coagulum. It usually liquefies again in 10-30 minutes. Note time of collection. Ensure that 30 minutes have elapsed to allow for liquefaction before proceeding. Keep the specimen at 22˚ - 34˚ C until it is liquefied.

c. Processing at 30 minutes after collection is ideal. The specimen must be processed within two hours of collection. Specimens collected in condoms, even non-spermacidal condoms should be rejected. Specimens should be collected in the collection container provided to the patient.

d. For Fertility Only: Record appearance: Mayo suggests recording as normal, red, dark yellow, green, or brown. Clear, milky, white, pale yellow, yellow, or translucent samples can be considered normal.

e. For Fertility or Post-Vas Motility: Swirl specimen to obtain a homogeneous mixture and pour the entire specimen into the 15 ml sterile graduated cylinder provided by Mayo. The cylinder has 0.5 ml graduations. Interpolate to record the volume to nearest 0.1 ml.

   OR

   Use a sterile 5 ml pipette to mix by drawing the specimen up and down in the pipette. Observe the volume to the nearest 0.1 ml.

f. For Fertility Only: Observe viscosity as the specimen is poured into the diluent, which is now at room temperature. Viscosity is graded on a 1-4 scale.

   1 = a thick semi-solid mass which cannot be fractionated when pouring or may not be able to be pipetted.

   4 = capable of being poured in single small droplets without strings.

   2 and 3 = between the 1 and 4 extremes, judge according to capability of being fractionated into droplets.

For Post-vas with motility only: Pour specimen into the diluent which is now at room temperature.

g. Cap the diluent vial containing the specimen securely, invert to mix, and label, with the Sunquest label.

h. For Fertility Only: Maintain sterility of the specimen when obtaining the pH. This may be done by touching the pH paper to the residue inside the collection cup or measuring cylinder or by touching the tip of the pipet used to measure volume. (Make sure there is adequate sample to check pH before it is all put in the diluent.) Record immediate pH observation.

i. Specimen is to be maintained at a temperature range of 22˚ - 34˚ C.

j. Record the following in MEM, Worksheet SF1_ _ :
Days Abstinence - Fertility or Post-Vas testing:
Appearance
Volume - Fertility or PostVas testing:
pH
Viscosity

k. Complete a manual order form for Mayo Medical Laboratories.

l. Place diluent containing specimen in the ambient Mayo Styrofoam pack. Also include the Mayo order form and an IRA with your results.

m. Send specimens to Mayo the same day of collection, via the Mayo courier.

2). Retrograde Sample:

Send entire urine specimen, with Mayo order form, the same day of collection to Mayo.

3). Post Vas – no motility:

a. Patient should be given collection instructions along with specimen collection container.

b. Specimen should arrive at the laboratory no later than 2 p.m. Monday through Friday.

c. Make sure that the information at the bottom of the instruction sheet is handed in with the specimen.

d. Make sure that the specimen cup is labeled with patient information.

e. Specimen is sent to Central Lab in reroute for testing.

Reference Range:

PH	7.2 – 8.0
Appearance	clear, milky, white, pale yellow, yellow, translucent
Motility	see reference lab expected values
Forward Progression	see reference lab expected values
Viscosity	3-4
Volume	≥ 2.0 ml
Count	see reference lab expected values
Morphology	see reference lab expected values
Fructose	positive

REFERENCES

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RELATED DOCUMENTS

APPENDIXES

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IV. DEFINITIONS

V. COMPLIANCE

Failure to comply with this policy or the procedures may result in disciplinary action, up to and including termination.

VI. ATTACHMENTS

VII. OTHER RESOURCES

VIII. ENDORSEMENT

Laboratory Administration

Computer Order and Result Entry

SEMEN ANALYSIS: FERTILITY, POS VASECTOMY, POST VASECTOMY WITH MOTILITY

Order Codes: FERTS, PVAS, PVMOT
FERTS includes: SFERT & XPART

ORDERING:

For FERTS, after the computer has assigned an accession number in RE, you will be prompted for the following:

CODE	NAME	RESPONSE
PCHT	Partner's Chart #	· Enter female partner chart number, · String numbers, no hyphen · <Return> if no partner information to auto result with NOG (Information Not Given)
PNME	Partner's Name	· Free text partner's name: ;Last name, first name · <Return> if no partner information to auto result with NOG (Information Not Given)

RESULTING:

WORKSHEET #1 for SFERT and PVMOT:
Function MEM Worksheet SF1_ _ (Semen Fertility, Part 1)

RESPONSE:
Perform the following tests before adding semen to the transport media.

CODE	NAME	RESPONSE
SABST PVABS	Abstinence PVas Abstinence	· Enter number (of days)
SVOL PVVOL	Semen Volume PVas Volume	· Enter volume to nearest tenth (ex. 5.5)
SAPPR	Appearance	· NORML (Normal), DYEL (Dark Yellow), RED ***NOTE:*** Clear, Milky, White. Translucent, Yellow and Pale Yellow are considered Normal
SMPH	pH	· Enter pH to nearest tenth (ex. 5.5)
SVIS	Viscosity	· Enter 4, 3, 2, 1 (Computer will remind you that 4=Drops and 1=Solid Mass)

Enter the above results into the computer. Print IRA and include with manual order form and specimen in Mayo package.

ADDITIONAL INFORMATION:
Mayo results will print to Lab Computer Support; results will be entered by Lab Computer Support Staff. If you receive hard copy reports at the clinic, please fax to Lab Computer Support at 952-883-5880.

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