Lesson 61: Collecting Fecal or Urine Specimens/Hemoccult Testing

I. Overview of Specimen Collection
   A. A function of the QMA is to collect urine and/or fecal specimens per a physician’s order.
   B. Fecal specimens may be collected to test for the presence of ova and parasites or for hemoccult testing.
   C. Urine specimens may be collected for diabetic urine testing or to send the specimen for analysis and culture and sensitivity testing if the resident has a suspected urinary tract infection.
   D. Acceptance of improperly collected specimens, or one that has been delayed, may affect the outcome of the test results, and delay treatment to the resident.

II. Procedure for Fecal Collection
   A. Materials needed to collect fecal specimens:
      1. Disposable clean gloves.
      2. Bedpan and cover or toilet hat.
      3. Specimen container and lid (note* assess container for potential expiration date).
      4. Label.
      5. Wooden tongue blades.
      6. Biohazard bags for used tongue blades and the specimen.

   B. Collection
      1. Explain the procedure to the resident. Ask the resident to notify you when he/she feels the urge to have a bowel movement.
      2. Label the container.
      3. Perform INITIAL STEPS.
      4. Give the bedpan when the resident is ready. If the resident will be using the toilet, place a receptacle, such as the toilet hat, toward the back of the toilet. Instruct the resident not to urinate into the specimen or place toilet paper in the specimen.
      5. Once the resident has defecated (remove the pan if used), use the tongue blade to transfer a portion of the feces to the container. Do not touch the specimen.
      6. Take a portion of feces from three different areas of the stool specimen with the wooden tongue blade. Scoop small amounts of stool into the container until it is half full.
      7. Replace the lid to cover the container. Note any special examination of the specimen requested. Prepare the specimen for transport to a laboratory by placing the container in a sealed plastic bag labeled as biohazardous with resident name, date and time.
         a. Place in the designated refrigerator until lab picks up the specimen.
         b. Discard gloves and wash hands.
         c. Notify the nurse that the specimen was obtained.
         d. Report any abnormal findings to the nurse.
         e. Document the procedure.
         f. If the test is to be conducted by the QMA (i.e., hemoccult testing), proceed to the ordered test.
      8. In the event that an entire stool would need to be tested, obtain a larger container.
      9. Depending on the type of test ordered by the physician, the collection container may contain a poisonous fluid.
         a. DO NOT discard this fluid.
         b. Always keep the collection container inaccessible to confused residents.
         c. Only fill the container to the fill line with the sample so as not to overfill or underfill the container.
            i. For stool cultures, there should be equal parts of fluid and stool in the container.
            ii. For parasite testing, there should be four parts fluid to one part stool specimen.

III. Procedure for Urine Collection
A. Materials needed to collect urine specimens:
1. covered specimen bottle or container (wide mouthed)
2. label
3. bedpan, toilet hat, or urinal
4. gloves

B. Collection
1. Explain the procedure to the resident. Ask the resident to notify you when he/she feels the urge to void.
2. Prepare label.
3. Perform INITIAL STEPS.
4. If collecting a clean catch midstream (CCMS) specimen, the recommended technique includes obtaining two packets of cleansing wipes and a urine cup. (Take care not to touch inside the cup or lid with your fingers).
   a. Remove the wipes from both packages and take them with the urine cup to the toilet.
   b. Remove as much of the resident’s clothing as necessary to spread the knees wide apart. Have the resident sit as far back on the toilet as possible.
   c. For the female, use one hand to open the flaps of skin around the meatus. With the first wipe, clean the meatus from front to back. Discard the wipe. Repeat with the second wipe. For the male, cleanse the meatus beginning at urethral opening and moving toward shaft of penis; make a complete circle around penis with each wipe, discarding after each wipe.
   d. Instruct the resident to void a small amount of urine, and then stop the stream of urine. Hold the cup a few inches from the meatus and instruct the resident to continue to void into the cup until it is no more than half full.
5. If collecting a single voided routine urine sample, cleanse the resident’s genital area with soap and water and then instruct the resident to void into the specimen container or a clean receptacle or bedpan.
6. Remove the specimen as soon as possible after the resident has voided.
7. If the urine was collected in a receptacle or bedpan, pour approximately 120 ml. of urine into the labeled specimen cup.
8. Cover the container/cup. Place the specimen cup with the sample into a biohazardous bag. Date, time and initial the specimen.
   a. Place in the designated refrigerator until lab picks up the specimen.
   b. Discard gloves and wash hands.
   c. Notify the nurse that the specimen was obtained.
   d. Report any abnormal findings to the nurse.
   e. Document the procedure in the resident’s clinical record.

IV. Hemoccult Testing
A. Overview of the hemoccult testing process
1. The QMA may perform hemoccult testing on stool specimens as ordered by a physician.
2. Hemoccult testing is a screen for fecal occult blood.
3. To ensure validity of the results, resident samples should be tested for a period of three consecutive days, if possible, or as specifically ordered by the physician.

V. Procedure
Always refer to the manufacturer’s instructions for the brand of testing product utilized. General procedure is as follows:
A. Gather Equipment/Supplies
   1. Hemoccult test slide (guaiac paper) – assess for expiration date
   2. Hemoccult developer (stabilized aqueous solution, <5% hydrogen peroxide, 75% denatured alcohol) – assess for expiration date
   3. Applicator sticks
   4. Personal protective equipment (PPE)
5. Watch or timer

B. Perform INITIAL STEPS.

C. Assist the resident to the bathroom where a hat has been placed in the commode for specimen collection. If the resident is unable to ambulate to the bathroom, assist the resident on a bedside commode or onto a bedpan.

D. Instruct the resident not to void into specimen.

E. Sample Collection
   1. Maintaining Standard Precautions:
      a. Collect a small amount of fecal sample in a clean dry container, or a smear may be directly applied to test slide.
   2. The sample should not contain visible blood, and should not be collected during periods of active bleeding.

Testing Procedure: Resident Sample Testing
   1. Properly label test slide with resident’s name.
   2. Open the front flap of the slide.
   3. Using specimen applicator stick, apply thin smear of fecal sample inside one window.
   4. Wipe applicator clean.
   5. Obtain second sample from different area of feces.
   6. Apply thin smear inside second window. Wipe applicator clean or discard.
   7. Close flap of slide.
   8. Open cover on back of slide and apply two drops of developer directly over each smear.
   9. Read test results within 30-60 seconds (or as indicated by the manufacturer’s instructions).
  10. Any trace of blue color present after developer is applied indicates presence of occult blood in stool. The color will begin to fade after 2-4 minutes.

F. Performance Monitoring – performed after resident specimen tests have been completed and interpreted.
   1. Apply one drop of developer in the performance control area of the slide.
   2. Interpret results within 30 seconds (or as indicated by the manufacturer’s instructions).
   3. If slide and developer are functional, blue color will appear.
   4. If performance monitor does not react as expected:
      a. Using a different in-date test slide and same developer solution, retest resident sample and performance monitor. If performance monitor reacts as expected, report resident and performance monitor results to the nurse.
      b. If performance monitor still does not react as expected, retest resident sample with test slide and developer from a different in-date test kit.
      c. If performance monitor yields expected results with test slide from different box and/or bottle of developer, discontinue use of original test kit and/or developer.
      d. If still unable to obtain expected results of performance monitor, notify the nurse.

G. Recording of Test Results
   1. Resident
      a. Any trace of blue color appearing on resident smear after application of developer is recorded as a POSITIVE result.
      b. No blue color formation in the resident test area is recorded as a NEGATIVE result.
   2. Performance Monitoring
      a. If the performance monitor turns blue within 30 seconds of developer application, record as POSITIVE.
      b. If the performance monitor shows no blue color within 30 seconds of developer application, record result as NEGATIVE.

H. Documentation
   1. The following information must be recorded on the resident’s clinical record:
      a. date and time of the test.
      b. performance monitor results
c. test slide and developer lot number and expiration date.
d. name and title of the staff member performing testing.
e. resident test results

I. Always review the manufacturer’s instructions on the hemoccult test slide as the number of drops of developer or amount of time to elapse prior to reading result may vary.

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