HEMOCCULT BLOOD, FECAL - SENSA

PRINCIPLE

Slides are used to determine if the patient's stools contain occult blood. Bleeding into the gastrointestinal tract is always abnormal. Loss of more than 50 to 75 mL of blood from the upper gastrointestinal tract imparts a dark red to black color and a tarry consistency to the stool. Persistence of a tarry appearance for two or three days suggests loss of at least 1000 mL of blood. Following this amount of bleeding, occult blood may persist for 5 to 12 days. Smaller increases in blood content may not alter the appearance of the stool, and such stools are said to contain "occult blood". The Hemoccult SENSA test is based on the oxidation of guaiac by hydrogen peroxide to a blue-colored compound. The heme portion of hemoglobin, if present in the fecal specimen, has peroxidase activity which catalyzes the oxidation of alpha-guaiaconic acid (active component of the guaiac paper) by hydrogen peroxide (active component of the developer) to form a highly conjugated blue quinone compound.

MATERIALS:
- Hemoccult SENSA developing solution
- Hemoccult SENSA slides
- Applicator or tongue blades

SPECIMEN:

STOOL ONLY

Collection:
1. Label the slide with the patient’s name, ID number or birthdate, date, and time of collection.
2. Collect a small stool sample on one end of applicator stick.
3. Apply thin smear inside Box A.
4. Use another applicator stick to obtain a second sample from a different part of the stool.
5. Apply a thin smear inside Box B.
6. Close the cover and allow to dry completely, 3-5 minutes.
7. Proceed with testing or send to Laboratory.

Preservation:
1. Slides may be developed after 3 minutes, if testing is performed at site.
2. This test is not affected by the presence of urine.

Diet:
1. For 3 days before and during stool collection avoid red meats.
2. Eat a well balanced diet including fiber such as bran cereals, fruits, and vegetables.

QUALITY CONTROL:
- Internal positive and negative controls performed with each patient test slide used.

ASSAY OF PATIENT SAMPLE:

1. Open the perforated window in the back of the slide.
2. Apply two (2) drops of developer solution to the slide directly over each specimen, i.e. 2 drops, two times.
3. Read the results within 60 seconds and record.
4. Apply one drop of the Hemoccult SENSA developer between the positive and the negative controls in the Performance Monitor Area of the
HEMOCULT BLOOD, FECAL - SENSA

Hemoccult SENSA slides after recording the patient result. Read the results within 10 seconds. The positive circle should be blue and the negative circle should remain colorless.

5. Record each patient’s internal quality control results in the log as positive or negative. If QC fails, redo the test using a new Hemoccult SENSA slide. Hemoccult SENSA slides and developer are good at room temperature through their expiration date.

TEST LIMITATIONS:

Substances that cause false positive test results:

- Red meats (beef, lamb, and liver)
- Aspirin (greater than 325 mg/day) and other non-steroidal anti-inflammatory drugs such as Ibuprofen, Indomethacin, and Naproxen.
- Corticosteroids, phenylbutazone, reserpine, anticoagulants, antimetabolites, and cancer chemotherapeutic drugs
- Alcohol in excess
- The application of antiseptic preparations containing iodine (povidone/iodine mixture)

Notes: Dietary iron supplements will not produce false-positive test results with this test.
Acetaminophen is not expected to affect test results.

The Hemoccult SENSA test more reliably detects abnormal bleeding associated with gastrointestinal disorders than standard guiac tests. As a result it will have higher sensitivity as well as a higher rate of false positives.

Substances that cause false negative test results:

- Ascorbic acid (vitamin C) in excess of 250 mg/day
- Excessive amounts of vitamin C enriched foods, citrus fruits, and juices.
- Iron supplements only if they also contain quantities of vitamin C in excess of 250 mg/day.

RESULTS:

Positive = Reactions that produce any trace of blue color on the slide.
Negative = Reactions that do not produce any trace of blue color on the slide.

REPORT METHOD:

Each test result is recorded in Meditech under Interventions, noting date and time of test, patient name and birth date, patient result, quality control test results and the initials of the person performing the test. Results are monitored by Point of Care personnel to verify adequate QC and documentation via Meditech reports.

REFERENCE RANGE:

Negative
HEMOCCULT BLOOD, FECAL - SENSA

CONFIRMATION:  Re-smear and retest any slides difficult to interpret.


AUTHOR:  Dawn Cummings,CLS,MT(ASCP)
           Point of Care Testing Supervisor

APPROVED:  Steve Rademaker,CLS, MT(ASCP)
            Clinical Laboratory Manager

DATE: _________________

APPROVED:  Pete Fisher, MD
            Laboratory Director

DATE: _________________

Revised-Document Table

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See POC [Table of Contents](#) for documentation of Implementation, Review, Revision.