

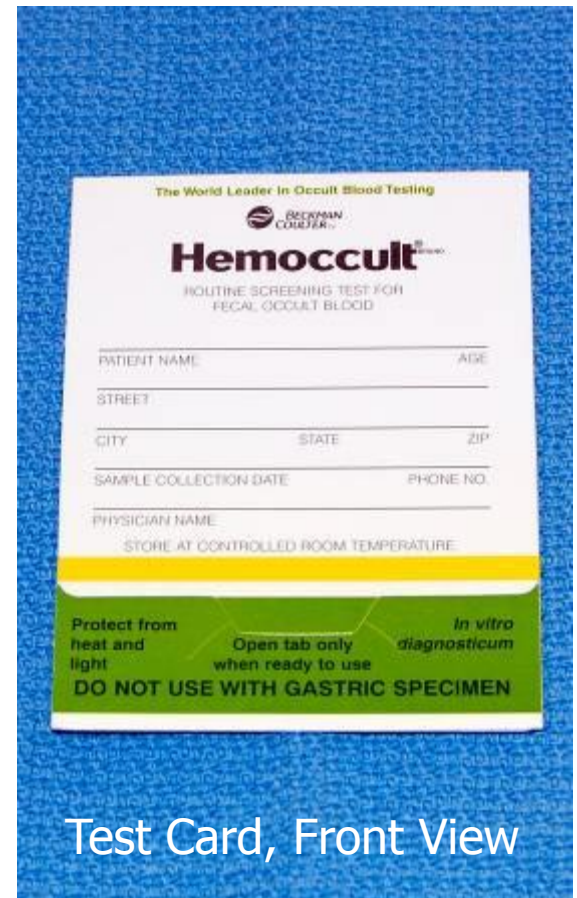


Point of Care Testing:

Hemoccult [®] Fecal Occult Blood

Purpose (Indications)

- Investigation for presence of occult (hidden) blood in stool during routine physical examination.
- Verification of suspected blood in stool in patients who are at risk for gastrointestinal bleeding or present with signs and symptoms suggestive of blood loss from the GI tract.
- **Fecal occult blood POCT is not recommended** for colorectal cancer screening, as bleeding may be intermittent. For this indication, patients should be given test cards for home use on serial samples, along with instructions and guidelines on dietary and medication restrictions before testing.



Test Card, Front View



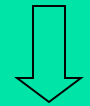
Principle

- The test card contains white paper impregnated with guaiac resin which turns blue in the presence of hemoglobin (after adding hydrogen peroxide, H_2O_2)
- The blue color results from oxidation of guaiac by H_2O_2 (the active ingredient in the developer fluid) in the presence of heme.
- The catalytic action of heme results from its peroxidase activity – animal heme in meat and plant peroxidases in certain foods also has peroxidase activity – which explains some of the false positive reactions that can occur.

Guaiac
Resin

+Heme

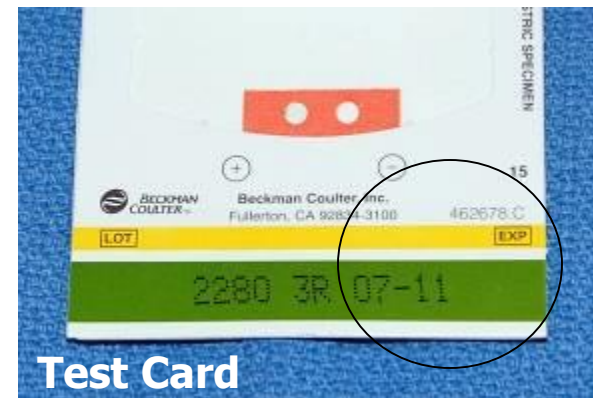
+ H_2O_2



Blue
Color

Equipment

- Hemocult ® Test Cards and Developer
- Both have separate expiration dates
- Do not use either past their respective dates of expiration



Expiration Dates Are Circled

Sample

- The Hemoccult® test requires only a small fecal specimen.
- The specimen is applied to the guaiac paper of the Hemoccult® card as a **THIN SMEAR** using the applicator stick provided or gloved finger, as shown here.
- Apply sample to both box A and B when collecting fecal material from different areas



Testing

- **Wait 3-5 minutes** after applying the sample until developing the test to allow adequate time for sample to penetrate the test paper.
- Open back of slide and apply 2 drops of Hemoccult Developer to guaiac paper directly over each smear.
- **Read results within 60 seconds**
- any trace of blue on or at the edge of the smear is positive for occult blood.



Positive Result

Quality Control

- The Performance Monitor® (PM) areas **must** be developed on every slide.
- Apply **one drop** of Hemocult® Developer between the positive and negative PM® areas.
- **Read results within 10 seconds** - a blue color in the positive PM® area and absence of blue in the negative PM® area indicates that card and developer are functional.
- **Do not** record test results, unless the expected color reactions were obtained in the two PM ® areas – this serves as documentation that QC was performed and gave expected results.



Quality Control Acceptable

Limitations



- A negative test result does not rule out intermittent bleeding or non-uniform distribution of blood in feces, and can result from high dose dietary or supplemental Vitamin C.
- A **false positive** result may be obtained on healthy persons due to dietary interferences (red meat), Aspirin greater than 325 mg/day or medications (NSAIDs, corticosteroids, anticoagulants, cancer chemotherapeutics, and others).
- **Do not use** Hemoccult® to test gastric samples, as the normal environment of the stomach (pH etc.) may effect test performance.



Resources

- Contact your Point of Care Department for any questions/concerns