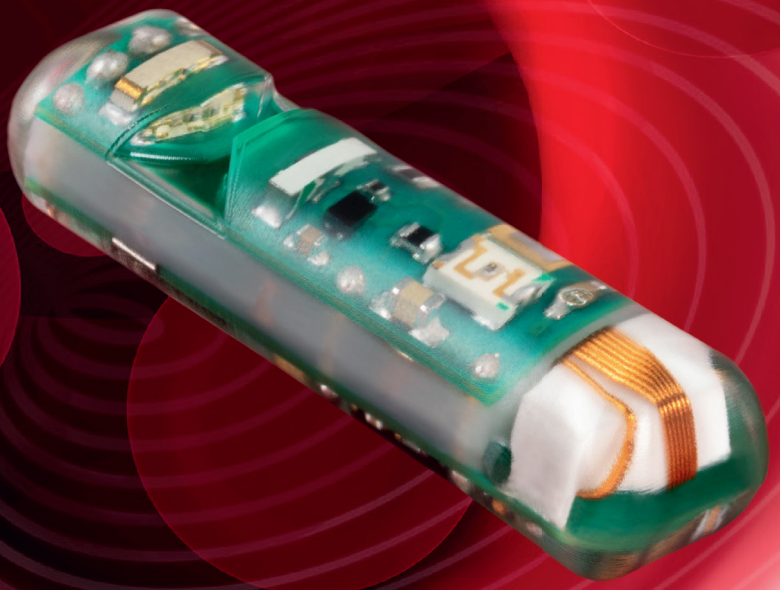
ovesco
innovation in scope



HemoPill®

Exclusion and immediate detection of acute bleeding in the esophagus, stomach and small intestine

- Quick and easy to use even in non-fasting patients
- Data is immediately available in real time without lengthy evaluation
- Helps to prioritize endoscopies and determine their timing

HemoPill®

HemoPill® is an innovative solution for the immediate detection and exclusion of acute bleeding in the esophagus, stomach and small intestine.

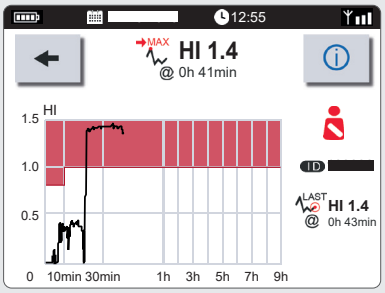
HemoPill® acute is a swallowable sensor capsule that transmits measured values wirelessly to a portable receiver (HemoPill® Receiver) and allows medical professionals to make informed, data-based decisions about the right time for an endoscopy.

- Quick and easy assessment of findings when acute GI bleeding is suspected[1], e. g. in an emergency
- Does not require patient preparation and can be used immediately[2]
- Allows rapid prioritization of endoscopic procedures on patients in the clinical daily routine or even outside of regular working hours[3]
- Different areas of applications (e. g. endoscopy, emergency room or ICU)
- Integrated microsensor with photometric measuring method for blood detection
- Detection of blood even in small volumes in the lumen
- Safe telemetric data transmission in real time for immediate assessment of findings
- Capsule has a high technical success rate (100%) and a high negative predictive value for active UGI bleedings (100%)[4]

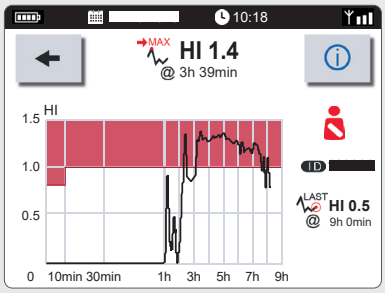
Application

Indication for immediate endoscopy[3]

Positive HemoPill® finding



Acute bleeding in the stomach
20 minutes after swallowing the HemoPill® acute, a significant increase in the HI value was observed. This indicated acute bleeding in the upper digestive tract. The examination using the HemoPill® was completed after 43 minutes and a gastroscopy was performed immediately. This showed a bleeding angiodysplasia in a gastrojujenal anastomosis, which was successfully treated.



Bleeding in the small intestine
The significant increase in the HI value after 2.5 hours was an indication of bleeding in the middle digestive tract. The examination took a total of 9 hours. A subsequent targeted double balloon enteroscopy showed angiodysplasia in the small intestine, which was treated successfully.

1 Schmidt A, Zimmermann M, Bauder M, Küllmer A, Caca K. **Novel telemetric sensor capsule for EGD urgency triage: a feasibility study**. Endoscopy International Open (2019); 07: E774–E781

2 Schostek S, Zimmermann M, Keller J, Fode M, Melbert M, Prosst R L, Gottwald T, Schurr M O. **Pre-clinical study on a telemetric gastric sensor for recognition of acute upper gastrointestinal bleeding: the "HemoPill monitor"**. Surgical Endoscopy (2019); 34: 888–989

HEMOPILL® RECEIVER

HEMOPILL® ACUTE

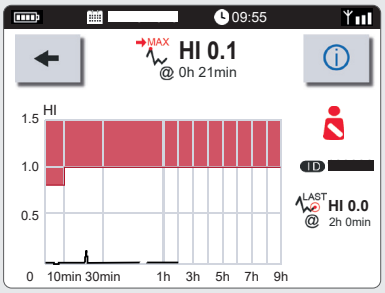
The HemoPill® acute is quick and easy to use:
The capsule is connected to the receiver and swallowed by the patient. The capsule then moves along the GI tract through peristalsis. The maximum measurement time is 9 hours.

Based on the HemoPill® indicator (HI value), which is displayed on the HemoPill® Receiver, acute bleeding is detected immediately during the examination. A positive result (display in the red diagram area) means the detection of blood or hematin.

Scan here to watch the application video!

Avoiding emergency endoscopy[3]

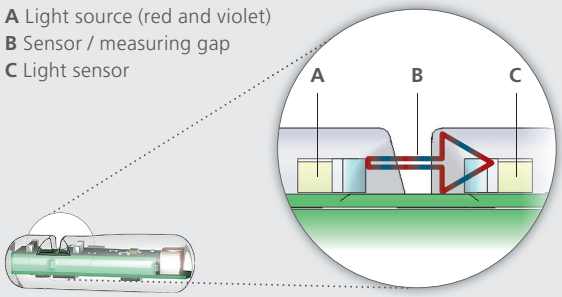
Negative HemoPill® finding



Excluding upper GI bleeding
No increase in the HI value was observed after the capsule was swallowed. Further differential diagnostics identified an aortic dissection as the cause of the anaemia detected in the emergency room. This meant that the patient did not need to undergo an endoscopy.

Sensor principle

A Light source (red and violet)
B Sensor / measuring gap
C Light sensor



The HemoPill® acute capsule has a measuring gap that is supplied alternately with light of different wave lenghts. Depending on the medium in the measuring gap (e.g. blood, gastric juice), the light beam is absorbed to varying degrees. If blood is detected, this results in a high HI value, i.e. HI ≥ 0,8 within 10 minutes or HI ≥ 1,0 from 10 minutes after swallwoing.

3 Brunk T, Schmidt A, Hochberger J, Wedi E, Meier B, Braun G, Neser F, Schneider M, Kandler J, Bauerfeind P, Repp M, Weingart V, Brand M, Caca K, Wannhoff A, Messmann H, Karpynec S, Kubisch I, Albert J, Neuhaus H, Schmitz L, Allescher HD, Meining A, Kuellmer A. T**elemetric capsule-based upper gastrointestinal tract – blood detection – first multicentric experience.** Minimally Invasive Therapy & Allied Technologies (2021); 3: 1-8

4 Brand M, Vogt G, Weich A, Hann A, Kudlich T, Weber M, Wedi E, Kuellmer A, Schmidt A, Brunk T, Meining A. **Use of a novel photometric capsule in suspected nonvariceal upper gastrointestinal bleeding a prospective multicenter study.** Poster Presentation. UEG Week. October 12-15, Vienna.

HemoPill®

Details and components

The product line consists of a sensor capsule and a portable receiver for immediate detection of acute bleeding in the esophagus, stomach and small intestine.

HEMOPILL® ACUTE

Small, swallowable capsule with optical sensor

- Blood detection by direct measurement of blood in the sensor gap, even in an unprepared digestive tract
- Wireless transmission of measured values to the HemoPill® Receiver
- Sterile single-use product

Max. measuring time [h]	Size [mm]	Packaging unit	Ref.Nr.
9	Max. Ø = 7 L = 26.3	5	**500.01**

HEMOPILL® RECEIVER

Portable receiver for displaying and storing measured values from the HemoPill® acute

- Measured values displayed in real time
- Color display & touchscreen
- User-friendly handling with integrated battery
- Easy data access with straightforward menu navigation

Max. measuring time [h]	Size [mm]	Packaging unit	Ref.Nr.
40 (rechargeable)	W = 96, H = 145, T = 37	1	**500.20**

Accessories

HemoPill® Printer

Thermal printer for printing the findings

The HemoPill® Printer is considered an optional accessory for the HemoPill® Receiver and can be ordered separately.

Durability of the printout	Packaging units	Ref.Nr.
25 years	1x HemoPill® Printer, 5 paper rolls	**500.30**

Further information and product details can be found in the instructions for use.

HemoPill®_BR_eng_Rev4_2025-01-20_800102

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