

HEMTM CHECK

Point of care hemolysis detection
– making every sample count



THE CONCEPT

Hemcheck's unique product concept consists of three separate parts; a disposable test for vacuum tubes, a disposable test for syringes and a joint reader for quick and reliable answers. The concept was developed in close collaboration with medical staff and with focus on reliability, usability and safety.

V-TEST FOR VACUUM TUBES

Single-use tests for vacuum tubes are possible using a cylindrical plastic housing with a reading window adapted for the reader. The blood sample is handled in a completely closed way, as the cap on the vacuum tube does not need to be opened. The hemolysis test is activated by penetrating a needle through the cap membrane of the blood sample tube for dispensing of blood. The whole blood is separated into plasma/serum instantly. A needle guard protects the user from needlestick injuries.

In a collaboration with one of the largest emergency departments in the Nordics, Hemcheck reduced the rate of hemolyzed samples in a clinical study with 54%. The included samples were destined for clinical chemistry testing. The concept was used in routine care by a group of 14 healthcare professionals, which in a survey gave 100% support to continue using the product after the study.

Another study at a Swedish emergency department showed that Helge, at a cut-off of 0,5 g/L hemoglobin in plasma, has a sensitivity of 81% and a specificity of 98% (PPV: 80% and NPV: 98%).

THE READER

For easy and user-friendly analysis of disposable tests, there is a joint reader that signals if the blood sample is hemolyzed or not. The reader is activated by simply pressing a button, starting the hemolysis evaluation of the disposable test. A photometric analysis of plasma/serum is performed. The binary result is communicated through a red or a green indicator led.

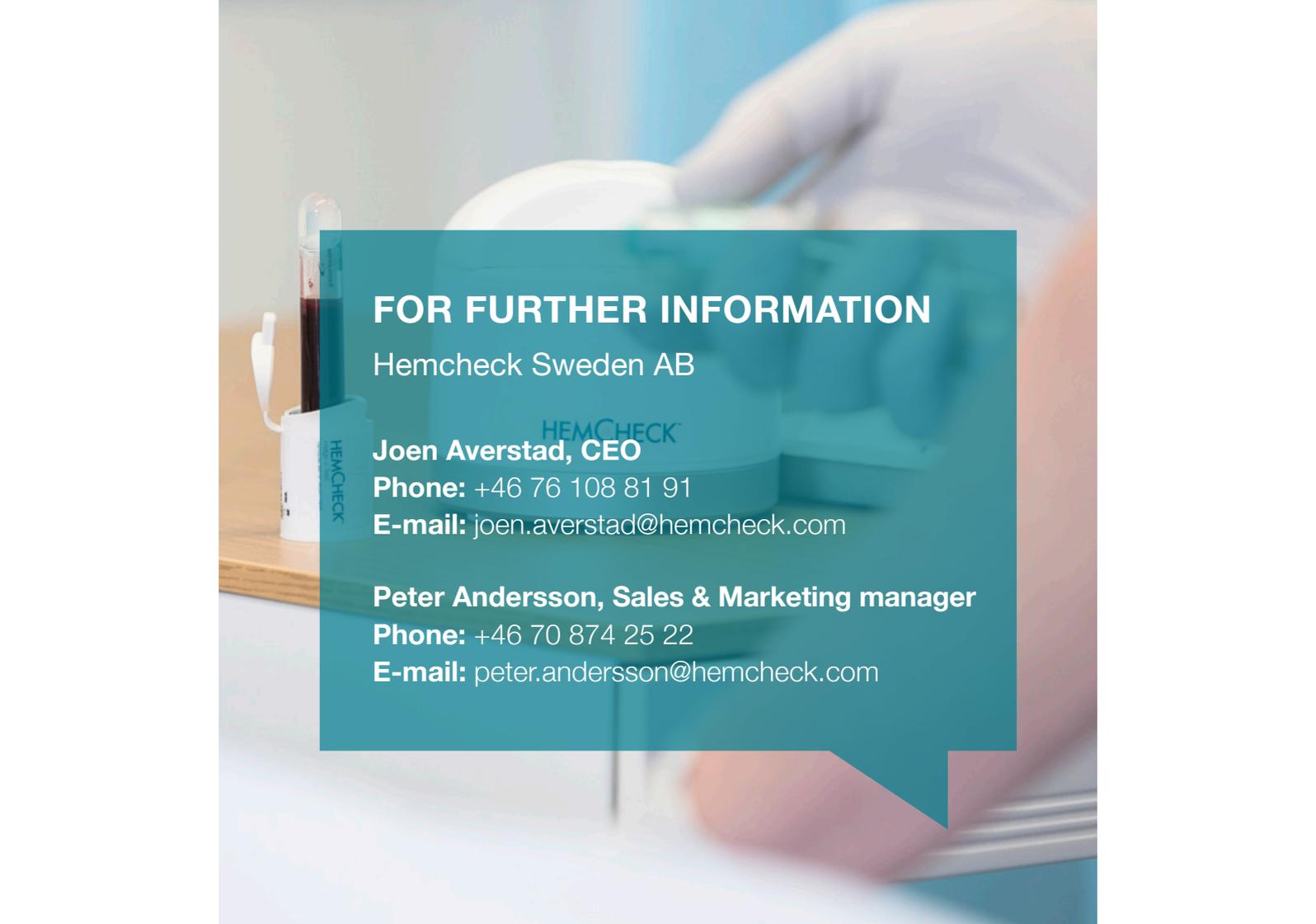
The reader is robust and easy to use and can effortlessly be moved between different health care environments thanks to a rechargeable and environmentally friendly battery, which allows for a high number of tests on a single charge.

S-TEST FOR BLOOD GAS SYRINGES

Blood gas analysis is frequently used in emergency rooms and intensive care units and is currently done without the possibility of detecting hemolyzed blood, as this function is lacking in all blood gas analyzers. Thanks to Helge, hemolysis detection in blood gas syringes is now possible either during the blood gas collection or in connection with the blood gas analysis. The s-Test functions in a similar way as the v-Test only with different dispensing techniques.

Hemcheck has run a clinical study at a Swedish emergency Department showing hemolysis levels of 8 % in blood gas samples. The study also showed that Helge, at a cut-off of 0,5 g/L hemoglobin in plasma, has a sensitivity of 80% and a specificity of 99% (PPV: 89% and NPV: 98%).





FOR FURTHER INFORMATION

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ABOUT US

With the vision to create hemolysis free blood sampling to ensure safe and effective health care delivery, Hemcheck is manufacturing and marketing a CE-marked product concept, Helge, for point of care hemolysis detection. Hemolysis, ruptured red blood cells, is the most common reason that blood samples cannot be analyzed. Hemolysis is present across healthcare settings and it is e.g. common that 5-12 % of blood samples are hemolyzed in emergency departments.

This will delay and may complicate medical decisions, which increases costs, may risk patient safety, lowers the quality of care and increases the work load on healthcare staff.

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