

# Key Trainer Surgery Handbook

## Siemens DCA Vantage HbA1c Analyser



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## **Introduction to Point of Care**

This handbook has been compiled by the Point of Care Testing Department (PoCT) for LTHT to help you, the healthcare professional, achieve consistently reliable and accurate results. It also hopes to explain the importance of good practice when producing laboratory results outside of the Pathology environment.

The different sections of the booklet cover aspects of working with the Siemens DCA Vantage HbA1c Analyser including routine use and quality control.

On completing this training all users should be able to analyse samples obtaining an accurate result whilst minimising risk to themselves and patients.

## **Ensuring Quality**

Leeds Teaching Hospitals Trust Pathology service is required to meet the nationally agreed standards set by UKAS, the national accreditation body recognised by the UK Government. A standard is a document that provides requirements, specifications, guidelines or characteristics that can be used consistently to ensure that materials, products, processes and services are fit for their purpose. Pathology is currently using ISO standards to assess their performance. Following the Clinical Area Standard Operating Procedure (SOP) and using the training material provided is essential to us meeting these standards.

The use of analysers by untrained staff, without adequate management supervision of the equipment and without the use of quality control procedures, can lead to misleading results and adversely affecting the treatment of patients.

## **Definitions**

**Calibration** - A set of known standards are run at different concentrations and used to assess and adjust the accuracy of the analyser.

**Internal Quality Control (IQC)** - The role of IQC is to monitor the day-to-day precision and accuracy of a given assay by comparing it to known values. This is carried out once a week. Best practice dictates both a high and low are run, ensuring accuracy at both ends of the result range.

**External Quality Assurance (EQA)** - The role of EQA is to provide a broader comparison. Enrolling in an EQA scheme allows one analyser's results to be compared to many others, both of similar and different methods. It is also performed by a member of staff and so can be used to monitor user proficiency.

## **Key Trainer Role**

The key trainer's role is to cascade training from the POCT department to all members of ward staff who are required to use the Siemens DCA Vantage analyser. They must ensure all necessary training steps are completed before informing POCT of completed training.

**Key Trainers will be expected to attend training session updates and relay any changes in practice.**

# Training for Siemens DCA Vantage HbA1c Analyser

## Objective

This competency covers the micro sample finger prick blood HbA1c analysis using the DCA Vantage analyser in a Point of Care (POCT) setting

## Assessment

This assessment is relevant to anyone required to carry out patient testing on the Siemens DCA Vantage Analyser. This includes having an understanding of how to collect an appropriate sample, how to use the analyser to perform a patient test, all relevant health and safety issues, who to contact for machine failure and the importance of password protection.

## Other Helpful Documents

- [DCA Vantage User Guide](#)
- [Use of the Siemens DCA Vantage Analyser SOP](#)
- [DCA Vantage Surgery Handbook](#)
- [DCA Vantage Operator Manual](#)
- [DCA Vantage Order Form](#)

This document is for use within the Leeds Teaching Hospitals NHS Trust ONLY. It should not be printed, but accessed electronically so that only the most up to date instructions are available.

**PLEASE NOTE: The sharing of passwords is against Trust policy, both the Data protection policy and the use of computers policy. Every member of staff is required to undertake mandatory Information Governance (IG) training and should be aware of this. Sharing passwords breaks principle 7 of the Data Protection Act (1998), which could be interpreted as unauthorised processing. This is unlawful under section 55 of the Act. It is also an offence under the Computer Misuse Act (1990).**

## Training Steps

The below steps are required for a staff member to be trained and gain access to the equipment. All documents that require completion during training can be found in the pages below.



# Observational Assessment: Performing a patient test on the DCA Vantage

The following assessment must be completed by the trainee and observed by the key trainer to certify them as competent before the training register is submitted to Point of Care.

<u>Knowledge</u>	
1	Has the member of staff read the DCA User Guide [ <a href="#">BSF2POC142</a> ]?
2	Has the member of staff completed the questions (optional)?
<u>Competency</u>	
Sampling can be done with either patient or QC sample	
3	<b>Did the member of staff correctly use the relevant ID</b> Operator- ID? QC or Patient's ID?
4	<b>Sample analysis using QC or patient sample</b> Was the user able to analyse a QC or patient sample correctly?
5	<b>Did the member of staff demonstrate effective health and safety measures?</b> Were gloves worn? Were the used lancet and cartridge disposed of correctly in a sharps bin or clinical waste bin?
<u>Skills</u>	
6	<b>Maintenance</b> Does the user know how to change the air filter? Does the user know how to run the optical test cartridge, interpret and document the result?
7	<b>Result Reporting</b> Were the results documented appropriately according to the Surgery's protocol?

Once all competencies have been completed and observed, please complete the training register and email to Point of Care Testing at [leedsth-tr.pointofcare@nhs.net](mailto:leedsth-tr.pointofcare@nhs.net)

This is to certify that

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has completed the

## Siemens DCA Vantage Training

This staff member is certified as competent and will have access to the analyser for 2 years from the date of training

Trainer Name \_\_\_\_\_

Trainer Signature \_\_\_\_\_

Training Date \_\_\_\_\_



For more details on performing HbA1c tests on the DCA Vantage analyser please access the DCA Vantage User Guide [[BSF2POC142](#)] via the Pathology Intranet

## **Multiple Choice Questions**

Circle correct answers

1. **What is the measuring range of the DCA Vantage Analyser?**
  - a. 4 - 130 mmol/mol
  - b. 40 - 100 mmol/mol
  
2. **Why is it essential to analyse QC (quality control)? Select two answers.**
  - a. To check user technique
  - b. To clean the meter
  - c. To ensure the meter is working correctly
  
3. **How long are cartridges stable for once at room temperature?**
  - a. 3 weeks
  - b. 1 month
  - c. 3 months
  
4. **How long should reconstituted IQC material be stored before discarding?**
  - a. 1 month
  - b. 3 months
  - c. 6 months
  
5. **How often should a QC test be run?**
  - a. Every 24 hours
  - b. Weekly
  - c. Monthly
  
6. **Who is allowed to use your access code?**
  - a. Any trained staff members in the department
  - b. Anyone
  - c. Only me
  - d. Senior staff members
  
7. **HbA1c testing is inappropriate in which of the following medical conditions?**
  - a. Iron deficiency
  - b. Chronic kidney disease and chronic liver disease
  - c. Conditions giving increased red cell turnover e.g. haemoglobinopathies and recent blood donation
  - d. All of the above
  
8. **What maintenance should you perform weekly on the analyser?**
  - a. Clean the analyser surface
  - b. Clean the barcode window
  - c. Both
  
9. **What forms of patient ID are acceptable?**
  - a. PAS number or NHS number
  - b. Case note number or bed number
  - c. 0 for unknown patient
  - d. All of the above

## Multiple Choice Questions - Answers

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## DCA Vantage Training Register

Surgery:

Date of Training:

Name of Key Trainer:

Forename	Surname	Analyser Training	Access Code	E-mail address	Observational Assessment Complete
<i>e.g. JOE</i>	<i>BLOGGS</i>	<i>DCA</i>	<i>1234567</i>	<i>Joe.bloggs1234@nhs.net</i>	✓