From 2009/10, the NHS in England has been instructed to implement a uniform and universal vascular risk assessment and management programme called “NHS Health Check” for everyone between 40 and 74 years of age. The programme will assess people’s risk of heart disease, stroke, kidney disease and diabetes (collectively referred to as vascular disease for the purpose of the programme). Healthcare professionals delivering the service will need to communicate the calculated risk in a way that customers understand and provide tailored lifestyle advice to help manage it. The check itself involves straightforward questions along with physical and biochemical measurements, including total and higher-density lipoprotein (HDL) cholesterol using a blood test.

To support this programme the NHS Centre for Evidence-based Purchasing (CEP) has published “CEP09020: A buyers’ guide to point-of-care devices for cholesterol measurement”. The guide reviews all devices that are commercially available in the UK and can be used for point-of-care testing (POCT) of total and/or HDL cholesterol. It includes technical, operational, economic and purchasing considerations that are important for selecting a suitable device. It also highlights which devices can be used to deliver the NHS Health Check programme. The guide is freely available to all pharmacists and can be downloaded from www.pasa.nhs.uk/cep.

The guide aims to support the vascular risk assessment programme by enabling service providers and commissioners to choose a device that best suits their needs. It includes a comparison of available devices, a discussion of their advantages and disadvantages for POCT, a brief summary of any published evidence or independent studies carried out on each device and any relevant manufacturer’s data.

Content
The document begins by summarising all available literature relating to POCT and compares its use to laboratory-based methods. The evidence that NHS CEP reviewed suggests that POCT devices are mainly used by non-laboratory personnel. Inappropriate specimen collection and processing can invalidate results regardless of the quality, accuracy and precision of the system. However, these tests are capable of achieving high levels of accuracy and precision provided the user receives adequate training on how to collect and handle samples correctly.

A random, non-fasting cholesterol test is required for the NHS Health Check programme. It is worth noting that, when calculating vascular risk using Framingham or QRISK2 criteria, both total and HDL cholesterol measurements are required. The buyers’ guide describes all six devices available in the UK to measure cholesterol levels. However, when the guide was published, only four met the criteria specified by the Department of Health for NHS Health Check. The functions available, purchase costs and reagent costs for these four devices are provided in Box 1 (overleaf). These costs will be a consideration when setting up vascular screening programmes although many pharmacies will be reimbursed for equipment and consumables by their primary care trust.

Who should read it?
Community pharmacists who are setting up screening programmes must consider which POCT device best suits their needs and matches the requirements of the NHS Health Check programme. The CEP guide provides independent information on those devices that are currently available in the UK. It will allow pharmacists and primary care commissioners to make an informed decision on which devices to purchase and what training and support will be required to perform testing accurately.

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### Box 1: Comparison of devices available in the UK to measure cholesterol levels

<table>
<thead>
<tr>
<th>Device</th>
<th>Portable Devices</th>
<th>Desktop Devices</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CardioChek PA</strong></td>
<td>£479</td>
<td>£3,600</td>
</tr>
<tr>
<td><strong>Cholestech LDX</strong></td>
<td>£950 (without printer)</td>
<td>£13,490</td>
</tr>
<tr>
<td><strong>Reflotron Plus</strong></td>
<td>£7.65 (pack size of 10) — cassettes for TC and HDL</td>
<td>£0.97 (pack size of 30) — strips for TC</td>
</tr>
<tr>
<td><strong>Piccolo xpress</strong></td>
<td>£10.64 (pack size of 10) — single-use reagent rotors for TC, HDL and TG</td>
<td>£10.64 (pack size of 10) — single-use reagent rotors for TC, HDL and TG</td>
</tr>
</tbody>
</table>

#### Price Details

- **Device Price (excl VAT)**
- **Reagent Price per test (excl VAT)**

#### Tests Available

- **CardioChek PA**
  - TC, HDL and TG
  - TC, HDL and glucose
  - HDL, TG and glucose
  - Individual tests for TC, HDL, TG, direct LDL, glucose, ketones and creatinine

- **Cholestech LDX**
  - TC and HDL
  - TC, HDL and glucose
  - TC, HDL, LDL and TG
  - TC, HDL, LDL, TG and glucose
  - Direct LDL
  - ALT and AST
  - hsCRP

- **Reflotron Plus**
  - Individual tests for TC, HDL, and TG
  - Also tests 17 other parameters including liver and renal function

- **Piccolo xpress**
  - Lipid panel (TC, HDL and TG)
  - Lipid panel plus ALT, AST and glucose
  - Other test panels

#### Key

- **TC** — total cholesterol
- **HDL** — high-density lipoprotein cholesterol
- **LDL** — low-density lipoprotein cholesterol
- **TG** — triglycerides
- **ALT/AST** — alanine/aspartate aminotransferase
- **hsCRP** — high sensitivity C-reactive protein

*The prices quoted are exclusive of VAT and delivery charges. Additional volume discounts may be available for NHS users.*