Quick! Who needs to be screened for cardiovascular disease?
Accutrend Plus: Spot on. On the spot.

References
3 Cardium Study #4, Dyslipidemia Decision Resources, Inc. Waltham, MA (2007)

COBAS, ACCUTREN and LIFE NEEDS ANSWERS are trademarks of Roche.

©2010 Roche
Roche Diagnostics Ltd.
CH-8543 Rotkreuz
Switzerland
www.roche.com
Simple monitoring, rapid results
Total cholesterol, triglycerides and blood glucose levels can be used to identify those patients at risk of CVD. Regular monitoring of these parameters provides important information about disease progression.

That is where the Accutrend® Plus system can help you. Because Accutrend Plus lets you measure the key parameters of cardiovascular disease on the spot. Safely, reliably and easily.

Appearances can be deceptive
It is a hard fact – 56.3% of people suffering from dyslipidemia have not been diagnosed.¹ This is alarming considering that conventional risk factors account for around three quarters of all cardiovascular diseases (CVD).²

Characterised by abnormal levels of cholesterol and triglycerides (TGs), dyslipidemia currently affects more than 350 million people in the USA, Europe and Japan.¹ But because it is a modifiable risk factor, this number could be improved given simple, reliable screening.

The Accutrend® Plus system gives you a fast, effective way of screening patients for CVD risk factors with immediate results.

Nearl one in three deaths is due to CVD
Cardiovascular disease (CVD) is the leading cause of death and disability in industrialised countries³–⁵ and the incidence is continually increasing.²

Quick and convenient, Accutrend Plus puts the measurement of CVD risk factors in the palm of your hand.
Using conventional methods, such as sending blood samples to a laboratory, is not always convenient. For instance, it will usually mean the patient having to return for the results, taking up valuable time and there is no guarantee that they will come back.

With the Accutrend® Plus system you have a convenient and effective way for detecting and monitoring risk factors that lets you provide the patient with an on the spot result. Where necessary you can make recommendations regarding lifestyle changes or treatment and arrange follow up appointments for monitoring.

Early detection is key
CVD is associated with, and often results from, atherosclerosis. If allowed to progress the consequence may be myocardial infarction, stroke and possibly death. The best way of reducing the burden of the disease is primary prevention and early detection.

Regular monitoring makes a difference
A significant number of patients in primary care are dyslipidemic and therefore at higher risk of cardiovascular disease. In addition, many patients with lipid disorders are either treated insufficiently or not treated at all. Point-of-care lipid testing can substantially improve recognition as well as management of dyslipidemic patients in primary care.⁶

Cardiovascular disease (CVD) is the leading cause of death and disability in industrialised countries³–⁵ and the incidence is continually increasing.²

Deaths by 2005 —— 17.1 Millions
Deaths by 2010 —— 18.1 Millions
Deaths by 2020 —— 20.5 Millions
Deaths by 2030 —— 24.2 Millions

Simple monitoring, rapid results
Total cholesterol, triglycerides and blood glucose levels can be used to identify those patients at risk of CVD. Regular monitoring of these parameters provides important information about disease progression.

Early detection is key
CVD is associated with, and often results from, atherosclerosis. If allowed to progress the consequence may be myocardial infarction, stroke and possibly death. The best way of reducing the burden of the disease is primary prevention and early detection.

Regular monitoring makes a difference
A significant number of patients in primary care are dyslipidemic and therefore at higher risk of cardiovascular disease. In addition, many patients with lipid disorders are either treated insufficiently or not treated at all. Point-of-care lipid testing can substantially improve recognition as well as management of dyslipidemic patients in primary care.⁶
With its built-in automatic performance and meter self-testing, the Accutrend® Plus system conducts multiple safety checks to prevent against potential errors and malfunction, so you can rely on accurate results.

Code strips with positive strip lot identification and parameter recognition are used to calibrate the device – an added safety feature, which ensures system performance level is maintained.

The test strips can be easily stored at room temperature. The result: high precision and accuracy across the full measuring range.

**Built-in safety for accurate results**

The Accutrend® Plus system lets you apply blood onto the strip inside or outside the meter. For example, when conducting multiple tests where cross contamination might be an issue, you can apply blood outside the device.

With its built-in automatic performance and meter self-testing, the Accutrend® Plus system conducts multiple safety checks to prevent against potential errors and malfunction, so you can rely on accurate results.

Code strips with positive strip lot identification and parameter recognition are used to calibrate the device – an added safety feature, which ensures system performance level is maintained.

The test strips can be easily stored at room temperature.

The result: high precision and accuracy across the full measuring range.

---

Detecting the risk on the spot

**Three simple steps, accurate results**

**Step One:**
Switch the instrument on and insert a test strip. A flashing arrow tells you to open the device to apply the blood sample.

**Step Two:**
Use the lancing device, collect capillary blood and apply this directly onto the strip (alternatively, you can apply blood onto the test strip outside the device and then reinsert the strip).

**Step Three:**
Close the device and wait for your results. When the measurement is complete, values are displayed and high or low values indicated.

---

*Roche 2009, data are available on request*
Patients with CVD typically have high total cholesterol in their blood. The first step in both primary and secondary preventative cholesterol-lowering therapy is assessment of the patient’s risk status.

Metabolic syndrome increases the risk of developing CVD. Metabolic syndrome increases the risk of CVD and type 2 diabetes. The worldwide prevalence is rising due to increasing obesity and sedentary lifestyles. Metabolic syndrome is estimated to be present in 24% of the US adult population and 15% for the same group in Europe.

**Diagnostic criteria for metabolic syndrome (any 3 out of 5 criteria constitute diagnosis):**
- Triglycerides $\geq 1.7$ mmol/L (150 mg/dL)
- Fasting blood glucose $\geq 5.55$ mmol/L (100 mg/dL)
- Elevated waist circumference $\geq 102$ cm in men, $\geq 88$ cm in women
- Blood pressure $\geq 130/85$ mm Hg
- Reduced HDL («good») cholesterol

### Key values to detect and monitor CVD

#### Values for serum total cholesterol

<table>
<thead>
<tr>
<th>Total cholesterol</th>
<th>mg/dL</th>
<th>mmol/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desirable</td>
<td>&lt; 200</td>
<td>&lt; 5.1</td>
</tr>
<tr>
<td>Borderline high</td>
<td>200–239</td>
<td>5.1–6.1</td>
</tr>
<tr>
<td>Very high</td>
<td>$&gt; 240$</td>
<td>$&gt; 6.2$</td>
</tr>
</tbody>
</table>

#### Values for fasting serum triglycerides

<table>
<thead>
<tr>
<th>Triglycerides</th>
<th>mg/dL</th>
<th>mmol/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>&lt; 150</td>
<td>&lt; 1.7</td>
</tr>
<tr>
<td>Borderline high</td>
<td>150–199</td>
<td>1.7–2.28</td>
</tr>
<tr>
<td>High</td>
<td>199–499</td>
<td>2.29–5.61</td>
</tr>
<tr>
<td>Very High</td>
<td>$&gt; 499$</td>
<td>$&gt; 5.62$</td>
</tr>
</tbody>
</table>

#### Fasting blood glucose

<table>
<thead>
<tr>
<th>Blood glucose</th>
<th>mg/dL</th>
<th>mmol/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal glucose tolerance 70–100</td>
<td>3.9–5.5</td>
<td></td>
</tr>
<tr>
<td>Impaired fasting glucose (pre-diabetes)</td>
<td>100–125</td>
<td>5.6–6.9</td>
</tr>
<tr>
<td>Very High</td>
<td>$&gt; 126^{**}$</td>
<td>$&gt; 7.0^{**}$</td>
</tr>
</tbody>
</table>

#### Values for fasting serum triglycerides

<table>
<thead>
<tr>
<th>Triglycerides</th>
<th>mg/dL</th>
<th>mmol/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>&lt; 150</td>
<td>&lt; 1.7</td>
</tr>
<tr>
<td>Borderline high</td>
<td>150–199</td>
<td>1.7–2.28</td>
</tr>
<tr>
<td>High</td>
<td>199–499</td>
<td>2.29–5.61</td>
</tr>
<tr>
<td>Very High</td>
<td>$&gt; 499$</td>
<td>$&gt; 5.62$</td>
</tr>
</tbody>
</table>

#### Values for serum total cholesterol

<table>
<thead>
<tr>
<th>Total cholesterol</th>
<th>mg/dL</th>
<th>mmol/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimal</td>
<td>180</td>
<td>4.1</td>
</tr>
<tr>
<td>Audit standard*</td>
<td>200</td>
<td>5.1</td>
</tr>
</tbody>
</table>

* minimum standard of care for all high-risk people

** on more than one testing occasion

---

### Accutrend Plus – Test Parameters

<table>
<thead>
<tr>
<th>Measuring Ranges (mg/dL)</th>
<th>Measuring Time (sec)</th>
<th>Small Material</th>
<th>Sample Volumes (μL)</th>
<th>Operating Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glucose</td>
<td>20–600</td>
<td>12</td>
<td>Fresh capillary</td>
<td>15–50 μL</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>150–350</td>
<td>180</td>
<td>Fresh capillary</td>
<td>15–40 μL</td>
</tr>
<tr>
<td>Triglycerides</td>
<td>70–600</td>
<td>max 174</td>
<td>Fresh capillary</td>
<td>10–40 μL</td>
</tr>
<tr>
<td>Lactate</td>
<td>0.8–22 mmol/L</td>
<td>60</td>
<td>Fresh capillary</td>
<td>15–50 μL</td>
</tr>
</tbody>
</table>

---

* American College of Endocrinology

** American Diabetic Association