

2011 Comparison of blood glucose monitoring devices

| System | Accu-Chek Performa* | CareSens II | CareSens POP | FreeStyle Lite | On Call Advanced | Optium Xceed* |
|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| |  |  |  |  |  |  |
| Supplier | Roche Diagnostics | Pharmaco | Pharmaco | Medica Limited | Airflow Products | Medica Limited |
| Manufacturer | Roche Diagnostics | i-Sens Corp | i-Sens Corp | Abbott Diabetes Care | Acon Laboratories | Abbott Diabetes Care |
| Test Strip | Accu-Chek Performa Advanced Chemistry Test Strips (Maltose Independent)  | CareSens (includes lancets) | CareSens (includes lancets) | FreeStyle Lite | On Call Advanced (includes lancets) | Optium |
| Coding | Automatic via code chip | Manual input | Manual input | Not needed | Automatic via code chip | Automatic via code strip |
| Sample volume | 0.6 µL | 0.5 µL | 0.5 µL | 0.3 µL | 0.8 µL | 0.6 µL |
| Insufficient Sample | Error message | Error message | Error message | Will not start | Error message | Will not start |
| Software | AC SmartPix, AC 360, AC Compass, AC Pocket Compass | PC Care | None | CoPilot | Diabetes Monitoring Software Kit | CoPilot |
| Test Strip packaging | Vial | Vial | Vial | Vial | Vial | Individually foil wrapped |
| Open Strip Vial Stability | Until the expiry date printed on the vial | 3 months from first open | 3 months from first open | To expiry printed on vial | 4 months from first open | To expiry printed on foil |
| Unopened Strip Vial Stability | 18 months from manufacture | 24 months from manufacture | 24 months from manufacture | 24 months from manufacture | 24 months from manufacture | 24 months from manufacture |
| Strip Expiry detection | Error message | None | None | None | None | Error message |
| Ketone Testing | X | X | X | X | X | ✓ |
| <i>Sample (in well ambulatory outpatients)</i> | | | | | | |
| - Capillary | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| - Venous | ✓ | X | X | ✓ | ✓ | X |
| - Neonatal | ✓ | X | X | X | ✓ | X |
| - Arterial | ✓ | X | X | X | ✓ | X |
| Interference from icodextrin containing dialysis fluids | No | No | No | No | Yes | No |
| Measurement range | 0.6-33.3 mmol/L | 1.1-33.3 mmol/L | 1.1-33.3 mmol/L | 1.1-27.8 mmol/L | 0.6-33.3 mmol/l | 1.1-27.8 mmol/l |
| Hematocrit Range | 10% - 65% | 20% - 60% | 20% - 60% | 15% - 65% | 20% - 70% | 30% - 60% |
| Operation Temperature | 8° - 44° C | 10° - 40° C | 10° - 40° C | 4° - 40° C | 5° - 45° C | 10° - 50° C |
| Meter memory | 500 tests | 250 tests | 10 tests | 400 tests | 300 tests | 450 tests |
| Day Average | 7, 14, 30 Day Average | 14 days | No | 7, 14, 30 Day Average | 7, 14, 30, 60, 90 Day Average | 7, 14, 30 Day Average |
| Warranty | Lifetime | 5 years | 5 years | Lifetime | 5 years | Lifetime |
| Battery | 2,000 tests | 1,000 tests | 1,000 tests | 500 tests | 3,000 tests | 1,000 tests |
| Battery Error Signal | Error message and indicator for low battery | Indicator for low battery | "LO" flashes on the screen | Indicator for low battery | Error message and indicator for low battery | Indicator for low battery |
| Website | www.accu-chek.co.nz | www.i-sens.com www.pharmaco.co.nz | www.i-sens.com www.pharmaco.co.nz | www.medica.co.nz | www.air-flow.co.nz | www.medica.co.nz |
| Customer Support | HCP: 0800 22 22 14 Patients: 0800 80 22 99 | 0800 GLUCOSE (0800 45 82 67) | 0800 GLUCOSE (0800 45 82 67) | 0800 106 100 | 0800 AIRFLOW (0800 247356) | 0800 106 100 |

Note: New FreeStyle Lite and Accu-Chek Performa test strips that are free from Icodextrin interference were introduced in October and November 2010 respectively. Please contact the relevant supplier if there is any doubt that the strips you are using are free from interference.

All meters above are calibrated to be plasma equivalent and have a test time of 5 seconds. All meters provide an operation temperature error signal. In addition to the above blood glucose monitoring devices, PHARMAC subsidises the SensoCard brand of blood glucose test strips only if prescribed for a patient who is severely visually impaired and is using a SensoCard Plus Talking Blood Glucose Monitor.

Disclaimer: The material above has been provided by the New Zealand distributors and PHARMAC makes no representation to its accuracy.