

**Xceed Precision Pro beta-ketone testing strips** (Abbott Laboratories Ltd) | 10 strip • No NHS indicative price available • Drug Tariff (Part IXr) | 50 strip • No NHS indicative price available | 100 strip • No NHS indicative price available

## Glucose interstitial fluid detection sensors

### ● GLUCOSE INTERSTITIAL FLUID DETECTION SENSORS

**FreeStyle Libre Sensor** (Abbott Laboratories Ltd)  
1 kit • NHS indicative price = £35.00 • Drug Tariff (Part IXa)

## Hypodermic insulin injection pens

### ● HYPODERMIC INSULIN INJECTION PENS

#### AUTOPEN<sup>®</sup> 24

**Autopen<sup>®</sup> 24** (for use with Sanofi - Aventis 3-mL insulin cartridges), allowing 1-unit dosage adjustment, max. 21 units (single-unit version) or 2-unit dosage adjustment, max. 42 units (2-unit version).

**Autopen 24 hypodermic insulin injection pen reusable for 3ml cartridge 1 unit dial up / range 1-21 units** (Owen Mumford Ltd)  
1 device • NHS indicative price = £16.89 • Drug Tariff (Part IXa)

**Autopen 24 hypodermic insulin injection pen reusable for 3ml cartridge 2 unit dial up / range 2-42 units** (Owen Mumford Ltd)  
1 device • NHS indicative price = £16.89 • Drug Tariff (Part IXa)

#### AUTOPEN<sup>®</sup> CLASSIC

**Autopen<sup>®</sup> Classic** (for use with Lilly and Wockhardt 3-mL insulin cartridges), allowing 1-unit dosage adjustment, max. 21 units (single-unit version) or 2-unit dosage adjustment, max. 42 units (2-unit version).

**Autopen Classic hypodermic insulin injection pen reusable for 3ml cartridge 1 unit dial up / range 1-21 units** (Owen Mumford Ltd)  
1 device • NHS indicative price = £17.15 • Drug Tariff (Part IXa)

**Autopen Classic hypodermic insulin injection pen reusable for 3ml cartridge 2 unit dial up / range 2-42 units** (Owen Mumford Ltd)  
1 device • NHS indicative price = £17.15 • Drug Tariff (Part IXa)

#### CLIKSTAR<sup>®</sup>

For use with **Lantus<sup>®</sup>**, **Apidra<sup>®</sup>**, and **Insuman<sup>®</sup>** 3-mL insulin cartridges; allowing 1-unit dose adjustment, max. 80 units.

#### HUMAPEN<sup>®</sup> LUXURA HD

For use with **Humulin<sup>®</sup>** and **Humalog<sup>®</sup>** 3-mL cartridges; allowing 0.5-unit dosage adjustment, max. 30 units.

**HumaPen Luxura HD hypodermic insulin injection pen reusable for 3ml cartridge 0.5 unit dial up / range 1-30 units** (Eli Lilly and Company Ltd)  
1 device • NHS indicative price = £27.01 • Drug Tariff (Part IXa)

#### NOVOPEIN<sup>®</sup> 4

For use with **Penfill<sup>®</sup>** 3-mL insulin cartridges; allowing 1-unit dosage adjustment, max. 60 units.

## Needle free insulin delivery systems

### ● NEEDLE FREE INSULIN DELIVERY SYSTEMS

#### INSUJET<sup>®</sup>

For use with any 10-mL vial or 3-mL cartridge of insulin, allowing 1-unit dosage adjustment, max 40 units. Available as **starter set** (**Insulet<sup>®</sup>** device, nozzle cap, nozzle and piston, 1 × 10-mL adaptor, 1 × 3-mL adaptor, 1 cartridge cap removal key), **nozzle pack** (15 nozzles), **cartridge adaptor pack** (15 adaptors), or **vial adaptor pack** (15 adaptors).

**Insulet starter set** (Spirit Healthcare Ltd)  
1 pack • NHS indicative price = £90.00 • Drug Tariff (Part IXa)

## Urine glucose testing strips

### ● URINE GLUCOSE TESTING STRIPS

**Diastix testing strips** (Ascensia Diabetes Care UK Ltd)  
50 strip • NHS indicative price = £2.89 • Drug Tariff (Part IXr)

**Medi-Test Glucose testing strips** (BHR Pharmaceuticals Ltd)  
50 strip • NHS indicative price = £2.36 • Drug Tariff (Part IXr)

## Urine ketone testing strips

### ● URINE KETONES TESTING STRIPS

**GlucoRx KetoRx Sticks 2GK testing strips** (GlucoRx Ltd)  
50 strip • NHS indicative price = £2.25 • Drug Tariff (Part IXr)

**Ketostix testing strips** (Ascensia Diabetes Care UK Ltd)  
50 strip • NHS indicative price = £3.06 • Drug Tariff (Part IXr)

## Urine protein testing strips

### ● URINE PROTEIN TESTING STRIPS

**Abultix testing strips** (Siemens Medical Solutions Diagnostics Ltd)  
50 strip • NHS indicative price = £4.10 • Drug Tariff (Part IXr)

**Medi-Test Protein 2 testing strips** (BHR Pharmaceuticals Ltd)  
50 strip • NHS indicative price = £3.31 • Drug Tariff (Part IXr)

## 3.2 Hypoglycaemia

### Hypoglycaemia

09-Apr-2020

#### Description of condition

Hypoglycaemia results from an imbalance between glucose supply, glucose utilisation, and existing insulin concentration. Clinical hypoglycaemia is defined as a blood-glucose concentration low enough to cause symptoms or signs of impaired brain function. In clinical practice, a glucose value of  $\leq 3.9$  mmol/litre is used as the threshold value to initiate treatment for hypoglycaemia in children with diabetes.

Symptoms of hypoglycaemia in the young include shakiness, pounding heart, sweatiness, headache, drowsiness, and difficulty concentrating. In young children, behavioural changes such as irritability, agitation, quietness, and tantrums, may be prominent.

Short-term complications of severe hypoglycaemia include transient neurological symptoms such as paresis, convulsions, encephalopathy, loss of consciousness, and rarely, subsequent neurological damage and mild intellectual impairment.

Diabetes mellitus, idiopathic ketotic hypoglycaemia, adrenal insufficiency, hyperinsulinism, fatty acid oxidation disorders, and glycogen storage disease (amongst others), may cause acute hypoglycaemia in children. Common clinical precipitants for hypoglycaemia in children with diabetes may include insufficient food consumption (i.e. missed meals, nocturnal hypoglycaemia), excessive insulin dosing, exercise, alcohol ingestion (in adolescents), and sulfonylureas [unlicensed].

#### Treatment of acute hypoglycaemia

For a quick reference resource with doses for the treatment of hypoglycaemia, see *Hypoglycaemia* in Medical emergencies in the community, inside back pages.

Prompt treatment of hypoglycaemia in children is essential whatever the cause. Hypoglycaemia caused by a sulfonylurea (although rarely used in children) or a long acting insulin, may persist for up to 24–36 hours following the last dose, especially if there is concurrent renal impairment (rare in children). **EvGr** Close monitoring is required and hospital care should be considered. 