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PAN MERSEY AREA PRESCRIBING COMMITTEE
PRESCRIBING POLICY STATEMENT

FIRST APC BOARD DATE: 27 JUL 2016

LAST APC BOARD DATE: 28 SEPT 2016

# GLP-1 mimetics in combination with insulin

A M B E R

The Pan Mersey Area Prescribing Committee recommends the prescribing of GLP-1 mimetics in combination with insulin for type 2 diabetes, only with specialist care advice and ongoing support from a consultant-led MDT\*.

#### PATIENT RETAINED BY SPECIALIST

Combination therapy with a GLP-1 mimetic and insulin should only be commenced by a specialist clinician. The Pan Mersey APC considers a specialist to include both GPs with a specialist interest or a non-medical prescriber specialising in the management of type 2 diabetes mellitus, provided they have access to a consultant-led multidisciplinary team (MDT)\* for ongoing care advice and support as recommend in NICE NG28.<sup>1</sup>

The Pan Mersey APC formulary currently includes the following GLP-1 mimetics: dulaglutide, exenatide, liraglutide and lixisenatide. Lixisenatide is for second line use, only when both exenatide and liraglutide are unsuitable or not tolerated. Exenatide (daily), liraglutide and lixisenatide are licensed for use with basal insulin (see table below) with or without other glucose-lowering medications.<sup>2-4</sup> Dulaglutide is licensed for use with any insulin regimen.<sup>5</sup> **Exenatide once-weekly is not recommend for use with insulin.**<sup>6</sup> Albiglutide is not recommended for prescribing by Pan Mersey APC. Basal insulin is defined as any intermediate- or long-acting insulin. Available basal insulins include:

Generic name	Available brands
Insulin detemir	Levemir®
Insulin glargine	Lantus <sup>®</sup> , Toujeo <sup>®</sup> , Abasaglar <sup>®</sup>
Insulin zinc suspension	Hypurin® Bovine Lente
Isophane insulin (NPH)	Hypurin <sup>®</sup> Bovine Isophane, Hypurin <sup>®</sup> Porcine Isophane, Insulatard <sup>®</sup> , Humulin I <sup>®</sup> , Insuman <sup>®</sup> Basal
Protamine zinc insulin	Hypurin® Bovine Protamine Zinc

The use of other insulin preparations in combination with GLP-1 mimetics (except dulaglutide) is unlicensed. Specialists may choose to initiate the use of GLP-1 mimetics in combination with other insulin preparations in an unlicensed manner. **GPs should be informed clearly if a prescribed combination is unlicensed.** It is the decision of the individual non-specialist GP to decide whether they are willing to take on continued prescribing of the unlicensed combination. If the GP does not wish to take this on, continued prescribing responsibility lies with the initiating specialist.

**Note**: Patients who are not eligible for treatment under this statement may be considered on an individual basis where their GP or consultant believes exceptional circumstances exist that warrant deviation from the rule of this policy. In this situation, follow locally defined processes.

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# GLP-1 mimetics in combination with insulin

#### **EFFECTIVENESS**

NICE NG28 states, in adults with type 2 diabetes, only offer a GLP-1 mimetic in combination with insulin with specialist care advice and ongoing support from a consultant-led multidisciplinary team. The GDG (guideline development group noted that there was a lack of evidence for combinations of GLP-1 mimetics and insulin, and therefore agreed that this option should only be offered in a specialist care setting. The GDG also noted that such treatment combinations are normally prescribed in complex cases and would therefore benefit from specialist care advice and ongoing support from a consultant-led multidisciplinary team.

#### **SAFETY**

Consult individual <u>Summary of Product Characteristics</u> for full prescribing information.

Patients receiving a combination of GLP-1 mimetic and insulin may be at increased risk of hypoglycaemia.<sup>2-4</sup> This may be managed by down titration of the insulin dose.

The manufacturers of lixisenatide state that it should not be used in combination with insulin and a sulphonylurea due to the risk of hypoglycaemia.<sup>4</sup>

### COST7

The additional annual cost of adding a GLP-1 mimetic to insulin therapy is:

Dulaglutide 1.5mg once weekly £952
Exenatide 10 micrograms twice daily £818
Liraglutide 1.2 mg once daily £941
Lixisenatide 20 micrograms once daily £753

The prescribed insulin dose is often decreased when a GLP-1 mimetic his started, meaning that the actual cost increase may be smaller than stated above.

#### PATIENT FACTORS

Consideration should be given, on an individual basis, as to whether existing insulin doses need to be adjusted when a GLP-1 mimetic is started.<sup>2-6</sup>

The combination of GLP-1 mimetic and insulin increases the number of injections must administer each day, meaning that this combination is less well tolerated by some patients.<sup>8</sup>

# PRESCRIBING INFORMATION

# **Dulaglutide (Trulicity®)**5

The recommended dose of dulaglutide as add-on therapy is 1.5mg weekly. Dulaglutide is licensed for use in combination with other glucose-lowering medicinal products including insulin, when these, together with diet and exercise, do not provide adequate glycaemic control.

# Exenatide (Byetta®)2

The starting dose of exenatide is 5 micrograms twice daily, increased after one month, if necessary, to 10 micrograms twice daily. Exenatide is licensed as adjunctive therapy to basal insulin with or without metformin and/or pioglitazone in adults who have not achieved adequate glycaemic control with these agents.

### Liraglutide (Victoza®)3

The starting dose of liraglutide is 0.6 mg once daily, which can be increased to a maximum of 1.2 mg once daily if necessary. Liraglutide is licensed for use with oral glucose-lowering medicinal products and/or basal insulin when these, together with diet and exercise, do not provide adequate glycaemic control.

# Lixisenatide (Lyxumia®)4

The starting dose of lixisenatide is 10 micrograms once daily for 14 days, followed by a fixed maintenance dose of 20 micrograms once daily. Lixisenatide is licensed for use in combination with oral glucose-lowering medicinal products and/or basal insulin when these, together with diet and exercise, do not provide adequate glycaemic control.

#### **IMPLEMENTATION NOTES**

At the current time, only the combination of basal insulin plus a GLP-1 agonist is licensed. Prescribing of unlicensed combinations remains the responsibility of the initiating clinician unless the patient's GP is willing to take on prescribing responsibility.

# **REFERENCES**

- 1. NICE NG28 Type 2 diabetes in adults: management (Dec 2015) [online] https://www.nice.org.uk/guidance/ng28
- 2. SPC Byetta 10 micrograms solution for injection, prefilled pen. [online] http://www.medicines.org.uk/emc/medicine/19257
- 3. SPC Victoza 6 mg/ml solution for injection in pre-filled pen [online] http://www.medicines.org.uk/emc/medicine/21986
- 4. SPC Lyxumia 20 micrograms solution for injection [online] http://www.medicines.org.uk/emc/medicine/27406
- 5. SPC Trulicity 1.5mg & 0.75mg solution for injection <a href="http://www.medicines.org.uk/emc/medicine/29747">http://www.medicines.org.uk/emc/medicine/29747</a>
- 6. SPC Bydureon 2mg powder and solvent for prolonged release suspension for injection <a href="http://www.medicines.org.uk/emc/medicine/29798">http://www.medicines.org.uk/emc/medicine/29798</a>
- 7. BNF 72 [online] http://www.medicinescomplete.com
- 8. Thong KY et al. Diabetes Obes Metab, 2011 Aug; 13(8):703-10. doi: 10.1111/j.1463-1326.2011.01393.x