



Diabetes Stories

Why was a rapid acting insulin biosimilar prescribed?

It is important to work out the right agent the patient and if that's a rapid acting insulin, we need to find the one that's most effective and cheapest. In general, that is a rapid acting insulin biosimilar and if you do that, you can make savings allowing investment in other areas of diabetes care.

How did you align internally the local service to use a rapid acting insulin biosimilar?

A formal switch program was arranged which involved forming a partnership between the CCG commissioning the service, primary care, secondary care and intermediate service (diabetes nurse specialists and pharmacy colleagues).

Once everybody was on board, letters were sent to patients and GP's explaining what we were trying to do and why.

Did you encounter any resistance from patients and if so, what did you do to overcome this?

We got very little, if any concerns raised by patients. I think the reasons for this are:

1. Every patient received a letter explaining why the switch was happening (i.e. efficacy and cost savings), how the process would work and that switching to a biosimilar insulin is equivalent to using a historical insulin.
2. A different approach was adopted for type 1 and type 2 patients:
 - a. Type 1 patients were already more accustomed to injections and using different pens. They received video links explaining how to do the injections and they were normally able to switch themselves
 - b. Type 2 patients were offered individual review appointments (virtual or face to face) because it was recognised that there might be alternative biosimilar insulins and that they might be older and less experienced with injections. They would therefore require additional reassurance.



Duncan Browne

Duncan Browne, Consultant Endocrinologist and Researcher at Royal Cornwall Hospitals NHS Foundation Trust decided to prescribe a rapid acting insulin biosimilar and aligned internally the local service to drive the adoption of this biosimilar in his local region, achieving a positive patient experience with this biosimilar.

Prescribing Information:

Admelog (Insulin lispro 100 units/ml)

Please refer to Summary of Product Characteristics (SmPC) before prescribing.

Presentations: Admelog 100 units/ml solution for injection in a vial, each containing 10ml of solution for injection, equivalent to 1000 units. Admelog 100 units/ml solution for injection in a cartridge or in a pre-filled pen each containing 3 ml of solution for injection, equivalent to 300 units insulin lispro.

Indication: For the treatment of adults and children with diabetes mellitus who require insulin for the maintenance of normal glucose homeostasis and for the initial stabilisation of diabetes mellitus.

Dosage and Administrations: The dose should be determined by the physician, according to the requirement of the patient. Admelog may be given shortly before meals, when necessary can be given soon after meals. Insulin lispro takes effect rapidly and has a shorter duration of activity (2-5 hours) given subcutaneously as compared with regular insulin, regardless of injection site. The time course of action of any insulin may vary considerably in different individuals or at different times in the same individual and duration of action is dependent on dose, site of injection, blood supply, temperature, and physical activity. Admelog can be used in conjunction with longer-acting insulin or oral sulphonylurea medicinal products, on the advice of a physician. Admelog in cartridges are only suitable for subcutaneous injections from a reusable pen. Admelog in pre-filled pen are only suitable for subcutaneous injections. Admelog solution for injection should be given by subcutaneous injection or by continuous subcutaneous infusion pump and may, although not recommended, also be given by intramuscular injection. If necessary, it may also be administered intravenously. If administration by syringe, intravenous injection or infusion pump is necessary, a vial should be used. **Subcutaneous administration:** Should be in the upper arms, thighs, buttocks, or abdomen. Injection sites should always be rotated within the same region in order to reduce the risk of lipodystrophy and cutaneous amyloidosis. Care should be taken when injecting to ensure that a blood vessel has not been entered. After injection, the site of injection should not be massaged. Patients must be educated to use the proper injection techniques. **Administration via an insulin infusion pump (Admelog vials only):** Admelog should not be mixed with any other insulin. Continuous subcutaneous insulin infusion (CSII) may be given in pump systems suitable for insulin infusion; only certain CE-marked insulin infusion pumps may be used. Before infusing, the manufacturer's instructions should be studied to ascertain the suitability or otherwise for the particular pump. Use the correct reservoir and catheter for the pump. The infusion set (tubing and cannula) should be changed in accordance with the instructions in the product information supplied with the infusion set. A pump malfunction or obstruction of the infusion set can result in a rapid rise in glucose levels. If an interruption to insulin flow is suspected, follow the instructions in the product literature. **Intravenous administration (Admelog vials only):** Should be carried out following normal clinical practice for intravenous injections; frequent monitoring of the blood glucose levels is required. **Special Populations: Renal/Hepatic impairment:** Insulin requirements may be reduced. Patients with chronic hepatic impairment may have diminished insulin sensitivity and therefore require an increased dose. **Paediatric population:** Admelog can be used in adolescents and children.

Contraindications: Hypoglycaemia, hypersensitivity to insulin lispro or to any of the excipients.

Precautions and Warnings: Traceability: In order to improve the traceability of biological medicinal products, the name and the batch number of the administered product should be clearly recorded. **Transferring to another type/ brand of insulin:** Should be done under strict medical supervision and may result in the need for change in dose. For fast-acting insulins, any patient also on basal insulin must optimise dose of both insulins to obtain glucose control across the whole day, particularly nocturnal/fasting glucose control. **Injection technique:** Patients must be instructed to perform continuous rotation of the injection site to reduce the risk of developing lipodystrophy and cutaneous amyloidosis. There is a potential risk of delayed insulin absorption and worsened glycaemic control following insulin injections at sites with

these reactions. A sudden change in the injection site to an unaffected area has been reported to result in hypoglycaemia. Blood glucose monitoring is recommended after the change in the injection site, and dose adjustment of antidiabetic medications may be considered. **Hypoglycaemia or hyperglycaemia:** Conditions which may make the early warning symptoms of hypoglycaemia different or less pronounced include long duration of diabetes, intensified insulin therapy, diabetic nerve disease or medications such as beta-blockers. Uncorrected hypoglycaemic or hyperglycaemic reactions can cause loss of consciousness, coma, or death. Inadequate dose or discontinuation of treatment, especially in insulin dependent diabetics, may lead to hyperglycaemia and diabetic ketoacidosis; conditions which are potentially lethal. **Dose adjustment:** Insulin requirements may be increased during illness or emotional disturbances. Adjustment of dose may also be necessary if patients undertake increased physical activity or change their usual diet. **In combination with pioglitazone:** Cases of cardiac failure have been reported, especially in patients with risk factors for development of heart failure. Patients using this combination should be observed for signs and symptoms of heart failure, weight gain and oedema. Pioglitazone should be discontinued if any deterioration in cardiac symptoms occurs. **Medication errors:** Patients must be instructed to always check the insulin label before each injection to avoid mix-ups between Admelog and other insulin products. Patients must visually verify the dialled units on the dose counter of the pen. Patients who are blind or have poor vision must be instructed to always get help/assistance from another person who has good vision and is trained in using the insulin device. **Excipients:** This medicine is essentially "sodium-free". **Pregnancy:** It is essential to maintain good control of the insulin-treated (insulin-dependent or gestational diabetes) patient throughout pregnancy. Patients with diabetes should be advised to inform their doctor if they are pregnant or are contemplating pregnancy. Careful monitoring of glucose control, as well as general health, is essential in pregnant patients with diabetes. **Breastfeeding:** Patient may require adjustments in insulin dose, diet or both.

Interactions: The physician should be consulted when using other medicinal products in addition to Admelog. Insulin requirements may be increased by medicinal products with hyperglycaemic activity and reduced in the presence of medicinal products with hypoglycaemic activity.

Adverse Reactions: Hypoglycaemia is the most frequent adverse reaction. Oedema has been reported, particularly if previous poor metabolic control is improved by intensified insulin therapy. **Common ($\geq 1/100$ to $< 1/10$):** Local allergy. **Uncommon ($\geq 1/1,000$ to $< 1/100$):** Lipodystrophy. **Rare ($\geq 1/10,000$ to $< 1/1,000$):** Systemic allergy. **Not known (cannot be estimated from the available data):** Cutaneous amyloidosis. *Prescribers should consult the SmPC in relation to other adverse reactions.*

Legal Category: POM.

Marketing Authorisation (MA) Holder: Sanofi, 410 Thames Valley Park Drive, Reading, Berkshire, RG6 1PT, UK.

UK List price and MA Numbers: Admelog 100 units/ml solution for injection in vial 1 x 10ml: £14.12 – PLGB 04425/0822. Admelog 100 units/ml solution for injection in cartridge 5x 3ml: £21.23 – PLGB 04425/0823. Admelog 100 units/ml solution for injection in pre-filled pen 5 x 3ml: £22.10 – PLGB 04425/0824.

Further information is available from: Medical Information, Sanofi, 410 Thames Valley Park Drive, Reading, Berkshire, RG6 1PT, UK. uk-medicalinformation@sanofi.com.

Date of preparation: August 2022 (MAT-GB- 2200442 V1.0)

Adverse events should be reported. Reporting forms and information can be found at www.mhra.gov.uk/yellowcard or search for MHRA Yellow Card in the Google Play or Apple App Store.

Adverse events should also be reported to Sanofi Tel: 0800 090 2314. Alternatively, send via email to UK-drugsafety@sanofi.com