

# Discontinuation of Mixtard<sup>®</sup> 30: Practical considerations



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I hope it has not escaped your notice, but we are to lose one of our human insulins. On 23 June, Novo Nordisk announced the market withdrawal of Mixtard<sup>®</sup> 30 (biphasic human insulin 30/70) from the UK on 31 December 2010 (Diabetes UK, 2010).

How does this affect you? There are around 90 000 people treated with Mixtard<sup>®</sup> 30 in the UK (Diabetes UK, 2010). Some are likely to be in your area of practice, and they will all need to be supported in changing to an appropriate alternative. We are going to be busy.

Various options exist, such as switching to Humulin<sup>®</sup> M3 (biphasic human insulin 30/70; Eli Lilly, Basingstoke), which has a

similar time-action profile to Mixtard<sup>®</sup> 30 and, coincidentally, is now exactly the same price. But it is those who use the InnoLet<sup>®</sup> (Novo Nordisk, Crawley) dosing device that I feel sorry for. It is such a useful device for people with poor manual dexterity and can enable them to self-care. True, insulin detemir (Levemir<sup>®</sup>; recombinant human insulin analogue; Novo Nordisk) and human isophane insulin (Insulatard<sup>®</sup>, Novo Nordisk) will still be available in InnoLet<sup>®</sup>, but it is unlikely to suit the needs of current Mixtard<sup>®</sup> 30 users without the addition of another, shorter-acting insulin in a different device, potentially necessitating additional daily injections.

Table 1. Some alternative premixed insulin options that have a similar ratio of rapid- and intermediate-acting components to Mixtard<sup>®</sup> 30 and their relative costs.

Current preparation of Mixtard <sup>®</sup> 30	Alternative insulin cost (Joint Formulary Committee, 2010; MIMS, 2010)
<b>Cartridge</b>	
Mixtard <sup>®</sup> 30 Penfill <sup>®</sup> for NovoPen <sup>®</sup> 5 × 3 mL (£19.08)	Humulin <sup>®</sup> M3 cartridge for HumaPen <sup>®</sup> Luxura <sup>®</sup> or Memoir <sup>®</sup> or Autopen <sup>®</sup> Classic (5 × 3 mL = £19.08) <sup>†‡</sup>
	Insuman <sup>®</sup> Comb 25 cartridge for OptiPen <sup>®</sup> Pro 1 (5 × 3 mL cartridge = £22.52) <sup>†‡§¶</sup>
	NovoMix <sup>®</sup> 30 Penfill <sup>®</sup> for NovoPen <sup>®</sup> (5 × 3 mL Penfill <sup>®</sup> = £29.43)*
	Humalog <sup>®</sup> Mix25 cartridges for HumaPen <sup>®</sup> Luxura <sup>®</sup> or Memoir <sup>®</sup> or Autopen <sup>®</sup> Classic (5 × 3 mL cartridge = £29.46) <sup>*‡</sup>
<b>Prefilled device</b>	
Mixtard <sup>®</sup> 30 InnoLet <sup>®</sup> 5 × 3 mL prefilled (£19.87)	Humulin <sup>®</sup> M3 KwikPen <sup>™</sup> (5 × 3 mL = £21.70 [available in September 2010]) <sup>†‡</sup>
	Insuman <sup>®</sup> Comb 25 Optiset <sup>®</sup> (5 × 3 mL = £26.81) <sup>†‡§</sup>
	Humalog <sup>®</sup> Mix25 KwikPen <sup>™</sup> (5 × 3 mL = £30.98) <sup>*‡</sup>
	NovoMix <sup>®</sup> 30 FlexPen <sup>®</sup> (5 × 3 mL = £32.00)*
<b>Vial</b>	
Mixtard <sup>®</sup> 30 10 mL vial (£7.48)	Humulin <sup>®</sup> M3 (10 mL vial = £15.68) <sup>†‡</sup>
	Insuman <sup>®</sup> Comb 25 (5 mL vial = £5.61) <sup>†‡</sup>

\* Insulin analogues should be taken just before, with, or just after eating.

† Human isophane insulins should be taken 20–30 mins before eating.

‡ Consider the change in insulin delivery device.

§ Optiset<sup>®</sup> and OptiPen<sup>®</sup> Pro devices will be discontinued after December 2011.

¶ The Medicines and Healthcare products Regulatory Agency (MHRA, 2008) has issued a medical device alert regarding plunger and dose setting difficulties when using the OptiPen<sup>®</sup> Pro insulin delivery device.

Additional self-monitoring of blood glucose levels is recommended when changing insulin regimen or dose (National Collaborating Centre for Chronic Conditions, 2008).

Suitable alternatives to Mixtard® 30 were outlined in the last issue of this journal by Munro and Evans (2010), and additional information has been given by UK Medicines Information (<http://bit.ly/9ecRs5>). Algorithms and advice sheets have also sprung up in response to the news. An example is given in this issue (page 205), but beware – no two human beings are the same and individuals need to be given the choice of a range of alternatives. For example, if the person had poor glycaemic control on Mixtard® 30, simply changing to a similar insulin without effective titration is unlikely to improve matters. This may present an opportunity to provide further education and support to improve glycaemic control in such people.

People with diabetes may be concerned about choice: Do I want to continue on an insulin I take 20–30 minutes before food or change to taking it at the same time as food? Will the new insulin match my blood glucose monitoring results? What device is easiest for me to use? How do I choose whether to change to another mix or a different regimen with, possibly, more daily injections? How much extra monitoring should I do to make sure I get it right? However, we, as healthcare professionals in the current climate, should have additional concerns around the potential cost implications (*Table 1*).

When changing insulin regimens and introducing new delivery devices it is crucial to also consider safety. The Rapid Response Report on insulin errors published recently by the National Patient Safety Agency (NPSA, 2010) has links to online education modules on safe use of insulin. It highlights the need to know what we are doing when we are involved with insulin – errors are more common than you might think.

The task of deciding on appropriate alternatives will largely fall to those of us in primary care. The fact that much of this work coincides with the flu vaccine season is unfortunate, to say the least. We are still going to have to pick up the pieces and help people adapt – many to a new injection device, many to a new regimen. However, this could be seen as an opportunity to take stock, and to ensure that good glycaemic control is achieved for those affected. ■

Diabetes UK (2010) Novo Nordisk withdraw insulin Mixtard 30. *Diabetes UK*, 23 June. Available at: <http://bit.ly/Mixtard30> (accessed 18.08.10)

Joint Formulary Committee (2010) *British National Formulary 59*. BMJ Group and RPS Publishing, London

Medicines and Healthcare products Regulatory Agency (2008) Medical Device Alert: Ref. MDA/2004/002. Issued: 5 January 2004. MHRA, London. Available at: <http://bit.ly/aVzYkF> (accessed 20.08.10)

MIMS (2010) Insulin Preparations. Quick-reference table for comparison of insulin profiles. Haymarket Medical Media, London. Available at: <http://tiny.cc/67m3y> (accessed 09.08.10)

Munro N, Evans M (2010) Insulin options in type 2 diabetes following market discontinuation of Mixtard 30®. *Diabetes & Primary Care* **12**: 152–6

National Collaborating Centre for Chronic Conditions (2008) *Type 2 Diabetes: National Clinical Guideline for Management in Primary and Secondary Care (Update)*. NICE, London

National Patient Safety Agency (2010) *Rapid Response Report: Safer Administration of Insulin*. NPSA, London. Available at: <http://tiny.cc/l20ra> (accessed 02.08.10)