

Essential medicines and access to insulin

We fully support the views expressed in *The Lancet Diabetes & Endocrinology's* Editorial¹ about ensuring affordable access to insulin and the proposal to add analogue insulin to the WHO Essential Medicines list. The International Insulin Foundation in its 2011 position statement called for "the universal access for persons with type 1 diabetes to life-saving and life-preserving insulin".² In 2012, we launched the 100 Campaign, which sets the target of 100% affordability and 100% availability of insulin worldwide by the year 2022 (100 years after the introduction of insulin for people with diabetes). With our focus on improving access to insulin, we were very surprised by the proposal to include analogue insulins on the WHO Model List of Essential Medicines.

Problems with the price and affordability of insulin are not confined to low-income and middle-income countries: the price of insulin in the USA has been attracting attention.³ The main driver of this issue is that analogue insulins are much more expensive than human preparations and their use is becoming more prominent worldwide. The price excess varies between countries, but recent (2016) multi-country data from the ACCISS study⁴ show that glargine and detemir insulins are seven to nine times more expensive than human insulins.

Besides cost, we are concerned that, although the current use of analogue insulins is directed towards people with type 1 diabetes, market forces will probably encourage use of analogue insulins by people with type 2 diabetes, leading to an increased economic burden for countries and individuals. The evidence base for the superiority of analogue insulins is also weak. The application to WHO is supported by a systematic review and network meta-analysis⁵ that largely comprised open-label, manufacturer-sponsored studies. As a result, in the submission's summary tables, all but two studies are described as at serious or very serious risk of bias. Many of the studies compared long-acting analogues with once daily isophane insulin. The systematic review described the benefits of analogues as "probably superior" to isophane insulin with respect to HbA_{1c}, with the authors noting that the "difference is small" and "no differences are likely to be clinically relevant"; for cost-effectiveness, the results "were inconsistent across studies".⁵

We therefore agree with the conclusions of the Editorial that access to human insulin is still "despairingly low" for many patients worldwide and that adding more expensive insulins to the WHO model list is not likely to improve this situation.¹ We trust that WHO will reject this application.

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treasurer, and ST is secretary of the IIF. SW received lecture fees into research accounts from Novo Nordisk and AstraZeneca. All other authors declare no competing interests.

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- 1 The Lancet Diabetes & Endocrinology. The bare essentials: ensuring affordable access to insulin. *Lancet Diabetes Endocrinol* 2017; **5**: 151.
- 2 Gill GV, Yudkin JS, Keen H, Beran D. The insulin dilemma in resource-limited countries. A way forward? *Diabetologia* 2011; **54**: 19–24.
- 3 Luo J, Kesselheim AS, Greene J, Lipska KJ. Strategies to improve the affordability of insulin in the USA. *Lancet Diabetes Endocrinol* 2017; **5**: 158–59.
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- 5 Tricco AC, Ashoor HM, Antony JM, et al. Safety, effectiveness, and cost effectiveness of long acting versus intermediate acting insulin for patients with type 1 diabetes: systematic review and network meta-analysis. *BMJ* 2014; **349**: g5459.

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