Ensuring universal access to insulin – the International Insulin Foundation position statement

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Nearly a century since its discovery, insulin remains beyond the reach of many people living in parts of the developing world – and access to this life-sustaining medication is problematic for many, many more. The International Insulin Foundation (IIF) was founded in 2002 to improve access to insulin in resource-poor countries. This article reports on the Foundation's most recent effort to improve the sustainable, affordable and uninterrupted supply of good quality insulin for people diabetes in areas of need – the International Insulin Foundation position statement on the provision and choice of diabetes treatments in resource-limited settings, which is reproduced in full below.

In 2002, the International Insulin Foundation (IIF) began to develop and validate a needs assessment instrument called the Rapid Assessment Protocol for Insulin Access (RAPIA). RAPIA has now been used in seven countries to analyze the constraints to delivering effective continuing care for people with type 1 diabetes, and, by extension, those with type 2 diabetes and other non-communicable diseases. The RAPIA has identified a variety of issues as being responsible for problems with access to insulin, some country-specific but others more generally relevant. However, a major contributor to difficulties in the availability of insulin is a failure to use the least costly and most effective sources and types of insulin and other drugs for diabetes.

The purchase of insulin can consume as much as 10% of government expenditure on drugs in some countries in which IIF has worked. These costs can be influenced dramatically by the selection of newer analogue insulins, which cost between three and 13 times more than biosynthetic human insulin. Insulin cartridges for use with pen injection devices further add to costs.

While insulin analogues and injection devices may be of therapeutic value in particular situations, their use as treatment of first choice in resource-limited settings may result in the overall purchase of insulin being inadequate for the needs of all people with diabetes. Similar considerations apply to the newer treatments for people with type 2 diabetes, which may cost up to 40 times more than metformin and sulphonylureas – which are still considered as first-line drugs in European and US guidelines. Part of the reason for the differences in cost relates to intellectual property: both biosynthetic human insulin and the first-line oral blood glucose-lowering drugs are available from generic manufacturers.

While these considerations arose from work in resource-poor countries, the global economic downturn has led to greater attention to comparative effectiveness studies in higher-income countries. The marketing strategies of the three major pharmaceutical companies which dominate the world's insulin production suggest that they are gradually withdrawing from the production of biosynthetic human insulin in favour of analogues. There is thus a growing need for countries involved in tendering processes to source their insulin to be provided with the guarantees of good manufacturing practice, quality and bioequivalence, for all insulins they may purchase. This might come from a World Health Organization prequalification scheme – as currently exists for a variety of drugs for chronic diseases, both communicable and non-communicable.

IIF has produced a position statement on the provision and choice of diabetes treatments in resource-limited settings. For the reasons outlined, IIF considers these as the principles of high quality of care for people with diabetes in any setting, for which consideration of available resources is a vital component of good therapeutic decision-making.

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References

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Position statement on the provision and choice of diabetes treatments in resource-limited settings

- IIF promotes the universal access for persons with type 1 diabetes to life- saving and life-preserving insulin. The IIF also supports the availability of insulin to those people with type 2 diabetes who need insulin for optimal diabetes control and life quality.
- Insulin is an expensive drug for countries with limited healthcare resources and finances. In these countries, insulin provision may require up to 10% of the total national healthcare budget.
- Considerable insulin cost savings may be possible by using animal (pork or beef) or biosynthetic human insulins, rather than analogue insulins. The benefits of analogue insulins are small (particularly in the absence of glucose self-monitoring) but their costs are very high. Insulin injection pens are also expensive compared with syringes and vials. Efforts should also be made to ensure that insulin is used only when necessary in people with type 2 diabetes.
- A wide variety of new treatments has recently become available for people with type 2 diabetes – for example glitazones, gliptins and incretin mimetics. Though useful in some people, all of these drugs are extremely expensive and for none is there yet evidence of long-term outcome benefit. IIF agrees that metformin and sulphonylureas should be the mainstay of drug treatment in people with type 2 diabetes – as recommended by the UK's Health Technology Assessment Panel and its National Institute for Health and Clinical Excellence.[1]
- Provision of diabetes education, glucose self-monitoring, and expert health- care providers are all highly important parts of the package of care for those with diabetes. More economical provision of insulin and drugs may release financing for at least some of these vital facilities.
- Diabetes drugs costs can be further reduced by tendering for generic preparations from sources conforming to good manufacturing practice. The introduction of a prequalification scheme[2] as exists to ensure quality for anti-retroviral and anti-tuberculous drugs, and asthma treatments,[3] would facilitate savings for health systems in many countries, and should be widely encouraged.