Insulin glargine in a Brazilian State: An assessment of drug utilization, effectiveness and value to provide future direction

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Introduction and Objective: The cost and utilisation of the insulin analogue (Insulin glargine) has grown appreciably in the State of Minas Gerais in Brazil in recent years, with costs growing on average by 291% per year. This growth has been driven by an increasing number of successful law suits and a 536% price differential between insulin glargine and neutral protamine Hagedorn (NPH) insulin. One way forward to address concerns with its growing utilisation is to undertake a systematic review assessing the efficacy and safety of insulin glargine compared with NPH insulin in patients with Type I diabetes. As a result, provide published data to support future recommended activities by the State to limit its use. **Methods**: A systematic review of published studies between January 1970 and July 2009 using established methods documenting the effectiveness of insulin glargine in patients with Type 1 diabetes. Only randomised controlled clinical trials included[1]. **Results**: Out of 803 studies, only 8 met the inclusion criteria. Most were of poor methodological quality or had a high risk of bias. No study could be classified as double-blind, and only one study documented increased efficacy of insulin glargine in relation to both glycaemic control and hypoglycaemic episodes. Typically, there was no significant difference between insulin glargine and NPH insulins in terms of their effectiveness[1]**.** **Conclusions**: This systematic review showed no therapeutic benefit with insulin glargine over other insulin formulations although considerable cost differences. This was similar to the findings from other world-renowned organizations and other published studies, which showed at best only minor health gain from long-acting insulins vs. standard (NPH) insulins[1,2]. We therefore recommend to the State Authorities to delist insulin glargine or renegotiate a price reduction for continued listing. This is in line with activities undertaken by authorities in other countries[1]. This systematic review provides support for this decision as well as documentation to combat potential law suits if there cannot be satisfactory discussions. Consequently, we recommend this approach to other health authorities.

References

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