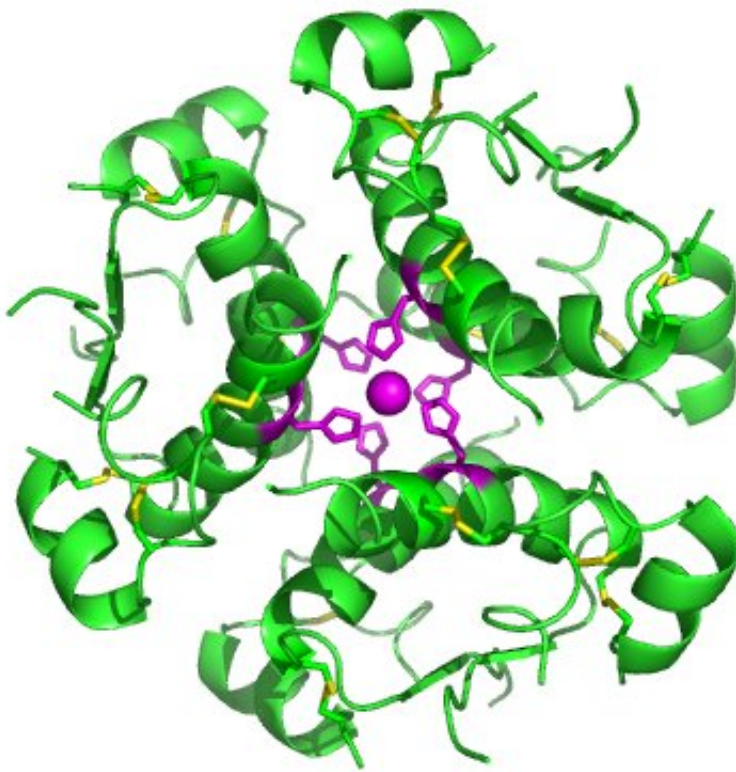


Evaluation of evidence-based clinical practice guidelines for type 1 diabetes

September 25 2018



High-resolution model of six insulin molecules assembled in a hexamer. Credit: Isaac Yonemoto/Wikipedia

Disease management programmes (DMPs) should be regularly updated to adapt them to the current state of medical knowledge. Requirements for the content of DMPs are laid down in a directive of the Federal Joint

Committee (G-BA), the main decision-maker in the German health care system, and are applied nationwide. On behalf of the G-BA, the institute for Quality and Efficiency in Health Care (IQWiG) therefore searched for current evidence-based clinical practice guidelines on type 1 diabetes, summarized their recommendations to key statements, and evaluated whether a need for revision of the DMP arises from them.

According to the [final report](#), the need for revision particularly concerns the avoidance of hypoglycaemia by means of modern technologies as well as patient education. Less focus was placed on these topics in the preliminary report. This is primarily due to fact that the institute was able to include new guidelines in its final assessment.

The IQWiG researchers were able to include a total of 37 guidelines in their final analysis compared with 32 in the preliminary report. In addition, an update was available for a number of guidelines. They extracted a total of 2817 recommendations from 37 guidelines. These refer to a wide variety of [health care](#) aspects, such as diagnostics, treatment, or collaboration between the professional groups involved. The institute did not evaluate the content of the recommendations.

Technical aids can support blood sugar regulation

As the institute concludes after comparing guideline recommendations and the directive, the content of all health care aspects of the DMP type 1 diabetes could be updated ("potential need for update"). However, among other things, updating is required regarding the avoidance of low blood sugar levels (hypoglycaemia), because this has become an important treatment goal in type 1 diabetes.

A number of modern [technical aids](#) have been introduced that help patients to regulate their [blood sugar levels](#). For instance, continuous glucose monitoring (CGM) via sensor electrodes placed under the skin is

more common. Some devices offer an alarm function that indicates imminent hypoglycaemia. If CGM is combined with an [insulin](#) pump, insulin administration can be automatically stopped or reduced; this is supposed to prevent nocturnal hypoglycaemia, among other things. The new guidelines analysed for the final report consider these technologies, but they are missing in the DMP.

The DMP directive specifies only few requirements for the content and frequency of patient education. According to newer guidelines, repeated patient education (e.g. as refresher or supplementary patient education) can support affected patients in their daily lives, for instance, if they have trouble implementing treatment recommendations.

The DMP has long contained the chapter "Advice for Smokers." In fact, the guidelines contain a whole range of recommendations regarding a healthy lifestyle. This involves not only tobacco and alcohol consumption, but also diet and exercise. The institute proposes summarizing these recommendations under one item, "Lifestyle Management," and extending its content.

Relevance of insulin analogues has increased in guidelines

Discrepant statements were noted by the institute with regard to the type of insulin that patients with type 1 diabetes inject: While the DMP assumes that human insulin is the treatment of choice, in the new guidelines, insulin analogues are now regarded as equivalent.

For these four aspects—new technologies, patient education, lifestyle management, and [insulin analogues](#)—the IQWiG researchers view the need for revision in the final report to be greater than in the preliminary report.

More information: [www.iqwig.de/en/press/press-re ...
-revision.10095.html](http://www.iqwig.de/en/press/press-revision.10095.html)

Provided by Institute for Quality and Efficiency in Health Care

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