

VIEWS & REVIEWS

FROM THE FRONTLINE

Bad medicine: the way we manage diabetes

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Type 2 diabetes is a modern plague largely brought on by lifestyle and is considered a progressive, non-reversible condition. The polypharmacy of chronic disease is the drug industry's lottery win, and no more so than in diabetes, with new drugs and the increasing use of analogue insulin in type 2 diabetes worth tens of billions of pounds worldwide.¹

The drug industry's business plan for diabetes follows a familiar pattern:

- (1) Conduct questionable research and control the original data.
- (2) Schmooze the politicians, health regulators, and patient groups to suggest undertreatment and need for "urgent action."
- (3) Recruit tame diabetologists, massage them with cash, and get them to present at marketing events that masquerade as postgraduate education.
- (4) Pay doctors to switch to newer drugs in dubious international postmarketing "trials."²
- (5) Seek endorsement from the National Institute for Health and Care Excellence to bully doctors to treat diabetes aggressively with drugs.³

And so the complexities of diabetes are reduced to simply lowering blood sugar.

What is the annual cost of pursuing this reductionist, drug based approach? In the past decade, spending on insulin in the UK has risen 300%, to £311m⁴ (€356m; \$463m), and on oral diabetic drugs 400%, to £277m. And have you ever wondered why companies generously give away glucose meters? Test strips are a £166m market, the value of which has risen 300% in 15 years.⁴ Factor in staff time (when not attending more educational updates sponsored by the drug industry) and the patient and family's time, and you have a great but expensive business.

But do analogue insulins, new diabetic drugs, and self monitoring of blood glucose improve outcomes? Does even tight glycaemic control make a difference? No data on mortality or morbidity exist for the new therapeutics.^{5 6 7 8 9 10 11} Likewise intensive glycaemic control is not superior with respect to mortality and cardiovascular disease.¹² So billions of pounds are being spent chasing a ghostly surrogate endpoint: low blood sugar. Worse, there is evidence that these new drugs cause harm. Rosiglitazone has already been withdrawn; pioglitazone has been linked to bladder cancer; and exenatide and sitagliptin double the risk of acute pancreatitis.^{13 14} All this is an example of the scientific illusion that is so called evidence based medicine, where research is just mechanically reclaimed statistics pulped into junk educational nuggets—mere marketing by another name.

There remains another fundamental question. Can diabetes be reversed or cured by weight loss? A small, well designed study of 11 patients irrefutably showed that it can.¹⁵ And clinical effect is more important than any statistically significant yet clinically undetectable effect that a huge study funded by the drug industry might find. The therapeutic approach in diabetes is upside down. Incredibly, spending on diabetes drugs could employ 40 000 personal trainers. The complicity of doctors and lack of dissent against the drug model of diabetes care is bad medicine.

Provenance and peer review: Commissioned; externally peer reviewed.

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