

## Medicine of the Future: Clinical foundations firmly anchored through feedback from practice



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The evidence-based medicine has transformed this field founded on experience as practised by enthusiastic and empathic physicians, into science. The statistics of randomized controlled double blind prospective studies clearly proved some treatment procedures and medicines correct. One of many examples will suffice: statins. The principles of medicine based on evidence certainly show the right way forward, but like each movement forward it is a development which always reveals new perspectives on what we just recently considered to be unshakeable truth.

Diabetology had been based on just two facts for a long period of time: it is impossible to live without insulin, you cannot survive long with symptoms of decompensated diabetes. These facts were so obviously true that nobody came up with the idea, quite understandably, to undertake a placebo controlled randomized study of insulin effectiveness among people with type 1 diabetes. However, as the choice of antidiabetics expanded more and more and the life of patients with diabetes became longer (in particular because of the reduction of cardiovascular risk by treatment of hypertension and the statin therapy), the results of the clinical studies evaluating the treatment of type 2 diabetes became increasingly detached from practice. A population typically included in clinical studies is defined rather vaguely, the condition being a minimum of complications (except for cardiovascular), and possibly a minimum of comorbidities. Such population, however, is different from that treated and followed up in regular surgeries of diabetologists and internists.

How to get out of the trap? Randomized studies follow an average patient. Type 2 diabetes involves a group of diseases the differentiation of which is complicated as they vary in practically everything, except for the presence of hyperglycemia. Not only in diabetology but also in other specialties a similar issue is dealt with and a similar answer is found: data from real life practice. It will not take the place of clinical studies, but it ensures the best checking of the correctness of the procedures based just on the results of randomized clinical studies.

Diabetology is a subspecialty of internal medicine. Treating a patient with diabetes well involves having first of all good knowledge of fundamentals of internal medicine. The analyses presented in this supplement to *Vnitřní lékařství* are pilot analyses carried out in such an extent for the patient population in the Czech Republic for the first time ever. In some aspects their results are truly surprising (mortality among the patients treated with oral antidiabetic drugs, comparison of the results of the therapies based on gliptins and on sulfonylurea) not only within the Czech Republic, but in the global context as well. With some exaggeration we are so bold as to claim that the good results are so good just because Czech diabetology is based on the internal medicine fundamentals. We believe that further more in-depth analyses will bring even more accurate descriptions of the current conditions of the care for patients with diabetes in the Czech Republic and will also be an inspiration for not only other medical specialties in this country, but also for diabetology in other countries.

Praha, October 2015

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