

## The Diabetes Technologist: A Practical Solution in Dealing with Technology in Everyday Practice?

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**A**s you can see from the numerous articles on diabetes technology (DT) in this journal, there has been a steady increase in the importance of technology in medicine, in general, and in diabetology, in particular. Meanwhile, there is quite a variety of DT applications that ranges from direct therapeutic application to use in patients with diabetes with foot ulcers. It can be expected that in the future, these various technical options will increasingly communicate with each other and grow together (as with the artificial pancreas). At the same time, there is a steady increase in the need for the physician and his team to treat each individual patient “efficiently” because of the increasing number of diabetes patients. The constant use of computers and technical systems, however, often does not coincide with what doctors and diabetes nurses consider to be their core task: personal and optimal care of their patients.

If you have asked yourself how to handle this situation adequately in daily life, you might consider training your diabetes nurse to become a “diabetes technologist.” Clearly, the training should cover all relevant aspects of DT. Depending on the situation in a specific country, practice, or hospital, diabetes nurses or assistants may qualify for such a training course, along with other nurses or medical professional staff with extensive experience in specialist centers for the treatment of diabetes mellitus.

In many cases, it is already standard practice for certain members of the diabetes team to focus their activities on the technical aspects of diabetes treatment; however, to my knowledge thus far, a program for structured training has yet to be developed.

The diabetes technologist should take care of, for example: handling all aspects of required data, such as downloading data from blood glucose meters and continuous glucose monitoring (CGM) system; assisting physicians in the analysis and interpretation of these data; and setting up insulin pumps and training individual patients how to use the pumps.

For those of you who believe that these are easy tasks, you might be underestimating the speed with which the DT world is developing and how complex and diverse this world is already. If you consider, for example, the development rate of smartphones and how their use has increased in the last 5 years, it is clear that these devices along with their applications (apps) will become a major platform in the care of patients with diabetes. Are you familiar with all the apps being used by your patients with diabetes?

The diabetes technologist should also take care of the quality control aspects associated with the use of blood

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glucose meters. Having an in-depth understanding of complex technical systems such as continuous subcutaneous insulin infusion and CGM, the diabetes technologist would be the ideal person to train patients in the use of these systems. Only when patients consider DT as an integral part of their treatment will they use it adequately and long term. In view of the rapid evolution of DT, the diabetes technologist should also take care of all relevant aspects of training within clinics/practices.

At the same time, the diabetes technologist should not be regarded as an information technology professional, even if some familiarity with computers is required for the job. Diabetes technologists should also not be regarded as study nurses for performing clinical trials although they might be instrumental in providing, e.g., blood glucose data of study participants in an appropriate format for transfer to the sponsor.

In a world with an ever-increasing concern regarding costs, funding for such a position is an important topic. Assuming that there is a real need for diabetes technologists, their work should be substantially supportive of the physician and the physician's colleagues, facilitating daily work flow and consequently freeing up resources that can be used to fund such a position. The physician would no longer need to worry about technology and would be free to focus on treating the patient, having all relevant information immediately on the medical record system. This would help the physician and staff to provide better therapy in less time.

The diabetes team would need to coordinate the job responsibilities of the diabetes technologists adequately. Thus far, diabetes nurses and other members of the diabetes team have received rather limited training on DT, which is something to change as well.

The question is how to progress with this idea in practice. Each country might organize structured training for diabetes nurses, and so forth, in line with the local conditions and structures; however, it might also be worthwhile to consider a more unified approach, one that is driven by the stakeholders in the Diabetes Technology Association and in the diabetes nurse organizations, e.g., in the United States and in the European Union. As with any project, there should be a systematic evaluation of the effect that diabetes technologists would have in real practice.

I strongly believe that having such diabetes technologists as partners of physicians will play a significant role in the treatment of diabetes patients in the future. This is not a luxury; it will improve both patient care and efficiency. Thus, establishing such a new position can be regarded as a necessary step in the evolution of diabetes treatment in order to achieve optimal diabetes management for patients with diabetes.