Press

Going further for health

Brief interview with Prof Dr. Klemens Budde

Real-time treatment thanks to a new eHealth platform for chronically sick patients

Three questions to Prof. Dr. Klemens Budde, Senior Physician, Specialist for Internal Medicine and Nephrology, Hypertensiology DHL, Campus Charité Mitte, University Medicine Berlin, Germany.

Your digital project MACSS (Medical Allround-Care Service Solutions) specifically addresses chronically ill people. Why is this patient group so receptive to digital solutions?

Patients with chronic diseases require continuous and intensive care – especially the communication with the attending physicians is essential. In order to ensure optimal therapy, it is important to have information on the patient's state of health that are as complete and up to date as possible. Additionally, the adherence to sometimes complex therapies is crucial for the course of the illness. Our patients with kidney transplants, for example, often need to take ten or more drugs and check parameters, such as their weight and blood pressure. At routine check-ups, the often fragmentary memory of the patient and the decreasing therapy adherence complicate the treatment. In case the patient forgets crucial details, for example additional drugs, infections or blood pressure fluctuations, possible complications may be overseen. Without any documentation, the physician then misses important details and cannot react promptly, which may jeopardise the therapy's success in the long term and damage the precious donor organ. It is particularly dangerous when infections are detected too late. A bloodstream infection, for example, can be treated well – when detected in time.

At present, there are around 259 000 health apps available – not all of them are of value. What concrete benefit does your app have?

For an app to improve the treatment quality of patients it is not enough that it collectes and documents data. To provide a real added value, an eHealth tool must allow to use the data. Our MACSS project is for patients with a kidney transplant. These patients require a close medical care to prevent infections and maintain the function of the donor organ. To improve the care of these patients, we have developed a solution that facilitates the evaluation of patient data and accelerates the communication between physician and patient. For example, the patient enters her/his vital data, such as the blood pressure or blood glucose level in the app. The app then immediately transmits the data to Charité, where the data are assessed systematically. For example, in case the blood pressure is too high, the medication needs to be adapted; a too high temperature might indicate an infection. These results can be forwarded to the patient via the app, if necessary together with the notice to make an appointment at the attending specialist. So,

the app provides a communication channel that allows to quickly react to fluctuations in the patient. In the future, we want to integrate the attending externally-practicing colleagues: then, we could include further information such as medication plans or blood values and use the patient app data to make faster and better therapy decisions.

What specific changes shall the use of the app provide to your patients?

We plan to start to use the app for our patients at the beginning of next year. We are convinced that our patients will highly appreciate the mutual networking and simplified communication with Charité. One of our patients is thirty years old and has been ill since the age of five. She already underwent three kidney transplants. The young woman just had a baby and – additionally to the stress she naturally has with her new-born baby – must see to take eight drugs and keep an eye on her high blood pressure. The app shall remind her of taking her medicines and measuring the blood pressure. If necessary, we can react to her blood pressure fluctuations directly.

Another patient, seventy years old, underwent both a heart and kidney transplant. Additionally, he was diagnosed with diabetes and high blood pressure – he needs to take thirty tablets every day. With the many appointments at different physicians, who prescribe new medicines, he would soon lose track of things. The app shall help us exclude interactions between medicines – thus we can prevent potentially serious complications.

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