



Leading best practices for the recognition and treatment of hospitalized patients with diabetes

Distinction awarded to team members at University Hospital Tübingen, Germany

Diabetes can have a significant impact on a patients' wellbeing, daily routine and lifestyle. Patients that are admitted to the hospital with diabetic-related complications are not always recognized as having diabetes and therefore, they may not receive optimized treatment. This is especially true since diabetes frequently does not exist in isolation.

Comorbidities often include obesity, hypertension, cardiovascular disease, sleep apnea, chronic kidney disease and depression.

Because of its chronic nature and the severity of its complications, diabetes is a costly disease, not only for affected individuals and their families, but also for health systems and payors.

An integrated clinical care team at University Hospital Tübingen led a best practice for effective inpatient detection and treatment for diabetes.

The multi-disciplinary team, in partnership and with support from the German Center for Diabetes Research (DZD), worked collaboratively to develop and to implement a screening pathway. They used HbA1c as a biomarker for determination of the diabetic status of patients aged 50 and higher, in the hospital setting.

Their screening pathway led to an increased detection of diabetes and enabled optimization of care for the previously unknown diabetic patients and known diabetic patients with poor glycemic control.

Before the implementation of the clinical care initiative, only 34% of the patients with known diabetes had an active request for their glycosylated (HbA1c) value during their hospital stay.

Their care project assessed and implemented in-hospital screening across departments with a potential incidence rates for diabetes above 20%. This included the internal and anesthesiology Intensive Care Units (ICU), the emergency department (ED), the thoracic, orthopedic and cardiovascular surgery units, internal medicine, radiation, ophthalmology and neurology. Survey findings post-implementation of the care project at the University Hospital revealed that 87% of clinicians surveyed felt knowing the HbA1c value increased their confidence in treatment decisions.



L-R: Isolde Riedlinger (Head of Technical Team Laboratory Medicine, University Hospital Tübingen); Susanne Faix (Technical Team Laboratory Medicine, University Hospital Tübingen); Baptiste Gallwitz (Professor, Internal Medicine Endocrinology, University Hospital Tübingen); Andreas Peter (Professor of Clinical Chemistry and Laboratory Medicine; Head of Central Laboratory, University Hospital Tübingen); Andreas Fritsche (Professor of Internal Medicine, University Hospital Tübingen); Marjo Graf (Leading Diabetes Nurse, University Hospital Tübingen); Ewald Eipper (IT Officer Laboratory Medicine, University Hospital Tübingen)

For patients who have unknown diabetes, the results of an HbA1C allows for detection of diabetes, and the implementation of diabetes-specific care during their hospital stay.

Thus, their program had a valued impact on reducing incident complications experienced by patients during their hospital stay, and significant diabetic disease sequelae and progression.

As stated by Dr. Andrea Fritsche MD (Diabetology, Professor Internal Medicine, University Hospital Tübingen), "Early recognition of patients with diabetes not only improves patient outcomes, but with tight continuous control it can

prevent long-term complications and improve quality of life."

This expert team with program leads that included Andreas Fritsche, MD, Diabetology, Professor of Internal Medicine University Hospital Tübingen, German Center for Diabetes Research, Andreas Peter, MD, Professor of Clinical Chemistry and Laboratory Medicine, Head of Central Laboratory University Hospital Tübingen, German Center for Diabetes Research, and Hans-Ulrich Haring, MD, Emeritus Professor of Internal Medicine, University Hospital Tübingen, Director of the IDM (Institute for Diabetes Research and Metabolic Diseases) were recognized in 2018 for measurable healthcare excellence in association with the UNIVANTS of Healthcare Excellence Award.

THREE KEY TAKEAWAYS:

1. Nationwide diabetes screening opportunities in a hospital setting can standardize care and improve patient outcomes by leveraging the use of HbA1C as a biomarker for detecting patients who are at risk.
2. Cross disciplinary involvement with diabetes screening provides targeted therapy and specialty consultations for patients with risk of other comorbidities.
3. Implementing evidence-based optimal treatment plans have positively impacted Key performance Indicators (KPIs) including reduced costs, improved patient wellness, and improved clinician confidence and satisfaction.