



Unified to improve diagnostic pathways and treatment for patients with Acute Kidney Injury: an international best practice from Germany

The Diaverum Kidney Care Center MVZ Potsdam affiliated with Otto-von-Guericke University Magdeburg and the Ernst von Bergmann Hospital with the Dialysis Center Potsdam is leading best practices in for kidney disease, with a focus in Acute Kidney Injury (AKI). Acute kidney injury (AKI) is recognized globally as a major determinant of chronic kidney disease (CKD) and cardiovascular mortality. Also, AKI contributes to complications in the hospital with increased costs and length of stay. Long-term consequences of AKI can be severe and may cause fast progression of kidney function decline associated with substantially accelerated atherosclerosis. When AKI is detected early, however, it can be effectively treated, with mitigation of short and long-term complications.

Their Potsdam AKI Care Initiative combines AKI detection at an earlier, actionable stage with implementation of targeted therapy, specialty consultations and patient education to improve outcomes. The champions of this initiative span multiple disciplines and stakeholders with stand-out partnerships among Laboratory Medicine (led by Dr. Elisabeth Engelmann) as well as Nephrology (Dr. Michael Haase, Dr. Saban Elitok and Dr. Jens Ringel) and Internal Medicine (Dr. Annemarie Albert).

The team associated with the Potsdam AKI Care Initiative appreciates that poor recognition of AKI leads to sub-optimal patient management of AKI and its related sequelae. Such management may include treatment changes, such as nephrotoxic drug regimens discontinuation or temporary removal of anti-hypertensive drug therapies. They further recognize that early and effective management AKI can dramatically improve patient outcomes.

As a result, they implemented a hospital-wide electronic AKI alert based on increase of serum creatinine according to KDIGO-AKI practice guidelines for inpatients during their hospital stay. Leveraging serum creatinine increase as a screening tool for all patients admitted to the hospital has led to the identification of 4.5% of hospitalized patients with previously undiagnosed AKI. This increase in disease awareness not only empowers clinicians for rapid treatment but enables education to patients



Pictured from left to right: Jens Ringel, Annemarie Albert, Elisabeth Engelmann, Michael Haase, Saban Elitok

on the necessity of managing their health as well. The accelerated detection and treatment pathway (ADTP) consequently reduces AKI related complications (such as hyperkalemia, renal acidosis or edema) by greater than 50%. Before the ADTP was implemented AKI related complications occurred in 4 out of 10 patients and with only 1-2 per 10 patients after implementation.

This process has improved the satisfaction of treating physicians. “Most of my non-nephrologist colleagues and Heads of Department at the Hospital, really appreciate our nephrology service where patients with AKI are seen, contributing to individualized patient care plans.” comments Dr. Elitok.

The combination of care coordination from varied disciplines, and with measurable improvements, demonstrates the power of unification of healthcare providers across care silos in an avant-garde mode of thinking to improve the quality of healthcare.

Based on the measurable success of this program, this team is one of the inaugural winners of 2019 UNIVANTS of Healthcare Excellence Award Program. This international honour was judged by leading global healthcare organizations including IFCC, AACC, EHMA, Modern Healthcare, HIMSS, NAHQ, and IHE through leadership and sponsorship by Abbott Laboratories.

THREE KEY TAKEAWAYS:

1. Opportunities for improving the detection and treatment of AKI are possible.
2. Best practices that leverage delta analysis of serum creatinine with patient engagement can drive transformational improvements to clinical care.
3. Successful efforts including key performance outcomes from the Potsdam Kidney initiative have included enhanced patient awareness, improved patient outcomes, increased clinician satisfaction, and reduced healthcare costs.