

Proenkephalin (penKid) sheds light on the diagnostic blind spots in assessing acute kidney injury in children

- For children burdened with life-threatening acute kidney injury (AKI) there are no reliable diagnostics to assist the management of pediatric AKI.
- The biomarker proenkephalin (penKid) sets a firm foundation in pediatric kidney assessment as it can identify fast and accurate pediatric AKI and its severity, overcoming current limitations.

Hennigsdorf, Germany, March 15, 2022 - The diagnostic company SphingoTec GmbH (SphingoTec) SphingoTec GmbH (SphingoTec) announces that its kidney function biomarker penKid is reliably identifying AKI in infants, offering a solution to the shortcomings in pediatric critical care. AKI is mostly diagnosed too late for successful intervention which leads to steep mortality rates and chronic kidney disease (1,2).

AKI is a life-threatening complication to every 1 in 3 children in intensive care - a shockingly high prevalence (1). The current routine measurements are not only biased by non-AKI related factors (3), but also identify with an unacceptable delay of 72 hours the impairment, when 50% of the kidney function is already lost (4).

PenKid is a blood-based biomarker that supports clinicians overcoming these limitations. High or increasing penKid concentrations accurately predict AKI and its severity in infants (5), offering an unprecedented alternative to managing pediatric AKI. PenKid is not influenced by non-renal factors making it easy to adopt in critical care (6,7). As a non-invasive biomarker, penKid provides unparalleled real-time and accurate information for the early recognition, severity, and recovery from AKI (8,9). Since AKI is a sudden and severe disease, this information can help vital interventions and improve recovery. Dr. Andreas Bergmann, CEO of SphingoTec, commented: "AKI is a challenging setting in pediatric critical care with persisting unmet diagnostic needs. With clinical symptoms showing only shortly before kidney failure, it remains a blind spot and a silent threat on the pediatric wards. PenKid offers a solution for the early recognition of AKI in children which is a main condition for improving their prognosis."

During the recent scientific sessions at AKI & CRRT 2022 in San Diego, CA, Prof. Peter Pickkers (Radboud University, Nijmegen) presented the data on penKid in pediatric AKI, alongside a new formula that translates penKid into a familiar scale for the clinical routine use initially in adults. Data from the researchers of Radboud University, The Netherlands, and Mayo Clinic, US confirms that the new formula is overcoming the limitations of the current clinical practice.

References:

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About SphingoTec

SphingoTec GmbH ("SphingoTec"; Hennigsdorf near Berlin, Germany) develops and markets innovative in vitro diagnostic (IVD) tests for novel and proprietary biomarkers for the diagnosis, prediction and monitoring of acute medical conditions. SphingoTec's proprietary biomarker portfolio includes bioactive Adrenomedullin (bio-ADM), a biomarker for real-time assessment of endothelial function in conditions like sepsis, and Proenkephalin (penKid), a biomarker for real-time assessment of kidney function. Dipeptidyl Peptidase 3 (DPP3), a biomarker for cardiac depression. IVD tests for SphingoTec's biomarkers are made available as sphingotest® microtiter plate tests as well as point-of-care tests on the Nexus IB10 immunoassay platform by SphingoTec's subsidiary Nexus Dx Inc. (San Diego, CA, USA). The Nexus IB10 portfolio is complemented by established and commonly used biomarker tests for acute and critical care such as PCT, Troponin, NT-proBNP, D-Dimer, TSH and others.

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