ADQI Group Recognizes PenKid as Relevant Functional Biomarker for Sepsis-Associated Acute Kidney Injury

- The Acute Disease Quality Initiative (ADQI) has published a consensus statement that strongly recommends using innovative biomarkers to improve the management of sepsis-associated acute kidney injury (SA-AKI).
- According to the statement, the kidney function biomarker Proenkephalin A 119-159 (penKid) can detect subclinical AKI, enabling early risk prediction for upcoming AKI.
- Looking ahead, integrating clinical information including relevant biomarkers might support the identification of specific disease endotypes and organ-related tolerance mechanisms as a basis for future personalized therapies.

Hennigsdorf/Berlin, Germany, April 4, 2023 - Diagnostic company SphingoTec announces that in the consensus statement of the 28th ADQI workgroup, penKid is recognized as a relevant functional biomarker able to predict SA-AKI with high accuracy (1). Sepsis is a life-threatening disease that leads to organ dysfunction, accounting for up to 70% of all cases of AKI in critically ill patients (1). The current standard of care diagnostics for AKI has considerable limitations, therefore it is an urgent need to implement new biomarkers to enable better patient management.

According to the consensus statement, penKid can identify patients with sepsis who are at an increased risk of developing AKI and major adverse kidney events (1). The study cites previous research that demonstrates the ability of penKid to detect subclinical AKI, including multicentric studies that shows the incidence and outcome relevance of subclinical AKI in critically ill patients (2,3).

SA-AKI is a heterogeneous syndrome, with multiple mechanisms that contribute to its development. The recommendations also include the use of biomarkers and clinical information to identify distinct disease mechanisms and characteristics that can inform personalized treatment decisions in clinical practice. Furthermore, the same granular approach focused on early patient risk identification could also enable predictive enrichment in randomized trials of development-stage therapeutics.

Dr. Florian Uhle, Medical Director at SphingoTec commented “There are few options available for assessing the kidney function in the context of AKI, and the standard of care biomarkers have well-known limitations, especially in septic patients. PenKid offers additional insights that could help clinicians recognize subclinical AKI and take preventive measures before the true problem even occurs. Since the main therapy in AKI relies on the management of symptoms, there is also a high need to advance the drug development and use these tools to support the identification of the right patients with the highest benefit and no harm in clinical trials.”

Beyond the early detection of SA-AKI, previous scientific evidence shows that penKid has other applications that make it a versatile biomarker for kidney function assessment. PenKid correlates to the true glomerular filtration rate (true GFR), detects the presence and severity of AKI, identifies patients at high risk of unfavorable outcomes, and indicates renal recovery, even under dialysis (3,4).

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References:

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About SphingoTec

SphingoTec GmbH ("SphingoTec"; Hennigsdorf near Berlin, Germany) is a commercial-stage diagnostic company focusing on innovative critical care biomarkers for the diagnosis, prediction, and monitoring of acute medical conditions. SphingoTec's innovative markers are made available on different IVD platforms. SphingoTec's proprietary biomarker portfolio includes Proenkephalin A 119-159 (penKid), a biomarker for the assessment of kidney function in critical diseases, and bioactive Adrenomedullin 1-52 (bio-ADM), a biomarker for the assessment of endothelial function in conditions like sepsis.

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