# Asep Medical Holdings Inc. Announces Compelling Results of an Independent Sepsis Study Prepared by RTI Health Solutions

The report concludes that a sepsis diagnostic assay could save US hospitals up to $22 billion per year.

VANCOUVER, BC, March 21, 2022 /CNW/ - **Asep Medical Holdings Inc. ("Asep Inc." or the "Company")** (CSE: ASEP) is pleased to announce the results of a study completed by RTI Health Solutions (RTI-HS), a leading US-based research consultancy specializing in health economics and outcomes research.

The independent report, contracted by Asep Inc. to better define the market opportunity, estimates the impact of early and accurate sepsis diagnosis. The report, prepared by Stephanie Earnshaw, Ph.D., Senior Vice President of Health Economics, and Cheryl McDade, Programmer Analyst, concludes that "substantial savings in lives, hospital days and costs result when a diagnostic assay becomes available to diagnose the onset of severe sepsis enabling early treatment."

According to RTI-HS's research and findings, "Overall, early and appropriate antibiotic treatment is associated with an absolute decrease of 7% in mortality and a reduction of length of stay in the hospital of 5.85 days. This results in a reduction in costs of $14,555 in patients with sepsis without organ dysfunction, $17,134 in patients with sepsis with organ dysfunction, and $19,300 in patients with septic shock (Table 1)." Given the prevalence of sepsis, the report reveals this could result in an overall savings of up to $22 billion annually in the US alone (calculated by multiplying the estimated savings per hospital by the number of relevant hospitals in the US).

**Table 1. Per Patient Costs by Patient Type**

| Patients | Diagnostic assay | Standard of care | Cost reduction |
|---|---|---|---|
| Sepsis without organ dysfunction | $29,902 | $44,455 | $14,544 |
| Sepsis with organ dysfunction | $47,526 | $64,660 | $17,134 |
| Septic shock | $53,384 | $72,684 | $19,300 |

The report's findings are highly relevant to Asep Inc.'s patented AI-driven sepsis diagnosis technology. The technology, called Sepset$^{ER}$, is a blood-based gene expression assay developed under the direction of leading UBC microbiologist and Asep Inc.'s Founding Director and COO, Dr. Robert E. W. Hancock. The test enables early and accurate diagnosis of the deadly disease sepsis, which caused 11 million deaths globally in 2017[1] and is also a major contributing factor in COVID-19 morbidity[2]. The technology is also the subject of an academic paper recently published on January 10, 2022, in the prestigious medical journal *eBioMedicine*[3].

The Sepset$^{ER}$ test is straightforward to implement, and results are obtained in about an hour in the emergency room or intensive care unit. This proprietary diagnostic technology differs from current diagnostic tests in enabling diagnosis of severe sepsis within 1-2 hours of first clinical presentation (i.e., in the emergency room), while many other diagnostics only provide diagnosis after 24-36 hours. Asep Inc. believes this will enable critical early decisions to be made by physicians regarding appropriate therapies and reduce overall morbidity and mortality due to sepsis. It is important to note that there are currently no other similar assays in development globally.

Dr. Hancock, Asep Inc.'s Founding Director and COO, commented, "Given the powerful economic and health impact of early diagnosis, we are currently engaged in performing formal studies of our Sepset$^{ER}$ test in emergency-room suspected sepsis patients. As long as the test continues to perform as it did in our preliminary studies[3], we anticipate filing a 510(k) application for regulatory approval in the last half of 2022."

Rudy Mazzocchi, Asep Inc.'s Chairman and CEO, stated, "These independent study results further validate the enormity of this global clinical problem and the financial burden to our healthcare systems and the devastating morbidity associated with this life-threatening syndrome. We remain focused on the expeditious clinical development and regulatory approval processes associated with our diagnostic and therapeutic technologies that can potentially impact millions of lives worldwide."

**ABOUT ASEP MEDICAL HOLDINGS INC.**

Asep Inc. is dedicated to addressing antibiotic failure by developing novel solutions for significant unmet medical needs. The Company is a consolidation of two existing private companies (Sepset Biosciences Inc. and ABT Innovations Inc.). Sepset Inc. is in the advanced development of proprietary diagnostic tools enabling the early and timely identification of severe sepsis. ABT Inc. is in the advanced development of broad-spectrum therapeutic agents to address multidrug-resistant biofilm infections.

Sepset Biosciences Inc. is developing a diagnostic technology that involves a patient gene expression signature that predicts severe sepsis, one of the significant diseases leading to antibiotic failure since antibiotics are the primary treatment for sepsis. Despite this, sepsis is responsible for nearly 20% of all deaths on the planet.

ABT Innovations Inc.'s peptide technology covers a broad range of therapeutic applications, including bacterial biofilm infections (medical device infections, chronic infections, lung, bladder, wound, dental, skin, ear-nose-and-throat, sinusitis, orthopaedic, etc.), anti-inflammatories, anti-infective immune-modulators and vaccine adjuvants. ABT Inc. is currently in pre-clinical development for two separate products.

**ABOUT RTI HEALTH SOLUTIONS**

RTI Health Solutions is a non-profit research consultancy that has been providing biopharmaceutical and medical device companies with evidence to demonstrate the safety, efficacy and cost-effectiveness of their products for over 20 years. RTI-HS is a business unit of RTI International, which was founded in 1958 and is headquartered near Raleigh, NC.

**FORWARD-LOOKING STATEMENTS**

This news release contains certain "forward-looking statements" within the meaning of such statements under applicable securities law. Forward-looking statements are frequently characterized by words such as "anticipates", "plan", "continue", "expect", "project", "intend", "believe", "anticipate", "estimate", "may", "will", "potential", "proposed", "positioned" and other similar words, or statements that certain events or conditions "may" or "will" occur. Forward-looking statements in this news release include, but are not limited to the completion of successful clinical testing of our Sepsis diagnostic test and its intended filing for regulatory approval; the undertaking of pre-clinical studies on our lead therapeutic, with the expectation that this will lead to fast track clinical trials; the ability of our diagnostic testing kit to diagnose sepsis within the stated timelines; that early testing and diagnosis of sepsis will spare expensive and unnecessary antibiotic treatment; and that the timely test results will allow doctors to make more effective treatment decisions. Various assumptions were used in drawing the conclusions or making the predictions contained in the forward-looking statements throughout this news release, including the assumption that our diagnostic testing kits will be adopted and used by doctors in diagnosing and treating sepsis. Forward-looking statements are based on the opinions and estimates of management at the date the statements are made and are subject to a variety of risks (including those risk factors identified in the Asep Medical Inc.'s prospectus dated November 9, 2021, and Asep Inc.'s most recent Management Discussion & Analysis) available for review under the Company's profile at www.sedar.com and uncertainties and other factors that could cause actual events or results to differ materially from those projected in the forward-looking statements. Asep Inc. is under no obligation, and expressly disclaims any intention or obligation, to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as expressly required by applicable law.

**CITATIONS**

1. Rudd, K. E. et al. Global, regional, and national sepsis incidence and mortality, 1990-2017: Analysis for the Global Burden of Disease Study. Lancet 395, 200–211 (2020)

2. Vincent, J.-L. COVID-19: it is all about sepsis. Future Microbiol 10.2217/fmb-2020-0312 doi:10.2217/fmb-2020-0312

3. Baghela, A. et al. Predicting sepsis severity at first clinical presentation: The role of endotypes and mechanistic signatures. *eBioMedicine* January 10, 2022

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