

Project idea form - small projects

Version 2.1

Registration no. (filled in by MA/JS only) _____

Project Idea Form

Date of submission 05/06/2025

1. Project idea identification

Project idea name	Cross-border Baltic Viral Sepsis Network: Advancing awareness and capacity building for improved patient outcomes
Short name of the project	BaSE-VIR
Previous calls	yes ☐ no ☒
Seed money support	yes ☐ no ☒

2. Programme priority

1. Innovative societies

3. Programme objective

1.1. Resilient economies and communities
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4. Potential lead applicant

Name of the organisation (original)	Universitätsmedizin Greifswald (UMG)
Name of the organisation (English)	University Medicine Greifswald
Website	https://www.medizin.uni-greifswald.de/de/home/
Country	DE



Type of Partner	Higher education and research institution
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Contact person 1

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Contact person 2

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Which organisation(s) in the planned partnership take part in a project within the Interreg Baltic Sea Region Programme for the first time? Please list the respective partners.

Uniwersytet Medyczny we Wrocławiu (UMW), Wrocław Medical University, <https://www.umw.edu.pl>, PL, contact person: Dr. med. Jakub Śmiechowicz, jakub.smiechowicz@umw.edu.pl; phone: +48 71 733 2310.

University Medicine Greifswald and Lunds Universitet, Lund University, Faculty of Medicine, <https://www.medicine.lu.se>, SWE, contact person: Prof. Dr. med. Adam Linder, adam.linder@med.lu.se; phone: +46462220000, have been lead applicant and partner in several Interreg Baltic Sea Region Programmes

5.1 Specific challenge to be addressed

The elimination of barriers to cross-border healthcare is a key priority of the EU. With increasing regional trade, professional mobility, and social interactions, the need for coordinated transnational health strategies to maintain resilient economies and communities has increased strongly. The COVID-19 pandemic underscored the importance of multilevel infectious disease surveillance. However, sepsis – a life-threatening bloodstream infection – remains critically under-addressed in cross-border health cooperation. Besides bacteria and fungi, virus-induced sepsis is an emerging clinical syndrome marked by a dysregulated immune response to severe viral infections. So far, viral sepsis has not been the focus of attention and viruses were only recently classified as initiators of sepsis (Sepsis Alliance. Sepsis and Viral Infections. 2024. <https://www.sepsis.org/sepsisand/viral-infections/>). In this regard, current diagnostic methods and therapeutic strategies for viral sepsis

remain inadequate making it a key concern under the Policy Area Health of the EU Strategy for the Baltic Sea Region (EUSBSR), which is among others to prevent the spread of infectious diseases. Pathogens do not respect borders, this is, why cross-border data exchange, joint prevention strategies, and coordination of interventions are essential, particularly in interconnected regions like the Baltic Sea Region (BSR). In addition, viral sepsis is the starting point for other life-threatening diseases such as thrombosis, heart attacks and stroke (de Boer et al., NEJM Evidence, 2024). Secondary bacterial infections in viral sepsis with influenza viruses or other viruses lead to a severe clinical course with increased mortality (Herold S et al., Eur Respir J, 2015).

To address this urgent challenge, we intend to establish a cross-border network initiative involving partners from Germany, Poland and Sweden to assess the existing diagnostic and clinical infrastructure regarding early detection of viral sepsis as a background for the building of enhanced capacities and for establishing consensus guidelines that will underpin future research and clinical practice. This will support the expertise of: a) higher education and research institutions b) hospitals and medical centres and will give advice to c) local, regional, and national public authorities to strengthen the resilience of healthcare systems in the Baltic Sea Region and to maintain the social and economic fabric of local communities.

5.2 Focus of the call

Greifswald and Lund are medium-sized district and university towns, whereas the Wrocław Medical University belongs to a major city. All three partners are tertiary hospitals providing maximum care and have an influx of patients from both urban and rural areas. In addition, the partners have close collaborations with surrounding smaller hospitals (secondary and primary care providers) and general practitioners in urban and rural areas if available.

In (viral) sepsis, every hour counts and is crucial for the survival of patients. Due to the undersupply of medical professionals, particularly in rural areas, it is becoming increasingly difficult to make potentially life-threatening diagnoses, such as infection and sepsis, at an early stage. In addition, “viral sepsis” in general is underdiagnosed. Pathogens do not stop at borders and the spread of pathogens is constantly increasing due to enhanced trade and exchange across borders. Therefore, our study aims to identify the gaps in the diagnostic and therapeutic infrastructure for recognition and early management of viral sepsis especially in rural areas. This will be done by comparative analysis of the different healthcare systems in three countries of the BSR. Based on the results a robust transnational (AI-based) diagnostic and treatment framework for viral sepsis will be established, to improve patient’s outcome taking into account the restricted medical care and accessibility of patients in rural areas.

6. Transnational relevance

Sepsis is a global health threat that requires transnational cooperation, as pathogens spread across borders. The Baltic Sea Region is particularly affected due to its high degree of mobility and cross-border trade networks, which shall be expanded even further, anchored e.g. in the “Nordic Council of Ministers-Vision 2030”. Without transnational coordinated action, early detection, surveillance, and prevention of viral sepsis efforts especially in rural areas remain limited, delaying patient’s care and



increasing the risk of pathogen transmission. Viral sepsis may be under-diagnosed if tests for viruses are not performed, and up to 42% of sepsis cases are culture-negative suggesting a non-bacterial cause (Lin GJ et al., Front Immunol, 2018).

During the COVID-19 pandemic the lack of harmonised reporting standards and microbiological diagnostics led to inefficiencies in national and international Public Authority response strategies. Moreover, health systems in countries of the BSR significantly differ regarding patient's access to examinations, the availability of specialised staff, examination options (diagnostic microbiological methods as well as other laboratory parameters and physical examinations), treatment options and anti-infectiva used. Due to these country-specific differences, it is difficult to estimate the diagnostic and clinical infrastructure regarding successful rapid diagnosis and treatment of viral sepsis. To overcome these limitations, we propose an international, collaborative approach to assess the respective infrastructure of three countries of the BSR and to carry out a comparative analysis of the country-specific healthcare systems with regard to the early detection and surveillance of viral sepsis and a specific focus on rural areas. Through this collaboration, we will enhance patient safety and will reduce sepsis mortality across the Baltic Sea Region, reinforcing sustainable and resilient healthcare structures in the region.

7. Specific aims to be addressed

Building trust that could lead to further cooperation initiatives

The representatives from three different countries of the BSR working together in this project are collaborating in a cross-border international network. Based on the characterisation of the existing infrastructures for recognition and management of viral sepsis in the different countries, possibilities for improved diagnostics/treatment will be identified and optimised cross-border standards for the treatment of viral sepsis can be developed and implemented in the future. The cooperation in the cross-border "Baltic Viral Sepsis Network" will build trust that can be transferred to further cooperation initiatives. In addition, the three partners from Germany, Poland and Sweden have been partners before in the European Sepsis Care Study Group to evaluate the status of bacterial sepsis care in European hospitals and worldwide (Scheer et al., 2025). Thus, further cooperation will strengthen trust, which could lead to further cooperation initiatives including more countries of the BSR.

Initiating and keeping networks that are important for the BSR

The collaborative network outlined here has the potential to be transitioned in a permanent network that can be expanded to include additional countries in the Baltic Sea Region. The overarching goal is to develop a cross-border, concerted approach for the rapid detection and thus targeted treatment of viral sepsis and its complications. An international strategy is also crucial to prevent future pandemics by enabling the early identification of potential viral spread patterns.

Bringing the Programme closer to the citizens

By involving both hospitals and physicians in urban and rural areas, the citizens' need for comprehensive and rapid care in viral sepsis will be addressed. In addition, the results of the planned transnational survey will be shared with NGOs and public authorities in the three countries. Currently, they provide information and support to the patients and their families, containing also sepsis

checklists for the recognition of sepsis. Based on our data diagnostic and treatment frameworks for viral sepsis can be further included.

Allowing a swift response to unpredictable and urgent challenges

The onset of viral sepsis is usually an unpredictable and urgent challenge, as each hour without targeted therapy can determine patient's survival. By establishing transnational guidelines that define cross-border diagnostic procedures and treatment protocols, viral sepsis can be detected early and treated more precisely. This will dramatically improve patient outcomes. A network for the detection and management of viral sepsis is also beneficial for patients in rural areas. Physicians can raise queries to hospitals and medical centres by telemedicine if viral sepsis is suspected, enabling swift decisions on whether the patient needs rapid admission and treatment at a higher-level hospital.

8. Target groups

In the middle of the cross-border Baltic Viral Sepsis network are the three university hospitals in Greifswald, Lund and Wrocław, which directly have to tackle the challenge of providing patients with suspected viral sepsis with fast and efficient treatment. By implementing standardized transnational guidelines for the diagnosis and management of viral sepsis (output of the project) in clinical practice, the partner/target groups can have a direct positive influence on the course of the disease in patients. The surrounding hospitals in the three regions will also benefit directly from the network presented here by integrating the established quality standards into everyday clinical practice. Local hospitals and medical centres will be connected to general practitioners in rural areas in order to support them in the early detection of viral sepsis. Conversely, the reporting system should be involved by reporting the occurrence of viral sepsis, including co-infection and concomitant diseases, through medical doctors who diagnose the viral sepsis to local (Gesundheitsämter, DE; Smittskyddsenheten, SWE; District Sanitary-Epidemiological stations, PL) and national public authorities (Robert Koch-Institut, DE; Folkhälsomyndigheten, SWE; National Institute of Public Health – National Institute of Hygiene, PL). From there, (local) outbreaks can be evaluated and made available to the (rural) public. Patients (and the public in the three countries/regions of the Baltic Sea Region included here) are addressed through the involvement of NGOs and can benefit directly from the results of the project. The NGOs listed here are non-profit patient organizations committed to spreading knowledge about sepsis and creating the conditions for sepsis patients to live their lives with a good quality of life.

Please use the drop-down list to define up to five target groups that you will involve through your project's activities.	Please define a field of responsibility or an economic sector of the selected target group	Specify the countries and regions that the representatives of this target group come from.
1. Higher education and research institution	University Medicine; Lund University, Lund University Virus Centre; Medical University; Healthcare	Greifswald, MV, Germany; Lund, Sweden, Wrocław, Poland

2. Hospital and medical centre	Healthcare	Regions and rural areas next to Greifswald, Lund (Region Skåne) and Wrocław
3. Local public authority	Competence centres of health: Health authorities, Provincial offices; Smittskyddsenheten; District Sanitary-Epidemiological stations	Mecklenburg Western Pommerania, Province of Skåne, Lower Silesia
4. National public authority	Robert Koch-Institut; Folkhälsomyndigheten; National Institute of Public Health - of Hygiene	Germany, Sweden, Poland
5. NGO	Prevention and Defence of Sepsis: European Sepsis Alliance, Deutsche Sepsis-Hilfe e.V., Sepsisföreningen, Sepsisfonden, "Surviving Sepsis" Association	Europe, Germany, Sweden, Poland

9. Contribution to the EU Strategy for the Baltic Sea Region

Please indicate if your project idea has the potential to contribute to the implementation of the Action Plan of the EU Strategy for the Baltic Sea Region (<https://eusbsr.eu/implementation/>).

yes ☒ no ☐

Please select which policy area(s) of the EUSBSR your project idea contributes to most.

PA Health



The MA/JS may share your project idea form with the respective policy area coordinator(s) of the EUSBSR. You can find contacts of PACs at the EUSBSR website (<https://eusbsr.eu/contact-us/>).

☐ If you disagree, please tick here.

10. Partnership

In the network presented here, a survey will be made of which structures for the early diagnosis and treatment of viral sepsis are available or missing in the organizations of the participating partners and the surrounding rural regions. The aim is to analyze the handling of viral sepsis in regions of the three countries Germany, Sweden and Poland of the Baltic Sea Region as representatives of three different healthcare systems. The three partners University Medicine Greifswald (including Prof. Dr. med. E.A. Idelevich, PD Dr. med. M. Gründling and Dr. med. C.S. Scheer), Lund and Wrocław have already worked together in a project on the status of sepsis care (Scheer et al., Am J Respir Crit Care Med, 2025) but without considering sepsis caused by viruses due to the fact that “viral sepsis” has only recently been introduced. The previous cooperation will have a positive effect on the planned cooperation, as common procedures have already been worked out and are based on mutual trust. The development of the survey will mainly take place at the University Medicine Greifswald with the help of the partners. As the healthcare systems of the three countries involved differ, it is important to define a standardised transnational approach. Differences can be found regarding the insurance models, the distribution of hospitals (which also depends on the region within the countries), the numbers of general practitioners, using own diagnostic laboratories or external laboratories and registry of sepsis. From Sweden Prof. Adam Linder, Infection Medicine, Lund University, will participate and coordinate the collaboration with the surrounding hospitals, medical centres and local authorities. In addition, he will use his existing cooperation with the NGOs Sepsisföreningen and Sepsisfonden for the planned project.

Dr. med. Jakub Śmiechowicz, Clinical Department of Anaesthesiology and Intensive Therapy, Wrocław Medical University, will act as coordinator for Poland and will involve the regional hospitals, medical centres and local authorities as well as the NGO “Surviving Sepsis” Association.

11. Workplan

To assess the awareness and infrastructure for the recognition and management of viral sepsis in the three different BSR countries, we will design and conduct a transnational comprehensive survey on health care providers’ knowledge of viral sepsis, as well as on existing laboratory and clinical diagnostic facilities across Germany, Poland and Sweden. Partners will map current equipment, technical expertise, and resource gaps to create an infrastructure enhancement plan that leverages existing networks.

The survey will be conducted in the three tertiary University hospitals (Higher education and research institutions) as well as in secondary and primary hospitals and medical centres. In addition, medical doctors from surrounding rural areas will be implemented, if available. The participants will be recruited by the respective national coordinator based on information of the professional societies



from the three countries involved. The survey will include questions regarding awareness of viruses causing sepsis, the differentiation from other sepsis-causing agents such as bacteria and fungi, available specialised healthcare personnel, and the implementation of viral sepsis management bundles. Furthermore, the network aims to identify which diagnostic methods are used for the detection of viruses and how the results are translated into therapeutic approaches in an international comparison. The diagnosis and treatment of secondary diseases such as thrombosis, heart attack, stroke and co-infection with other pathogens will be taken into account. Cross-border challenges in the healthcare system will also be addressed, such as how to mitigate workforce shortages, which is especially the case in rural areas – for example, through the generation and use of AI-based solutions. So far, the reporting systems for infection control (National public authorities, Robert-Koch-Institut, Folkhälsomyndigheten, National Institute of Public Health – National Institute of Hygiene) only include reporting of single infectious agents lacking information on co-infections or even long-term complications.

The questionnaires will be evaluated by the three partners and will be used as basis for a consensus statement that outlines standardized transnational guidelines for the diagnosis and management of viral sepsis (output). The outcomes will be shared with the respective NGOs (European Sepsis Alliance, deutsche Sepsis-Hilfe e.V., Sepsisföreningen, Sepsisfonden and "Surviving Sepsis" Association), thereby providing that the findings are also distributed to doctors in private practice and patients in rural and urban areas. Results and checklists will be fixed in online portals supporting the implementation of the quality standards into clinical practice, which could be also done by telemedicine. Our long-term goal is to integrate this approach into healthcare structures in the Baltic Sea Region to improve patient safety and care quality sustainably.

12. Planned budget

ERDF budget (planned expenditure of partners from the EU)	EUR 500,000.00
Norwegian budget (planned expenditure of partners from Norway)	EUR XXX
Total budget (including preparatory costs)	EUR 500,000.00

13. Project consultation

Please indicate if you wish to have a consultation (online meeting) with the MA/JS to discuss your project idea

yes ☒ no ☐

14. Questions to the MA/JS

Questions related to the content of the planned project specification of the indicators, i.e. the output





Questions related to specific cost options scheme regarding our project, budget calculation
budgeting and expenditure

Any other questions *(max. 1.000 characters incl. spaces)*

15. Additional information

(max. 1.000 characters incl. spaces)

Your account in BAMOS+

Please remember that to officially submit your application you need to access our electronic data exchange system BAMOS+. More information about the process of applying for your account in BAMOS+ you will find here:

<https://interreg-baltic.eu/gateway/bamos-account>

