



European Sepsis Alliance contribution to the WHO European Work Program 2020-2025

The European Sepsis Alliance (ESA) welcomes the WHO European Work Program 2020-2025 and believes that the program's priorities respond to the main challenges that society is facing and that need a strong and globally coordinated response. We thank the WHO Europe Office for the opportunity to comment on the document.

Core Priority 2: Protecting against health emergencies

The COVID-19 crisis reminds us that infectious diseases and sepsis present a major global health threat. It is important to note that from 2 to 5% of patients with COVID-19, and as many as 25-50% of those hospitalized, develop sepsis, tragically contributing to the already enormous burden of deaths from sepsis. Sepsis affects yearly between 47 and 50 million people worldwide and causes 11 million deaths¹. According to the latest estimates, sepsis affects around 3,4 million Europeans and causes almost 700.000 deaths yearly², the majority of which is preventable. The yearly incidence of sepsis in Europe is higher compared to cancer, for example³. Furthermore, sepsis also accounts for significant healthcare costs.

Sepsis is the body's extreme response to an infection, to which the immune system overreacts causing organ damage. It is a life-threatening medical emergency which without treatment can rapidly lead to death. Up to 50% of sepsis survivors suffer from long-term consequences, including amputations and disabilities. Similar impairments have been reported in a majority of severely ill COVID-19 patients. It's expected that around 20% of patients discharged from hospital following COVID-19 will require readmission with sepsis.

1 Global, regional, and national sepsis incidence and mortality, 1990-2017: analysis for the Global Burden of Disease Study – The Lancet

2 Mellhammar L, Wullt S, Lindberg Å, Lanbeck P, Christensson B, Linder A. Sepsis Incidence: A Population-Based Study. Open Forum Infect Dis. 2016;3(4):ofw207. Published 2016 Dec 8. doi:10.1093/ofid/ofw207

3 ECIS, European Cancer Information System.

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We support

World Sepsis Day – September 13
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People with COVID-19 light symptoms are often recommended not to go to the hospital and just auto-isolate. However, they are not empowered to identify the signs of deterioration. Therefore, it is critically important that we educate the general public right now around how to identify sepsis. We believe that an awareness raising initiative must be put in place by WHO in Europe in order to help citizens recognize sepsis early. This should be part of the program's core priority 2, "Protecting against health emergencies".

The 2017 WHA Resolution 70.7 on improving the prevention, diagnosis and clinical management of sepsis⁴ urges the Member States to develop and implement national action plans to improve the prevention, diagnosis and treatment of sepsis. European countries should start implementing this resolution to increase preparedness and prompt response to health emergencies including sepsis as this would tangibly help tackle the current and next pandemics, and save lives.

To achieve this, the EPW 2020-2025 should reiterate the requests of the WHA Resolution on sepsis and recognize sepsis as a global health priority. The key targets established by the Global Sepsis Alliance⁵ for 2030 are:

- implementation of National Action Plans on Infection Management
- promotion and adoption of early recognition systems and standardized emergency treatment of sepsis
- access to appropriate rehabilitation services
- improvement of public and professional understanding
- awareness and improvement of measurement of the global burden of sepsis and the impact of sepsis control and management interventions.

In this regard, we suggest including under point "2. Enhance country preparedness and response capacity" the following (in bold):

"(a) Support, in collaboration with partners, the improvement or completion of high-quality, adequately resourced and stress-tested preparedness plans for various types of emergencies, **including infection management national plans**. Ensure that these plans make provision for continuity of access to health care support for the population as a whole, including vulnerable groups."

⁴ https://apps.who.int/gb/ebwha/pdf_files/WHA70/A70_R7-en.pdf

⁵ <https://static1.squarespace.com/static/597f001fb3db2bde61e79d4a/t/5e32c28264c4842a2d6cb3b9/1580384900180/The+2030+World+Sepsis+Declaration.pdf>

The National Action Plan on Infection Management has three pillars: infection prevention, antimicrobial stewardship, and the urgent recognition and management of sepsis. The national action plans for sepsis should also:

- Introduce sepsis protocols in all hospitals, informed by ongoing exchanges of best practice between Member State health authorities
- Develop a common sepsis code for emergency care, which requires hospitalization for antimicrobial therapy, and which suggests a suspicion of organ dysfunction.
- Raise awareness of sepsis across Europe by launching a European Sepsis Awareness Week.

In order to maintain information on country preparedness and response capacity (Core Priority 2, point 3b) we suggest to launch a European Observatory for Sepsis, to carry out comprehensive analysis of sepsis impact on public health and its costs, collect best practices in prevention, identification and management of sepsis, and monitor the implementation of national action plans. The data about sepsis should be reported annually in the European Health Report. Sepsis prevention and treatment should be part of good COVID-19 and future pandemics response.

ESA through its members and collaboration with other Regional Alliances under the umbrella of the Global Sepsis Alliance has the “capacity and ability of associated networks to rapidly produce the high-quality guidance material and tools”⁶ critical in the fight against sepsis, the final common pathway to death from most infectious diseases, as requested in the EPW Core Priority 2, point 3d.

Core Priority 3: Promoting health and well being

The best remedy for sepsis is the prevention of infection by taking good care of chronic conditions, accessing recommended vaccines, and practicing good hygiene. Antimicrobial therapy, such as antibiotics, are the mainstay of lifesaving therapy, but highly effective antivirals are missing and the number of bacteria who are multi-resistant to antibiotics is increasing. Therefore, the ESA strongly support the flagship initiative “Immunization agenda 2030” and the focus on antimicrobial resistance (AMR) and patient safety in the Core Priority 3, “Promoting health and well-being”. However, the threat of AMR is inextricably linked to the public health threat from sepsis. AMR highlights the importance of

⁶ Core priority 2, par 3. (d)

infection prevention, including the importance of the provision of clean water, sanitation and hygiene, and vigorous vaccination programs; but also underscores the importance of robust and considered approaches to the recognition and management of sepsis. Sepsis also contributes significantly to the burden of unsafe care because often it is not diagnosed early enough or it is caused by hospital acquired infections. A recent study, not yet published, demonstrated that patients with severe COVID-19 have also a higher incidence of nosocomial infections (compared to other pulmonary infections by influenza or bacterial pneumonia).

In this regard, we suggest highlighting sepsis in the Core Priority 3, point 3 “Safer health care”, as follows (in bold):

- “Make antibiotic resistance **and sepsis** a Region-wide priority (including by tackling the challenges posed by antibiotics in agriculture, aquaculture, and hospital and pharmaceutical industry waste; supporting regional and global efforts to develop new generation antibiotics; and promoting rational prescribing **and promoting early recognition systems, standardized emergency treatments and allocation of necessary resources to prevent and treat sepsis, respectively**).

How can ESA contribute to making the Regional Office collaborate more effectively and efficiently?

The ESA is keen to support the EPW 2020-2025 with a pool of experts with different medical backgrounds from all over Europe. Another strength of our organisation is the capacity to reach out to a broad network of patient groups, who can represent at the same time the receivers and powerful amplifiers of WHO initiatives. Our activities focus on research, advocacy and sepsis survivor support.