Meeting overview: background, objectives and expected outcomes

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World Health Organization
Improving the prevention, diagnosis and clinical management of sepsis

Report by the Secretariat

1. The Executive Board at its 140th session considered an earlier version of this report; the Board then adopted resolution WHA 140.5.

2. Sepsis arises when the body’s response to infection injures its own tissues and organs. It can lead to septic shock, multiple organ failure and death, if not recognised and managed promptly. It is a major cause of maternal and neonatal mortality, and mortality in low- and middle-income countries and affects millions of hospitalised patients in high-income countries, where rates of sepsis are climbing rapidly. The present report summarises the problems of sepsis as a key issue for global health. Discusses the Secretariat’s actions to address it and briefs member states of priorities actions for the future.

3. An international consensus has recently recommended that sepsis should be defined as “life-threatening organ dysfunction caused by a dysregulated host response to infection” and septic shock as “a subset of sepsis in which particularly profound circulatory, cellular, and metabolic abnormalities are associated with a greater risk of mortality than with sepsis alone.” Both definitions are accompanied by clinical criteria to translate them into practice to support diagnosis and clinical management during patient care.

4. The occurrence and frequency of sepsis are determined by a complex interplay of many host, pathogen and health system response factors. Several chronic diseases, such as chronic obstructive pulmonary disease, cancer, cirrhosis, AIDS and other immunodeficiency disorders, are associated with an increased risk of sepsis. Demographic and social factors, such as diet and lifestyle (for example, use of tobacco and alcohol), poverty, sex and race, also influence the occurrence of sepsis. Access to healthcare systems, in particular intensive care, as well as the timeliness and quality of care, are also associated with the occurrence of sepsis and its mortality rates.

5. Most types of microorganisms can cause sepsis, including bacteria, fungi, viruses and parasites, such as those that cause malaria. Bacteria such as Streptococcus pneumoniae, Haemophilus influenzae, Staphylococcus aureus, Escherichia coli, Salmonella spp and Neisseria meningitides are the most common bacteraemic pathogens. Manifestations of sepsis and septic shock can be the first frequent pathway of infections with seasonal influenza viruses, dengue viruses and highly transmissible

6. See additional WHA 140.7 and the summary records of the Executive Board at its 140th session, fourth meeting and seventh meeting, sections 2.


World Health Organization

Improving the prevention, diagnosis and clinical management of sepsis

The Seventieth World Health Assembly.

Having considered the report on improving the prevention, diagnosis and clinical management of sepsis;

Noting that health care-associated infections represent a common pathway through which sepsis can place an increased burden on health care resources;
Recommendations to MS (1)

- to include prevention, diagnosis and treatment of sepsis in national health systems strengthening in the community and in health care settings, according to WHO guidelines

- to reinforce existing strategies or develop new ones leading to strengthened infection prevention and control programmes…

- to continue in their efforts to reduce antimicrobial resistance and promote the appropriate use of antimicrobials…including the development and implementation of comprehensive antimicrobial stewardship activities

- to develop and implement standard and optimal care and strengthen medical countermeasures for diagnosing and managing sepsis in health emergencies, including outbreaks, through appropriate guidelines with a multisectoral approach

- to increase public awareness of the risk of progression to sepsis from infectious diseases, through health education, including on patient safety…
Recommendations to MS (2)

- to develop **training for all health professionals** on infection prevention and patient safety, and on the importance of recognizing sepsis... and of communicating with patients, relatives and other parties using the term “sepsis” in order to enhance public awareness

- to promote **research** ..., including research for **new antimicrobial and alternative medicines, rapid diagnostic tests, vaccines and other important technologies, interventions and therapies**

- to apply and improve the **use of the International Classification of Diseases system** to establish the prevalence and profile of sepsis and antimicrobial resistance, and to develop and implement **monitoring and evaluation tools** ...including the development and fostering of **specific epidemiologic surveillance systems**...

- to engage further in **advocacy efforts to raise awareness of sepsis**, in particular through supporting existing activities held every year on 13 September in Member States

**IT IS THE DUTY OF ALL ORGANIZATIONS TO SUPPORT MS IN THIS PLAN**
## View of stakeholders on the 70th WHA resolution

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Suggested Actions</th>
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<tr>
<td><strong>The World Health Assembly urges member states to:</strong></td>
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<tr>
<td>Develop national policy and processes to improve the prevention, diagnosis, and</td>
<td>Governments should develop national action plans in collaboration with the</td>
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<td>treatment of sepsis.</td>
<td>professions and patient-advocacy groups.</td>
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<td>Improve infection prevention and control strategies: access to clean water,</td>
<td>Policymakers should evaluate public access to WASH; professional bodies</td>
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<td>sanitation, and hygiene (WASH); vaccines; clean childbirth; surgical site</td>
<td>should develop strategy for prevention and control of health facility—</td>
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<td>infection prevention; and protective equipment for health workers.</td>
<td>acquired infection, monitor practice, and support improvement.</td>
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<td>Continue efforts to combat antimicrobial resistance (AMR) by promoting</td>
<td>WHO AMR team in partnership with governments and professions should</td>
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<td>judicious use of antimicrobials.</td>
<td>implement comprehensive antimicrobial stewardship activities.</td>
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<td>Develop and implement measures to recognize and manage sepsis as a core part</td>
<td>Multisector approach should incorporate specific guidelines for sepsis</td>
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<td>of national and international health emergency response plans (e.g., during</td>
<td>awareness and management in emergency-response plans.</td>
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<td>epidemics, pandemics, and natural disasters).</td>
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<tr>
<td>Increase public awareness of sepsis, particularly among high-risk groups, to</td>
<td>Member states should design nationally relevant, specific messaging for</td>
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<td>ensure prompt recognition and presentation for treatment.</td>
<td>educating the public and health care providers.</td>
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<td>Promote public awareness by training health care workers to use the term</td>
<td>Professional bodies should develop educational materials for health</td>
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<td>“sepsis” in communication with patients, relatives, and other parties.</td>
<td>professionals at all levels; health care provider organizations should</td>
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<td>Train health care workers about the importance of sepsis as a time-critical</td>
<td>disseminate them and reinforce their message.</td>
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<td>medical emergency and as a key element of averting deterioration and ensuring</td>
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<td>patient safety.</td>
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<td>Promote research to develop innovative means to prevent, diagnose, and treat</td>
<td>Professional bodies and health authorities should develop education for</td>
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<td>sepsis.</td>
<td>health professionals at all levels; provider organizations should disseminate</td>
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<td>Improve the <em>International Classification of Diseases</em> (ICD) coding to allow</td>
<td>and reinforce education.</td>
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<td>for better assessment of the burden of both sepsis and AMR.</td>
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<td>Monitor progress toward improving outcomes for patients and survivors.</td>
<td>Governments and health care provider and professional organizations should</td>
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<td>Develop evidence-based strategies for policy change related to prevention,</td>
<td>develop and implement monitoring and evaluation tools, epidemiologic surveillance</td>
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<td>diagnosis, and treatment of sepsis and survivors’ access to rehabilitation.</td>
<td>systems, and national registries.</td>
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<td>Engage in advocacy efforts to raise sepsis awareness by supporting activities</td>
<td>Governments should change health policy where high-quality evidence supports</td>
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<td>promoting such awareness including but not restricted to World Sepsis Day</td>
<td>change.</td>
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<td>(September 13 each year).</td>
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- WHA 70.7
  - [http://apps.who.int/gb/e/e_wha70.html](http://apps.who.int/gb/e/e_wha70.html)
- Reinhart K et al. *NEJM* 2017
**Recommendations to WHO’s DG**

- to develop **WHO guidance** including guidelines, as appropriate, on **sepsis prevention and management**

- to **draw attention to the public health impact of sepsis**, including by publishing a **report on sepsis** describing its global epidemiology and impact on the burden of disease, **and identifying successful approaches for integrating the timely diagnosis and management of sepsis into existing health systems**...

- to **support Member States**, as appropriate, to define standards and establish the necessary guidelines, infrastructures, laboratory capacity, strategies and tools for reducing the incidence of, mortality from and long-term complications of sepsis

- to **collaborate with other organizations** in the United Nations system, partners, international organizations and other relevant stakeholders…while taking into account relevant existing initiatives

- to **report to the Seventy-third World Health Assembly** on the implementation of this resolution
**View of stakeholders on the 70th WHA resolution**

The World Health Assembly requests that the director general:

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<th>WHO guidance on sepsis prevention and management.</th>
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- Draw attention to public health impact of sepsis through a WHO report by the end of 2018.  
  | WHO should publish, independently or in collaboration with others, a report on global epidemiology of sepsis and impact on burden of disease.  
  | Director general or delegates should develop context and country-specific guidance or guidelines in collaboration with national and international experts, patient advocates, and patient-safety representatives.  

- Identify successful approaches for integrating timely diagnosis and management of sepsis into health systems and provide guidance on adoption.  
  | Director general or delegates in conjunction with others should identify initiatives whose success is supported by reliable data and provide advice to member states on adapting such approaches to local conditions and resources.  

- Support member states in defining standards and improving infrastructure and developing and implementing strategies for reducing incidence, mortality, and long-term burden.  
  | WHO in partnership with governments should promote national standards and guidelines related to recognition, treatment, laboratory support, and follow-up and support learning, including in low- and middle-income countries.  

- Collaborate globally to improve access to safe, affordable, effective prevention including immunization, particularly in developing countries.  
  | WHO should work with member states to improve public access to WASH, vaccination programs, and professional health care providers.  

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WHA 70.7 [http://apps.who.int/gb/e/g_who70.html](http://apps.who.int/gb/e/g_who70.html)  
Reinhart K et al. *NEJM* 2017; 377;414-17
Main aspects of sepsis according to the resolution

1. Epidemiology and global burden of sepsis
2. Prevention
3. Diagnosis
4. Clinical management, including AMR
Main actions for tackling sepsis according to the resolution

- Awareness raising activities
- Reports
- Policies
- Evidence-based guidelines
- Implementation strategies
- Education and training activities
- Research
- Networking, coordinating partners’ actions
1st Technical Expert Meeting on Sepsis - Objectives

• To share an overview of major initiatives ongoing worldwide on sepsis
• To present current WHO activities and plans
• To discuss global needs and priorities for action
• To gather input on the critical role of WHO and key areas of work
• To explore collaborations between WHO and other key players with the common goal of progressing the sepsis agenda
Main agenda sessions

- Overview of WHO work on sepsis
- Overview of international sepsis activities and situation
- *Working groups* on mapping out global work on sepsis and identification of gaps and actions needed
- Priorities and plans for action at country and international level
- Roles, responsibilities and collaborations to disseminate the resolution and implement the plans
- Closing remarks