Detecção precoce de sepse e segurança do paciente. O que fazer?
Flavia Machado
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;

Concerned that sepsis continues to cause approximately six million deaths worldwide every year, most of which are preventable;

Recognizing that sepsis as a syndromic response to infection is the final common pathway to death from most infectious diseases worldwide;

Considering that sepsis follows a unique and time-critical clinical course, which in the early stages is highly amenable to treatment through early diagnosis and timely and appropriate clinical management;

Considering also that infections which may lead to sepsis can often be prevented through appropriate hand hygiene, access to vaccination programmes, improved sanitation and water quality and availability, and other infection prevention and control best practices; and that forms of sepsis can be associated with nosocomial infections are severe, hard to control and have high fatality rates;

Recognizing that while sepsis itself cannot always be predicted, its all effects in terms of mortality and long-term morbidity can be mitigated through early diagnosis and appropriate and timely clinical management;

Recognizing also the need to improve measures for the prevention of infections and control of the consequences of sepsis, due to inadequate infection prevention and control programmes, insufficient health education and recognition in respect of early sepsis, inadequate access to affordable, timely and appropriate treatment and care, and insufficient laboratory services, as well as the lack of integrated approaches to the prevention 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;
World Health Assembly urges member states to:

✓ Develop **national policy** and processes to improve the prevention, diagnosis and treatment of sepsis, according to WHO guidelines

✓ Improve **infection prevention and control strategies**: access to clean water, sanitation & hygiene (WASH), vaccinations, clean childbirth, surgical site prevention and protective equipment for health workers

✓ Continue efforts to **combat antimicrobial resistance** (AMR) by promoting judicious use of antimicrobials

✓ **Train healthcare workers** on the importance of sepsis as a time-critical medical emergency as a key element of deterioration and patient safety

✓ **Promote research** to develop innovative means to prevent, diagnose and treat sepsis
World Health Assembly urges member states to:

- Improve the International Classification of Disease (ICD) coding to better **establish the burden of both sepsis** and antimicrobial resistance

- Monitor progress toward **improving outcomes for sufferers and survivors**

- Develop **evidence-based strategies for policy change around prevention, diagnosis and treatment of sepsis** and survivors’ access to rehabilitation

- Engage in **advocacy efforts** to raise sepsis awareness by supporting activities promoting sepsis awareness including but not restricted to World Sepsis Day (13th September each year)
World Health Assembly urges member states to:

✓ (5) to increase public awareness of the risk of progression to sepsis from infectious diseases, through health education, including on patient safety, in order to ensure prompt initial contact between affected persons and the health care system.
And the change begins...

Improving the prevention, diagnosis and clinical management of sepsis

Sepsis arises when the body’s response to any infection injures its own tissues and organs. If not recognized early and managed promptly, it can lead to septic shock, multiple organ failure and death. It is a serious complication of infection in all countries and particularly in low- and middle-income countries. It represents a major cause of maternal and neonatal morbidity and mortality.

Although a precise estimate of the global epidemiological burden of sepsis is difficult to ascertain, some scientific publications reported that it affects more than 30 million people worldwide every year, potentially leading to 6 million deaths. The burden of sepsis is most likely highest in low- and middle-income countries.

Sepsis is frequently underdiagnosed at an early stage when it is still potentially reversible. In the community setting, it often presents as the clinical deterioration of common and preventable infections. Sepsis also frequently results from infections acquired in health care settings, which are one of, if not the most frequent adverse events during care delivery. As these infections are often resistant to antibiotics, they can rapidly lead to deteriorating clinical conditions.

Related links
- Improving the prevention, diagnosis and clinical management of sepsis
- WHA resolution on improving the prevention, diagnosis and clinical management of sepsis

Departments working on sepsis
- Antimicrobial resistance
- Classifications
- Emergencies preparedness, response
- Essential Medicines and Health Products
- Infection prevention and control
- Innovation Access and Use
- Maternal, newborn, child and adolescent health
- Sexual and reproductive health
WHO Sepsis Technical Expert Meeting

16–17 January 2018

Best Western Chavannes-de-Bogis Hotel,
Chavannes-de-Bogis, Switzerland
Global impact of World Sepsis Day on digital awareness of sepsis: an evaluation using Google Trends

Jelmer Savelkoel1, Theodora A. M. Claushuis2, Tjitske S. R. van Engelen2, Luuk J. J. Scheres3,4 and W. Joost Wiersinga1,2

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Mean differences in relative search volume between the period of interest and the control period</th>
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<tbody>
<tr>
<td>Year</td>
<td>Mean RSV in the 4 weeks surrounding WSD</td>
</tr>
<tr>
<td>2007</td>
<td>59.8</td>
</tr>
<tr>
<td>2008</td>
<td>81.8</td>
</tr>
<tr>
<td>2009</td>
<td>50.3</td>
</tr>
<tr>
<td>2010</td>
<td>61.8</td>
</tr>
<tr>
<td>2011</td>
<td>77.3</td>
</tr>
<tr>
<td>2012 (WSD)</td>
<td>84.0</td>
</tr>
<tr>
<td>2013 (WSD)</td>
<td>84.0</td>
</tr>
<tr>
<td>2014 (WSD)</td>
<td>92.0</td>
</tr>
<tr>
<td>2015 (WSD)</td>
<td>94.0</td>
</tr>
<tr>
<td>2016 (WSD)</td>
<td>64.5</td>
</tr>
</tbody>
</table>

Fig. 1 Mean differences in relative search volume between the period of interest (4 weeks surrounding World Sepsis Day) and the control period (remaining weeks of the corresponding year) expressed as percentages. WSD World Sepsis Day
Dia Mundial da Sepse
São Paulo
Comunidade
53.507 curtiram isso

A sepse se não tratar ela mata
14 mil visualizações • Há 4 meses

Sepse - A rapidez que salva vidas
18 mil visualizações • Há 1 ano

A sepse mata de montão
14 mil visualizações • Há 4 meses

!!La rapidez que salva vidas!!
1,1 mil visualizações • Há 1 ano
DIA MUNDIAL DA SEPSE
13 de setembro
Pare a sepse, salve vidas.
"A BRANCA DE NEVE DEU UMA MORDIDA E CAIU EM UM SONO PROFUNDO: ESSE CASO VOCÊ CONHECE O PORQUE, MAS, E OS OUTROS?

PENSE:
PODE SER SEPSE?"
VACINAÇÃO INFANTIL
SIGA O ZÉ GOTINHA MAIS UMA VEZ E PROTEJA A SAÚDE DAS CRIANÇAS

Seja um doador de órgãos. Seja um doador de vidas.

QUANDO VOCÊ COLOCA EM PRIMEIRO LUGAR.
VACINE-SE CONTRA A GRIPE
30 de abril a 20 de maio

FEBRE AMARELA
Informação pra todos, vacina pra quem precisa.

DENGUE E CHIKUNGUNYA
O zika aumentou. É a responsabilidade de todos também.

Um mosquito não é mais forte que um país inteiro.

ZIKAZERO
ANY CHILD WHO:
1. Is breathing very fast
2. Has a ‘fit’ or convulsion
3. Looks mottled, bluish, or pale
4. Has a rash that does not fade when you press it
5. Is very lethargic or difficult to wake
6. Feels abnormally cold to touch

MIGHT HAVE SEPSIS
Call 999 and just ask: could it be sepsis?

ANY CHILD UNDER 5 WHO:
1. Is not feeding
2. Is vomiting repeatedly
3. Hasn’t had a wee or wet nappy for 12 hours

MIGHT HAVE SEPSIS
If you’re worried they’re deteriorating call 111 or see your GP

THE SEPSIS SIX
1. Give 02 to keep SATS 94%
2. Take blood cultures
3. Give IV antibiotics
4. Give a fluid challenge
5. Measure lactate
6. Measure urine output

The UK Sepsis Trust registered charity number (England & Wales) 1158843
How to prevent sepsis: The role you can play in health care and communities

#sepsis #handhygiene

What is sepsis?
Sepsis arises when an infection alters the body's normal response, causing injury to tissue and organs.

Every year sepsis affects:
- 30 million people worldwide
- 3 million newborns
- 1.2 million children
- 6 million people
- Mills up to 500,000 newborns
- causes 1 in 10 maternal deaths

Who is at risk?
- Pregnant women
- Neonates
- The elderly
- The immunosuppressed
- Patients with chronic diseases
- Hospitalized patients

It's in your HANDS
Prevent Sepsis in Health Care
Surviving Sepsis Campaign: International guidelines for management of severe sepsis and septic shock: 2008


Surviving Sepsis Campaign: Guidelines for Management of Severe Sepsis and Septic Shock: 2012

Surviving Sepsis Campaign guidelines for management of severe sepsis and septic shock
Diretrizes de tratamento

1–hora

- Coleta de lactate
- Culturas
- Antibióticos
- Fluidos
- Vasopressores

2 – 4 hours

- Nova coleta de lactato
Prevenir sepse é prevenir infecção

Na comunidade
• Estado nutricional
• Cobertura vacinal
• Controle de comorbidades
• Tratamento de co-infecções
• Infraestrutura
• Agua limpa, condições sanitárias e de higiene
• Parto limpo

Em instituições de saúde
• Lavagem de mãos
• Bundles de prevenção

Prevenir sepse é diagnosticar a infecção precocemente
Estratégias em diferentes níveis...

- Unidades Básicas de Saúde
- Unidades de Pronto Atendimento
- Serviços de Emergência
Criar o time de sepse
Empoderar enfermeiras
Motivar farmacistas e pessoal de laboratório
Definir estratégias de triagem setoriais
Definir protocol de tratamento
Definir guia de antibiotioterapia empírica
Divulgação
Mecanismos de auditoria e feedback
Melhorias com base em planos de ação
Mudando a realidade usando melhoria de qualidade

Latin America Sepsis Institute database
Intervention: multifaceted sepsis protocol implementation
Period: 2005-2014
N = 21,203 patients

Quality Improvement Initiatives in Sepsis in an Emerging Country: Does the Institution’s Main Source of Income Influence the Results? An Analysis of 21,103 Patients

Critical Care Medicine July 6th 2017
Custo total por paciente:
Basal: 29.3 (95 %CI 23.9–35.4)
Ultimo trimestre: 17.5 (95 % CI 14.3–21.1) mil dólares
(diferença média -11,815; 95 % CI -18,604 to -5,338)
O que determina redução de letalidade?

N = 3426
Before after study
Prospective
9 public hospitals

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<td>Time to sepsis diagnosis (h)</td>
<td>0.0005</td>
<td>1.015 (1.007 - 1.024)</td>
</tr>
<tr>
<td>Compliance with the 6h bundle</td>
<td>0.253</td>
<td>0.864 (0.671 - 1.109)</td>
</tr>
</tbody>
</table>

Compliance with the 6 hour bundle throughout the intervention, according to the success of intervention

Time for sepsis diagnosis throughout the intervention, according to the success of intervention
Detecção precoce: qual a melhor estratégia de triage?
The issue with qSOFA - LASI database

NON-ICU patients sepsis and septic shock

Figure 3 – Mortality rates according to qSOFA score in the cohort of patients with sepsis and septic shock.
Our Story

On April 01, 2012, our lives changed forever.
RECOMENDAÇÃO CFM Nº 6/2014

Recomendar que em todos os níveis de atendimento à saúde sejam estabelecidos protocolos assistenciais para o reconhecimento precoce e o tratamento de pacientes com sepse; a capacitação dos médicos para o enfrentamento deste problema; e a promoção de campanhas de conscientização do público leigo, entre outras providências.
 Boas iniciativas!

✓ Projeto de lei Vereador Aurelio Nomura – Camara Municipal de São Paulo

✓ Projeto PROADI - UPAS

 Hospital Sirio Libanes

 Institute of Health Improvement

 Instituto Latino Americano de Sepse
✓ Doença de alta morbidade e letalidade no Brasil.

✓ As principais medidas para combate-la são:

  • Aumento da percepção do problema
  • Prevenção
  • RECONHECIMENTO PRECOCIE
  • Tratamento adequado