Life After Sepsis Fact Sheet

Definition: Sepsis is the body's overwhelming and life-threatening response to infection, which can lead to tissue damage, organ failure, and death.

Who it Hurts: While sepsis is an equal-opportunity killer, impacting the sick, the well, and people of all ages, some groups are more likely to be affected. These include very young children, older adults, and those with a weakened immune system.

Prevention: The risk of sepsis can be reduced by preventing or quickly identifying and managing infections. This includes practicing good hygiene, staying current with vaccinations, and seeking treatment when infections are suspected.

Treatment: Sepsis is a medical emergency that requires urgent attention and rapid treatment for survival. Sepsis can be treated and, in many instances, lives are saved by using existing and proven protocols.

Recovery: Many individuals fully recover from sepsis, while many others are left with long-lasting effects, such as amputations or organ dysfunction, like kidney failure. Other after-effects of sepsis are less obvious, such as memory loss, anxiety, or depression.

Symptoms: When it comes to sepsis, remember **It's About TIME™**:

T – Temperature - higher or lower than normal

I - Infection – may have signs or symptoms of infection

M – Mental Decline - confused, sleepy, difficult to rouse

E – Extremely Ill – "I feel like I might die," severe pain or discomfort

If you **suspect sepsis** (observe a combination of these symptoms), see your medical professional immediately, CALL 911, or go to a hospital with an advocate and say, **"I AM CONCERNED ABOUT SEPSIS."**

Post-sepsis syndrome: Up to 50% of sepsis survivors are left with physical and/or psychological long-term effects, a condition known as post-sepsis syndrome.[1,2,3,4] These effects include:

- Insomnia, difficulty getting to sleep or staying asleep
- Nightmares, vivid hallucinations and panic attacks
- Disabling muscle and joint pains
- Extreme fatigue
- Poor concentration
- Decreased mental (cognitive) functioning
- Loss of self-esteem and self-belief

Life After Sepsis in Adults

- About one-third of all patients and more than 40% of older patients have another hospitalization within three months of the initial sepsis, most commonly due to a repeat episode of sepsis or another infection.[1,2]
- One-half to two-thirds of all hospital readmissions after sepsis are infection-related.[5]
- The higher risk of infection following sepsis results from suppression or weakening of the immune system in the first few weeks and months following the initial bout of sepsis.[1,5]
- In addition to infection, other common causes of rehospitalization after sepsis are heart failure, kidney failure, and pulmonary aspiration (inhaling food into the lungs).[2]
- Almost 60% of sepsis survivors experience worsened cognitive (mental) and/or physical function.[3]
- Older sepsis patients experience on average 1 to 2 new limitations on activities of daily living (e.g. bathing, dressing, managing money) after hospitalization.[3]
- One-sixth of sepsis survivors experience difficulties with memory, concentration, and decision making.[2]
- Older severe sepsis survivors are at higher risk for long-term cognitive impairment and physical problems than others their age who were treated for other illnesses.[3]
- Many sepsis survivors report symptoms of post-traumatic stress disorder.[6]
- Patients who have had sepsis are more likely to develop symptoms of post-traumatic stress disorder than other ICU survivors.[7]
- A recent analysis estimates that 1% of sepsis patients undergo one or more surgical amputations of a limb or digit as a result of sepsis.[8]
- Younger adult sepsis survivors (under 45 years old) are at a higher risk of death during the first 2 years after hospital discharge than patients hospitalized for infection without sepsis. These sepsis survivors tend to have more chronic (co-occurring) conditions (comorbidities) that may contribute to this increased risk.[9]
- Patients recovering from sepsis are at increased risk of stroke and heart attack (myocardial infarction) in the first 4 weeks after hospital discharge. Younger patients (aged 20 to 45) are at a higher risk for these events compared to older patients (those over age 75).[10]
- Caregivers to patients who have survived critical illness are at risk for poor mental health outcomes. 67% of caregivers (family members or friends) report high levels of depressive symptoms.[11]
- The average cost for a hospital readmission at 30 days after the initial sepsis hospitalization is $16,852. This amounts to more than $3.5 billion in annual costs.[12]
- Readmissions after 30 days following an initial hospitalization for sepsis account for 13% of all sepsis-related hospitalization costs.[12]

Life After Sepsis in Children

- More than 20% of child sepsis survivors are readmitted to the hospital within three months of the initial hospitalization.[13]
- More than half of the readmissions after a sepsis hospitalization in children are related to recurring sepsis or infection.[13]

- The average cost of a readmission after a sepsis hospitalization for a child is $7,385, which is 27% more than a non-sepsis readmission.[13]
- Among pediatric sepsis survivors, almost one third (31%) are discharged from the hospital with some disability, including cognitive or physical impairments, skin graft, amputation, or hearing loss.[14]
- Almost 1 in 6 pediatric severe sepsis survivors are discharged from the hospital with more disabilities than when they were admitted.[15]
- Survival from sepsis can be very challenging with many children requiring amputations. Many more experience a decrease in cognitive and physical function, with 34 percent of pediatric sepsis survivors (more than 1 in 3) showing a decline in their functional status at 28 days after hospital discharge.[15]
- Some research points to problems in cognitive function (mental work) after critical illness in children. In one small study, children who had spent time in the pediatric ICU for critical illness showed deficiencies in tests of memory-related tasks compared to healthy children. Survivors of critical illness in this study also had declines in their academic performance as evaluated by teachers when compared to healthy children. In another study, 44% of children who had survived septic shock were found to have problems with cognitive function when compared to healthy children.[17,18]
- Pediatric severe sepsis survivors who have spent time in the pediatric ICU experience post-traumatic stress disorder more often than children discharged from the general hospital ward.[15]
- Critical illness in children takes a toll on family and caregivers. Higher rates of post-traumatic stress disorder and symptoms of deteriorating physical and mental health such as headaches, fatigue, and anxiety are reported for parents of survivors of pediatric critical illness.[15]
- Almost 25% of pediatric sepsis survivors have a diminished health-related quality of life, a measure of the effect of health on physical, mental, emotional and social function.[19]

To find out more please visit Sepsis.org

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