An Overview of Sepsis Survivorship in US

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TABLE OF CONTENTS

01 INTRODUCTION

02 METHODOLOGY

03 LITERATURE REVIEW

04 FINDINGS

05 CONCLUSION

06 REFERENCES

01

INTRODUCTION

INTRODUCTION

Centers for Medicare and Medicaid Services introduced the Hospital Readmissions Reduction Program (HRRP) which ensures the quality of care by linking payments to it. The Affordable Care Act (ACA) established it in 2012. According to this act, hospitals are penalized for having high readmission rates. One of the major reasons for readmission rates accounts for sepsis. Even though many patients survive sepsis, they face medical challenges after that. They are called sepsis survivors.

Sepsis refers to medical condition in which the immune system starts harming the body instead of fighting against the infection. This is also called as blood poisoning. It leads to organ dysfunction, such as difficulty breathing (problems with the lungs), low or no urine output (kidneys), abnormal liver tests (liver), and changes in mental status (brain).

On an average, around 30% of patients diagnosed with severe sepsis do not survive. Up to 50% of survivors suffer from post-sepsis syndrome. Early detection and treatment are the only solution for survival and limiting disability for survivors, until a cure for sepsis is found.

There are some renowned healthcare professionals and healthcare organizations who are constantly working to improve sepsis patients' condition in their hospitals. They have carried out extensive research for improving the quality of life of sepsis survivor

One example is society of critical care medicine and the European society of intensive care medicine who initiated the Surviving Sepsis Campaign who did extensive research to develop evidence-based guidelines, guide implementation of a performance improvement program to improve quality of life for sepsis survivors.

PREVALENCE

Each year, at least 1.7 million adults in America develop sepsis and nearly 270,000 die as a result. Up to 50% of sepsis survivors are left with physical and/or psychological long term effects, a condition known as post-sepsis syndrome.

02

METHODOLOGY

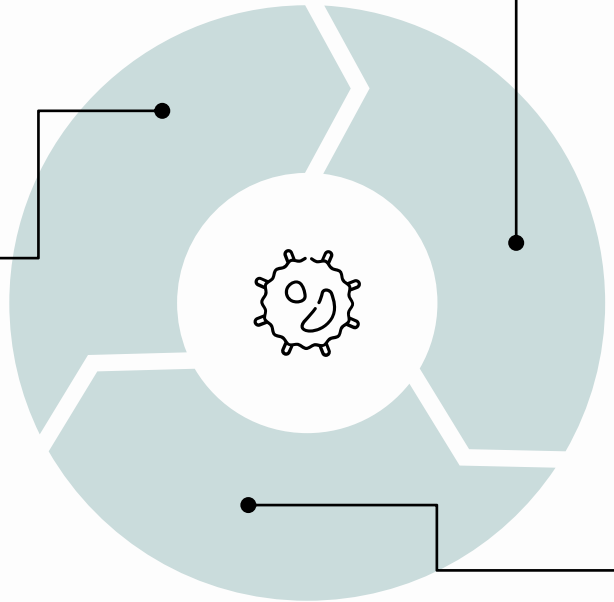
RESEARCH QUESTION

What are the outcomes of sepsis survivorship and how to alleviate these affects?

OBJECTIVES

OBJECTIVE 1

To understand sepsis survivorship



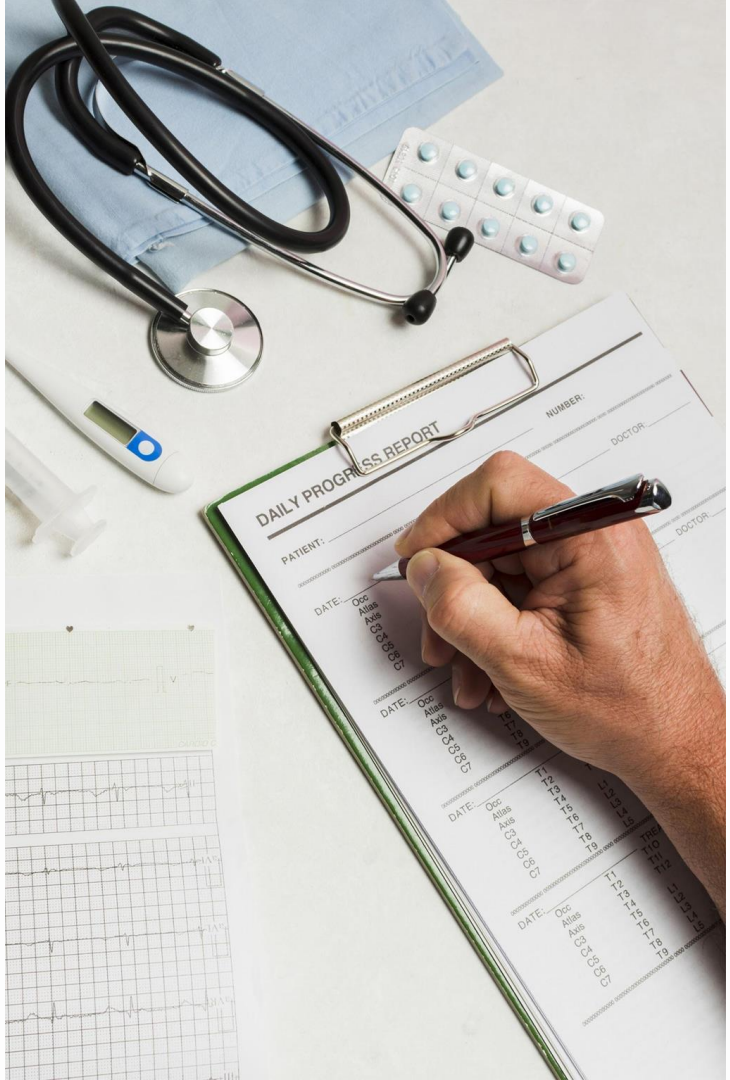
OBJECTIVE 2

To identify outcomes of sepsis survivorship

OBJECTIVE 3

To find interventions to improve the health of sepsis survivors

METHODOLGY



STUDY DESIGN

Descriptive observation study design

TYPE OF DATA

Secondary data (Research studies, Blogs, Surveys, Analyst Reports, Company Websites)

INCLUSION CRITERIA

All articles from 2015 and originating from USA

EXCLUSION CRITERIA

Articles older than 2015 and not from USA

SAMPLE SIZE

20 resources which include research, guidelines, paper, blogs and organization websites

DATA ANALYSIS PLAN

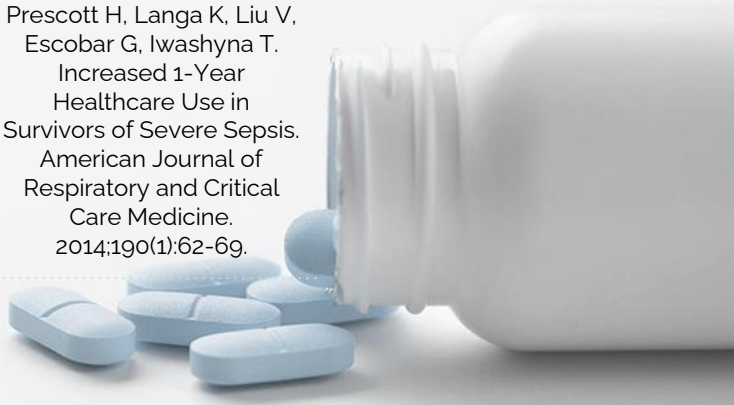
A thorough review and conclusion was done based on the data found.

03

LITERATURE REVIEW

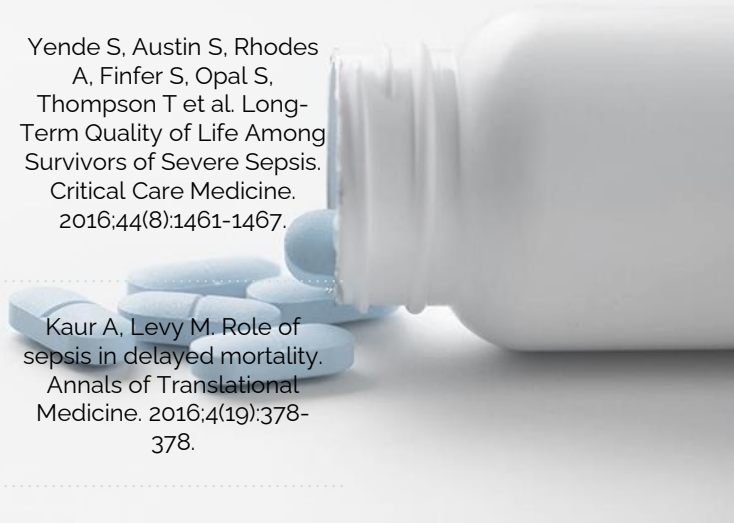
LITERATURE REVIEW

AUTHOR	STUDY ARTICLE	RESULT	REFERENCES
Hallie C. Prescott	Enhancing Recovery From Sepsis: A Review	The paper recommended that the hospitals provide referrals for rehabilitation to give a smooth transition for sepsis survivors and prevent them from developing any health issues.	Prescott H, Angus D. Enhancing Recovery From Sepsis. JAMA. 2018;319(1):62.
Hallie C. Prescott	Increased 1-year Healthcare Use in Survivors of Severe Sepsis	Hospital inpatient service use is significantly increased after severe sepsis, and post-discharge management may be an opportunity to reduce resource use.	Prescott H, Langa K, Liu V, Escobar G, Iwashyna T. Increased 1-Year Healthcare Use in Survivors of Severe Sepsis. American Journal of Respiratory and Critical Care Medicine. 2014;190(1):62-69.



LITERATURE REVIEW

AUTHOR	STUDY ARTICLE	RESULT	REFERENCES
Stephanie Parks Taylor	Association between Adherence to Recommended Care and Outcomes for Adult Survivors of Sepsis	Delivery of recommended post sepsis care elements that were associated with reduced morbidity and mortality after hospitalization for sepsis.	Taylor S, Chou S, Sierra M, Shuman T, McWilliams A, Taylor B et al. Association between Adherence to Recommended Care and Outcomes for Adult Survivors of Sepsis. Annals of the American Thoracic Society. 2020;17(1):89-97.
Sachin Yende	Long-Term Quality of Life Among Survivors of Severe Sepsis: Analyses of Two International Trials	Participants who lived alone prior to severe sepsis, 1/3rd had died and of those who survived, a further one third had not returned to independent living by 6 months.	Yende S, Austin S, Rhodes A, Finfer S, Opal S, Thompson T et al. Long-Term Quality of Life Among Survivors of Severe Sepsis. Critical Care Medicine. 2016;44(8):1461-1467.
Amanpreet Kaur	Role of sepsis in delayed mortality	An attack of sepsis serves as the driving force behind increased risk for mortality.	Kaur A, Levy M. Role of sepsis in delayed mortality. Annals of Translational Medicine. 2016;4(19):378-378.



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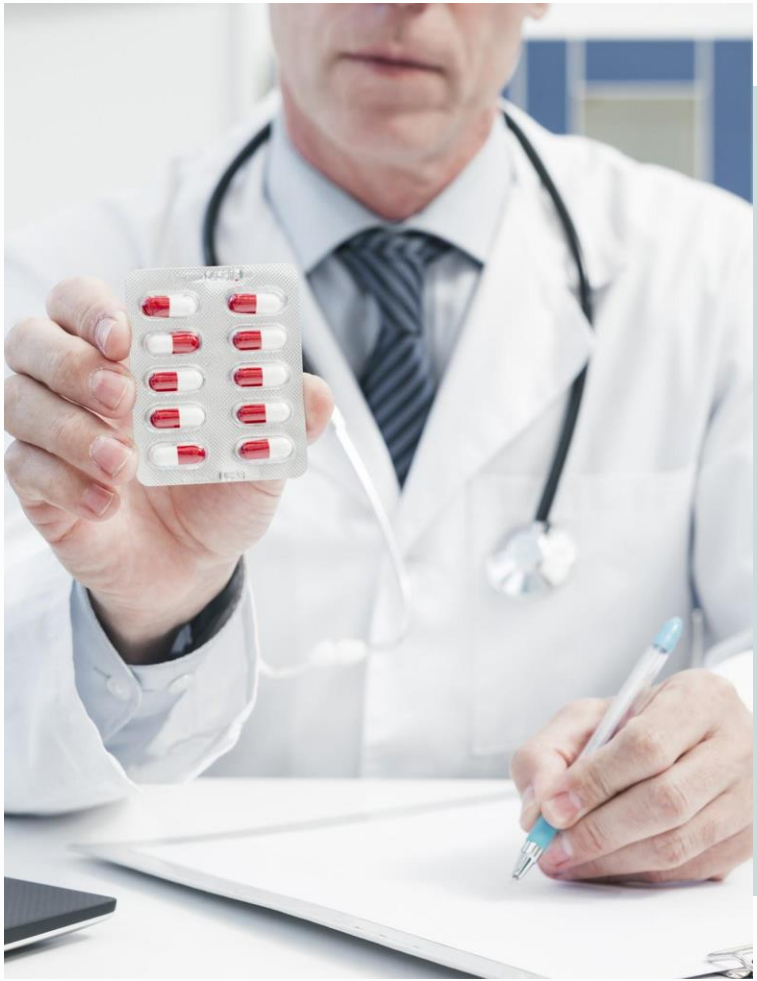
FINDINGS

UNDERSTANDING SEPSIS SURVIVORSHIP



Patients who survive a severe attack of sepsis are called sepsis survivors. Even though the sepsis survivors are discharged from hospital, they suffer from multiple problems.

Sepsis leads to weakening of the immune system in the first few weeks and months following the initial bout.

Severe cases of readmission include heart failure, kidney failure, and pulmonary aspiration. Not only are they weak physically, damage occurs mentally as well. They face experience difficulties with memory, concentration, and decision making.

They need assistance in carrying out basic activities sometimes like bathing, dressing, managing money. Surgical amputations can occur in 1% of the survivors.

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. Readmissions after 30 days following an initial hospitalization for sepsis account for 13% of all sepsis-related hospitalization costs.

Another common difficulty that 50% of the sepsis survivors is post-sepsis syndrome. It occurs due to extended stay in the intensive care unit.

Symptoms include difficulty sleeping, nightmares, hallucinations, panic attacks, disabling, muscle or joint pain, difficulty concentrating, decreased cognitive (mental) functioning, loss of self-esteem and depression

To alleviate the stress, the patients can be referred to emotional and psychological support (counseling, cognitive behavioral therapy, or neuropsychiatric assessment) and physical support such as physical therapy or neurorehabilitation.

OUTCOMES OF SEPSIS SURVIVORSHIP

Increased risk of rehospitalization

Within the 30 days of discharge from hospital, its likely that 5 survivors are hospitalized. Due to sepsis, their immune system is weakened. They are also prone to pneumonia and cardiovascular infections. 20% of pediatric survivors are readmitted soon after discharge.

Effect on physical health of patients

Most of them complained about being unable to perform their daily activities, mobility and self-care. Many patients also undergo amputation of their limbs which causes a disability. They also experience symptoms like body aches, dry and itchy skin and brittle nails. Organ dysfunctions may also occur after episode of sepsis.

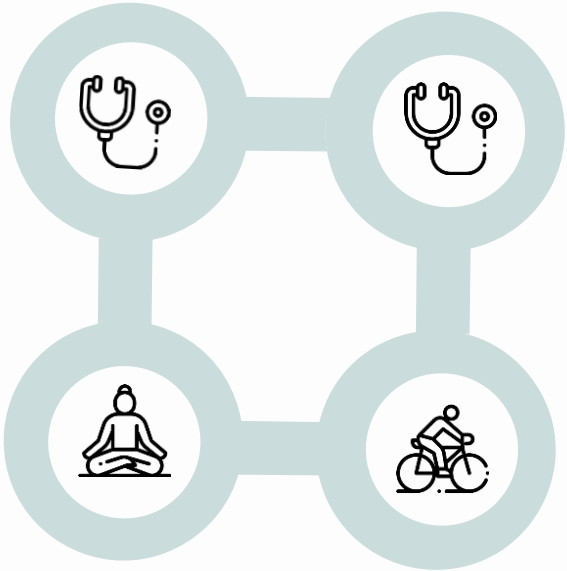
Effect on psychological health of patients

Sepsis survivors reported symptoms of depression, cognitive impairment, anxiety and fatigue after being discharged from the hospital. .They have post-traumatic stress, trouble in sleeping and often experience nightmares.

INTERVENTIONS TO IMPROVE HEALTH OF SEPSIS SURVIVORS

Physician-patient interaction
After discharge of patient, the healthcare facilities should introduce specifically designed telephonic interviews with the patient for 12 months regarding any post-sepsis symptoms or decrease in quality of life. This ensures regular monitoring of the patients and supplies relevant information on patient clinical status to the care provider.

Training of physicians and nurses
The care providers must be provided training on teaching their sepsis survivor patients and their families, on how to take care post discharge. Proper communication and effective self-management tips is crucial to guide the survivors.



Discharge management
Several severe cases cannot be discharged directly and require transitional care nurse who conducts a comprehensive assessment of the patient's health status, health behaviors, level of social support, and goals, develops an individualized plan of care consistent with evidence-based guidelines, in collaboration with the patient and her doctors; and conducts daily patient visits, focused on optimizing patient health at discharge.

Post-discharge rehabilitation
After discharge, the physician is advised to give the patient a referral to critical illness survivors to post discharge rehabilitation. Rehabilitation team includes physical and occupational therapists, speech pathologists, social workers, and/or athletic trainers, according to the patient's existing medical problems.

05

CONCLUSION

- Many sepsis survivors face multiple symptoms post discharge which may include extreme weakness and fatigue, breathlessness and general body pains or aches. They also face difficulty in moving around, difficulty in sleeping. They may lose weight, lose appetite or food may not taste normal. This is called post sepsis syndrome.
- This may lead increased risk to readmissions due to weak immunity and weakening of the body physically and mentally.
- To improve the quality of life of sepsis survivors, there are a few interventions which include effective patient and physician communication, training of staff, discharge management and adequate rehabilitation.
- Research on quality of life of sepsis survivors is very less. Even though many organizations and professionals are working towards finding more solutions, more evidence is required. They face a lot of health-related difficulties after discharge. Organizations must introduce sepsis survivorship programs in their facilities to support them and their families.

06

RESOURCES

RESOURCES

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THANK YOU!