

# EARLY GOAL-DIRECTED THERAPY IN THE TREATMENT OF SEVERE SEPSIS AND SEPTIC SHOCK

Rivers et al., NEJM 2001.

canadiem MVP INFOGRAPHIC SERIES

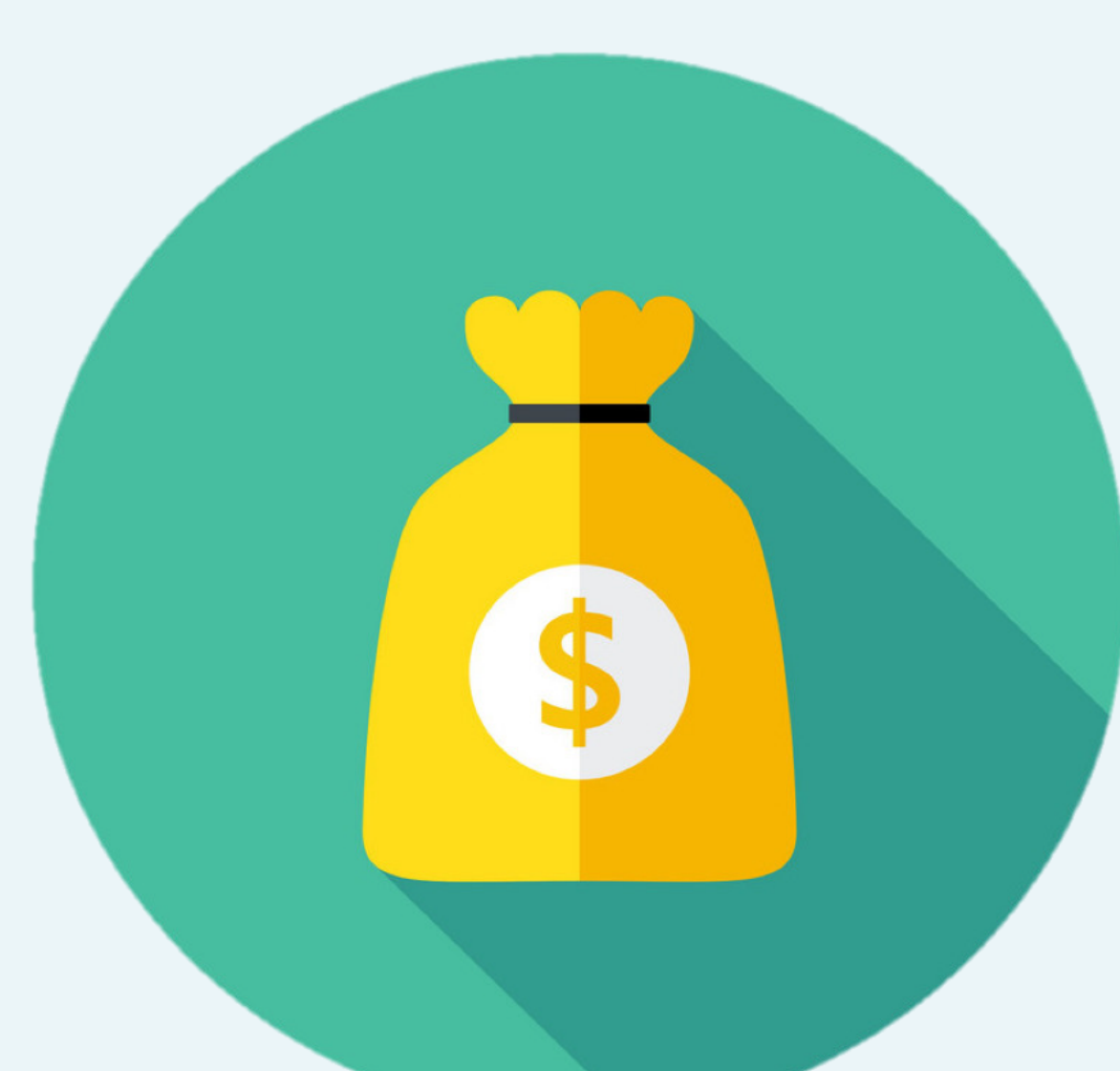
## Sepsis and Septic Shock (2001)



751 000 cases of sepsis and septic shock per year



>215 000 deaths annually and increasing



Annual cost of disease estimated at 16.7 billion dollars



How can ED management of sepsis reduce mortality?

## The Study

263



Sepsis and Septic Shock

130



Standard Therapy

VS

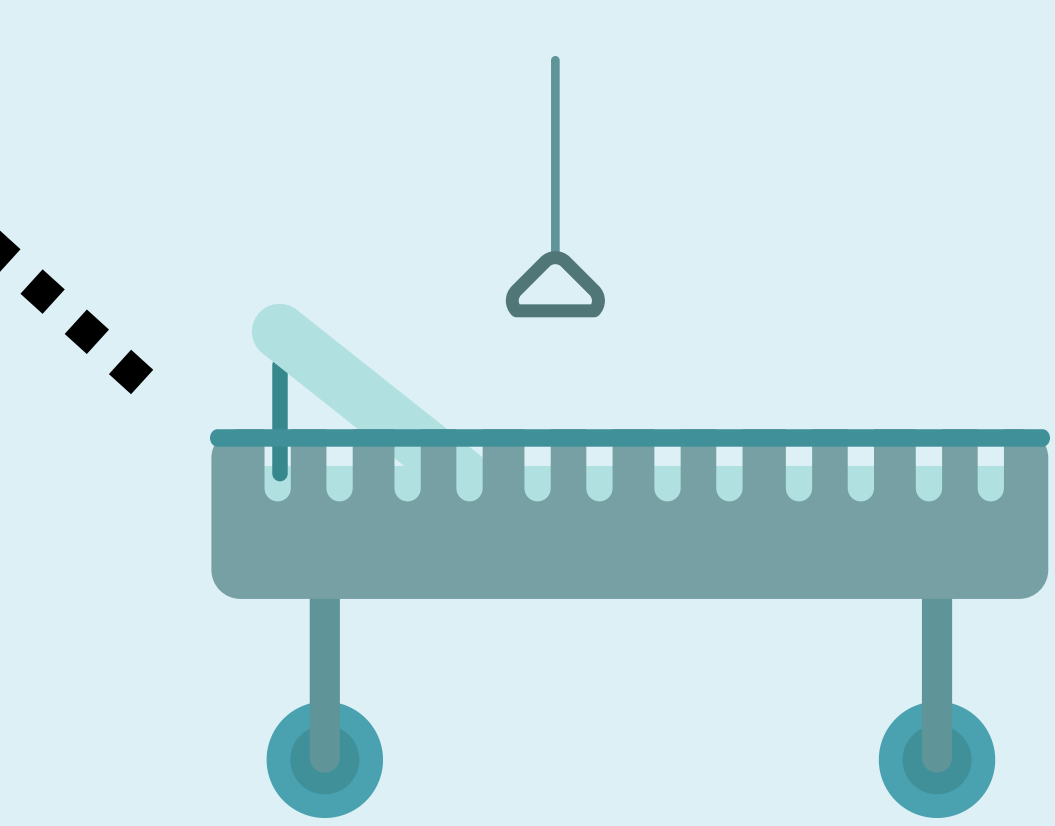


x6 hours

133



Early Goal-Directed Therapy

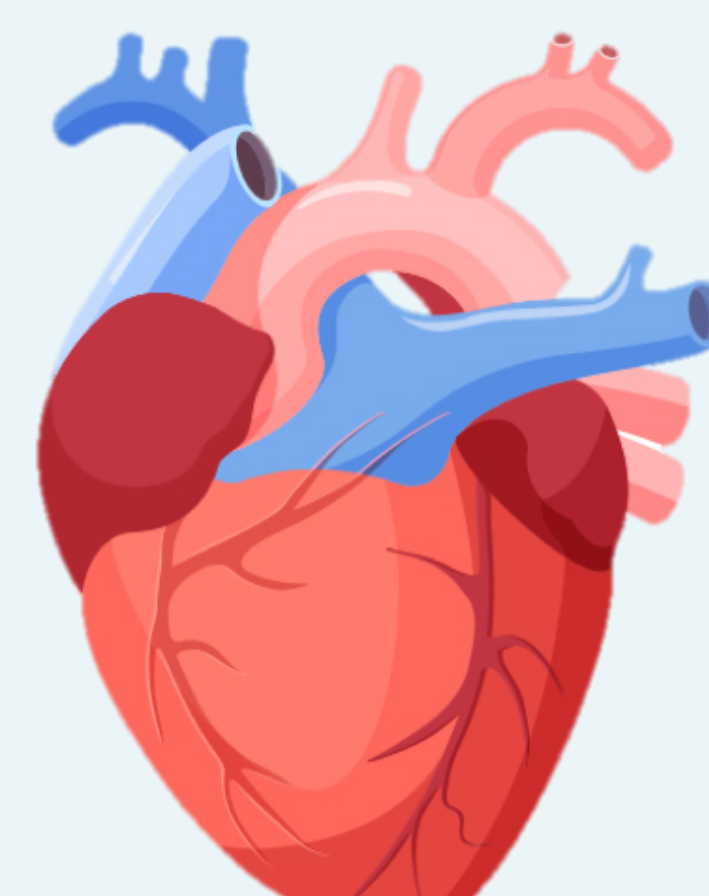


Then, admission to ICU

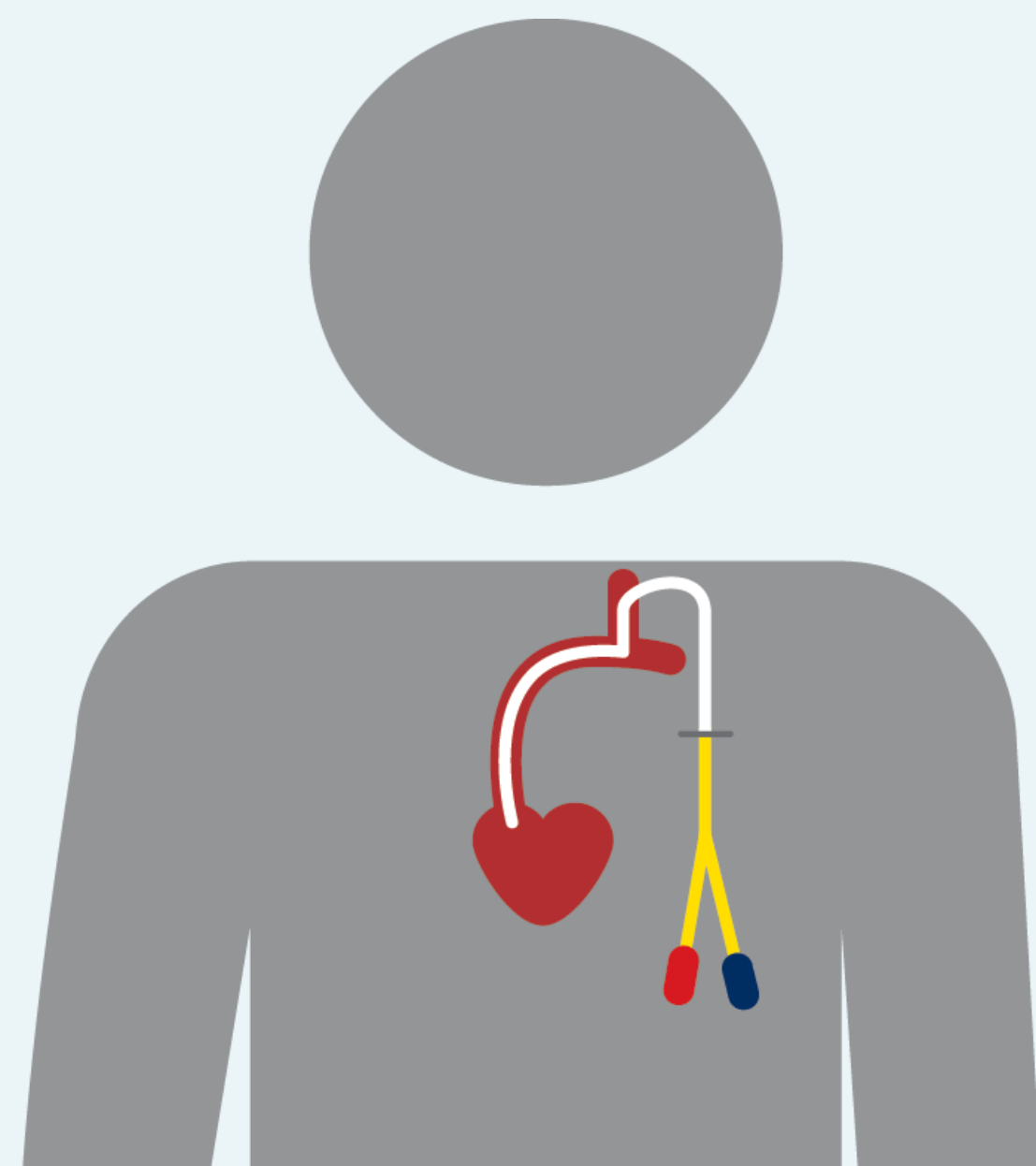
## Early Goal-Directed Therapy



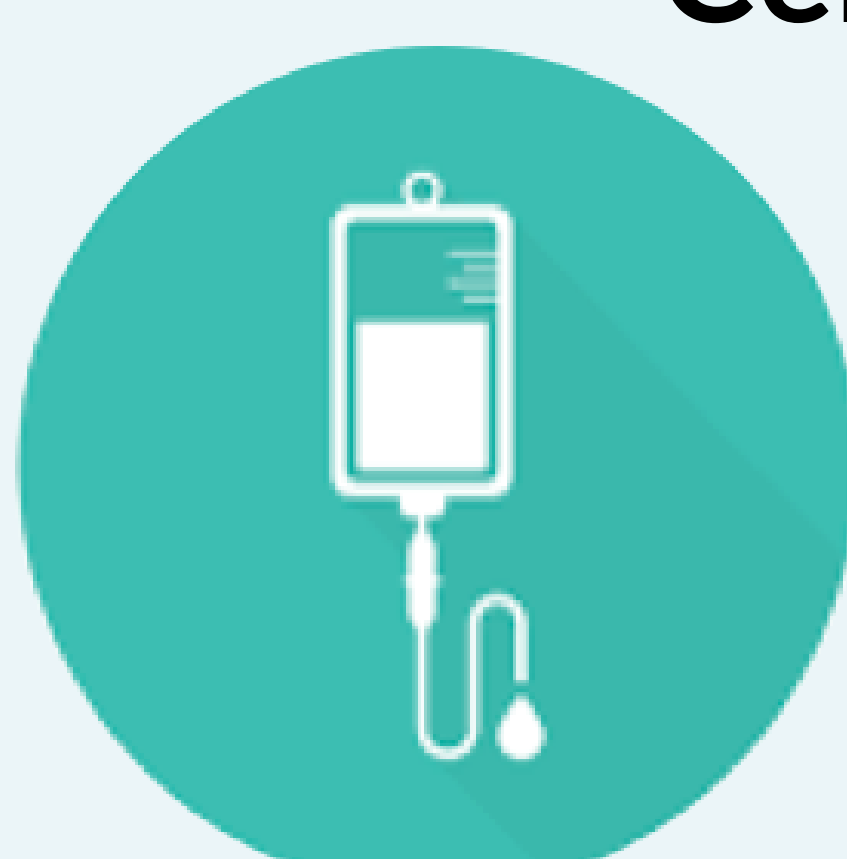
500 mL crystalloid boluses every 30 minutes to maintain CVP between 8-12 mmHg



Dobutamine to optimize cardiac output



Central Venous Monitoring to maintain Central Venous O<sub>2</sub> above 70%



Pressors and vasodilators to maintain MAP between 65-90 mmHg



Packed red blood cells to maintain Hematocrit above 30%

## Results

In patients with severe sepsis and septic shock, **EGDT reduces mortality** and multi-organ dysfunction.

	EGDT	Standard
In-Hospital mortality	38*	59
30-day Mortality	40*	61
60-day Mortality	50*	70

\*Significance attained: p<0.05

There were no differences in use of hospital resources (fluid volume, mechanical ventilation or pressor use).

Take Home

The Rivers Trial has reshaped the way we think about sepsis care in the ED by emphasizing **early recognition** of sepsis as well as **early aggressive management**.

REFERENCES:  
Rivers et al. (2001). Early goal-directed therapy in the treatment of severe sepsis and septic shock. New England Journal of Medicine. Vol. 345 (19) pp. 1368-1367

This infographic was created by Vanessa Knight and edited by Alvin Chin.

