Protocol-Based Care for Early Septic Shock

The ProCESS Investigators

MVP INFOGRAPHIC SERIES

The Issue

Approximately 750,000 cases of severe sepsis and septic shock occur in the United States annually.

Early Goal Directed Therapy by Rivers et al. has been demonstrated to decrease mortality.

However, EGDT is an old protocol since then, sepsis care has changed significantly.

How does EGDT compare to Protocol-Based Standard Therapy and Usual Care?

Inclusion Criteria

- Suspicion of sepsis
- 2 or more SIRS Criteria
- Refractive Hypotension
- Serum Lactate >4mmol/L
- 18 or older

Methods

1341 Patients Qualified

Random Assignment - Patients in all groups were at same baseline

445 Patients
- EGDT - Close monitoring using central venous catheter

448 Patients
- Protocol-Based Standard Care - modified EGDT protocol*

458 Patients
- Usual Care - Hospital protocol

Results

- 60 Day Mortality
  - EGDT: 21.0%
  - Standard Care: 18.2%
  - Usual Care: 18.9%

- 90 Day Mortality
  - EGDT: 31.9%
  - Standard Care: 30.8%
  - Usual Care: 33.7%

- Heart Failure
  - EGDT: 65.3%
  - Standard Care: 65.7%
  - Usual Care: 56.1%

- Respiratory Failure
  - EGDT: 38.0%
  - Standard Care: 36.5%
  - Usual Care: 32.4%

- Kidney Failure
  - EGDT: 3.1%
  - Standard Care: 6.0%
  - Usual Care: 2.8%

- Stay in Hospital
  - EGDT: 11.3±10 Days
  - Standard Care: 12.3±12.1 Days
  - Usual Care: 11.3±10.9 Days

No significant differences (p<0.05) in all categories except for kidney failure

Bottom Line

Early Goal Directed Therapy, Protocol-Based Standard Care, and Usual Care had no difference in in-hospital death by 60 or 90 day mortality.

REFERENCES:


*See appendix of paper for further details

This infographic was created by Anson Dinh and edited by Alvin Chin