



# IPRO Helps Reduce Sepsis Deaths

## Using Evidence-Based Strategies Saves Lives in New York

Sepsis deaths reduced by

# 16%

Lives were saved.

### The Challenge

50,000 New York residents are diagnosed with severe sepsis<sup>1</sup> or septic shock<sup>2</sup> each year, with 30% of these events resulting in death. Many of these deaths could be prevented by early identification and treatment.

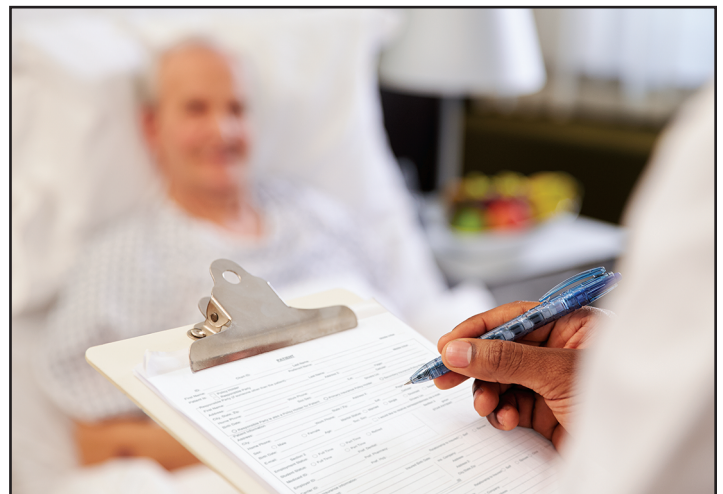
### The Approach

In 2013, New York State (NYS) passed a regulation requiring that all NYS acute care facilities develop and implement evidence-informed protocols to improve recognition and treatment of sepsis.

The New York State Department of Health (NYSDOH) selected IPRO as its business partner to drive the complex processes needed to implement these sepsis regulations.

IPRO delivered end-to-end support for the project, and specifically, facilitated or led the following activities:

- Convened state-wide advisory groups
- Reviewed clinical protocols
- Created consensus on data elements/measures needed to assess progress
- Oversaw construction of risk adjustment methodology
- Created a secure data collection portal
- Assessed and reviewed hospital performance via quarterly reports
- Issued first annual hospital performance report with NYSDOH
- Bolstered ongoing quality improvement efforts
- Provided data dashboard reporting



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## Results/Clinical Outcomes

New York State's strategy for tackling sepsis mortality reduction was successful as evidenced by the following results:

- Sepsis deaths were reduced by 16% (30.2% to 25.4%) following implementation of sepsis protocols when comparing data from Q3 2016 to Q2 2014 (ten quarters of performance data)
- After adjusting for patient factors, the odds of dying from sepsis were found to be
  - 21% less for adult patients for whom a protocol was initiated at the hospital compared to patients for whom a protocol was not initiated
  - 27% less for adult patients who receive all of the recommended treatments within three hours compared to patients who do not receive all of the recommended treatments
  - 26% less for adult patients who receive all of the recommended treatments within six hours compared to patients who do not receive all of the recommended treatments

Key findings of this project were reported in a recent *New England Journal of Medicine*<sup>3</sup> publication dated May 23, 2017.

### References

1. Sepsis is a clinical syndrome in which patients have an infection which is accompanied by signs and symptoms of a systemic inflammatory response.
2. Septic shock is when patients with severe sepsis who have organ system impairment and/or low blood pressure who do not respond to treatment with adequate fluid replacement.
3. <http://www.nejm.org/doi/full/10.1056/NEJMoa1703058>

## IPRO brings policy ideas to life

IPRO helps clients realize better health through its organizational competencies. We

- Support state and federal government agency problem solving
- Foster consensus among varied stakeholders for quality improvement action
- Evaluate and select most appropriate methodologies to investigate clinical quality problems
- Facilitate collaborative provider education and action
- Harness information technology to drive quality improvement
- Build and apply quality measures
- Collect and analyze data on large scale
- Create tools to assess performance