Basis:
Currently, most clinical guidelines are protocol-based therapies with focus on time-dependency. Debate as to whether this is effective. Problems with protocol based = increased antimicrobial use, unnecessary testing, overused invasive treatment.

Study design: “Difference in difference” - comparing hospitals over time. Hospitals that did protocol versus hospitals that didn’t.

Bundle care focused on:
The eight bundle measures reflected the 2008 SSC guidelines:
- fluid bolus administration
- lactate measurement
- antibiotic administration
- obtaining two blood cultures
- blood cultures obtained prior to antibiotic administration
- clinical achievement in:
  - central venous pressure (> 8 mmHg)
  - mean arterial pressure (> 65 mmHg), and central venous oxygen saturation (> 70%)

Results:
When comparing all collaborative hospitals, there was no significant difference in outcome improvement over non-collaborative.
When subgroup analysis of high adherence hospitals is performed, then there is an improvement in outcomes.

Conclusions: There is a chance that high-adherence to protocol based septic shock treatment can improve outcomes more than overall trends.