

Sepsis Protocols: A Team Effort

Faith Colen, MSN, RN, CEN

Improvement Specialist, Wolff Center at UPMC Corporate Services

STOPPING SEPSIS
Saving Lives in Pennsylvania



UPMC Shadyside

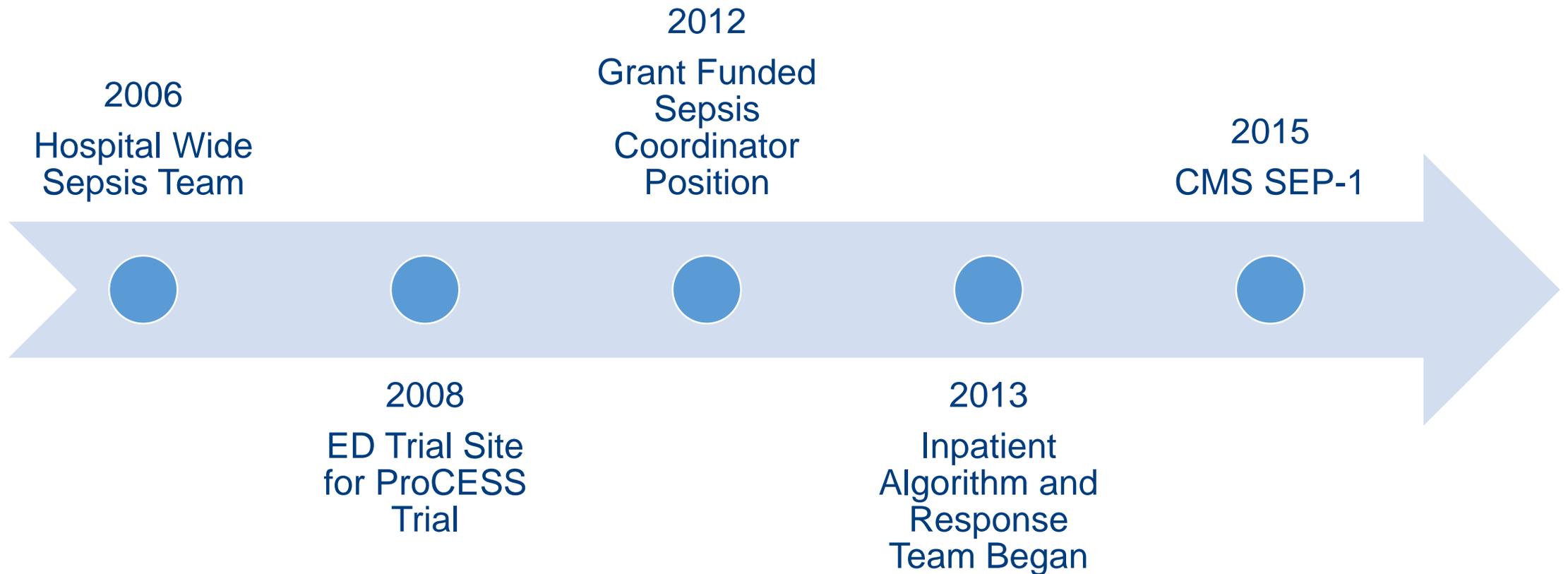
- 520 beds
- Academic
- Urban
- Magnet
- Joint Commission Primary Stroke Center
- Specialties include:
 - Cardiology
 - Oncology
 - Orthopaedics
 - Geriatrics
 - Gynecology
 - Vascular Medicine
 - Endocrinology



STOPPING SEPSIS
Saving Lives in Pennsylvania



The Sepsis Journey



Defining the Team

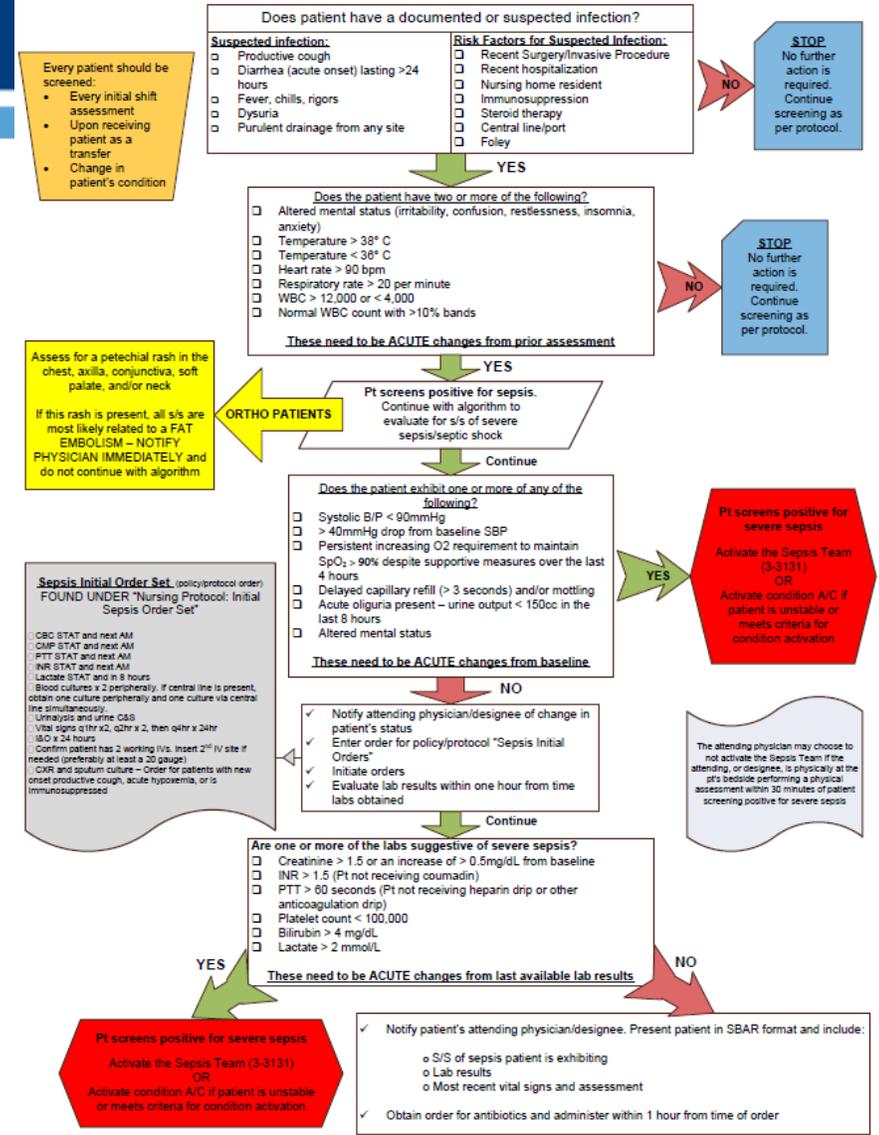
- Physicians
 - All disciplines
- Nursing
 - Critical Care, Emergency Department
 - Medical, oncology, surgical, telemetry
- Pharmacy
- Infection Control
- Laboratory
- Radiology
- Leadership



The Algorithm

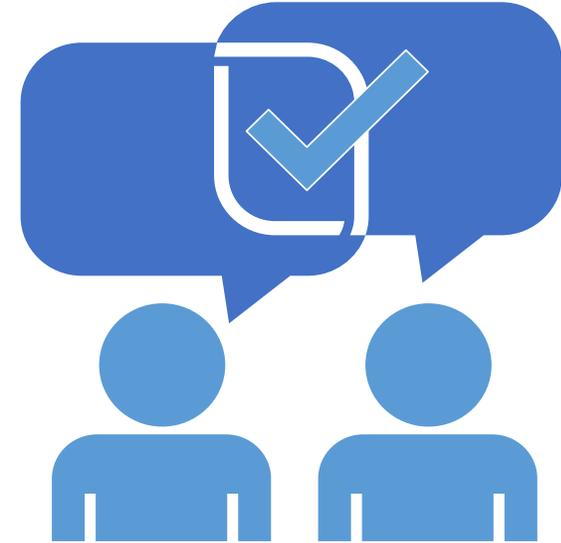
- Developing the Algorithm.
 - Due to the complexity of sepsis each physician specialty had requests on when to activate the team.
 - Created before the CMS SEP-1 Bundle
 - Focus on identification not treatment
 - The Emergency Department was excluded due to being a trial site for the ProCESS study.

Sepsis Screening Algorithm

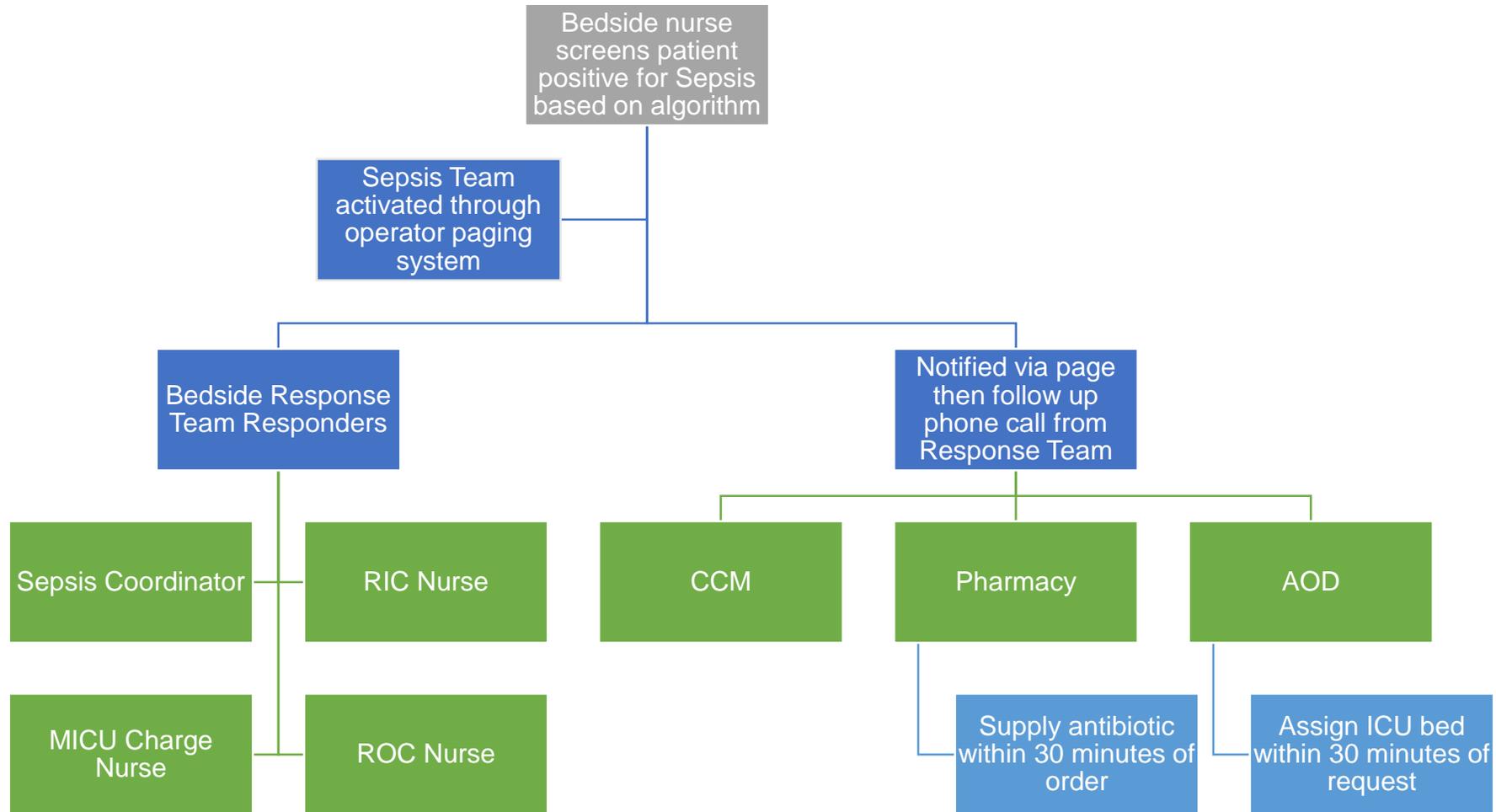


The Sepsis Response Team

- Made up of 2 Critical Care RNs
 - Evaluate the patient
 - Initiate Nursing Sepsis Protocol
 - Hemodynamically Stable
 - Page primary team
 - Hemodynamically Unstable
 - Escalate to Condition C
 - OR
 - Page Intensivist



The Sepsis Response Team



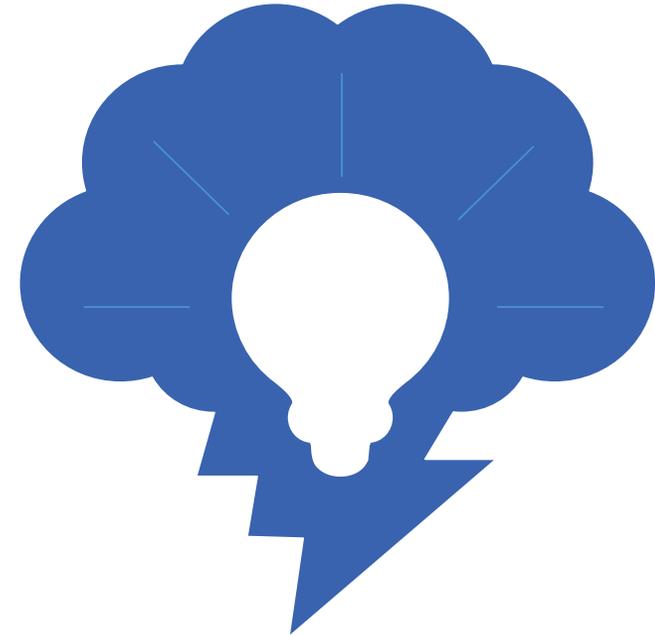
The Nursing Sepsis Protocol Order Set

- CBC w/ Diff and Platelets
- CMP
- Lactate
- PTT, PT/INR
- Blood Culture
- Urinalysis and Urine Culture
- Serial Vital Signs
- Optional based on assessment criteria:
 - Sputum culture
 - Chest AP Xray

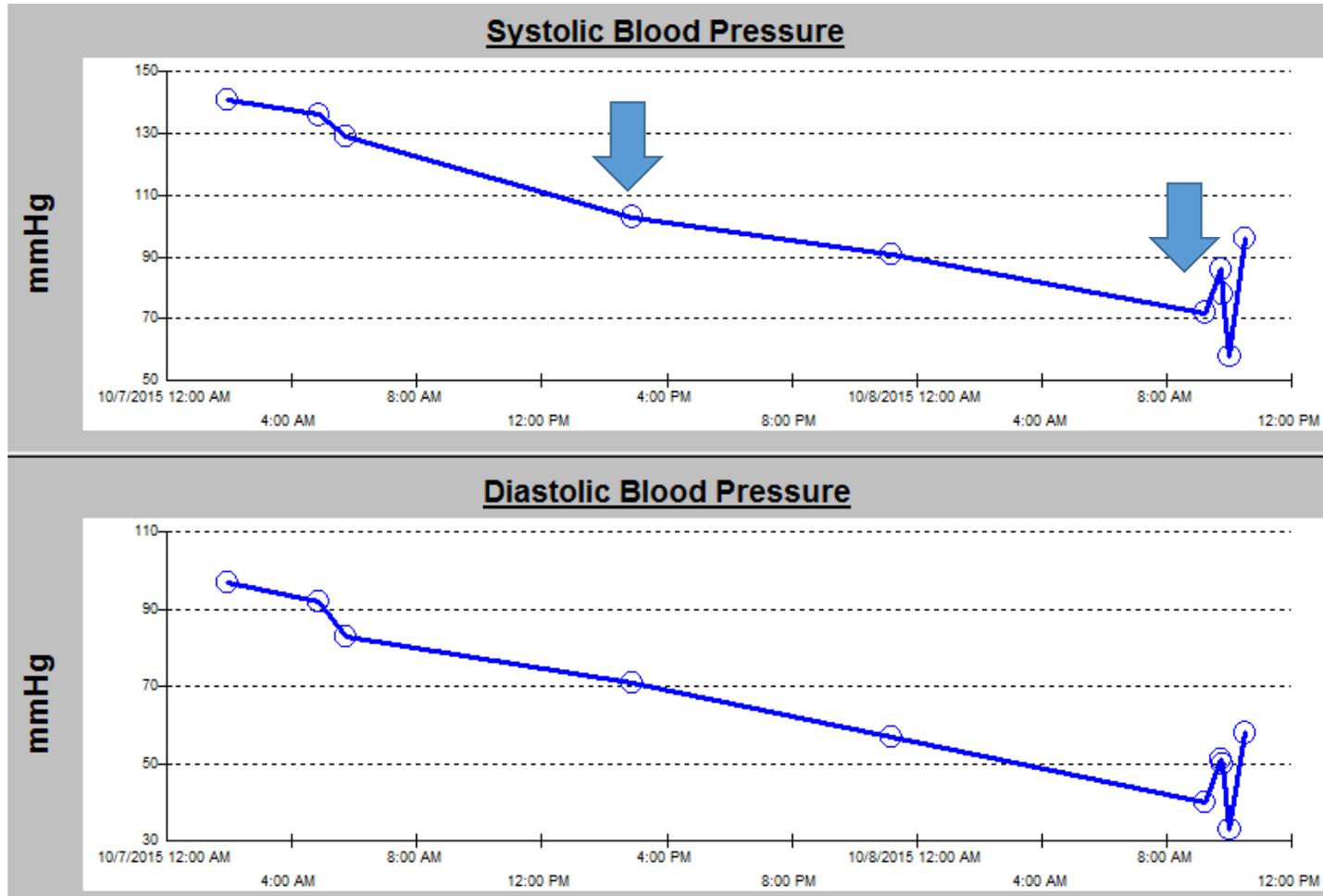


The Challenges

- Hospital specialties:
 - Oncology
 - Cardiovascular surgery
 - Neurology
 - Orthopedics
- Sepsis mimics
- No treatment protocol
- ProCESS trial site

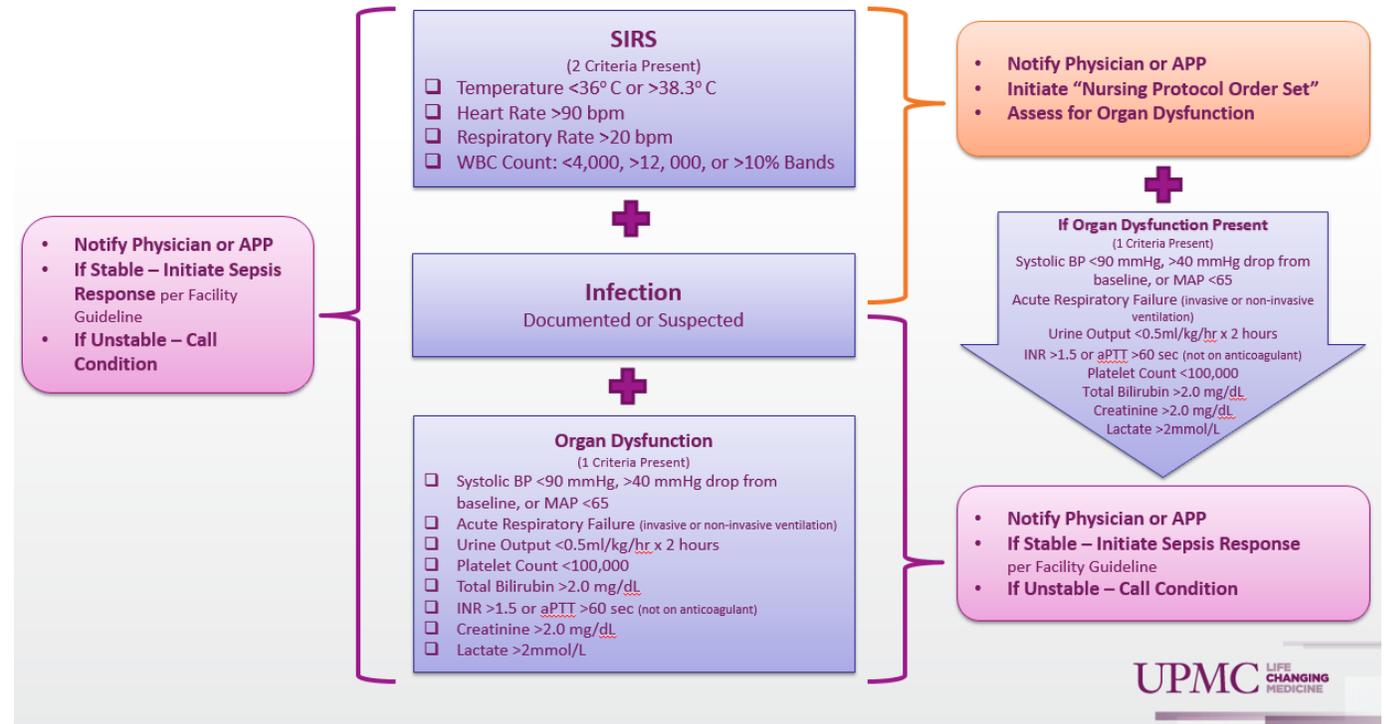


The Greatest Challenge- Time Zero



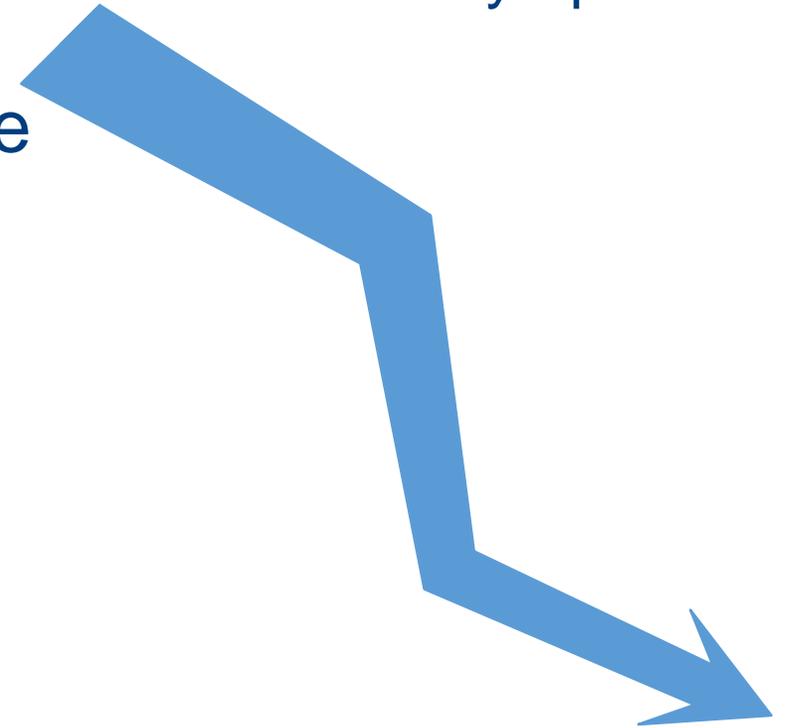
Then Came SEP-1

- Algorithm simplified
- Emergency Department now engaged
- Change in focus from identification to treatment
 - System development of physician PowerPlans
 - Physician documentation tools

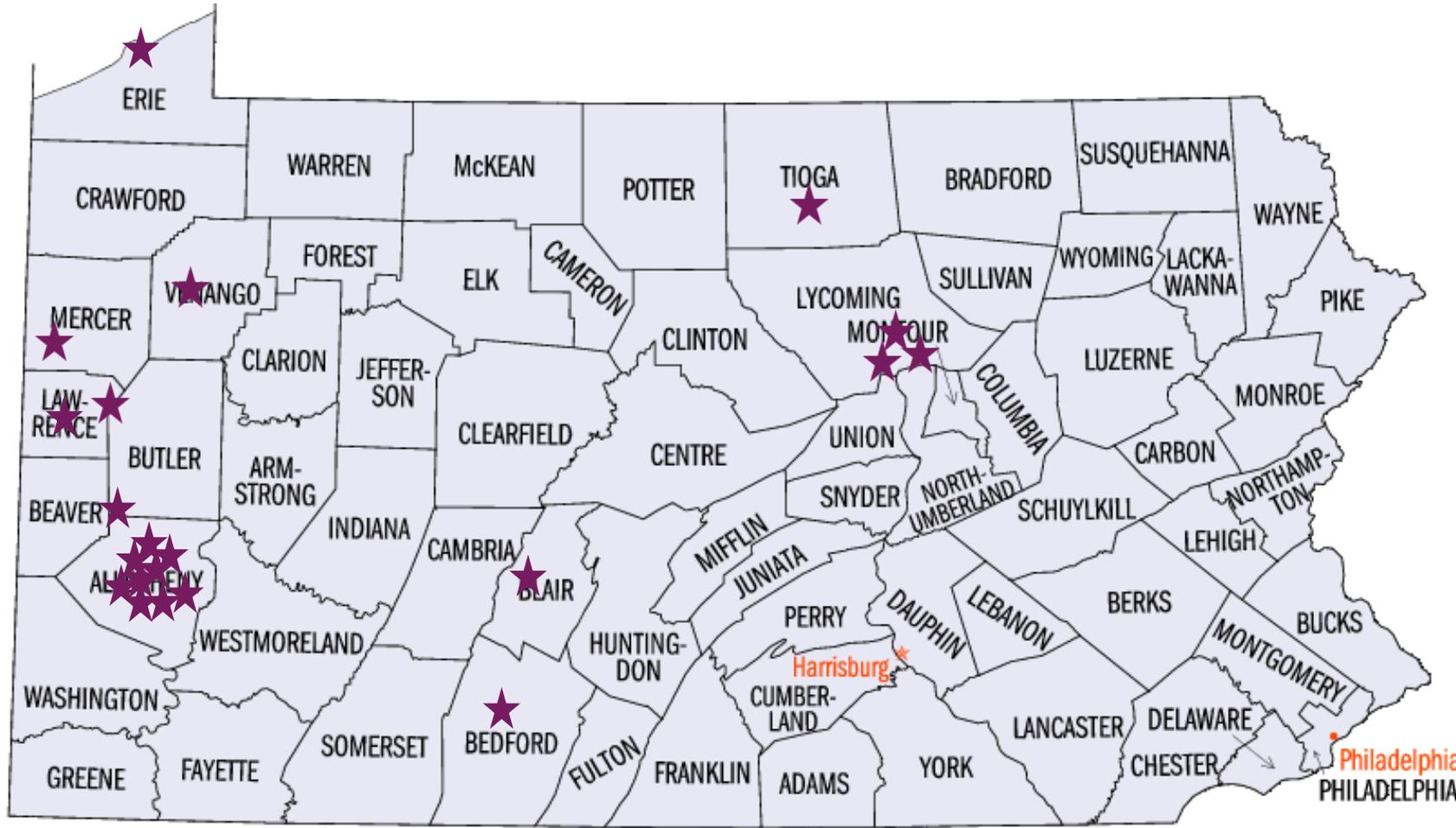


The Benefits

- Early identification and treatment of sepsis
 - Recognition of severe sepsis/septic shock within 4 hours of symptom onset increased from 47% to 95%
- Decrease in antibiotic administration time
 - 3.9 to 1.4 hours
- Decrease in ICU LOS
 - 11 to 4.6 days
- Decrease in Hospital LOS
 - 26.9 to 15.4 days
- Decrease in Mortality
 - 49% to 38%



System Spread



- UPMC Presbyterian
- UPMC Shadyside
- UPMC Mercy
- Magee Women's Hospital of UPMC
- Children's Hospital of Pittsburgh of UPMC
- UPMC Passavant
- UPMC Cranberry
- UPMC Horizon Greenville
- UPMC Horizon Shanango
- UPMC Northwest
- UPMC Hamot
- UPMC McKeesport
- UPMC St. Margaret
- UPMC East
- UPMC Altoona
- UPMC Bedford
- UPMC Jameson
- UPMC Divine Providence
- UPMC Muncy Valley
- UPMC Soldiers + Sailors Memorial
- UPMC Williamsport Regional Medical Center

STOPPING SEPSIS
Saving Lives in Pennsylvania



Acknowledgements

- Sandy Rader, DNP, MSA, RN, NEA-BC
- Jennifer Gonzalez McComb, MD, MPH, FACP
- Denise Stromoski, BSN, RN
- Louise Oleksiuk, PharmD, BCPS
- Holly Filip, PharmD
- Judy Shovel, RN