Investigating Vasopressor Therapy Administered by Pitt County EMS Personnel

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AIM

To reduce the number of PCEMS calls where norepinephrine is inappropriately used by 20% within 6 months of implementing a new educational program.

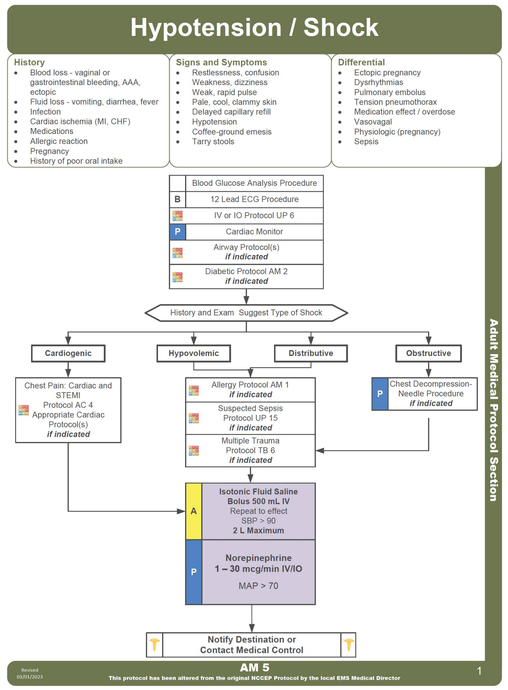
BACKGROUND

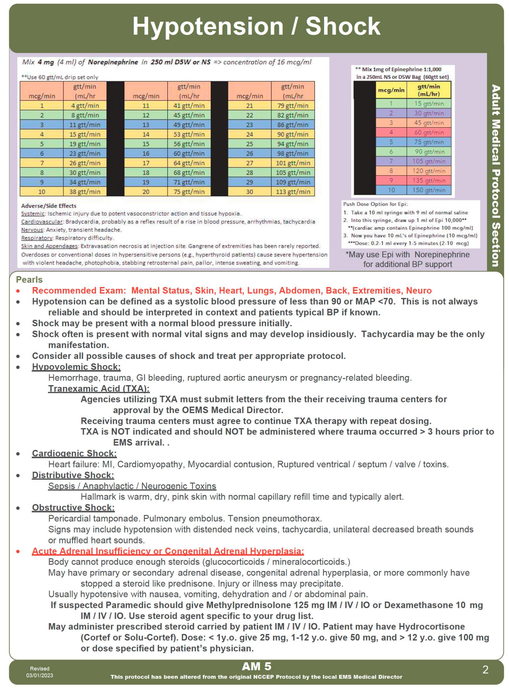
Hypotensive shock can be caused by conditions such as trauma, myocardial infarction, and sepsis. Treatment is usually in the form of a vasopressor such as epinephrine or norepinephrine. Last year, Pitt County Emergency Medical Services (PCEMS) changed their standard hypotensive shock and sepsis treatment from epinephrine to norepinephrine. Since this change PCEMS personnel have received feedback from physicians that they are overusing norepinephrine.

METHODS

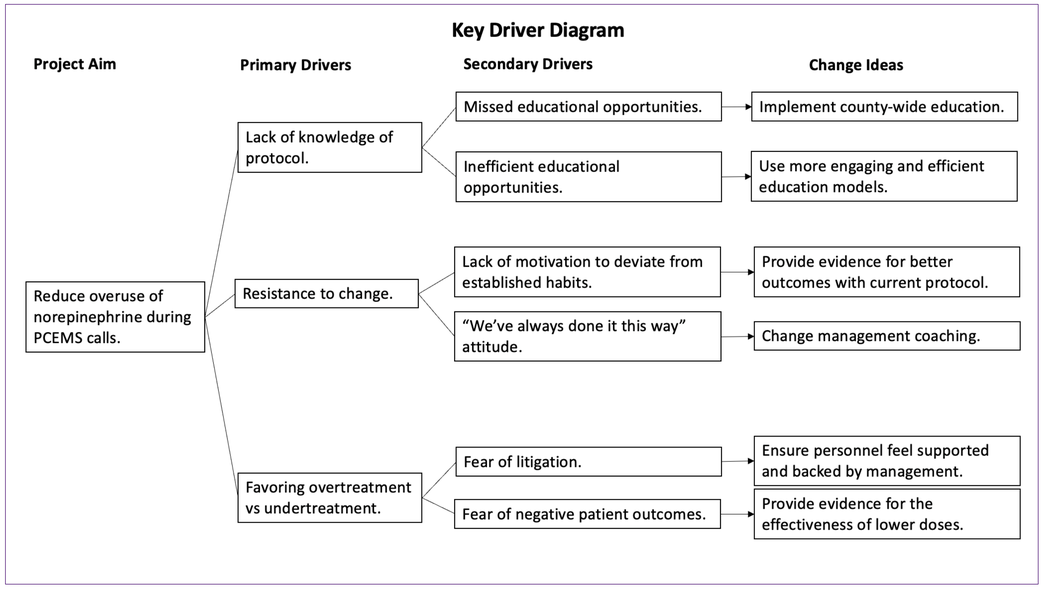
A combination of Plan-Do-Study-Act cycles and Six Sigma methods will be used to define, plan, implement, and measure change. Run charts will be used to visualize changes over the short and long term.

CURRENT PROTOCOL





KEY DRIVER DIAGRAM



PLAN

- Review PCEMS calls where norepinephrine has been used since the change in protocol.
- Observe if calls were compliant or non-compliant with the recommended use of norepinephrine.
- Review arrival actions in the emergency department to see if norepinephrine was continued or discontinued and if any other acute interventions were attempted.
- Compare the number of calls with correct norepinephrine use to the number of calls with incorrect norepinephrine use per protocol.
- If norepinephrine is being overused, implement a county-wide education program.
- Continue to measure protocol adherence over 6 months to determine the success or failure of the education program.

CURRENT TEAM

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