

Implementing a Rib Fracture Management Pathway and PIC Scoring Tool to Reduce ICU Readmissions

Susan Mastroianni RN, MSN
University of San Francisco



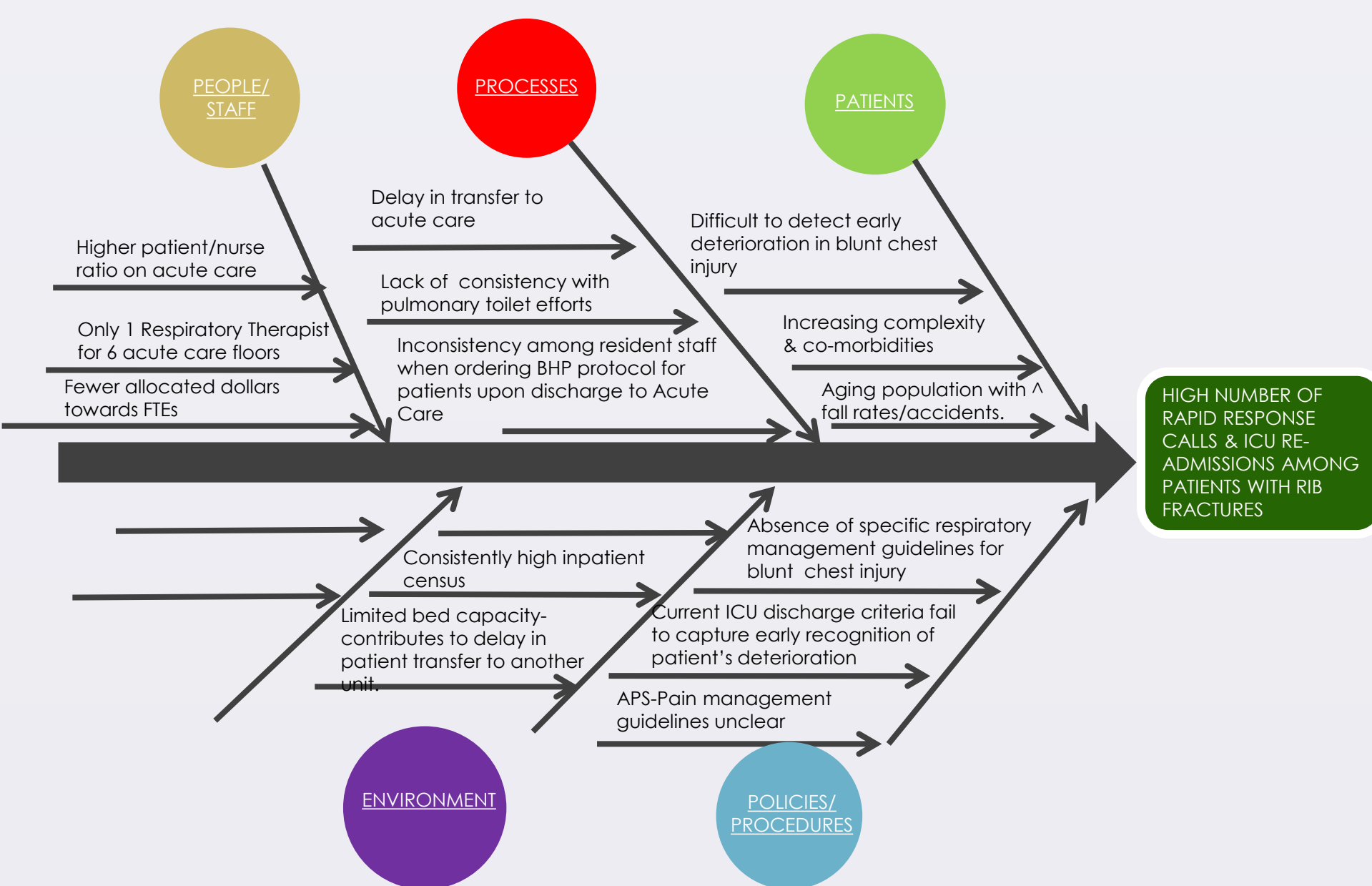
BACKGROUND

The institution is a 413 bed Level I trauma/burn adult and pediatric center in a 4 state region. The microsystem encompasses general surgery patients with rib and or sternal fractures admitted to the Trauma ICU, Burn-Pediatric ICU, and acute care units

SPECIFIC AIM: We aim to improve the care of patients with rib fractures and or sternal fractures and reduce ICU readmission rates by 20% within one year after implementing the Rib Fracture Management Pathway.

EVIDENCE OF THE PROBLEM

FISHBONE DIAGRAM



DATA ANALYSIS:

- 559 general surgery patients
- 124 rapid response calls on 85 patients
- 36 patients readmitted to the ICU
- 55% of ICU readmissions were due to respiratory distress

CONTRIBUTING FACTORS:

- Unclear acute pain management guidelines
- Unclear respiratory management guidelines
- Difficult to detect subtle changes in blunt chest injury
- Aging population associated with the number one unintentional injury: Falls

METHOD

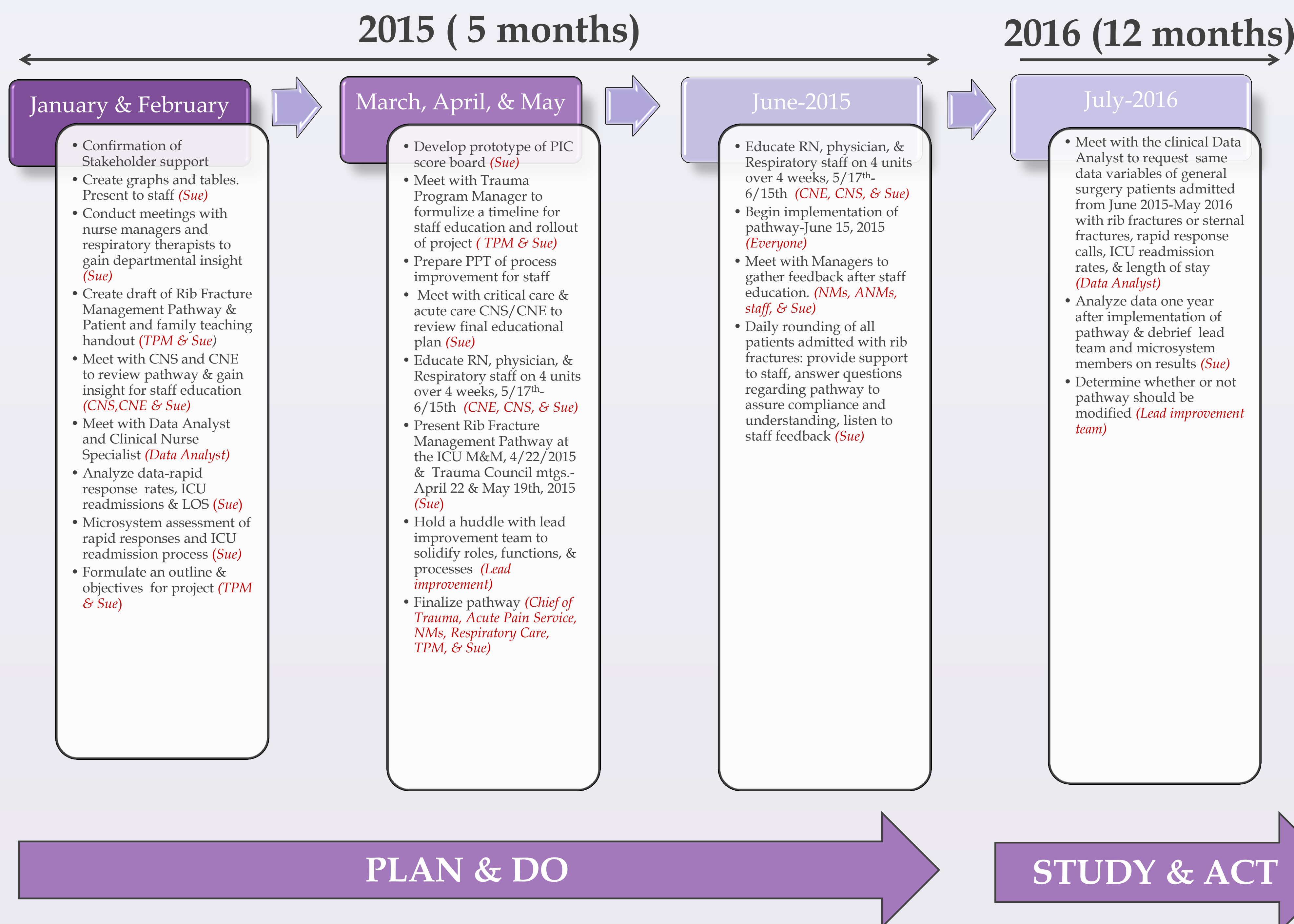
SWOT ANALYSIS



METHODS FOR PROJECT

- Approval of the project
- Data collection
- Meeting with lead team members-gain departmental insight, define scope of the problem, and identify processes.
- Create protocol, PIC scoring board, patient/family handout, timeline and educational plan for staff.

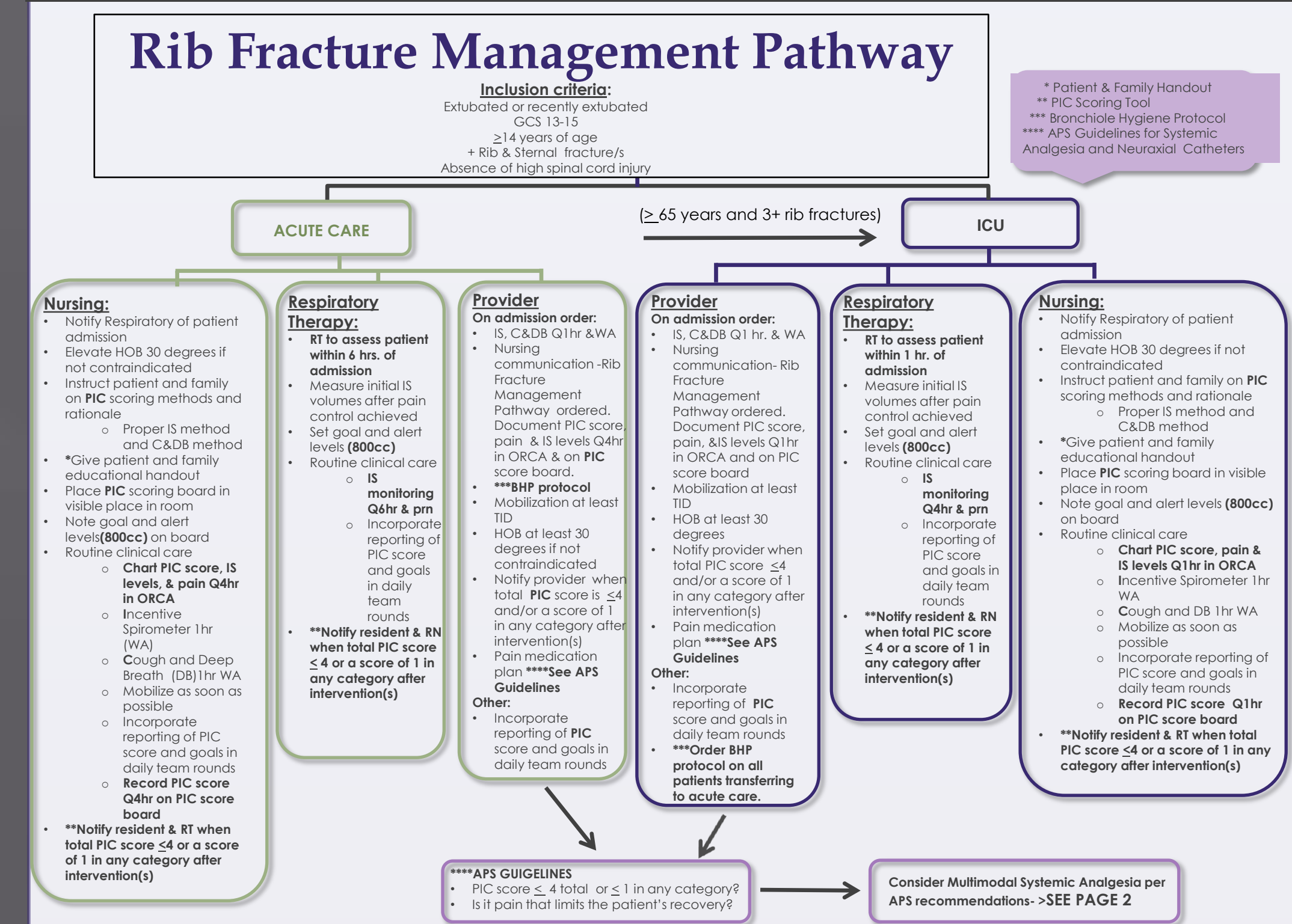
STEPS FOR IMPLEMENTATION



FINANCIAL IMPLICATIONS

- 31% of patients requiring an ICU stay account for 70% of the total hospital costs (Fakhry et al., 2013)
- Patients with an ICU readmission had 4 times the median ICU length of stay (Institutional data, 2013)
- Average ICU costs for rib fractures without complications or comorbidities = \$10,371.57/day or \$31,114.71/3days (WSHA, 2013)
- Reducing ICU re-admissions by 20% will save the institution \$124,458.84 over 2 years

RESULTS



- Staff education has been delayed 2 weeks due to last minute changes in the protocol (see timeline)
- Actions in the timeline are up to date and are on track
- The pathway, neuraxial guidelines, and PIC scoring tool will be electronically placed on an internal decision support site to allow quick access and reference to protocol

CNL RECOMMENDATIONS

- Round frequently on all new patients admitted with rib and or sternal fractures to sustain the project and maintain adherence to the pathway
- Incorporate reporting of PIC score and team goals into daily bedside rounds
- Provide additional "time out" educational moments to support staff as well as solicit feedback on implementation process and protocol.
- Second analysis of data one year after implementation to determine efficacy of pathway

REFERENCES

- Available upon request