



Problem:

- Quality Improvement (QI) education is required by the ACGME
- Clinical services are increasingly busy and duty-hour limits mean that limited time is available for new educational requirements is limited
- Housestaff are frontline clinicians whose systems-based insights would benefit the development of QI interventions
- QI education must be relevant to the learners and is ideally applied directly to and immediate to the clinical environment
- One important QI initiative on our liver services involves improving poor outcomes for patients with renal failure. A major opportunity is to avoid combining

Aim/Goal:

- We aimed to improve patient outcomes while teaching and engaging frontline housestaff in the application of QI principles

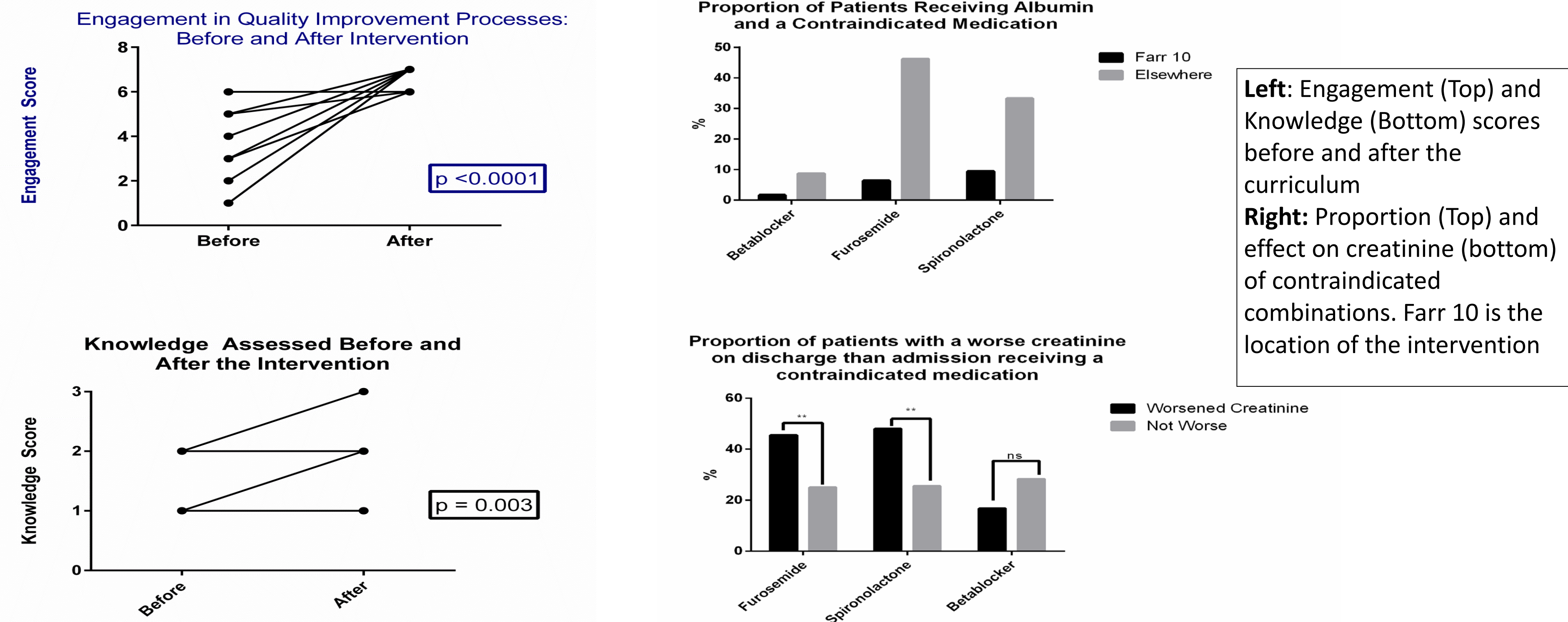
Description of the Intervention

- An [iterative QI curriculum](#) that builds on the contributions of successive groups of residents rotating through the service
- Didactic intervention to education on pathophysiology and best practice
- QI interventions developed by the housestaff include: An emergency department pathway, POE alerts, Standard care plans in personalized team census, Handheld checklist

Measurement

- Survey to assess changes in knowledge and QI engagement before and after the curriculum. 7 questions based on ACGME CLER standards and 3 questions assessing disease-specific knowledge. The sum of affirmative or correct answers were converted into engagement and knowledge scores
- Clinical outcomes measured by review of clinical data and pharmacy records provided by George Silva (InSIGHT Core)

Results/Findings to date:



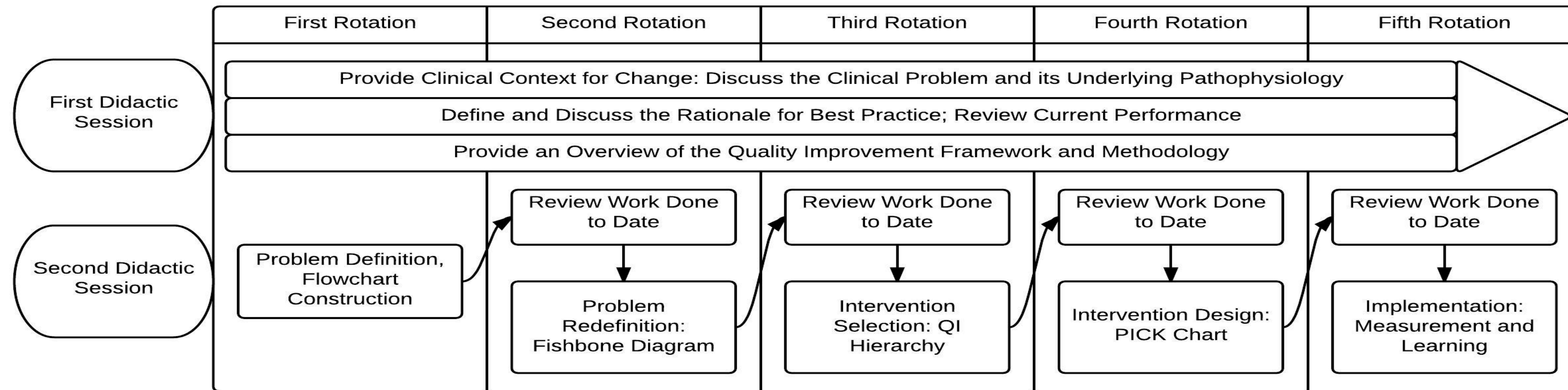
Key Lessons Learned

- An iterative approach to education is feasible and effective
- QI education can be incorporated into the busy schedule of a clinical rotation
- QI education can be linked with clinical outcomes
- Some electronic interventions could not be implemented due to a lack of support/resources in the hospital's Information Systems division.
- Electronic interventions may not be feasible at BIDMC for QI

Next Steps

- Study long term outcomes such as mortality, initiation of hemodialysis
- Disseminate this knowledge to other centers through publication of the curriculum

The Iterative Curriculum

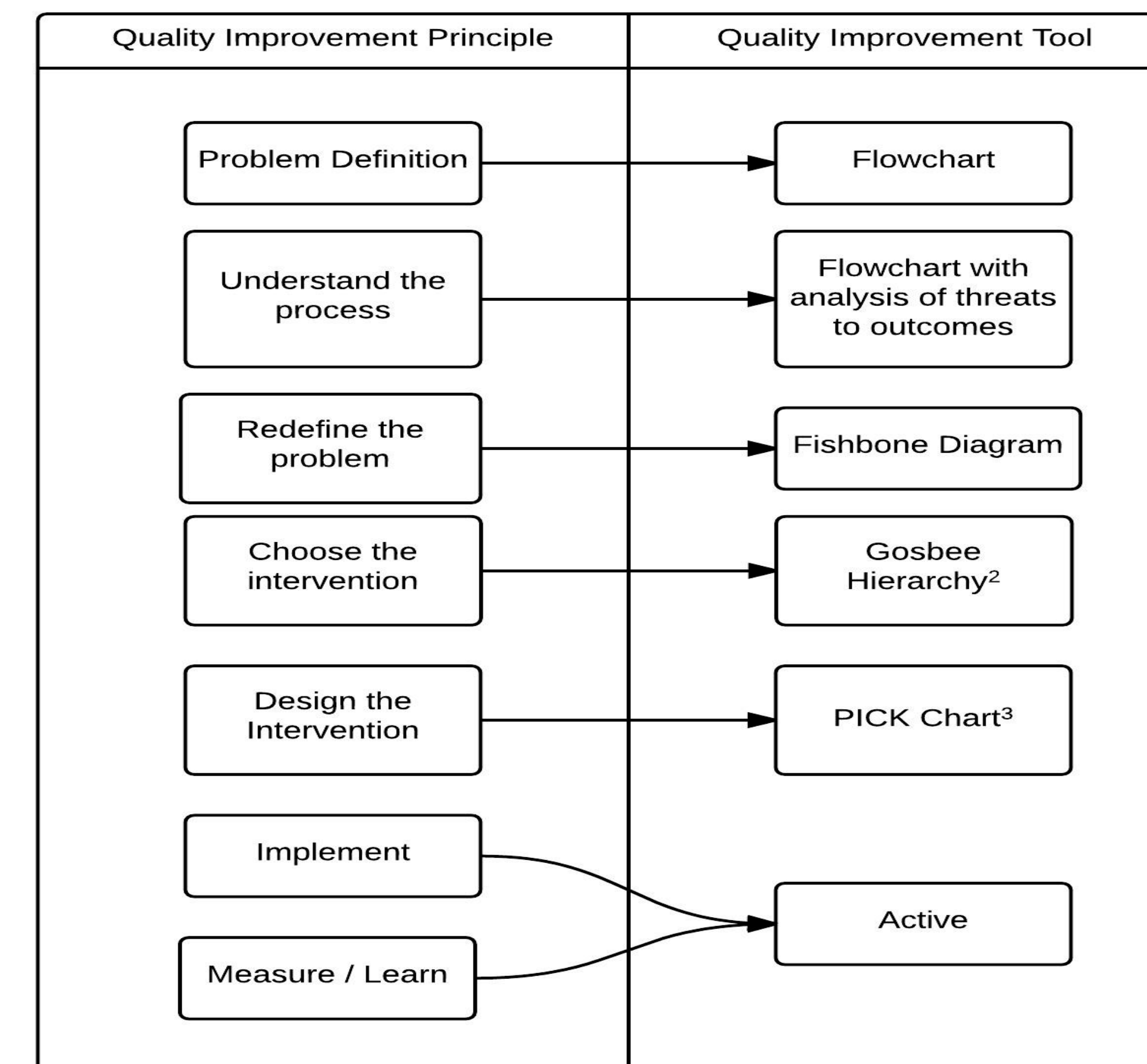


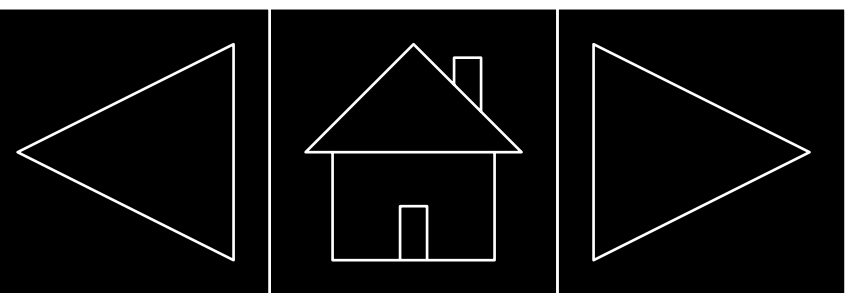
Our curriculum seeks to teach all housestaff the core principles of quality improvement while involving them in the longitudinal process of QI intervention development

Each set of rotating housestaff contribute to the development on an intervention by focusing on one specific QI development tool.

The QI tools are described to all housestaff but each is evaluated in-depth by only one group.

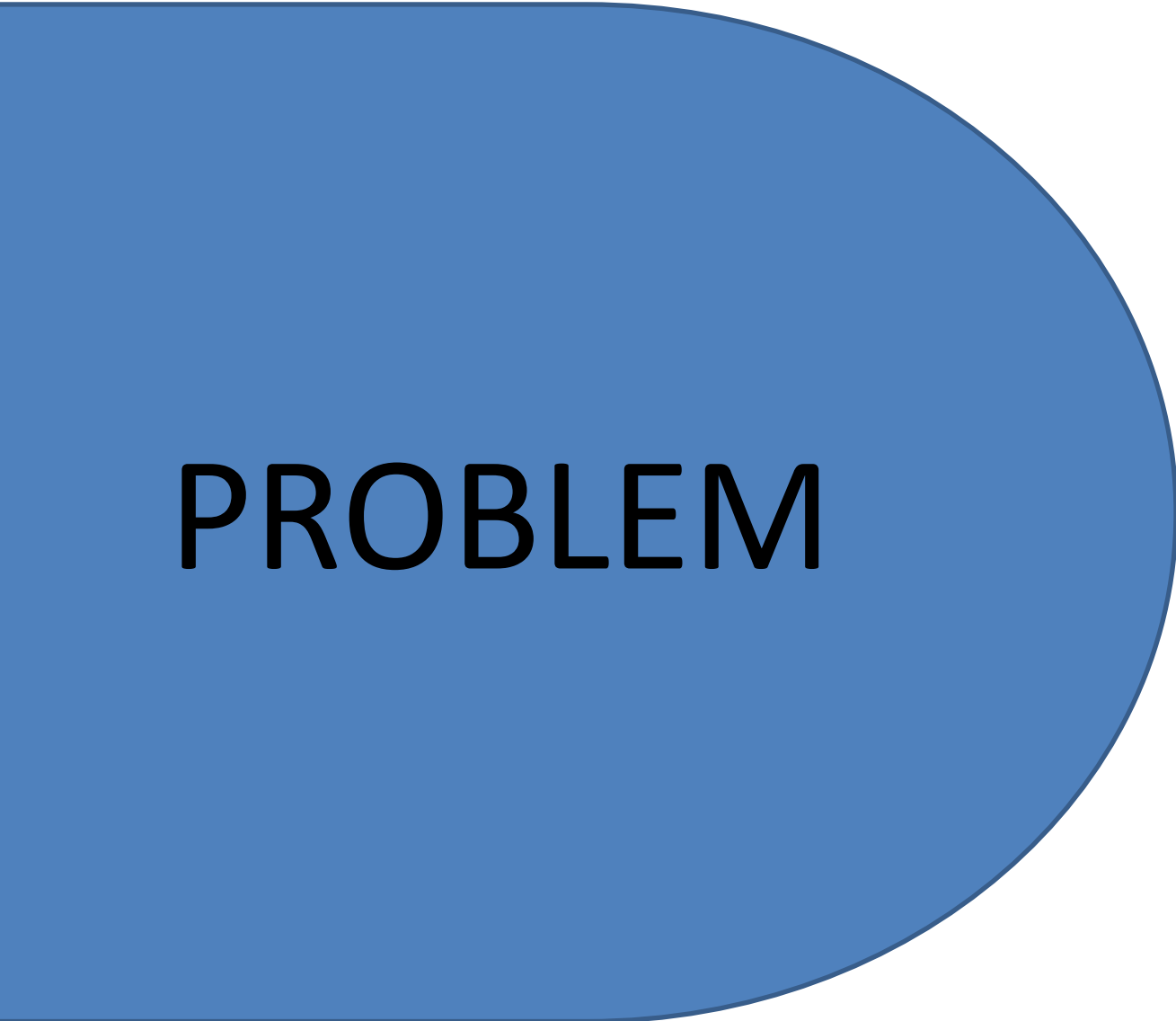
The tools employed are standard QI techniques such as the [Fishbone](#) or [Ishikawa Diagram](#) and the [PICK chart](#).





Man

Process



Equipment

Team

Design the intervention

- Once we understand the options we need to decide which to pursue
- Tool : PICK chart

