

Nephrology Fellowship Improvement Project

Completion of an individual or group improvement project is an ACGME program requirement and is mandatory for completion of your nephrology fellowship.

Content Outline:

1. Goals
2. Steps
3. Required Reading
4. Improvement Project Summary Format
5. Examples of Topics for Improvement Projects (You can select a topic not listed.)

Goal: To conduct an improvement project which will:

1. identify a problem in our healthcare system
2. use quality improvement tools to analyze the problem
3. develop a change or intervention
4. evaluate its impact
5. describe results such as improvement in patient care process, outcome, education process, or expense reduction

Steps:

1. Identify the problem.
2. Decide whether you will complete the project individually or as a small group. For a group project, contributions of each member must be clearly explained.
3. Quantify the magnitude of the problem.
4. Select 1 or more faculty mentors for your project.
5. Perform a root cause analysis using a quality improvement tool (see required reading).
6. Consult with involved stakeholders.
7. Consider the relative effort and yield of multiple potential interventions to solve the problem.
8. Select an intervention and assessment plan.
9. Throughout this process, document your project in the Improvement Project Summary format.
10. Submit initial project proposal for review before implementation.
11. Execute the implementation and assessment plan (PDSA cycle).
12. Turn in written Improvement Project Summary in the required format.

Required Reading

The Institute for Healthcare Improvement web site has a variety of information, tools, resources, including access to various on-demand presentations. You can register on the site (free to anyone) to access additional content. The sections under “Improvement Methods” are required reading for this project.

<http://www.ihl.org/IHI/Topics/Improvement/>

You can create your own Improvement Tracker to track data and generate reports.

<http://www.ihl.org/ihl/workspace/tracker/>

Improvement Proposal Summary Format

I. Problem Definition

<http://www.ihl.org/IHI/Topics/Improvement/ImprovementMethods/HowToImprove/>

- a. Statement of the problem
 - i. What is the specific healthcare problem that your project will address?
- b. Specific patient population affected
 - i. Which patients (demographics, disease groups) are affected?
- c. Magnitude/significance of the problem
 - i. Why should anyone care about this problem?
 - ii. What is the importance of the problem in terms of morbidity, cost, quality of life, etc.?

II. Root Cause Analysis

<http://www.ihl.org/IHI/Topics/Improvement/ImprovementMethods/ImprovementStories/AskWhyFiveTimestoGettotheRootCause.htm>

- a. Factors contributing to the problem
 - i. What are all the potential causes of the problem?
 - ii. Which causes are most important?
 - iii. What are the systems issues that impact this problem?
- b. What quality improvement tools (cause and effect diagram [fishbone], systems walk, mind map) did you use to identify root causes? (Consider attaching figure.)
<http://www.ihl.org/IHI/Topics/Improvement/ImprovementMethods/Tools/Cause+and+Effect+Diagram.htm>
<http://www.ihl.org/IHI/Topics/Improvement/ImprovementMethods/Tools/Pareto+Diagram.htm>

III. Key Stakeholders

- a. Who is affected by the problem and/or the proposed intervention?
- b. Include a list of key stakeholders (names, departments, and phone numbers) whom you contacted.
<http://www.ihl.org/IHI/Topics/Improvement/ImprovementMethods/HowToImprove/formingtheteam.htm>

IV. Intervention

- a. Potential interventions: Set Aims
<http://www.ihl.org/IHI/Topics/Improvement/ImprovementMethods/HowToImprove/setting+aims.htm>
 - i. What are the potential interventions to address your problem?
 - ii. What is the degree of effort required and likely yield for each?
- b. Proposed intervention: Select Changes
<http://www.ihl.org/IHI/Topics/Improvement/ImprovementMethods/Changes/>

- i. Description of intervention:
 - 1. What intervention do you propose?
 - 2. Why did you choose this?
- ii. Impact on key stakeholders
 - 1. How will various key stakeholders be affected by your intervention?
- iii. Cost/benefit assessment
 - 1. What will the intervention cost (dollars, resources, time)?
 - 2. What are the potential benefits (dollars, resources, time)?
 - 3. How long will it take to earn back the cost of your proposed intervention?
 - 4. What are the potential risks, harms?
 - 5. Does your intervention introduce a new problem in the system?
- iv. Feasibility/sustainability
 - 1. What will be required to “systematize” your intervention?
 - 2. How will the intervention be maintained over time?
<http://www.ihl.org/IHI/Topics/Improvement/ImprovementMethods/HowToImprove/SpreadingChange.htm>

V. Timeline for Implementation

- a. What is your planned timeline for implementation of your proposed intervention?
- b. If this intervention is part of a larger quality initiative, how does it fit into the schema of that project?

VI. Assessment of Proposed Intervention

- a. How will you know if your intervention has resulted in improvement?
<http://www.ihl.org/IHI/Topics/Improvement/ImprovementMethods/Measures/tipsforestablishingmeasures.htm>
- b. What assessment measures will you use (short term, long term)?
<http://www.ihl.org/IHI/Topics/Improvement/ImprovementMethods/Measures/>

 SUBMIT INITIAL PROPOSAL FOR EVALUATION AT THIS POINT

Example of criteria by which your project proposal will be evaluated:

[\\mfad.mfroot.org\RCHDEPT\Domeduc\imeduc\IM Residency Rotations\System Based Practice\QIP ISES Evaluation Questionnaire.htm](http://mfad.mfroot.org/RCHDEPT/Domeduc/imeduc/IM%20Residency%20Rotations/Systems%20Based%20Practice/QIP%20ISES%20Evaluation%20Questionnaire.htm)

VII. Implement Your Intervention

- a. Use a method such as Plan-Do-Study-Act (PDSA) cycle
<http://www.ihl.org/IHI/Topics/Improvement/ImprovementMethods/HowToImprove/testingchanges.htm>

- b. Refine intervention as necessary.
<http://www.ihl.org/IHI/Topics/Improvement/ImprovementMethods/HowToImprove/ImplementingChanges.htm>
- c. Record and track your data. (Consider using Improvement Tracker on IHI web site <http://www.ihl.org/ihl/workspace/tracker>)

VIII. Results of Assessment

- a. Describe your results. (Graphs can be used.)
- b. Was the intervention a success?
- c. Describe barriers to implementation and potential solutions to overcome each barrier.

References

Adapted from Mayo Internal Medicine Residency Systems-Based Practice rotation curriculum and Quality Improvement Project Format.