

# QI Project Guidelines

## CHM Pediatric Anesthesiology Fellowship

### Children's Hospital of Michigan

#### **BACKGROUND (Identify the Issue to be addressed)**

Provide background information like a review of the relevant medical and healthcare literature that is pertinent to your topic or problem area. Example: Citations from specific review articles and research studies.

**Ask Yourself : What Is the Quality Issue, Why Is It Important, and What Is your goal ?**

Keep this section brief. It is important to articulate why this quality issue is relevant outside your institution.

For example it could be:

- ❖ A common safety problem could be poor patient handoffs. Other facilities may benefit from a QI project that improved upon this process. Please take some time and see if this would lead to financial benefits and /or any potential legislative changes to the institution that promotes increased interest in your project. Another example could be linking readmission rates to financial reimbursement.

If your goal is to get your QI project published in a national or international journal, your manuscript should be prepared accordingly. As I mentioned above it is important to point out potential impact of your QI initiative as it could relate to other institutions.

#### **INTRODUCTION (Defining your goal )**

Provide a description of the issue at your institution. This should include details how the issue was identified and what factors contribute to the problem. Provide a layout for the potential resolution of the problem.

Once you have outlined the relevance of the QI issue, the **Introduction** should include how current practices created the problem and how your resolution would solve it.

## What prior QI strategies have or have not worked to address this quality problem?

Identify and discuss prior strategies that have been attempted. A brief discussion pointing out strategies attempted before. This is best achieved by performing a literature search trying to identify what has or has not worked.

Ensure your **Introduction** clearly state what you hope to achieve with your QI initiative.

Its important to have a strong “aim” statement. It should be based on “**SMART**” model (Specific, **M**asurable, **A**chievable, **R**ealistic, **A**nytime bound).

## **METHODS (Assessing Alternatives / Brainstorming options / Choosing a solution)**

The method section is the most important as it translates your reported solution and how it could be implemented. To facilitate this, you should include the context in which the QI work was carried out and describe the strategies you utilized. It would be good idea to reinforce why this intervention was chosen.

List the steps of your QI project in regards to the target population and include the personnel who will be involved. Also explain how the data will be obtained. Ensure you address the target sample.

It is best to make sure your chosen QI project has a strong interventions and therefore could lead to positive changes in your institution.

We recommend you use **PDSA (plan-design-study-adapt)** model as this helps define the rationale behind your chosen intervention.

It is important to point out what worked and did not work as this will convey how changes were tested and refined.

When writing a QI project, remember to emphasize the context in which the issue occurred. This should lead to a better understanding of your area of focus. This would be a good time to include details that could influence the final outcome of your QI project.

Remember that the description of your proposed intervention is just as important as the context.

**DATA ANALYSIS:** Highlight the data that you propose to collect and analyze. This should include the following: the estimated number of cases, data analysis tools used , statistical tests you plan to use, and how the statistical tests will address the specific aims of your project.

**Ask Yourself : How will you evaluate if you proposed intervention works  
/ What Is the Evaluation Plan ?**

QI projects in healthcare mainly focus on improving patient care outcomes. It is still acceptable to select a project that is less directly related to clinical care. This could be an alternate opportunity to pursue which is less patient outcome driven. This maybe a viable option.

**Ensure Clarity when displaying data**

When it comes to displaying data, it is best to display your outcome or process measures over time through the use of statistical process control. This methodology often utilizes run charts or control charts to display data over time. Remember to avoid simple before-after comparisons. This evaluative approach is suboptimal and it makes it difficult to attribute observed differences to the intervention.

**DISCUSSION (Chosen Solution/ Reevaluation of Solution process)**

Your write up should include how specific systems / population were affected by implementation of your project. Please also describe how improvements were implemented at your institution. List any limitations /problems with the project.

In discussion section of your QI paper include a summary of your findings and compare / relate to what is already known / established.

A QI project may have unintended “negative” results but it is still important and worthwhile to capture the data . Your QI report will still be helpful to others who can build on your work.

**CONCLUSION SECTION ( final verdict)**

The Conclusion should be a short concise summary of the findings from the project free from bias.

**REFERENCES/SOURCES**

Provide a bibliography/reference list for all literature cited, published or copyrighted measurement tools, and sources of information.

# Basic Steps To Effectively Solve a Problem :

1.	Define the Problem
2.	Diagnose the Situation
3.	Generate Alternate Solutions
4.	Evaluate & Select an Alternative
5.	Implement
6.	Follow-up on the Solution

Reference : The Problem Solving Cycle – An effective step-by-step approach to find viable solutions: Kerstin Petrick/18 May 2013

## POINTERS :

<b>MANUSCRIPT SECTION</b>	<b>ELEMENTS</b>	<b>COMMON PITFALLS</b>
<b>Introduction</b>	<ul style="list-style-type: none"> <li>❖ Importance of the QI problem beyond our local institution.</li> <li>❖ Gap between what you currently know and what you need to know to achieve desired QI outcomes</li> <li>❖ Project Aims</li> </ul>	<ul style="list-style-type: none"> <li>❖ <b>Too Long</b></li> <li>❖ <b>Too much on importance of QI problem and too little on evidence gap.</b></li> <li>❖ <b>Specific project aim not clearly articulated.</b></li> </ul>
<b>Methods</b>	<ul style="list-style-type: none"> <li>❖ Context of the QI project.</li> <li>❖ Theory connecting QI problem, context, proposed intervention strategy</li> <li>❖ Multiple, iterative, intervention steps.</li> <li>❖ Use of family of measures including outcomes</li> </ul>	<ul style="list-style-type: none"> <li>❖ <b>Superficial description of context</b></li> <li>❖ <b>No theory supporting intervention</b></li> <li>❖ <b>Single measure used to track project impact</b></li> </ul>
<b>Results</b>	<ul style="list-style-type: none"> <li>❖ Present data collected over time using run or control charts</li> </ul>	<ul style="list-style-type: none"> <li>❖ <b>Simple data aggregation</b></li> </ul>
<b>Discussion</b>	<ul style="list-style-type: none"> <li>❖ Summarize most important findings</li> <li>❖ Place your study in context of other's work</li> <li>❖ Reflect on implication of results</li> <li>❖ Discuss limitations that may have affected your findings</li> <li>❖ Brief information on future steps</li> </ul>	<ul style="list-style-type: none"> <li>❖ <b>Discussion is implicated to just our institution</b></li> <li>❖ <b>Results are repeated without analysis</b></li> <li>❖ <b>Limitations are not listed</b></li> </ul>
<b>Conclusion</b>	<ul style="list-style-type: none"> <li>❖ Brief summary of key study findings</li> </ul>	

Reference : Journal of Graduate Medical Education, May 1, 2016 pg 131