Using A3 LEAN Methodology to Improve a Pediatric Fellowship Guided by the ACGME Resident Survey
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**Introduction**

The Annual ACGME “Resident” Survey is administered to all trainees in ACGME accredited programs annually. The results of the survey are distributed in the spring of each year and are used to inform program areas of improvement. The Program Evaluation Committee (PEC), which includes program leadership, faculty, and fellow representatives, took on addressing these areas for improvement from the results of the first Resident Survey for the Indiana University School of Medicine Pediatric Emergency Medicine Fellowship Program.

**Background**

A Pediatric Emergency Medicine Fellowship was started by Indiana University for the 2016-2017 academic year. During the 2017-2018 academic year, the fellowship had four active fellows in the program. The ACGME Resident Survey for the 2017-2018 year indicated that there was room for improvement in several areas of the fellowship including:

- Fellow Feedback
- Confidentiality
- Practice Habits/Comparative Data
- Fatigue Management
- Wellness

**Objective**

The PEC chose to use Lean-A3 methodology to improve areas of concern from the fellow results on the 2017-2018 ACGME Resident Survey, and ultimately improve scores on the ACGME Resident Survey in the areas of fellow feedback, confidentiality, practice habits, fatigue management, and wellness.

Lean is a quality improvement methodology adapted from the automotive industry that has shown to be useful in other areas of medical education. (Ross et al). The A3 is a structured, one page improvement plan used as a tool to promote critical thinking.

**Methods**

The results of the 2017-2018 ACGME Survey were reviewed by the PEC. The committee identified five areas of improvement by choosing to address any area which scored under 70% on the ACGME Resident Survey. With four fellows, this meant any item for which more than one fellow rated the program as “non-compliant.”

Using A3 framework, the PEC discussed goals in each of the identified areas. The committee then performed a cause analysis for each non-compliant item. Finally, a plan was devised for each area, with input from all stakeholders, including the fellows who were not members of the PEC.

The A3 plans were implemented in the fellowship and included additional education for fellows and faculty, increased availability of resources to the fellows, improved reporting of feedback to fellows, and increased focus on wellness activities.

**Results**

The fellows then participated in the 2018-2019 ACGME Survey. Results from this survey will be compared to the 2017-2018 survey. The PEC expects to see improvement in scores representing improvement in the PEM Fellowship Program because of the use of A3 methodology by the PEC guided by the 2017-2018 ACGME Resident Survey results. At this time, the results of the 2018-2019 ACGME Resident Survey are pending.

**Conclusions**

Use of A3-Lean methodology is a comprehensive and effective method PECs can use to address areas of concern that are identified on the ACGME Resident Survey. Here we demonstrate how one program used this methodology to improve fellow satisfaction and program compliance. Pending the results of the current ACGME survey, this will hopefully be demonstrated through improved compliance percentile on the 2018-2019 ACGME Resident Survey.

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**Example of A3 Created**

"Practice Habits" of PEM Fellows

**Conclusions**

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