**Overview:**

Residents in the NCC Pediatrics Residency program shall participate in quality improvement/process improvement (QI/PI) during their training. QI/PI is a systematic approach for reducing waste or improving efficiency, reliability and performance of a service or product. The Defense Health Agency has adopted the A3 method of conducting QI/PI.

The goal of each academic year will be to start and see to completion a project following QI/PI methodology. Residency sponsored QI/PI projects will be monitored by an oversight group consisting of members of the residency faculty who have attended the A3 Yellow Belt training.

Each year, new and ongoing residency QI/PI projects will be vetted by the QI/PI oversight group (a.k.a. “Yellow Belts”), and residents will choose which project they would like to participate in as teams. Throughout the year, residents will participate in PI sessions where they will have the opportunity to meet and work on their projects, as well as learn about the PI/QI concepts related to each of the steps of the A3 methodology. At the beginning of the year, these sessions will be scheduled more frequently to allow for completion of the EIRB by September. Residents will give a mid-year and end-of-year PI Project update to the department and receive feedback on their projects.

Goals for the academic year include the following: working through the A3 steps, submission of IRB, implementation, data collection and assessment. Projects are encouraged to be presented when possible. The Quality Improvement/Process Improvement curriculum will develop and assess the resident for independent practice of this Entrustable Professional Activities (EPAs):

14. **Apply public health principles and quality improvement methods to improve care and safety for populations, communities, and systems.** The 21st century health care professional needs to understand population health in order to optimize care. Populations can be defined by sociodemographics, disease states, and/or active practice patients to name a few. The functions required of this activity include:

• Apply knowledge of population health

• Function in an interdependent health care team

• Collaborate with others to improve systems

• Recognize one’s professional responsibility to populations, communities and society at large

• Utilize technology (e.g. patient registries and databases)

• Demonstrate adaptability in developing and implementing improvement plans • Utilize risk/benefit and cost/benefit analysis.

*This EPA involves the following Domains of Competence:*

*Practice-based Learning and Improvement- PBLI 4: Analyze practice; PBLI 7: IT; Professionalism- P4: Cultural competence; Systems-based Practice- SBP 3: Cost awareness; SBP 4: Advocate for quality; SBP 6: System errors; SBP 7: Promotion of health*

Involvement in a QI/PI project can overlap with ARM Longitudinal Curriculum projects (please see separate section in the Housestaff Manual for details) if the resident meets the following criteria:

* Attends formal A3 yellowbelt training AND is a project lead for a residency QI/PI project OR
* Part of a non-residency QI/PI project.

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| **Date** | **Session Topics, organized by A3 Step** | **Knowledge Burst** | **Resident Action Item (by session)** |
| **PLAN:** |
| June 10 (AY21-22) | **SR Residents Pick Topics for Next Year** | Data Collection (Dr. Gorman) | Topic Ideas |
| July (early) | **PI/QI Overview + Shark Tank** | A3 Overview (Dr. Richards) | **Shark Tank Slides** |
| July (late) | Step 1: Clarify the Problem/ Problem Statement | Data Visualization(Dr. Richards) | Update A3 (1) |
| Step 2: Breakdown the Problem/ Identify Performance Gaps |
| Aug (early) | Step 3: Set Improvement Target | Fishbone Diagram(Dr. Richards) | Update A3 (2/3) |
| Step 4: Determine Root Causes |
| Aug (late) | Step 5: Develop Prioritized Projects/ Countermeasures | EIRB Overview(Dr. Zanetti) | Update A3 (4/5) |
| Sept | *Brief Working Session (CASE 1st)* |  | **Submit EIRB** |
| **DO:** |
| Oct | Step 6: Implement Projects/ Countermeasures | Countermeasures |  |
| **CHECK/ACT:** |
| Nov | *Brief Working Session (CASE 1st)* |  | Update A3 (6) |
| Dec | *Brief Working Session (CASE 1st)* |  |  |
| Jan | **Mid-Year Project Presentations** | PI/QI Scholarship (Dr. Hoffner) | **Project PPT** (A3 Steps 1-6) |
| Feb | *Brief Working Session (CASE 1st)* |  |  |
| March | *Brief Working Session (CASE 1st)* |  |  |
| April | Step 7: Monitor Performance and Confirm Results | Population Health (Dr. Gorman) | Update A3 (7) |
| May | Step 8: Sustain Success/Transfer Knowledge | Sustainment/ PDCA (Dr. Richards) | Update A3 (8) |
| June | **Project Presentations** |  | **Project PPT**(A3 Steps 1-8) |

**Timeline:**

**Resident Expectations:**

A resident leader should be identified for each PI/QI meeting. Their roles are as follows:

1. To ensure the A3 is up to date ahead of the session.
2. To invite the key stakeholders to the meeting (i.e. clinic corpsman, discharge planner, etc)
3. To create and lead the agenda for the session: a brief overview and update on the project's status, followed by the task which needs to be worked on.