

**Society of Hospital Medicine  
Quality and Safety Educators Academy 2014**

Session: Quality Methods: What an Instructor Needs to Know  
Key Faculty: Erin Stucky Fisher  
Time: 75 minutes

Goal: Review methods and tools used in performance of quality projects and discuss strategies for instructing learners on their use

Specific Learning Objectives:

- 1) Describe the importance of defining a QI strategy prior to engaging in or teaching QI
- 2) Compare and contrast the two commonly used QI methods and explain the value of each
- 3) Demonstrate basic skills in educating learners on the use and creation of a SMART aim.

Methods: 1) Didactic teaching (Lean, PDSA, SMART Aim, Tools)

2) Table work : ***SMART Aim Exercise***. The exercise example given includes a number of errors. Participants will critique the sample SMART aim to discuss how to teach residents how to create an accurate SMART aim and the importance of this. Participants should demonstrate ability to complete a SMART aim (knows, knows how, shows how). NOTE: on the facilitator version, “participant” refers to those attending QSEA and “learner” refers to their learners.

3) OPTIONAL Table discussion: ***Flowchart Exercise***. Participants will use the sample flowchart to teach residents to describe a flowchart (knows); state how to use a flowchart (knows how); and if time, demonstrate ability to complete a flowchart (shows how).

Facilitator notes: Encourage participants to discern between delivery of content knowledge through didactic presentation (as just done in the first part of this session) and the need to use the tool interactively. Use terms “knows, knows how, shows how” in only a general manner in this Day 1 session. Help participants discuss use of group and 1:1 teaching, on line learning, and testing of learner competency.

Toolkit Items for use at QSEA:

- 1) SMART Aim Exercise
- 2) Flowchart example (optional)

Toolkit items for participants to use at home:

- 1) QI Tools Cheat Sheet (handout)
- 2) INQUIRY Project Worksheet Checklist

- 3) INQUIRY Project Worksheet Needs Assessment for Faculty
- 4) Journal articles on quality methods, tools, and project layout (see reference list)

General Principles and Flow of Session:

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|------------|--|
| 30 minutes | Didactic presentation (objectives 1 and 2)       |
| 40 minutes | Table Exercise (objective 3)                     |
| 5 minutes  | Report out of best practices and lessons learned |

A

B

**Project name:** Antimicrobial stewardship in All Bugs Hospital

**Unit(s) affected** (anticipated): ? not sure

**Project start date:** Today **End date :** 6 months from today

**Aim Statement:** (SMART: specific, measurable, actionable, relevant, time-bound)

*Global Aim: What are you trying to achieve?*

*Ask "why" and "how" three times*

*Make a specific SMART aim*

1

**Global aim:**

To assure appropriate antimicrobial regimens are use at All Bugs Hospital

2

**Why 1**

Attendings use different drugs and cause confusion (inconsistent)

**Why 2**

Antimicrobial resistance patterns are worsening at our hospital

**Why 3**

Patients are not always receiving the best antimicrobial regimen, which might cause complications or ↑ LOS

3

**How 1**

Obtain and review local data (orders, tests)

**How 2**

Review EBM, best practices from content experts

**How 3**

Create an order set that meets the needs and assures critical elements (dx,tx) are "hard wired" as much as possible.

4

**Specific Aim 1:**

Within 6 months, all patients at All Bugs Hospital will have appropriate antimicrobial regimens.

1. **PROMPT** participants to identify the value of the global aim and differentiate it from the specific aim.

**ANSWER:** A global aim is intended to be general. This global aim could be fine, or the learner could be prompted to define “appropriate”. This may lead to discussion on how the global aim can be interpreted many ways - is this a project about drug dosing, drug choice, drug monitoring or ? That is why the specific aim is needed.

2. **PROMPT** participants to review each “why” for clarity, term use, and identifying the learner’s data source

**ANSWER:** The learner should use QI terms, exchanging “inconsistent” for “variable”, “best” for “evidence based”, etc. Does the learner mean there is variability in practice between attendings or that given attendings change drug choices for similar patients seemingly indiscriminately, or both? The learner should be asked to explain from where data was obtained for Why 2 and Why 3. If the learner responds with subjective opinion, offer suggestions on where credible data could be obtained. Explain why this will help the team see this project as valuable, and will help when identifying metrics for the PDSA cycles.

3. **PROMPT** participants to review each “how”.

**ANSWER:** “How’s” do not need to be too specific. The learner does not yet need to know from whom the data and existing order sets would be obtained. However, this is a good time to discuss the achievability of the project. Can this data be obtained? If not, can the project be successful? In addition, the learner should note that the scope is too broad, and that creating “an order set” will not address the project as currently written. Coach the learner to think of limiting the antimicrobial type (e.g. most error prone or costly drug) as well as population (e.g. medical floor or surgical ICU or where the learner has most influence or experience) and/or disease state (adults with skin infections).

4. **PROMPT** participants to then assess the SMART aim, noting the changes made to the “Why’s” and “How’s”

**ANSWER:** The learner should be asked to review components of the SMART aim, one by one.  
Specific? – No, “all patients” and “antimicrobial regimens” are too broad. Coach the learner to choose a small population/unit/drug. Refer to the “how’s” .  
Measurable? – Not as written. Coach the learner to choose one quantifiable metric. Again, refer the learner to the “how’s”.

Achievable/actionable? –Here you will need to know your local system. You will need to assure the learner will not fail due to known barriers in data gathering, processes, etc from your institution.

Relevant? – maybe, if refined. Refer the learner to the “why’s”

Time-bound? – technically yes, as 6 months is noted. You will need to assure this fits with your learner’s time available.

For many learners, shorter cycles (1 or 3 months) are more appropriate. If short cycles are chosen assure the improvement targets are achievable.

The participants should edit the SMART aim. It may look something like this:

**Within 3 months, patients aged 18-65 years admitted with skin and soft tissue infections to the medical floor of All Bugs Hospital will have the most narrow spectrum antibiotics appropriately chosen based on culture results and/or All Bugs Hospital’s antibiogram.**

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Optional:

A. **PROMPT** the participants to discuss why the “units affected” should be identified by their learners.

**ANSWER:** Lack of clarity by the learner on “units affected” is fine prior to completion of the SMART aim. After completion of the SMART aim, the target population that will be addressed in the project should be known. Identifying the hospital units/sites to be affected by the project will help the learner appropriately limit their project scope, identify potential team members, and even start to identify potential barriers to project completion.

B. **PROMPT** participants to discuss this 6 months’ time frame.

**ANSWER:** 6 months is fine, if the aim is actionable/achievable.