Mentoring Residents in QI Work

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Facilitator notes: *This session will be interactive with attendees doing most of the talking. Each faculty member will lead a mentor group. Participants will just have had Patient Safety and Safety Tools, QI Measurement, and QI methods and tools. They will likely have many questions regarding the concepts presented. We will ask them to reflect on how to they might mentor residents despite not being experts themselves yet. This discussion will also lead from 'the what' (QI methods and tools) to 'the how' (Curriculum Development) on the next day.*

Goal: Participants will determine what resources they need to successfully mentor residents and develop curriculum for QI/PS work

Objectives:

1.   Participants will reflect on their current knowledge and comfort level in mentoring residents in QI/PS work

2.   Participants will work through a QI Project worksheet

3.   Participants will begin to think about how to move these concepts into curriculum development

Method:

Table work with interactive discussion; participants should have paper and pen. Flip charts per table would be helpful but not critical. **Structure of session**:

1. **Brief introductions** [5 minutes]
   a. Who are you, and what is your background in QI/PS work and teaching?
   (facilitators: this will be the first meeting of the mentor group, so do a quick introduction)

2. **Review current knowledge and comfort in mentoring residents in QI/PS work** [20 minutes]
   a. What was your initial emotional response to the first day of QI/PS content?
   (facilitators: based on last year's group many in this year's group will likely be overwhelmed with the information, or at least not comfortable. Get this sentiment out if it exists. Normalize it. Then begin the discussion with a look towards curriculum development – reflect – how you feel now is likely how many residents feel when they first encounter these concepts)

b. Were there any concepts from the previous discussions that were unclear to you?

c. What resident mentorship experiences will you draw upon to help you with mentoring in QI? What differences in mentoring have you experienced or might you expect? (*facilitators: attendees have likely mentored residents in traditional ways, for career development and/or a research project. Help them identify how mentoring for QI may be similar or different. If any have not mentored previously, ask an attendee to touch upon basic mentoring skills. Do focus however on the needs that are specific to QI Project mentorship. Also briefly review high value concepts from the previous day's discussion.*)

3. **Review QSEA faculty home institution project summaries** [10 minutes]
(*facilitators: Participants will have been asked to review the institution project summaries before the mentor group. Please ask them to pick the example that most closely resembles their home project or institution. For the discussion, focus on Resources and "what has worked well/struggled with" sections only. State that each section will unfold nicely with each day of QSEA. Use these examples to briefly highlight 1) examples of resources needed to succeed in mentoring QI/PS work, and 2) the variety of approaches given the clinical and educational contexts. Comment also that for any example, attendees may seek out the respective institution leaders throughout the conference to ask more questions about their particular approach at their site.*)

4. **Review QI Project worksheets** [30 minutes]
   a. Think about a QI/PS project you would like to complete at your home institution, and work through each section of the worksheet
   b. What resources do you need to succeed?
   c. How will you secure these resources?

(*facilitators: First (~ 10 minutes), as a group, talk the attendees step-by-step through the Project Worksheet. Remind them that this is one site's guide used in mentoring residents. Good mentors will use tools like this to set mentees up for success. Participants may choose an alternate method or their institution may have their own guide. Second (~ 20 minutes), have them work independently to complete the QI Project Needs Assessment. The point of the exercise is not to complete a project design, but to get them thinking about what it might take to succeed back home. This will hopefully give them something concrete to build upon as QSEA proceeds. Finally, remind attendees that they will be mentoring more than one resident at a time, and that some approach to this is needed. If there is time, you may use the optional visual aid. For some groups, this visual aid may be too confusing, so use your judgment here.*)

5. **Next Steps**
   a. Review the "Top 10" mentorship tips in QI/PS (*provided*)
   b. Reflect your emotional response discussion above and begin to think about how you might set up a successful curriculum under these circumstances – this will be the main topic tomorrow

Project name: Antimicrobial stewardship in <u>All Bugs Hospital</u>
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)

A

B

Global Aim: What are you trying to achieve?   *Ask "why" and "how" three times*   *Make a specific SMART ai*

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.