Mayo Clinic's 10 key factors for creating and maintaining a quality POC program

October 2006

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What does it take to create and maintain a quality point-of-care program in a world-renowned healthcare institution? acutecaretesting.org recently asked that question to Paula Santrach, MD, Interim Chair of the Dept. of Laboratory Medicine and Pathology at the Mayo Clinic in the US. She came back with a list* of 10 key factors.

1. Start with a plan

According to Santrach, the road to quality starts with a POC testing plan. *"In our case,"* she says, *"this is developed based on the Joint Commission on Accreditation of Healthcare Organizations' (JCAHO) standards and it is overseen by our internal Priorities of Laboratory Testing Committee."*

Santrach explains: *"The point-of-care coordinators (POCCs) started by listing all of their JCAHO requirements for POCT at a hospital level and described what we do under each requirement. For example, under competency testing, there is a description of who does it and of where the records are located; the same for training.*

The plan also describes what tests are done, what kind of quality control is performed, by whom, how often and the location of the records. This document is the starting point for all our activities and it is valuable, because it makes it very clear who does what and when. As each new testing site comes aboard, the plan is broadened; otherwise it does not change unless some of the JCAHO requirements change."

According to Santrach, having an institutional committee to oversee the program is just as important. *"At Mayo, we have an institutional multidisciplinary committee that approves POCT"*, says Santrach. *"The committee consists of laboratorians, people on the POCT program and a number of clinicians. To get approval, you must*

submit information on what test is being required, what it is going to be used for and how it is going to be done. And you must have a POC testing plan put together.

In my institution, POCT does not occur without a plan and without it being reviewed by an institutional committee. That committee also oversees quality control on a very high level and has the authority to discontinue testing, if people do not comply. Having a testing plan may be unique to us, but having an oversight committee is probably not."

2. Establish a quality framework

Having a quality POC program goes hand in hand with establishing a framework – and following it. *"Our entire department of laboratory medicine and pathology has established Quality Systems Essentials as our quality program for the whole department,"* says Santrach. *"There is a quality unit that has been responsible for building all of the processes and procedures at a high level, which all units, including POC, use to manage their everyday work.*

We follow the Clinical and Laboratory Standards Institute's (CLSI) quality systems document GP263A. There are twelve quality system essentials and for each one of those we have an overall policy about how the department views it and what its expectations are. In addition, there are a number of procedures people can follow. For example, under equipment, there are procedures for qualification, maintenance, repair, etc. Quality can mean so many things to so many people. Using a common framework helps ensure everyone is on the same page."

3. Train

Once you have a plan and a quality framework in place, it is time to train the users. *"Make sure you have a very specific and detailed initial training program,"* Santrach advises. *"The starting point should be: what knowledge do operators need to follow the tasks listed on the POC testing plan and to live up to the quality standards we have decided on.*

Also make sure the training is consistent. At our institution, all training is performed by the four POCCs, who are in turn usually trained by the manufacturer. If the device is completely new, we will have the manufacturer come in and do the training of the POCCs. Based on that, they will either follow the manufacturers' instructions or develop their own set of materials."

4. Make procedures easy to follow

User-friendly procedures and simplified patient result and quality control forms. These are just two examples of how you can increase the likelihood of procedures being followed. Santrach explains: *"Instructions have to be very straightforward and in a language operators can understand.*

Simplicity is essential in busy hospital environments, especially if testing is done in a point-of-care setting. There is no time to go through hundreds of pages of instructions every time you do a given test. The more complicated the procedures are, the less likely they are to be followed."

5. Make necessary tools available

"If you want your staff to use a given set of tools, make sure that they are easily, readily and widely accessible," says Santrach. *"Every one of our Standard Operating Procedures for testing at the point of care is available on our intraweb and is accessible throughout the institution to everyone doing that kind of testing.*

The same goes for forms, quality assessment reports and general updates. It really helps for consistency to have access to this information. People want to do the right thing, but they need tools to help them. It is the tools that really enable the quality, that create consistency every time."

6. Automate where possible

According to Santrach, information technology is also an important ally in ensuring the quality of a POC test program. She gives an example: *"At Mayo, we are*

trying to find ways that automatically help users comply with regulatory requirements. One way is through POC device features that help ensure patient testing is only performed by trained and qualified staff and after quality controls are within range.

The other is by using a data management system to document who can perform the test and link our devices to that system, so that when operators enter their ID, the system or the instrument can automatically give them authorization to perform the test. This is just one example of how technology can help you ensure quality."

7. Track events for process improvements

Ensuring quality is also about continuous process improvement. *"But to do that,"* Santrach says, *"we need to know what is not working and why. In other words, it is not enough to identify the problem: if you are going to solve it, you need to analyze the cause and discuss how to prevent it.*

In the past, the phlebotomist would do the POC glucose testing, and then leave a yellow slip with the patient's name, registration number, the result, etc. When we did an audit, we found that often that slip would either contain wrong information or that the information would be illegible, because it had been hand-written.

The problem was not the phlebotomist making an error, but rather that information being entered manually and all the variations that could cause. That ultimately led us to building an interface to the LIS, so we could have automated reporting and solve the problem."

8. Assess overall quality

At Mayo, quality assessment reports are posted each month on the POC website, where they can be accessed by the testing personnel. *"The reports provide feedback on the specific quality indicators or, in other words, the issues testing personnel have to comply with,"* says Santrach. *"Let's take quality control for instance.*

Every time operators perform quality control when they are supposed to, they get a green light. Then we calculate the number of days quality control was performed. If they have done that 100 % of the time, they get a green light, between 90-99 % they get a yellow light and less than 90 % of the time, they get a red light.

After a certain number of red lights per quarter, the Priorities of Laboratory Testing Committee will intervene and, depending on the situation, the operator or ward will no longer be able to perform that test at the POC. Luckily, we have never experienced that situation. But having said that, the quality assessment reports are also about giving operators positive feedback for the good job they are doing."

9. Be visible

"As a point-of-care coordinator, it is very important to have a good rapport with the testing personnel and management staff. I just can't stress that enough," Santrach says. *"Establishing and maintaining that rapport means being visible, talking to people, going to the wards, interacting with the testing personnel on a frequent basis and seeing things from their perspective. The same with management staff. We like them to know that POCC are here to help ensure compliance in the hospital."*

10. Nurture a just culture

"POCCs are an important resource for the areas performing POC testing when it comes to questions, troubleshooting and concerns," Santrach explains. *"Our coordinators' philosophy is that they are here to help. A big part of their job is to ensure compliance, but that must be done in a positive way, so people aren't afraid to say 'I don't remember how to do this procedure' or 'I'm having this issue, please help me'.*

We need to have a just culture where it is OK for operators to say they have made a mistake or have an issue, rather than hide it, because they are afraid something is going to happen to them. That way the

problem is never solved. Nurturing a just culture is just as important to ensuring a quality POC program as any tangible tool."

* The four Mayo Clinic Point-of-care Coordinators Gayle Deobald, Laurie D. Griesmann, Lisa Beyer and Lori Sorenson compiled the list.

Interviewee

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