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Training Programs

A consistent and effective office staff-training program is imperative to ensure quality testing in any laboratory setting, including a certificate of waiver laboratory. In the discussion that follows, we will look at the components of an effective training program, tips for applying the program in a consistent manner and ways to assess competency of individuals performing testing procedures.

Components of Effective Training Programs

Training must be specific to the procedure, test kit and environment where testing is performed. At the end of the training, the learner should be able to recall the critical information regarding performance of the test as outlined in the manufacturer's instructions or written office procedure manual. A copy of the instructions or procedure should be provided to the learner and read completely. Recall of critical information may be aided by the development of key messages related to procedure. The trainer can develop the messages by reading the package insert critically and asking, "which steps or background information included in the manufacturer's instructions are imperative for accurate testing?" Listing this information in a concise manner such as brief statements, bullet points, charts and/or tables are great ways to reinforce learning.

Once the critical information is obtained, the learner must apply it to demonstrating successful performance of the manual or "hands on" tasks associated with the procedure. These tasks should first be demonstrated by the trainer in a step-by-step fashion. The manual tasks should be performed using the same equipment and in the same setting as is used in the certificate of waiver laboratory. While demonstrating, the trainer should focus on reinforcing the critical information in the key messages and include a discussion on common sources of error that may occur while performing the manual tasks related to the procedure. For example, a chemical urinalysis test, also known as a urine dipstick, may have individual timing requirements for interpreting the colors reactions that occur which relate to the various tests included on the stick. Failure to accurately "time" the reactions may cause false results. The trainer should emphasize this information while demonstrating accurate timing of the test. Once he or she has observed the trainer, the learner should then be given the opportunity to perform the test independently, working through each step while the trainer looks on. This is the time for the learner to get the "feel" of using the equipment and practice the skills observed.

The final and possibly most important aspect of successful training is evaluation of the learner. The trainer must assess whether the learner understands the procedure and whether he or she will be able to perform it accurately on their own. This assessment can be done in several ways including written or oral quizzes and performance of "unknown" testing samples. Any areas of weakness

identified by the assessment should be addressed immediately by revisiting the steps of the procedure.

Completion of the training program should be documented for each employee. The trainer should develop a training checklist that addresses both the information outlined in the key messages as well as the critical steps observed. In addition, the skills checklist should include points about safety (e.g. Universal Precautions) and quality control measures that are necessary for quality testing. These topics should also be highlighted in the key messages if provided.

Consistency in Training Programs

Even in situations of high personnel turnover, an effective laboratory-training program must be consistently applied. It should be determined ahead of time that no employee will perform laboratory testing on patient samples until they have been adequately trained and are determined to be competent to perform the procedure ordered. This requires that adequate personnel planning take place to ensure that enough employees are trained in the various procedures offered to cover staffing needs. Rotating the responsibility for laboratory testing on a regular basis ensures that all trained individuals are given the opportunity to perform the tests frequently enough to feel comfortable with them and maintain competency. These important training considerations are discussed in the CDC MMWR Report entitled Good Laboratory Practices for Waived Laboratories. Link to MMWR report on PT Check Up Web site.

Compiling the components of the training plan (i.e. instructions, procedures, key messages, skills checklists, quizzes, etc) and keeping them on file ensures that the trainer is ready at a moment's notice to train a new employee. Training in laboratory procedures should be included in each new employee's orientation to the office and be completed as soon as possible upon hire.

Who Trains the Trainer?

Another important aspect of consistent training programs is the skill development of the trainer. Only a qualified individual should perform training. A trainer is qualified if he or she has been adequately trained, performs the test regularly, knows the essentials of good laboratory practice and is able to objectively evaluate others. There are many resources available for skill development of physician office laboratory trainers. They include:

- Manufacturer training sessions
- Training offered by a manufacturer technical representative
- Professional organization workshops
- Consulting with a Certified Medical Technologist experienced in physician office laboratory testing.
- State Health Department laboratories or other government agencies
- Interaction with hospital based affiliated laboratories if applicable.

Competency Assessment

Similar to evaluating the learner's grasp of the testing procedure during initial training, it's important to assess the same learner's ability to perform the test accurately over time. It is good laboratory practice to assess the competency of all testing operators on a scheduled basis. A good rule of thumb is to assess new employees twice in the first year they perform testing and then annually thereafter. This also applies when a new test is introduced into your laboratory. All testing operators should be assessed on the new procedure twice the first year and again annually thereafter.

Some suggestions for ways to assess competency include:

- Direct observation of employee performing a patient test by a qualified trainer.
- Testing "unknown" specimens created from quality control materials or previously tested patient samples. The trainer should evaluate results by comparing them to the expected value.
- Participation in external quality assurance measures such as proficiency testing programs.

As with initial training, any area of deficiency noted during the competency assessment process should be addressed by the trainer. All training and competency assessment should be documented. Retraining of the employee should occur if needed. It's important to note that a successful competency assessment plan should emphasize education and good laboratory practice and not be punitive.

In summary, an effective laboratory-training program is achievable in any setting if you follow these tips:

- Develop the training plan to include written materials such as procedures, instructions, key messages, skills checklists and quizzes.
- Use the training plan consistently with all employees
- Provide training by a qualified individual
- Assess competency of all testing personnel on a regular basis