propharma

meeting the FDA's CAPA expectations

Year after year, findings of insufficient corrective and preventive action (CAPA) procedures have topped the list of the most common observations found during FDA inspections within the medical device industry. This means that far too many medical device companies have issues with establishing and/or following CAPA procedures. Consequently, they are putting patients and their business at risk.

To stay in compliance, avoid receiving a 483 citation, and keep a safe product on the market, medical device companies' leadership teams must understand CAPA and take steps to meet the FDA's expectations relating to CAPA.

What is CAPA?

CAPA is defined by 21 CFR 820.100 and is arguably the single most important subsystem within a quality management system. In short, CAPA is the process which investigates the cause of nonconformities relating to products, processes, and the quality system. CAPA identifies the cause(s) of those nonconformities, and allows validated corrective action to be taken while also preventing the recurrence of the root causes of those nonconformities.

What is the Purpose of CAPA?

The FDA describes the purpose and importance of CAPA as follows: "The purpose of the corrective and preventive action subsystem is to collect information, analyze information, identify and investigate product and quality problems, and take appropriate and effective corrective and/or preventive action to prevent their recurrence. Verifying or validating corrective and preventive actions, communicating corrective and preventive action activities to responsible people, providing relevant information for management review, and documenting these activities are essential in dealing effectively with product and quality problems, preventing their recurrence, and preventing or minimizing device failures. One of the most important quality system elements is the corrective and preventive action subsystem."

What the FDA Expects From Your CAPA Process

The FDA has clearly detailed its CAPA expectations in an inspectional guide that is followed by inspectors. In the guide, inspectors are directed to:

1. Verify that CAPA system procedure(s) have been defined and documented in accordance with the requirements of the quality system regulations.
2. Determine if appropriate sources of product and quality problems have been identified. Confirm that data from these sources are analyzed to identify existing product and quality problems that may require corrective action.
3. Determine if sources of product and quality information that may show unfavorable trends have been identified. Confirm that data from these sources are analyzed to identify potential product and quality problems that may require preventive action.
4. Challenge the quality data information system. Verify that the data received by the CAPA system are complete, accurate, and timely.
5. Verify that appropriate statistical methods are employed (where necessary) to detect recurring quality problems. Determine if results of analyses are compared across different data sources to identify and develop the extent of product and quality problems.
6. Determine if failure investigation procedures are followed. Determine if failure investigations are conducted to determine root cause (where possible).
7. Determine if the degree to which a quality problem or nonconforming product is investigated is commensurate with the significance and risk of the nonconformity. Verify that there is control for preventing distribution of nonconforming products.
8. Determine if appropriate actions have been taken for significant product and quality problems identified from data sources.
9. Determine if CAPAs were effective and verified or validated prior to implementation. Confirm that CAPAs do not adversely affect the finished device.
10. Verify that CAPAs for product and quality problems were implemented and documented.
11. Determine if information regarding nonconforming product and quality problems and CAPAs have been properly disseminated, including dissemination for management review.

The Ideal CAPA Process

The ideal CAPA process starts by identifying the problem and determining whether the issue requires a CAPA investigation. That determination should be handled by a Quality Manager or a Quality Review Board. The Board should meet regularly to review all CAPA requests. If an investigation is appropriate, then a CAPA should be initiated. If the Board determines that a CAPA is not necessary, the rationale should be documented. The initiation of a CAPA must begin with documenting a detailed description of the problem. After the problem has been clearly defined, a thorough root cause analysis must be performed. Based on the findings of the root cause analysis, the company must then implement, verify, validate, and document necessary corrective and preventive measures designed to remedy the root cause. Finally, the effectiveness of the implemented measures must be verified.

Common CAPA Problem #1: Poor Root Cause Analysis

One of the contributors to receiving a CAPA-related inspectional observation is that the root cause of the problem has not been accurately identified. To correct or prevent a problem, the true root cause must be identified. If the root cause has not been accurately determined, corrective and preventive action will miss the mark and the problem will reoccur. It's crucial that the root cause analysis phase not be rushed. Hours, days, or weeks may not be enough. An adequate amount of time must be allocated to the process. Additionally, a description of the problem should not be accepted as the root cause of the problem. Describing the problem is not the same as investigating the problem to find the root cause. To objectively identify the root cause, companies can follow one of three reliable root cause analysis methodologies. The selected method should be the one that best fits the organization's processes.

To identify root cause, use one of three analysis methodologies:

- **Fault Tree Analysis**
- **Fishbone Diagram**
- **Five Whys Technique**

1. **The Fault Tree Analysis** is a deductive procedure used to determine the causes of failures and human errors that could result in undesired events at the system level. The analysis begins with a general conclusion and then attempts to identify the specific causes of the conclusion by constructing a logic diagram called a fault tree. This approach values the judgment.
2. **The Fishbone Diagram** is a visual tool for establishing cause and effect. The problem is the head of the fish and possible contributing factors are the bones. This diagram is useful in brainstorming sessions to focus the conversation. Once the brainstorming of causes is complete, each cause is rated according to its level of importance. This approach is often used in conjunction with the Five Whys technique, explained below.
3. **The Five Whys** technique is perhaps the simplest approach to discovering a root cause. When a problem occurs, this technique drills down to the root cause by asking "why?" five times. When a countermeasure becomes apparent, follow it through to prevent the issue from recurring.

Common CAPA Problem #2: Lack of Cross-Functionality

All critical functions that play a role in getting a product from design development to manufacturing to distribution should be involved in CAPA analysis.

While it's true that CAPA is typically a process owned by the quality function, the root cause of the problem is often outside of the quality function's domain. The root cause may rest with one or more functions that have no direct connection to the quality function. Therefore, it is essential that the management team tasked with the CAPA procedure be comprised of various department heads throughout the organization. All critical functions that play a role in getting a product from design development to manufacturing to distribution should be involved. Everyone's perspective on the problem matters and contributes to a solution.

Common CAPA Problem #3: Reactive Instead of Proactive

It is a mistake to think that CAPA should only operate in a reactive mode. Sure, the process may typically kick in when a problem comes to the company's attention perhaps through a user's complaint. However, that doesn't absolve a company from taking a more proactive approach to CAPA.

The best proactive approach is to conduct internal audits. It is a good idea to have a system in place that assesses and identifies issues before they become problems. When the issue is identified, apply the CAPA process to prevent the future related problem.

Common CAPA Problem #4: CAPA Underuse

Even if a company has a well-documented CAPA procedure in place, they may make the mistake of not using it enough. Remember that CAPAs are meant to solve systemic issues. It is important that the documented CAPA procedure can objectively examine problems as they arise and facilitate the determination of whether the problem rises to the level of needing a full CAPA investigation.

Common CAPA Problem #5: CAPA Overuse

Converse to underuse of CAPA is the overuse of CAPA. The issue here is that a complaint about a medical device may or may not warrant opening a CAPA investigation. A company may, in the sincere effort to stay compliant, open a CAPA investigation for every complaint or quality issue. This is a mistake because having too many CAPAs open simultaneously puts a strain on company resources. Again, it's best to have a well-documented CAPA procedure that has a stage which determines which quality issues rise to the level of needing a full CAPA investigation.

Beware of the dangers of CAPA overuse. Decide in advance what quality issues will rise to the level of needing a full CAPA investigation.

Common CAPA Problem #6: Poor CAPA Procedures

There are three things that may cause a company to have poor CAPA procedures. The company may:

1. Not have a defined CAPA procedure in place
2. Have a defined CAPA procedure that is not compliant
3. Have a defined CAPA procedure that is not being followed

The challenge here is figuring out which of these scenarios applies to the company's situation. Once the state of the CAPA procedure is determined, it can be remedied.

ProPharma can Help You Implement an Effective CAPA Procedure

There are times when it's valuable to have a third-party expert on your team, such as when working on establishing and improving your CAPA procedures.

ProPharma has considerable experience and expertise in assisting our clients with navigating the CAPA landscape. If you have a problem that needs to be corrected and have initiated a CAPA, we can review your corrective action plan to ensure that it meets all of the requirements of an effective and compliant CAPA. We can also help set up a system that will allow your company to easily draft CAPAs in the future.

Additionally, ProPharma can help put metrics in place to track progress and ensure that CAPAs get completed and solve the problem they were intended to solve, which is an often-overlooked area. Many well-intentioned companies initiate CAPAs but don't always follow them through to resolution. This can be just as bad as not initiating a CAPA in the first place.

If you have any concerns about the status or quality of your CAPA procedures, contact us and we'll help you get on the right track.

improve the health and safety of patients.

From early concept development through each clinical phase, product launch, and commercialization, we partner with pharmaceutical, biotechnology, and medical device clients to tackle complex challenges. We help to ensure regulatory goals are met, business objectives are achieved, and patient health and safety is improved.

Contact us to learn how our experienced team can help ensure successful outcomes throughout the product lifecycle

www.ProPharmaGroup.com

Info@ProPharmaGroup.com

regulatory sciences | clinical research solutions | quality & compliance | pharmacovigilance solutions | medical information | R&D technology