# ENHANCING THE EFFECTIVENESS OF SERIOUS ADVERSE EVENT REPORTING IN CLINICAL TRIALS: A FRAMEWORK FOR CONTINUOUS IMPROVEMENT

**THESIS**

**Presented to the Graduate Council of the**
**School of Biomedical Sciences**
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**In Partial Fulfillment of the Requirements**

**For the Degree of**

**MASTER OF SCIENCE IN CLINICAL RESEARCH MANAGEMENT**

**By**

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**New York, NY**
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LIST OF TABLES

| Objective | Description |
|---|---|
| **Objective 1** | Analyze SAE reporting guidance from MSKCC, PCCTC, and other CROs. |
| **Objective 2** | Evaluate challenges in complying with SAE reporting and identify root causes. |
| **Objective 3** | Examine the impact of SAE reporting on patient safety and research outcomes. |
| **Objective 4** | Propose evidence-based recommendations for enhancing SAE reporting. |

Table 1. Research Objectives

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| **RQ2:** What are the common challenges in complying with SAE reporting, and what are their underlying causes? | **H2:** Inconsistent interpretation and complex requirements lead to challenges in SAE identification, documentation, and timely reporting. |
| **RQ3:** Does the quality and timeliness of SAE reporting directly affect patient safety and research reliability? | **H3:** Improved SAE reporting practices enhance patient safety and research reliability. |
| **RQ4:** What evidence-based recommendations can enhance SAE reporting, focusing on patient safety, data integrity, and regulatory compliance? | **H4:** Practical recommendations can mitigate challenges, improve patient safety, and enhance data quality, contributing to regulatory compliance and medical knowledge advancement. |

Table 2. Research Questions/Hypotheses

LIST OF ILLUSTRATIONS

Figure 1. *Therapeutic Area Breakdown from all Responses*

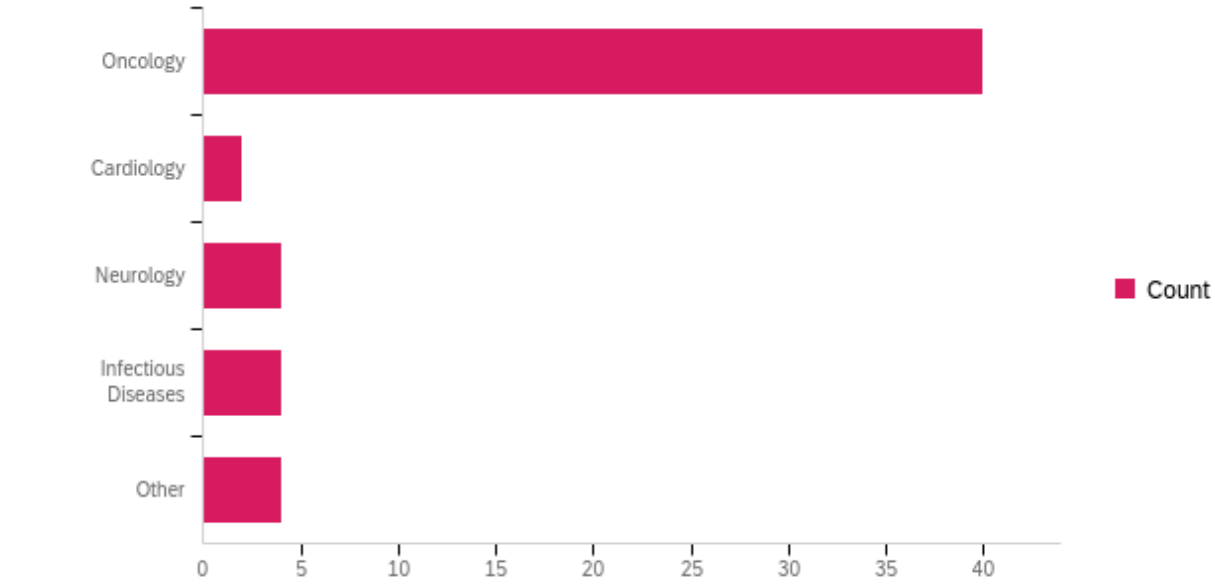
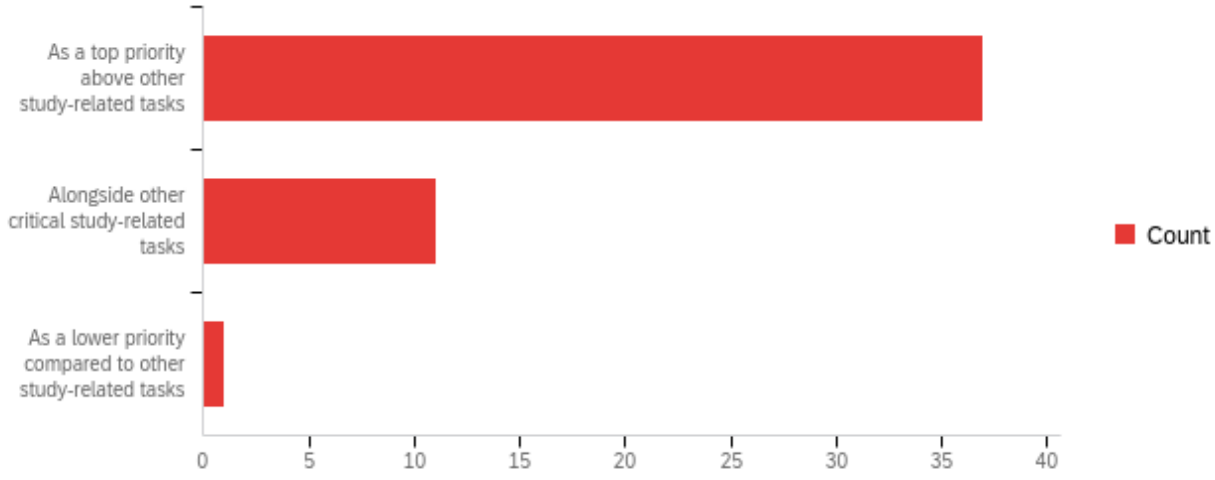



Figure 2. *Investigator Prioritization of SAEs*



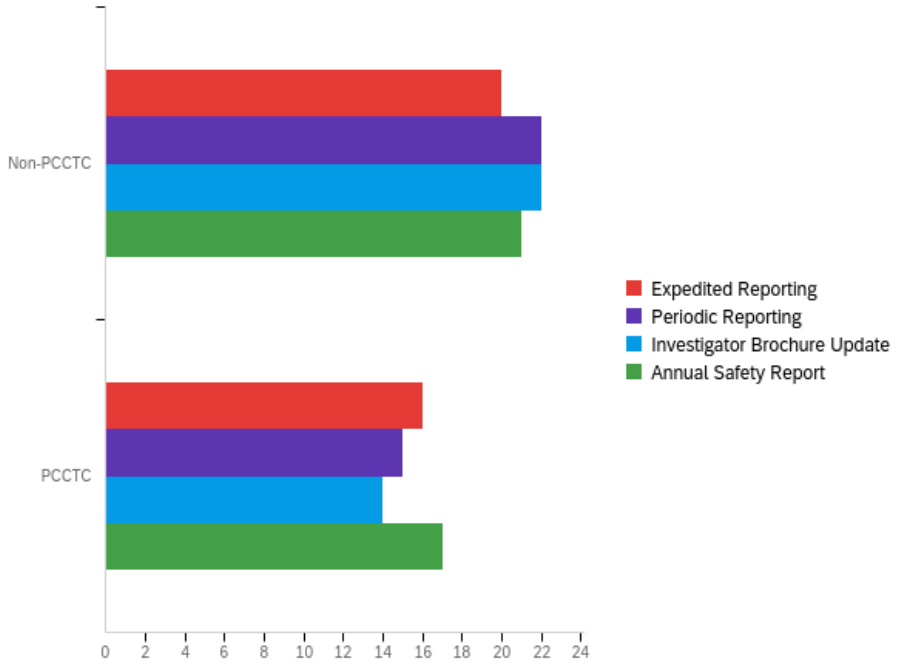



Figure 3. *Common Types of Reporting (PCCTC vs Non-PCCTC Responses)*

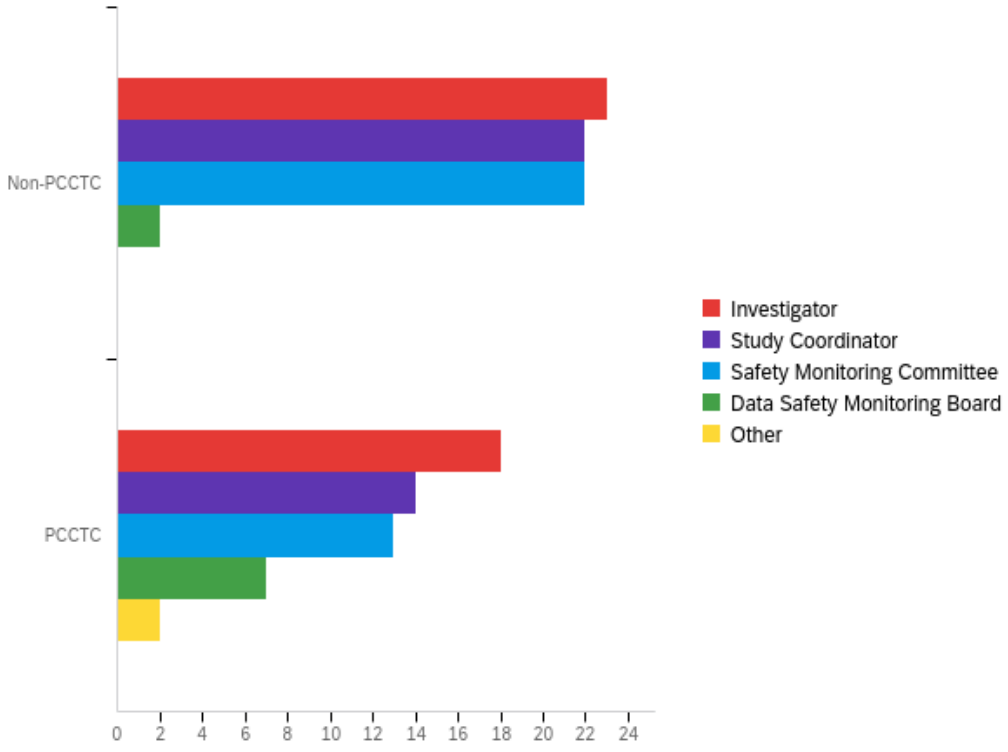



Figure 4. *Responsibility of assessing SAEs (PCCTC vs Non-PCCTC Responses)*

TABLE OF CONTENTS

# I. INTRODUCTION

Adverse Events (AE) are unfavorable changes in health, including abnormal laboratory findings, that occur in trial participants during the clinical trial or within a specified period following the trial. A Serious Adverse Event (SAE) includes adverse events and any other untoward medical occurrence that result in death, require either inpatient hospitalization or the prolongation of hospitalization, are life-threatening, result in a persistent or significant disability/ incapacity or result in a congenital anomaly/birth defect (Food and Drug Administration, 2021). Regulatory agencies have implemented guidelines for SAE reporting in clinical trials and these guidelines provide sponsors, investigators, and other stakeholders with a framework for identifying, assessing, and reporting SAEs in a timely and accurate manner (Lineberry et al, 2016).

However, despite these guidelines, there are still challenges and issues associated with SAE reporting. For example, there may be inconsistencies in the interpretation and application of the guidelines, leading to variations in SAE reporting practices across different clinical trials. Additionally, the complexity of SAE reporting requirements can make it difficult for sponsors and investigators to comply with the guidelines, potentially compromising patient safety and the integrity of the clinical trial data (Sonawane et al, 2018).

The rationale for undertaking this research on SAE reporting in clinical trials is grounded in several significant factors that collectively underscore the critical importance of the study. These factors highlight the necessity and relevance of addressing challenges and improving the current state of SAE reporting:

1. Patient Safety and Ethical Imperatives: Foremost, patient safety is a fundamental ethical concern in clinical research. Clinical trials involve human participants who trust that their well-being is of paramount importance throughout the research process. Adverse events, particularly serious ones, have the potential to adversely affect the health and safety of trial participants (Finn et al., 2018). Inadequate or inconsistent reporting of SAEs can lead to delayed identification and intervention, thereby compromising the ethical foundation of clinical research. It is incumbent upon researchers and healthcare professionals to ensure the highest standards of patient safety.

2. Regulatory Requirements: The regulatory landscape surrounding clinical trials is complex and ever evolving. Regulatory agencies such as the Food and Drug Administration (FDA) and Institutional Review Boards (IRBs) have established stringent guidelines and requirements for SAE reporting. These guidelines are designed to safeguard patients, uphold data integrity, and maintain the credibility of clinical trials. Non-compliance with these regulations can lead to severe consequences, including the suspension or termination of trials. Therefore, a comprehensive understanding of and adherence to regulatory requirements are imperative for successful and ethical clinical research.

3. Data Integrity and Research Validity: Inaccurate, incomplete, or inconsistent reporting of SAEs can compromise the validity and reliability of clinical trial data. Clinical research relies on data-driven insights to advance medical knowledge, inform treatment decisions, and shape healthcare policies. Any flaws or discrepancies in the data, including those related to safety reporting, can have far-reaching implications for research outcomes and, consequently, patient care. Ensuring data integrity is a fundamental aspect of conducting ethically sound and scientifically rigorous clinical trials.

4. Complexity and Challenges in SAE Reporting: The landscape of SAE reporting is characterized by its complexity. The terminology, definitions, and processes involved in SAE reporting can vary across different clinical trials, regulatory bodies, and research organizations. This complexity can lead to challenges such as inconsistencies in reporting timing and severity, making it difficult for healthcare professionals and researchers to navigate the SAE reporting landscape effectively. Addressing these challenges is essential to streamline reporting processes and ensure the accurate and timely reporting of adverse events.

5. The Potential for Improvement: While challenges exist in SAE reporting, there is also a considerable potential for improvement. Advances in technology, increased awareness of the importance of patient safety, and a growing commitment to transparency and accountability offer opportunities to enhance SAE reporting practices (Provonost et al., 2020). This research seeks to identify these opportunities and propose practical recommendations for improvement.

## Research Objectives

In the context of this research, a set of clear objectives, research questions, and corresponding hypotheses has been established to systematically investigate SAE reporting in clinical trials. The research aims to address existing challenges, improve reporting practices, and enhance patient safety. To provide a structured overview of these key elements, the following tables outline the research objectives, research questions, and associated hypotheses. Tables 1

and 2 serve as a framework for guiding the study's research design and data analysis, helping to ensure a comprehensive and methodical examination of the topic.

| Objective | Description |
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Table 2. Research Questions/Hypotheses

**The Problem and the Purpose**

Serious Adverse Events are critical to clinical trial safety monitoring and reporting. SAEs can have a significant impact on patient safety and the overall success of a clinical trial. Several

studies have highlighted the importance of SAE reporting in clinical trials. A study by Kadam et al. (2017) found that inadequate SAE reporting can lead to delays in identifying safety issues, which can compromise patient safety and the integrity of the clinical trial data. Another study by Yazici (2008) found that inconsistent SAE reporting practices can lead to variations in the interpretation and application of the guidelines, which can result in incomplete or inaccurate reporting of SAEs.

In conclusion, SAE reporting is a critical aspect of clinical trial safety monitoring and reporting. Clear and consistent guidelines for SAE reporting are necessary to ensure patient safety, maintain the integrity of the clinical trial data, and comply with regulatory requirements. This research project aims to contribute to the ongoing efforts to improve SAE reporting practices in clinical trials and address this need by evaluating the impact of SAE reporting on patient safety and clinical trial outcomes, proposing recommendations for improving the SAE reporting guidance and addressing the identified challenges and issues, and disseminating the findings and recommendations to professionals in the clinical research community.

**Overview of the structure of the thesis**

The structure of this thesis is designed to systematically address the research objectives and questions related to Serious Adverse Event (SAE) reporting in clinical trials. The thesis comprises several key sections to provide a coherent and comprehensive exploration of the topic. Beginning with an introduction, the thesis establishes the context, significance, and rationale for the research. This is followed by a literature review section, which examines existing literature and research related to SAE reporting practices, regulatory guidelines, and challenges in clinical

trials. The research methodology section outlines the approach, data collection methods, and analytical techniques employed in the research project. The core of the thesis consists of chapters dedicated to each research objective, where findings, analyses, and interpretations are presented. These chapters delve into the evaluation of SAE reporting guidance, challenges faced, the impact on patient safety and trial outcomes, and the proposed recommendations for improvement. The thesis concludes with a discussion that synthesizes the key findings, addresses research questions, and highlights the implications of the research for clinical research professionals and regulatory bodies. Finally, the thesis provides recommendations for future research and a conclusive statement. Each section contributes to a holistic understanding of SAE reporting in clinical trials and aligns with the overarching goal of enhancing patient safety and the quality of research outcomes.

## II. LITERATURE REVIEW

### Overview of Clinical Trials and Their Importance

Clinical trials are the cornerstone of medical research, serving as a crucial bridge between scientific discovery and the development of new therapies, treatments, and interventions. These systematic investigations involve human participants and aim to evaluate the safety, efficacy, and effectiveness of medical interventions, ranging from drugs and devices to behavioral interventions and surgical procedures. Clinical trials are essential for advancing medical knowledge, improving patient care, and ultimately, saving lives. The significance of clinical trials extends beyond scientific inquiry (Belknap et al., 2013). They provide the empirical evidence needed to inform medical decisions, healthcare policies, and regulatory approvals. The results of well-designed clinical trials guide clinicians in making evidence-based treatment

choices, empower patients to make informed decisions about their health, and influence public health practices.

## Historical Perspective on SAE Reporting

The history of SAE reporting in clinical trials is marked by the recognition of the ethical imperative to protect the well-being of trial participants. Over the years, ethical standards have evolved, prompting the development of reporting mechanisms to detect and address adverse events promptly (Edwards et al, 2013). Early efforts primarily focused on physical harms, but as medical research expanded, so did the scope of SAE reporting to encompass a wider range of adverse events, including psychological and social harms. In contemporary clinical trials, SAE reporting has become a standardized practice guided by regulatory requirements, institutional review board oversight, and good clinical practice guidelines. Clinical research professionals are tasked with the timely and accurate documentation, assessment, and reporting of SAEs to regulatory authorities, sponsors, and institutional bodies.

## Challenges and Barriers in Standardized SAE Reporting

While standardized SAE reporting is vital, it is not without its challenges and barriers. Discrepancies in terminology and definitions, inconsistencies in reporting timing and severity, and a lack of harmonization between regulatory authorities can impede the process. Additionally, the complexity of SAE reporting requirements can pose difficulties for sponsors, investigators, and study personnel, potentially compromising patient safety and the integrity of clinical trial data (Kim et al., 2018a). Advancements in technology have introduced innovative solutions to streamline and enhance SAE reporting in clinical trials. Electronic data capture systems, safety databases, and data management tools have revolutionized the efficiency and accuracy of

reporting processes. These technologies enable real-time data collection, facilitate trend analysis, and support the identification of potential safety signals (Lineberry et al., 2016).

The Importance of Transparency and Accountability

Transparency and accountability are essential principles underpinning SAE reporting in clinical trials. Open communication among research teams, including sponsors, investigators, and regulatory authorities, fosters a culture of transparency that is critical for patient safety and research integrity. Accountability ensures that those responsible for SAE reporting adhere to established guidelines and fulfill their ethical and regulatory obligations. SAE reporting within clinical trials plays a central role in safeguarding patient safety, ensuring data integrity, and upholding ethical and regulatory standards. While standardized SAE reporting is essential, it is not without its challenges, highlighting the need for continuous improvement, technological advancements, and a commitment to transparency and accountability within the clinical research community.

## III. METHODOLOGY

### Research design and Data collection methods

To gain a comprehensive understanding of Serious Adverse Event reporting practices in clinical trials, a mixed methods research design is employed. This design allows for the integration of both quantitative and qualitative research techniques, ensuring a multi-dimensional exploration of SAE reporting. The quantitative component enables the measurement and quantification of various aspects, such as reporting timelines, methods, and regulatory compliance. On the other hand, the qualitative component facilitates a deeper, contextual

understanding of the challenges, practices, and potential improvements in SAE reporting within clinical trials. The mixed methods approach offers a more complete and nuanced view of the subject, as it combines the statistical rigor of quantitative research with the rich insights of qualitative research.

The data collection for this research project employed a survey approach, including a survey questionnaire titled "“Assessment of SAE Reporting Process in Clinical Trials”. This data collection process provided a comprehensive understanding of the safety reporting and the organizations' performance of clinical research professionals regarding SAE reporting guidance practices. The survey was administered electronically using the UNTHSC Qualtrics XM platform, ensuring anonymity and confidentiality. The target population for the survey was initially the entire PCCTC Clinical Operations staff database, comprising over 30 clinical research professionals. This approach allowed for a broad representation of perspectives and experiences. In addition, the survey was extended to clinical research professionals from various other Contract Research Organizations (CROs) to compare their responses with those from the PCCTC. This expansion allowed for a more comprehensive analysis of SAE reporting practices across different organizations. The total number of responses that were received for this survey was 56 responses.

The purpose of the survey was to obtain both quantitative and qualitative data, enabling the identification of common trends, patterns, and discrepancies in the reporting of SAEs. By combining the rich insights from the survey, including responses from a diverse group of clinical research professionals, the study aimed provided comprehensive data and understanding of SAE

guidance practices and contribute to the enhancement of reporting processes in clinical trials while also allowing for a comparative analysis across organizations.

### Ethical considerations

Ethical considerations were paramount in this research project. Informed consent was diligently obtained from all survey participants, affirming their voluntary participation and assurance of confidentiality and anonymity regarding their responses. The survey strictly complies with all relevant ethical guidelines and regulations pertaining to human subjects' research and data protection. This commitment to ethical standards safeguards the rights and privacy of the participants and maintains the integrity of the research process. This comprehensive and methodologically sound approach, encompassing mixed methods, diverse data sources, and unwavering ethical standards, ensured a holistic exploration of SAE reporting practices in clinical trials.

## IV. DATA COLLECTION AND ANALYSIS

### Presentation of collected data

In the surveyed clinical research organizations, Oncology emerged as the dominant therapeutic area, representing 74.07% of trials, while other areas like Cardiology (3.70%), Neurology (7.41%), Infectious Diseases (7.41%), and "Other" (7.41%) added diversity (Figure 1). A significant 64.81% conducted trials across multiple countries, with the remaining 35.19% focusing exclusively within one country. Clinical Research Organizations (CROs) constituted

78.95% of the organizations, with Hospitals (14.04%), Academic Institutions (5.26%), and Pharmaceutical Companies (1.75%) making up the rest.

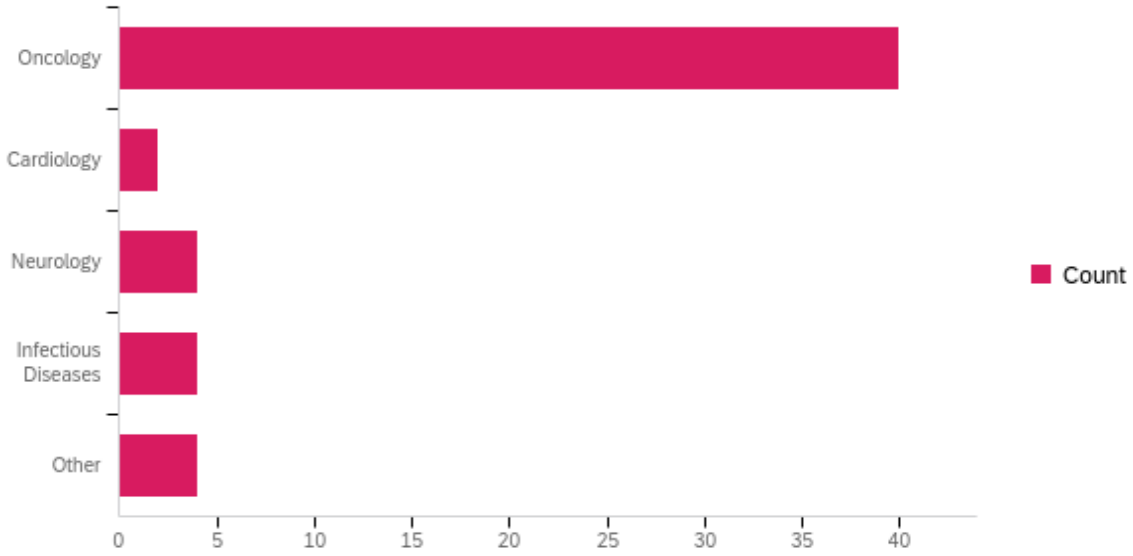


Figure 1. *Therapeutic Area Breakdown from all Responses*

Notably, Phase III was the most experienced clinical research phase for SAE and safety reporting at 29.79%, closely followed by Phase I (26.60%), Phase II (25.53%), and Phase IV (18.09%). The survey identified various types of SAE reporting, including Expedited Reporting (24.69%), Periodic Reporting (25.93%), Investigator Brochure Update (23.46%), and Annual Safety Report (25.93%). An overwhelming 90.20% of organizations preferred Electronic Submission, highlighting the transition to structured data entry and quality checks, while 9.80% continued to use Paper Submission. In terms of study populations, 59.32% were characterized as Medium (50-500 participants), with 8.47% Small and 32.20% Large.

Of significance, 96.08% of organizations reported SAEs within 24 hours, underscoring their commitment to immediate reporting. Almost all organizations (96.08%) had specific SAE reporting protocols, with Investigators (33.09%), Study Coordinators (28.68%), Safety

Monitoring Committees (27.94%), Data Safety Monitoring Boards (8.09%), and others (2.21%) responsible for SAE detection and assessment. Documentation methods included Case report forms (CRFs) (35.71%), Electronic health records (EHR) (32.54%), and Safety database/software (31.75%). Reporting timeframes were predominantly within 24 hours for both internal stakeholders (42.50%) and regulatory authorities (32.50%), emphasizing prompt communication.

The average time from SAE detection to initial reporting was typically within 24 hours (36.73%) or within 24 hours to 3 days (59.18%). Compliance with regulatory reporting timelines was achieved through automated tracking and reminders (10.94%), designated personnel (65.63%), and contractual agreements with sites (23.44). Effective communication and collaboration were fostered through regular meetings or teleconferences (25.49%), email communication (30.72%), web-based platforms (20.26%), and adherence to standard operating procedures (23.53%).

To ensure appropriate follow-up and documentation for SAEs, practices included contacting affected participants (19.09%), collecting medical records and test results (15.45%), conducting causality assessments (30.91%), and ensuring consistency in event documentation (33.64). The quality and integrity of SAE documentation were upheld through structured data entry (33.61%), regular quality checks (34.43%), and source data verification (31.97%).

Investigator training programs involved online modules (38.82%), in-person workshops (9.41%), investigator meetings (15.29%), and educational materials (36.47%). Furthermore, a significant 91.84% of organizations conducted periodic refresher training to maintain data quality and consistency. Investigators at various sites prioritized SAE reporting as a top priority above other tasks (75.51%), alongside critical study-related tasks (22.45%), with only a minority considering

it a lower priority (2.04%). These insights offer a comprehensive overview of the 2023 clinical research landscape, showcasing diverse practices and approaches to SAE reporting (Figure 2).

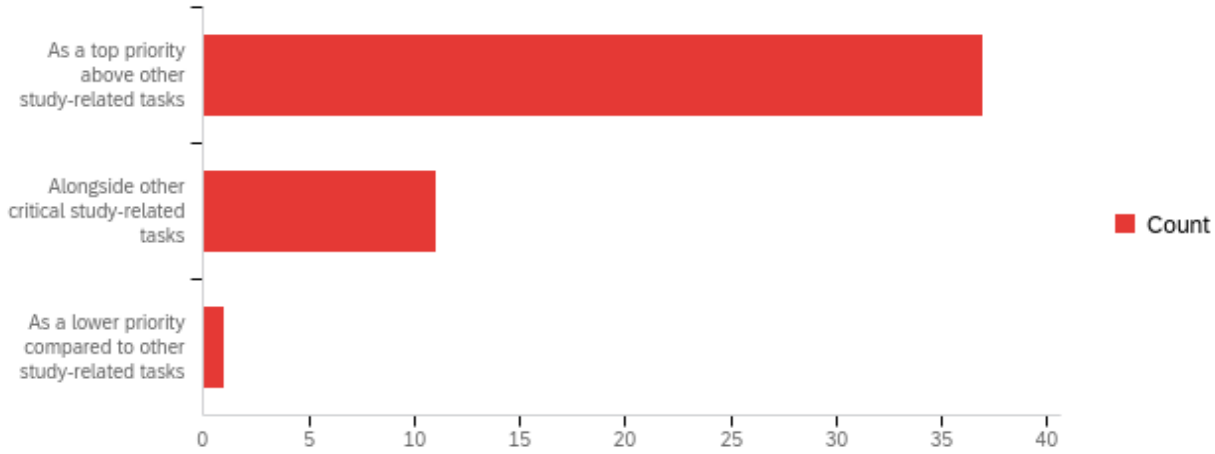


Figure 2. *Investigator Prioritization of SAEs*

## V. DISCUSSION

### Interpretation of findings

Our analysis of the survey data revealed several noteworthy correlations in the field of clinical trial SAE reporting. A potential link was discovered between the primary therapeutic area and SAE reporting timelines, suggesting that organizations conducting trials in areas like Oncology may require more immediate reporting due to the critical nature of the diseases. Additionally, organizations using Electronic Submission for SAE reporting seemed to exhibit more structured data entry and quality checks, potentially leading to higher data accuracy than those using Paper Submission. Clinical Research Organizations (CROs) overwhelmingly embraced specific protocols for SAE reporting, demonstrating a commitment to formalized reporting processes. Finally, the experience in different phases of clinical research appeared to

influence the types of SAE reporting encountered, with Phase I trials potentially requiring more Investigator Brochure Updates, and Phase III and IV trials possibly leading to more Annual Safety Reports at 44.74% for the PCCTC (Figure 3). These insights shed light on the interplay between factors influencing SAE reporting in clinical trials.

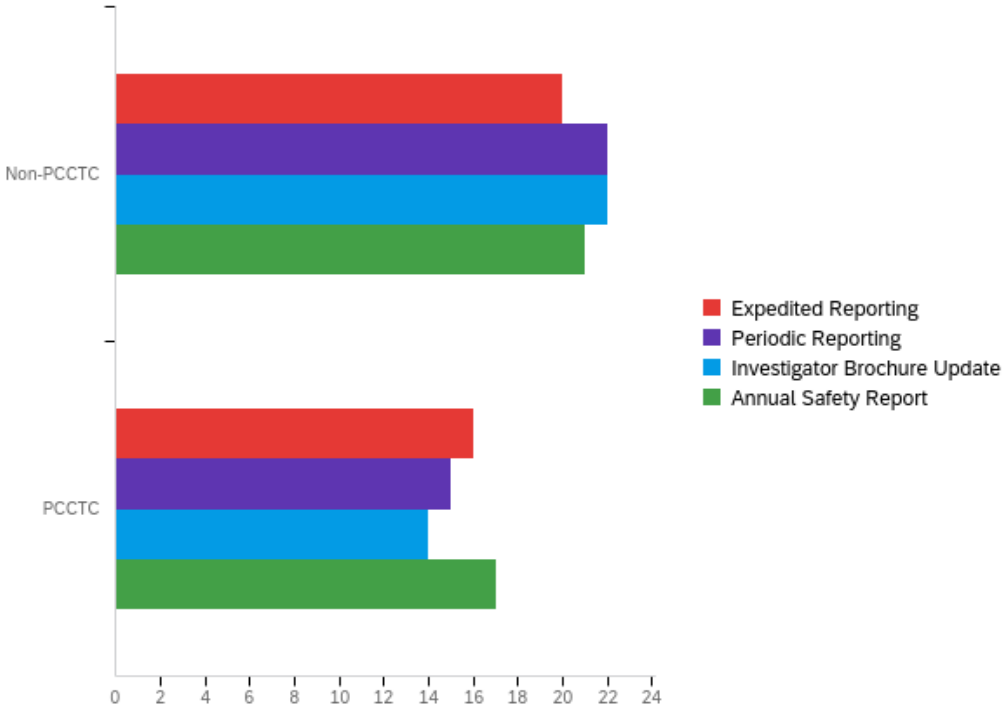


Figure 3. *Common Types of Reporting (PCCTC vs Non-PCCTC Responses)*

Upon analyzing the data, several significant correlations and insights have emerged. Firstly, the primary therapeutic area in which clinical research organizations conduct trials plays a pivotal role in shaping the types of SAE reporting they encounter. Organizations focusing on Oncology, whether PCCTC or non-PCCTC, face a comprehensive spectrum of SAE reporting requirements. This suggests that the field of Oncology brings forth more complex and diverse safety reporting needs. Interestingly, PCCTC organizations, exclusively dedicated to Oncology,

may possess a deeper understanding of SAE reporting intricacies in this specific therapeutic domain.

Secondly, the decision of whether to conduct clinical trials exclusively within one country or across multiple countries is intrinsically linked to the size of the study population. It's evident that organizations engaged in international trials often deal with larger study populations. The rationale behind this correlation can be attributed to the inherent diversity and scale of participants involved in multi-country trials, necessitating more extensive safety reporting.

Moreover, the type of organization that was represented is closely associated with the responsibilities for SAE detection and assessment. Clinical Research Organizations (CROs), which are prevalent in both PCCTC and non-PCCTC settings, tend to rely on Safety Monitoring Committees and Data Safety Monitoring Boards for SAE detection and assessment (Figure 4). This illuminates a structured and well-defined approach to safety monitoring within CROs. These findings provide critical insights into the intricate dynamics of SAE reporting practices within clinical research organizations. Understanding how therapeutic areas, trial locations, and organizational types interact is instrumental in shaping efficient and effective SAE reporting strategies and practices.

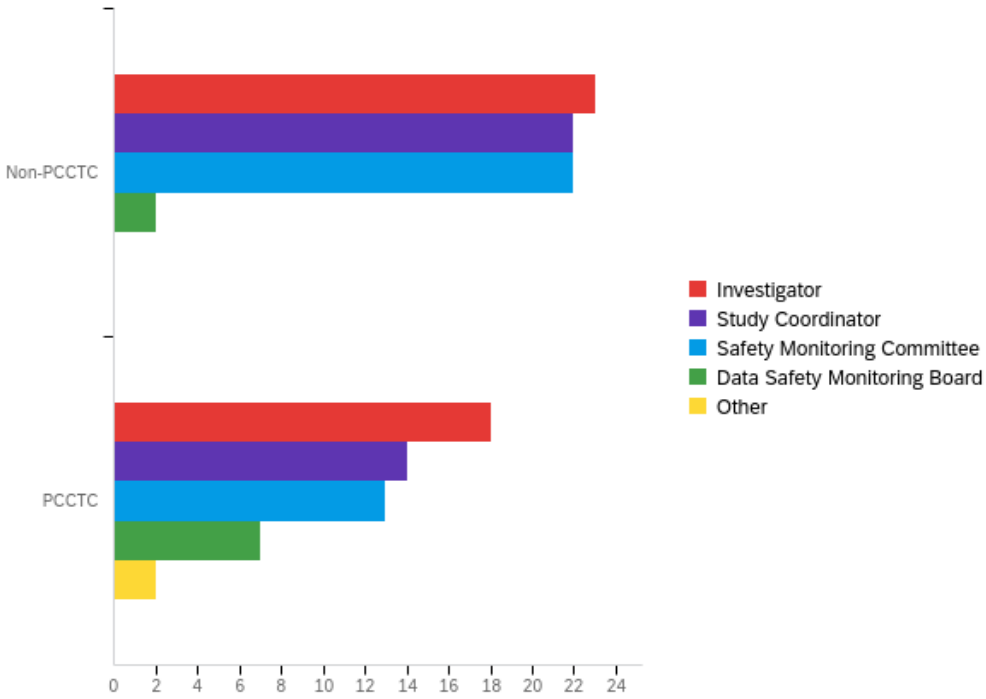


Figure 4. *Responsibility of assessing SAEs (PCCTC vs Non-PCCTC Responses)*

Universal SAE Reporting System:

In response to the data insights and best practices observed, we propose the implementation of a "universal" SAE reporting system that harmonizes safety reporting across diverse clinical research organizations. This system would address key elements such as therapeutic areas, SAE reporting submission methods, organization types, clinical research phases, reporting timelines, quality, training, communication, follow-up, data integrity, and compliance. The system would acknowledge the potential variation in SAE reporting urgency across therapeutic areas by introducing distinct reporting timelines. Electronic Submission would be the primary method, emphasizing structured data entry and rigorous quality checks. All organizations, irrespective of type, would be required to develop clear and specific SAE

reporting protocols. These protocols would further classify SAEs based on the criteria determined by each clinical trial protocol, aligning with best practices observed in the survey. Reporting timelines would be standardized, with immediate reporting for critical SAEs within 24 hours and a window of 7-15 days for other SAEs to align with regulatory expectations. Data integrity and accuracy would be upheld through double data entry, data monitoring, and independent data review. A standardized training program encompassing online modules, investigator meetings, and educational materials would be implemented, with periodic refresher training to maintain data quality. Effective communication and collaboration among stakeholders would be promoted through regular meetings, email communication, web-based platforms, and adherence to standard operating procedures. The system would encourage follow-up practices, including contacting affected participants, collecting relevant medical records, conducting causality assessments, and ensuring consistency in event documentation. Data quality and integrity would be assured through data reconciliation and monitoring, mirroring the best practices from the survey.

**The proposed framework for continuous improvement**

A pivotal element of the proposed framework for SAE reporting is the seamless integration of technology into the reporting process. Recognizing the efficiencies and data accuracy that technology can provide, the framework strongly advocates for Electronic Submission as the primary reporting method. Electronic Submission streamlines data entry and quality checks, significantly reducing the risk of errors associated with manual, paper-based reporting. By embracing modern reporting platforms, organizations can bolster the speed and precision of their SAE reporting practices, ultimately enhancing patient safety and the integrity

of clinical research data. Acknowledging the limitations of the study is vital for a comprehensive understanding of its scope and applicability. The survey data, while providing valuable insights into SAE reporting practices, is based on self-reported responses from a specific subset of clinical research organizations. It is important to recognize that the findings may not represent the full spectrum of practices within the clinical research field, as practices can vary significantly between organizations and regions. Regulatory requirements for SAE reporting can vary by region and country. The study may not have captured the full scope of these regional differences, potentially leading to incomplete insights.

## VI. CONCLUSION

The comprehensive analysis of current SAE reporting practices and the proposed framework for continuous improvement provide a foundation for advancing the standard of safety reporting in clinical research. The study's key findings underscore the pressing need for harmonization and consistency in SAE reporting practices, especially given the inherent diversity in therapeutic areas, clinical research phases, and the nature of participating organizations. The study's insights demonstrate the importance of addressing the identified SAE reporting challenges. Discrepancies in terminologies and definitions can create ambiguity, while variations in reporting timelines and severity classifications can impact the timeliness and quality of responses to adverse events. These challenges have implications not only for patient safety but also for the credibility and ethical conduct of clinical research. By advocating for the integration of technology in SAE reporting, the proposed framework seeks to streamline the reporting process, minimize errors, and enhance efficiency. This technological advancement aligns with the digital era and is essential for maintaining the highest standards of data accuracy, integrity,

and ethical research conduct. In a broader context, this study contributes to advancing medical knowledge by shedding light on the complexities and nuances of SAE reporting in clinical research. It emphasizes the importance of a standardized and universal approach that can benefit both research organizations and, most importantly, the patients participating in clinical trials.

As we look to the future, this study suggests various research directions. Further investigation into the effectiveness of the proposed "universal" SAE reporting system and its real-world implementation is a natural progression. Additionally, exploring the impact of technological solutions on SAE reporting accuracy and efficiency, as well as assessing the long-term effects of harmonization efforts by regulatory authorities, would provide valuable insights into the evolving landscape of safety reporting in clinical research (Thomas et al., 2020). Finally, delving deeper into the cultural aspects of transparency and accountability and how they influence SAE reporting practices could offer a more comprehensive understanding of the human elements in this critical process. In conclusion, the findings and proposals presented in this study lay the foundation for improving SAE reporting practices, fostering patient safety, and enhancing the ethical standards of clinical research, while also pointing toward exciting avenues for future research and development.

# VII. APPENDICES

**Title: Survey: Assessment of SAE Reporting Process in Clinical Trials**

**Introduction:**

Thank you for participating in this survey. The purpose of this survey is to collect information about how various clinical research organizations report Serious Adverse Events (SAEs) during clinical trials. Your responses will be anonymous and will be used to develop a universal reporting system for safety event reporting. The survey should take approximately 20 minutes to complete. Your valuable input will greatly contribute to enhancing patient safety in clinical research.

**Section 1: General Information**

1. What is the primary therapeutic area in which your clinical research organization conducts trials?
   *Oncology | Cardiology | Neurology | Infectious Diseases*
2. Does your organization conduct clinical trials exclusively within one country or across multiple countries?
   *Exclusively within one country | Across multiple countries*
3. How does your organization classify the severity of Serious Adverse Events?
   *Mild | Moderate | Severe |Not applicable (we do not use severity classification)*

**Section 2: Organization and Experience**

4. Please specify the type of organization you represent:

   *Hospital | Clinical Research Organization (CRO) |Pharmaceutical Company | Academic Institution*
5. What phase of clinical research do you have the most experience in SAE and safety reporting?

   *Phase 1 | Phase 2 | Phase 3 | Phase 4*

**Section 3: Types of SAE Reporting**

6. Which of the following types of SAE reporting have you encountered in your clinical research experience?

   *Expedited Reporting | Periodic Reporting | Investigator Brochure Update | Annual Safety Report*
7. Which method of SAE reporting submission does your organization use?

   *Electronic Submission | Paper Submission*

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   *Exclusively within one country* | *Across multiple countries*

3. How does your organization classify the severity of Serious Adverse Events?
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   *Phase 1* | *Phase 2* | *Phase 3* | *Phase 4*

**Section 3: Types of SAE Reporting**

6. Which of the following types of SAE reporting have you encountered in your clinical research experience?

   *Expedited Reporting* | *Periodic Reporting* | *Investigator Brochure Update* | *Annual Safety Report*

7. Which method of SAE reporting submission does your organization use?

   *Electronic Submission* | *Paper Submission*

8. What is the approximate size of the study population in the clinical research projects you have been involved in?

   *Small (less than 50 participants) | Medium (50-500 participants) | Large (more than 500 participants)*

9. What are the current SAE reporting timelines (turnaround time) used in your organization?

   *24 hours | 14 days | 30 days | 60 days*

**Section 4: Serious Adverse Event Reporting Process**

10. Does your organization have a specific protocol for reporting Serious Adverse Events during clinical trials? (Yes/No)
    *- If yes, please describe the key elements of the protocol briefly.*
    *- If no, please explain how SAEs are currently reported.*

11. Who is responsible for detecting and assessing Serious Adverse Events within your organization? (Select all that apply)
    *[ ] Investigator [ ] Study Coordinator [ ] Safety Monitoring Committee [ ] Data Safety Monitoring Board [ ] Other (please specify)*

12. How are Serious Adverse Events documented in your organization? (Select all that apply)
    *[ ] Case report forms (CRFs) [ ] Electronic health records (EHR) [ ] Safety database/software*

13. What criteria does your organization use to determine if an adverse event should be classified as "Serious"?

**Section 5: Reporting and Timelines**

*14.* How soon after the discovery of a Serious Adverse Event is it reported to the following *stakeholders? (Please provide timeframes in hours/days/weeks)*
    *a) Internal stakeholders (e.g., sponsor, investigators, study team)*
    *b) Regulatory authorities (e.g., FDA, EMA, local regulatory bodies)*
    *c) Ethics committees or Institutional Review Boards (IRBs)*

15. In your experience, what is the average time taken from the detection of a Serious Adverse Event to its initial reporting?
    *Less than 24 hours | 24 hours to 3 days | 4 to 7 days | More than 7 days*

16. How does your organization ensure compliance with regulatory reporting timelines for Serious Adverse Events?
    - *Automated tracking and reminders*
    - *Designated personnel responsible for monitoring timelines*
    - *Contractual agreements with sites for timely reporting*

17. How does your organization ensure effective communication and collaboration between different stakeholders during the reporting and management of Serious Adverse Events?
    - *Regular meetings or teleconferences*
    - *Email communication*
    - *Web-based collaboration platforms*
    - *Standard operating procedures (SOPs) for communication*

**Section 6: Follow-up and Documentation**

18. How does your organization ensure appropriate follow-up and documentation for Serious Adverse Events? (Select all that apply)

    - [ ] Contacting the affected participant for additional information
    - [ ] Collecting relevant medical records and test results
    - [ ] Conducting causality assessment
    - [ ] Ensuring consistency in event documentation across different sites
    - [ ] Other (please specify)

19. What measures does your organization take to ensure the accuracy and completeness of Serious Adverse Event documentation?
    - *Structured data entry in standardized forms*
    - *Regular quality checks and data verification*
    - *Source data verification*

20. What steps does your organization take to ensure the quality and integrity of Serious Adverse Event data collected during a clinical trial?
    - *Double data entry and reconciliation*
    - *Data monitoring and query resolution*
    - *Independent data review by a central monitoring team*

**Section 7: Training and Education on SAE Reporting**

21. What type of training and education programs are provided to investigators and site staff to improve the identification and reporting of Serious Adverse Events?

*Online training modules | In-person workshops or seminars | Investigator meetings | Educational materials (brochures, manuals)*

22. Does your organization conduct periodic refresher training on Serious Adverse Event reporting to maintain the quality and consistency of data collection?

*Yes | No*

**Section 8: Investigator's Role**

23. How do investigators at various sites prioritize the reporting of Serious Adverse Events in their routine responsibilities?
    - *As a top priority above other study-related tasks*
    - *Alongside other critical study-related tasks*
    - *As a lower priority compared to other study-related tasks*

****Demographic Information (Optional):****

To help us better understand the survey responses, you may optionally provide the following information. However, this section will be kept separate from your survey responses to maintain anonymity.

1. Job role/title:

2. Years of experience in clinical research:

**Thank you for your valuable input! Your feedback is greatly appreciated and will be used to improve safety reporting practices in clinical research!**

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