Evidence-Based Clinical Research
Risk Management Program

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Objectives
To develop, in partnership with the UCSF Human Research Protection Program (HRPP) and Office of Risk Management, a system for managing clinical research risks that are clearly charged with responsibility for weighing the risks and benefits to subjects participating in a clinical research project. There is often an absence of a similar centralized management process to address the risks for other individuals involved in clinical research (investigators, their staff, HRB/IRB members, and various administrators).

Program Development (Phase I)
While major research institutions, under the requirements of Federal regulations, state laws, institutional policies and accreditation requirements, have institutional Review Boards (IRBs) that resemble clinical research processes to address the risks for other individuals involved in clinical research (investigators, their staff, HRB/IRB members, and various administrators). In the same time, institutional research enterprises can benefit from centralized processes that can respond to, track, and analyze research risks.

As mentioned in an article in Clinical Research and Regulatory Affairs (1), the definition of a “research participant” can be expanded to include nearly all the key stakeholders involved in clinical research.

Background
Since its initial development in December 2005, the Clinical Research Risk Management (CRRM) program has focused on: 1) Incident-based response to ensure maximum timeliness in the reporting, evaluation, and payment of claims for subject injury; 2) Clear descriptions of the roles and responsibilities of key individuals across the institution involved in responding subject injury claims; and 3) Refinement of the University’s Subject Injury Policy related to coverage for claims of injury at UCSF.

Potential Research Risks
- Inadequate, untimely, or incorrect notification of sponsor in response to an incident report
- Unavailability of data in the event of a problem
- Incorrect or ambiguous reporting of clinical research related problems
- Failure to adequately identify or understand the impact of a significant risk
- Failure to remove a subject when continued participation is contraindicated
- Failure to adequately inform the patient of significant risks
- Failure to request or obtain informed consent under circumstances not considered
- Failure to perform routine or mandatory minimal medical or psychological treatment for adverse effects of research participation

Table 1 illustrates that, in addition to the risks of subject injury or harm, investigators, the IRB, study sponsors, and the institution engaged in research may also face significant research risks.

In addition to the risks in Table 1, a wide variety of subject injuries may arise from the drugs (1), devices or biologicals being tested; research-related procedures; investigator noncompliance with the approved protocol or failure to perform a study-related procedure correctly (2).

A review of literature describing the standard principles and methodologies of RM and RCA describes problem-solving methods that appear especially well suited for adaptation into institutionally-based clinical research risk management programs.

- Risk Management typically involves identifying trend or pattern of events among a group that may pose negative or positive results within an overall system of activities and assess the likelihood of that event occurring (risk), the magnitude of its impact and monitors the effects of strategic solutions developed to protect both individual stakeholders and the enterprise as a whole.

- Root Cause Analysis is a problem-solving tool used in Risk Management to identify, reduce or eliminate the root or source causes of a problem (vs. addressing only the immediate and obvious aspects of a problem) to significantly minimize the likelihood of the problem recurring.

Used extensively across a wide range of business enterprises, Root Cause Analysis (RCA) and Risk Management (RM) principles and processes provide an established set of methodologies to manage the significant risks associated with human research (3).

Program Development (Phase II)
Risk Management & Insurance Services
University of California San Francisco – Finance

The next phase of the CRRM program development will encompass: 1) analysis of trends and “root causes” of subject injuries and 2) new campus-wide initiatives to proactively facilitate investigator and key university personnel awareness of research safety risks. Moving forward, the CRM program is applying risk analysis methodology to: 1) Identify areas of clinical research that pose potential harm to participants’ safety and well-being; 2) Indentify incident (case)-based root cause analysis to direct outreach and safety-related educational efforts; 3) Conduct focused outreach briefings to share analysis data with key campus stakeholders; 4) With the HRPP, develop and disseminate best research practice training and information and 5) Provide ad hoc, on-site evaluation and consultation for clinical researchers and their support personnel.

Conclusions
Having constructed a functional and institutionally integrated framework for management clinical research risks, the opportunity now exists to significantly strengthen our risk management program by expanding the management of subject injury risks and claims to the larger context of our clinical research enterprise at UCSF by embracing the fundamental processes of RM and RCA.

Table 2. Describes an initial list of data to be prospectively collected and entered into an Access database. The systematic collection and analysis of these data will allow testing of RM methodologies and their impact on our continuing efforts to further the safety and welfare of research subjects and others involved in clinical research activities. In addition, these steps may also strengthen our institution’s ability to proactively assess and respond to an ever widening array of clinical research risks for the benefit of all clinical researchers engaged in clinical research.

Literature

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For further information
Please contact: carroll.child@ucsf.edu. More information on this and related programs can be found at: https://www.rcm.ucsf.edu