

**RESEARCH PROTOCOL GUIDELINES**

**The following are guidelines to be used when preparing research protocols for submission to the Western Michigan University Homer Stryker MD School of Medicine (WMed) Institutional Review Board (IRB). There are different types of research studies being conducted at WMed by faculty, fellows, residents, students, and staff. These guidelines are to be followed for studies that are both experimental in nature (i.e. clinical or non-clinical interventions, randomized controlled trial, etc.) or non-experimental (no randomization, retrospective chart reviews, surveys, interviews, focus groups, observations, etc.), however not all sections will be relevant for every study protocol. For the sections that are not applicable to your study please provide a brief rationale for the IRB. Also, please include any additional information that you consider to be important for review by the IRB.**

When data use, licensing, materials transfer, contracts, or other agreements may be needed, contact the contract specialist, Tara Bradsher, at [tara.bradsher@med.wmich.edu](mailto:tara.bradsher@med.wmich.edu) or by phone at 337-4319.

If you need assistance preparing a protocol for IRB submission or information on other resources available within the organization, please contact Patrice Mason in the Center for Clinical Research at [patrice.mason@med.wmich.edu](mailto:patrice.mason@med.wmich.edu) or by phone at 337-6471.

**Research protocols should contain the following sections and information:**

**Protocol Title**

Principal Investigator Name

Contact Information

Sub-investigators’ Names

Contact Information

1. **Research Question, Hypothesis, and Specific Aims –** Provide a brief introduction to describe the origin and importance of the study. Clearly state the research question(s), hypothesis(es), and specific aims listing them by number if there is more than one.
2. **Background & Significance**

Background ‐ Describe the facts, events, and thought processes leading to the currently proposed research project. Summarize any pertinent studies supporting this proposed project. Human studies are preferred; include animal studies only if data from human studies are lacking.

Significance – Explain how the background information from the literature supports the current proposed hypothesis(es). Explain how the performance of this proposed project will advance our knowledge in this field, and/or improve our understanding of the disease or physiological condition being studied. Explain how this study, if the hypothesis(es) is(are) proven correct, might improve the diagnosis or treatment of the disease being studied (if applicable), or advance knowledge in the field.

1. **Design & Procedures**

Study Objectives – List the specific question(s) this study will address.

Study Design – Indicate the type of study design to be used. Describe how the study design will address the questions described in the Study Objectives section.

Procedures – Describe the study, providing detail regarding how the procedures and methods employed will address the research questions. For example, include as applicable:

* Randomization method, randomization ratio (1:1; 3:1; etc.),
* The study intervention (drug, device, physical procedures, manipulation of the

subject or the subject’s environment, etc.).

* If blinding (masking) is involved, describe the procedures, indicate who has the code to the blind and the circumstances and procedures for breaking the code.
* Discuss justifications for placebo control, discontinuation or delay of standard

therapies, and washout periods if applicable.

* Identify procedures, tests and interventions performed exclusively for research purposes or more frequently than standard of care. Include alternative therapies, concurrent therapies discontinued per protocol, risk benefit ratio, and use of tissue/specimens. Indicate purpose, amount and timing of tests performed (e.g., blood tests, urine tests, imaging, EKGs, etc.). Discuss monitoring during washout periods if applicable. Include brief description of follow‐up, if any. Consider adding a timeline.

Measures – Describe what the primary outcome measures are and the method for collecting the outcomes (e.g. medical record, phone survey, etc.).

1. Describe any other measures, the purpose (e.g. to adjust for possible confounding), and the method of collecting the information.
2. **Selection of Subjects** – Describe the characteristics of the individuals who will be enrolled into the study. List inclusion/exclusion criteria and how subjects will be identified for inclusion. Include age range, gender, disease (if applicable), stage of treatment (if applicable), and if populations not fluent in English will be included (indicate the likely languages). Justify excluding subjects based on race, ethnicity, gender (including child-bearing potential for women), age (e.g. children), or language. If your study has federal funding (e.g. NIH, AHRQ), exclusion of non-English speaking participants, minorities, and women is not allowed unless it has been approved by the funding agency.
3. Inclusion criteria: State the criteria for inclusion in the study in a specific and detailed manner.
4. Exclusion criteria: State the criteria for excluding potential subjects from the study in a specific and detailed manner.
5. Withdrawal/Termination criteria: Include the specific circumstances in which the subject’s participation may be terminated by the investigator. Include any necessary safety precautions to be applied to those who withdraw (tapering drug doses, evaluative x‐ray, etc.). Include a description of what would happen if a woman became pregnant while in the study.
6. **Subject Participation**
7. Recruitment: Describe where the subjects will be recruited from and how they will be contacted. If other institutions are involved, describe the arrangements that have been made to facilitate subject enrollment and information sharing. Describe by whom and how the recruitment is performed. Attach a copy of advertisements and/or flyers and state where they will be placed.
8. Medical Records & Databases: If the study includes the review of medical records or databases, describe how the patients’ charts will be identified (paper records, electronic health system, other database) and from where (e.g., hospital medical records, WMed clinic, private practice). Indicate whether review of records will occur prior to or after (or both) obtaining consent & HIPAA authorization.
9. Screening Interview/Questionnaire/Testing: If an interview or questionnaire will be used for screening, attach a copy and indicate where, how, and who will conduct the interviews and their qualifications. Address how consent to participate in the screening process will be obtained. If pregnancy testing or other clinical labs or procedures are part of the screening process, this should also be described.
10. Informed consent process and timing of obtaining consent: Indicate who will provide subjects with comprehensive information about the study and obtain their consent. Indicate how the consenting process will be structured to ensure independent and thoughtful decision‐making, what steps will be taken to avoid coercion and guarantee privacy[[1]](#footnote-2) and confidentiality[[2]](#footnote-3), how much time will be allocated for conducting the consent process, and how much time the potential subject (or surrogate) will have to consider whether or not to participate. For subjects whose ability to provide informed consent may be compromised by cognitive and/or decisional impairment (examples may include individuals with a psychiatric disorder, an organic impairment, a developmental disorder, or those suffering from a terminal illness, degenerative disease, severe physical handicap, or dependence on drugs or alcohol), indicate how, and by whom, it will be determined whether the subject is able to provide consent, or whether their legal representative will provide consent.
11. Subject Compensation and Reimbursement: Indicate whether and how subjects will be compensated for participation and/or reimbursed for costs they may incur as a result of participation (e.g., travel, co-pays, etc.). For studies with multiple interactions, payments should be disbursed over time and not contingent upon completion of the entire study. Payments must be reasonable and commensurate with the expected contributions of the subject, and not so great that they may unduly influence subjects to participate.
12. **Risk/Benefit Assessment -** Include a thorough description of how risks and discomforts will be minimized. Consider physical, psychological, legal, economic and social risks as applicable. If vulnerable populations are to be included (such as children, pregnant women, prisoners, or cognitively impaired adults – see section on vulnerable populations), what special precautions will be used to minimize risks to these subjects? If students or employees will participate in the research, include a discussion of the risk/benefit assessment in this population and the mitigation plan to prevent undue influence in these populations. When applicable, identify what available alternatives the person has if he/she chooses not to participate in the study (e.g. would they be able to obtain the same benefit or access the same treatment without participating in the study). Describe the possible benefits to the subject, science, society, and humanity in general. What is the importance of the knowledge expected to result from the research? Do not overstate possible benefits.
13. **Data Analysis & Statistical Considerations** – Describe endpoints and power calculations.
14. Data analysis: Provide a detailed description of how study data will be analyzed, including statistical methods used, and how ineligible subjects will be handled and which subjects will be included for analysis. Data analysis should be conducted in accordance with the proposed hypothesis.
15. Sample Size Estimation: Include planned sample size justification. Provide estimated time to achieve target accrual and accrual rate. Where appropriate, include power calculations and estimates of alpha and beta error.

If you need assistance in designing this section, please contact Alyssa Woodwyk at [alyssa.woodwyk@med.wmich.edu](mailto:alyssa.woodwyk@med.wmich.edu).

1. **Data & Safety Monitoring (as applicable)** - Summarize safety concerns, and describe the methods to monitor research subjects and their data to ensure their safety, including who will monitor the data, and the frequency of such monitoring. If a data monitoring committee will be used, describe its operation, including stopping rules and frequency of review, and if it is independent of the sponsor. All studies that are greater than minimal risk[[3]](#footnote-4) require a data and safety monitoring plan.
2. **Data Storage & Confidentiality** – Describe study procedures to protect subjects’ confidentiality.
3. Explain how and where data will be secured and who will have access (investigators, research staff, sponsors, monitors, DSMBs, etc.).
4. Explain if and how data will be coded, and whether and how the key to the code will be secured separately from the data. Identify all parties that will have access to the key.
5. If data will be moved/shared outside of WMed, explain how data will be transferred (paper form, electronically, etc.). When preparing this section, please consider that only the minimum necessary data for the conduct of the study should be collected and, of that, only the minimum necessary transferred to any outside party or organization. If data is being stored off campus on a specific network or server, please provide a description of the network or server including its protections. Research data should not be stored on personal devices.
6. Social Security Numbers (SSNs): If SSNs are being transmitted electronically or on paper outside of WMed as part of Case Report Forms or other study data, you must include: (i) a rationale as to why SSNs are needed for the research, (ii) to whom and why SSNs are being transferred; and (iii) a description of how SSNs will be protected, including use of encryption.
7. Certificate of Confidentiality: Consider obtaining a Certificate of Confidentiality if the research includes collection of sensitive information that, if disclosed, could have adverse consequences for subjects or damage their financial standing, employability, insurability, or reputation, or might lead to stigmatization or discrimination. Certificates of Confidentiality are only available for studies with a written consent form. For more information, go to: <https://humansubjects.nih.gov/coc/index>

For more information regarding data storage and security, please contact the IT help desk at 337-4409.

1. **Other**
2. Collaboration: If this is a collaborative effort with an outside party or organization, explain the collaboration including what aspects of the research WMed will be responsible for and what the collaborator will be responsible for, and how information will be shared and efforts will be coordinated. If the study has been approved by the collaborator’s IRB, attach a copy of their approval letter and consent form, if applicable.
3. New Information: If it is possible that new information might become available that could impact subjects’ welfare or willingness to continue, include a statement that such information will be reported to the IRB and provided to subjects.
4. Incidental Findings: If it is possible that the research may generate incidental findings that could impact the health or welfare of subjects, the protocol should describe anticipated incidental findings and how such findings will be managed. For more information, consult the Presidential Commission for the Study of Bioethical Issues 2013 report “[Anticipate and Communicate: Ethical Management of Incidental and Secondary Findings in the Clinical, Research, and Direct-to-Consumer Contexts](https://bioethicsarchive.georgetown.edu/pcsbi/sites/default/files/FINALAnticipateCommunicate_PCSBI_0.pdf)”.
5. Genomics: If the research will generate or utilize genomic data, the protocol should address any implications of such data for the subject, relatives, and populations, how the data will be managed and protected, whether and how individual results will be disclosed, and whether the data comes from or will be submitted to databanks such as [dbGap](https://www.ncbi.nlm.nih.gov/gap) or [NIDA](https://datashare.nida.nih.gov/). For more information, consult the following:

* <https://www.genome.gov/27561533/human-subjects-research-in-genomics/>
* <https://bioethicsarchive.georgetown.edu/pcsbi/sites/default/files/PrivacyProgress508_1.pdf>
* <https://gds.nih.gov/03policy2.html>

1. Future Research: If the research data or specimens will be retained or banked for future research, the protocol should describe what data/specimens will be retained/banked, where the data/specimens will be stored, how the data/specimens will be protected, who will have access, any anticipated future uses, and any restrictions on how data/specimens may be used. The protocol should also address how consent will be managed, now and in the future. Subjects should not be obligated to agree to future research when the original research offers potential or direct benefit.
2. Outcome: Describe what results are expected, the criteria for success or failure, and the endpoint of the study.
3. Dissemination: Describe your plans for dissemination of the results of the research.

**XI. Vulnerable Populations**

The following are additional considerations for vulnerable populations. Vulnerable populations include but are not limited to: Pregnant Women, Human Fetuses and Neonates (Subpart B); Prisoners (Subpart C); Children (under the age of 18) (Subpart D); and Cognitively or Decisionally Impaired Adults (45 CFR 46.111(b)). The WMed IRB also considers WMed employees, residents, medical students, and graduate students as vulnerable populations.

1. If the recruitment plan includes any of the groups noted above or any other group that may be considered vulnerable, explain how they will be protected and how consent will be obtained. In general, regulations allow subjects identified as part of vulnerable populations to be included if the research involves only minimal risk to them, or if they will directly benefit. Minimal risk, as defined in research regulations, means that the probability and magnitude of harm and discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examination or tests. Collection of personal information that is not normally collected by WMed must be justified and be clearly defined as part of the consent process (see policy GEN03).
2. If the research involves greater than minimal risk and there is no prospect of direct benefit to individual subjects, but it is likely to yield generalizable knowledge about the subject's disorder or condition, the IRB will consider whether:
   1. the risk represents a minor increase over minimal risk;
   2. the intervention or procedure presents experiences to subjects that are reasonably commensurate with those inherent in their actual or expected medical, dental, psychological, social, or educational situations;
   3. the intervention or procedure is likely to yield generalizable knowledge about the subjects' disorder or condition that is of vital importance for the understanding or amelioration of that disorder or condition; and
   4. adequate provisions are made for soliciting the assent of children or adults with impaired decision-making capacity, and the permission of their parents or surrogate consent from legally authorized representatives.
3. Pregnant Women: The protocol should address the potential risks of participation for pregnant women and fetuses, and the provisions to reduce risks. The recruitment and consent processes, including the timing of such, should be carefully considered.
4. Adults with Impaired Decision-Making Capacity: Adults with temporary, fluctuating, or permanent impairments to their decision-making capacity should only be included in research when the research is necessary to advance knowledge and the aims of the research cannot reasonably be achieved without their participation. Researchers are urged to consult the [WMed HRPP & IRB Handbook](http://med.wmich.edu/sites/default/files/HRPP%20IRB%20Handbook.pdf) as they develop their protocol. Protocols should provide justification for why inclusion of this population is necessary, procedures for assessment of capacity, plans for assent when possible, plans for surrogate consent, plans to obtain consent or assent for ongoing participation if subjects may regain capacity or if capacity may fluctuate, and many other considerations.
5. Children: Researchers are urged to consult the [WMed HRPP & IRB Handbook](http://med.wmich.edu/sites/default/files/HRPP%20IRB%20Handbook.pdf) as they develop their protocol. The regulations provide for four categories of research that involve children and criteria within those categories that must be satisfied. Protocols should describe the potential risks of participation, why inclusion of children is necessary, provisions to minimize risks, and plans for parental permission and child assent. If children may become adults while in the study, the protocol should include plans for consent for ongoing participation. Additional restrictions and protections may be applicable when the research includes children who are wards.
6. Students and/or Employees: to reduce any perception of obligation to participate, and to avoid any potential harm from participating or choosing not to participate, if students or employees are to be recruited as subjects of human research:
   1. Recruitment procedures and the consent process must be defined in a way that minimizes the potential of undue influence or coercion (subtle or otherwise).
   2. Procedures to reduce informational risks should be described.
   3. If extra credit or rewards are offered for participation, students must be provided with and informed of non-research alternatives involving comparable time and effort to obtain the extra credit or rewards.
   4. Procedures to ensure compliance with Family Educational Rights and Privacy Act (FERPA) or Protection of Pupil Rights Amendment (PPRA) must be addressed when applicable.
   5. Protocols for which the subject population will include medical students, residents, fellows or employees will require a sign‐off and approval of the appropriate Associate Dean as indicated on the Assurance and Approval of Proposed Study forms.
   6. If students from a public or private school system are to be recruited, the method of identification of and contact with the students must be explained. It may be necessary to obtain permission from the school’s officials to conduct the research at a specific site (school).

1. Privacy means having control over the extent, timing, and circumstances of sharing oneself with others. [↑](#footnote-ref-2)
2. Confidentiality means the protection of information and data so that it is not improperly divulged. [↑](#footnote-ref-3)
3. Minimal risk means that the probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests. [↑](#footnote-ref-4)