ASU IRB APPLICATION

Group Lead: Janki Patel

Members of the group: Chelsea Bottomley, Olga Tamayo, Moneeka Panchal

Instructions and Notes:

- Insert answers in the area that follows the request for information
- NOTE: Answer all questions in this assignment using complete sentences, using bullets only where appropriate (lists, etc.)
- Review the instructions in each section before writing your response
- Do not remove the instructions from your final submission

Protocol Title: (copy/paste from protocol)

A PROSPECTIVE, MULTICENTER, RANDOMIZED, DOUBLE BLIND,PHASE III, CLINICAL STUDY TO COMPARE THE EFFICACY AND SAFETY OF XYZ VERSUS CORTICOSTEROID FOR THE TREATMENT OF LATERAL EPICONDYLITIS.

Protocol Number: (copy/paste from protocol)

ASUECONHI/XYZ-LE/21-22/001

1 Principal Investigator (PI) – fictionalized (can be yourself)

Name and Degree(s): Olga J Panchal - Bachelor of Science - Molecular Biology

Title: Senior Clinical Trial Project Manager

Department/Center: Product Development and Research

Affiliation (if not ASU): Wrists and Things Corp.

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2 Background and Objectives

Minimum response: (3) paragraphs; each paragraph 5 – 7 sentences

Provide the scientific or scholarly background for, rationale for, and significance of the research based on the existing literature and how will it add to existing knowledge.

Describe the purpose, specific aims, or objectives.

State the hypotheses to be tested.

Describe the relevant prior experience and gaps in current knowledge.

Describe any relevant preliminary data.

NOTE: DO NOT SIMPLY CUT & PASTE BACKGROUND SECTION FROM THE PROTOCOL PROVIDED FOR THIS ASSIGNMENT.

Provide a lay summary of that information.

For this assignment, you should include additional information from another source that was not provided in the protocol document to support the background and objective of this study.

For instance: additional study findings (animal or human), statistics on the condition, etc.

Response:

Lateral epicondylitis (LE) is the most prevalent elbow affliction, affecting 1-3% of the overall population annually, with no discernible gender disparity. Individuals aged 35 to 50 face an elevated risk of developing this condition. Professional athletes are likely to encounter this condition, with a 7% chance of developing LE. Gender differences appear to be insignificant. Unilateral epicondylitis most commonly affects the dominant arm, while bilateral epicondylitis occurs less frequently in patients (Xu et al., 2023). The root of chronic pain remains elusive. Research suggests that the affected tissue has increased concentrations of brain transmitters, which may stimulate peripheral nociceptors. In this research analysis, participants will be randomized to one of two groups. One group will receive a single 3 mL injection of XYZ as a treatment for lateral epicondyle. In contrast, the other group will receive a corticosteroid injection as part of the control group for the evaluation for safety and effectiveness.

Corticosteroid injections (CSIs) provide short-term pain relief but may have a negative long-term impact on recovery. Specifically, they have been linked to adverse effects such as tendon rupture, post-injection discomfort, localized skin atrophy, facial flushing, post-injection flare, hyperglycemia, and hypersensitivity responses (Smidt et al., 2002). Achieving a safe, speedy, and lasting recovery from lateral epicondylitis (LE) demands a well-designed and effective treatment plan. Synthetic platelet-derived growth factors (PDGFs) have been shown in some cases to reduce pain by influencing the inflammatory response and local immune response in the joint microenvironment. By strengthening the vascular system, microcirculation improves, promoting tissue healing.

For individuals with LE, the potential benefits of synthetic PDGFs in conjunction with corticosteroids are significant, offering a reassuring prospect of a safe, quick, and long-lasting recovery. This study looks to compare the long-term effects of a PDGFs and corticosteroid mixture in the form of drug XYZ in comparison to previous treatments that have utilized exclusively corticosteroid shots. The research is crucial because the mechanisms of chronic pain in LE are not well understood, and minimizing long-term adverse effects will help patients manage the pain in a more effective way. The primary hypothesis is that in individuals with LE, combining synthetic PDGFs and corticosteroids will result in better pain relief and improved functionality compared to corticosteroids alone. The secondary hypothesis is that the safety profile of the combination medication will be similar to that of corticosteroid monotherapy.

3 Study Population

******Minimum response: (2) paragraphs; each paragraph 5 – 7 sentences***

Indicate the total number of participants to be recruited and enrolled at the study and site level

Provide a rationale for the proposed enrollment number.

What percentage of screened individuals will likely qualify for the study?

REMEMBER – you must select a vulnerable population as participants for your study. The vulnerable population may be a subset of the population recruited. It does not need to be the entire study population.

Provide the rationale for the using the vulnerable population(s) in this study.

The rationale would be based on course readings and must include a description of why this subject/participant population must be included in the study and why the population is or isn't high risk.

Response:

This study is seeking adults between the ages of 18 and 45, regardless of gender, who have been clinically diagnosed with Lateral Epicondylitis at the time of their participation in the study. The goal is to enroll a total of 300 participants, who will be divided into two groups: the study group and the control group. The study group will have 150 participants who will receive XYZ, while the control group will comprise 150 participants who will receive exclusively corticosteroids. The research will be carried out across 1 to 30 sites, with each site enrolling 10 participants if there are 30 sites in total. To estimate the sample size, a 30% increase in the study group compared to the control group, an 80% study power, a 0.05 significance level, and a 10% dropout rate were used. All eligible individuals who are randomized into the trial, regardless of whether they receive the study treatment or the control medicine, will be part of the ITT (Intent-to-treat) population. Additionally, all eligible individuals who are randomized into the trial, will receive either the study treatment or the control drug for the term indicated by the protocol, and undergo at least one effectiveness evaluation will be part of the MITT (Modified-intent-to-treat) population.

Around 40% to 50% of the individuals who undergo screening are expected to meet the requirements for participation in the LE study. This is determined by evaluating factors such as diagnostic standards and the severity of the condition. The study's vulnerable population consists of individuals between the ages of 18 and 45 who are economically disadvantaged and may not have the means or opportunity to participate in other, more expensive treatments, such as corticosteroid injections. If the required ethical standards are followed and this population is included, the results will be helpful and applicable to individuals who require treatment but cannot afford it. A treatment method that delivers lasting comfort and reduces the necessity for frequent medical appointments could have a profoundly positive impact on economically disadvantaged individuals who face barriers to accessing healthcare services.

4 Recruitment Methods

******Minimum response: (1) paragraph; 5 – 7 sentences***

Describe when, where, and how potential participants will be identified and recruited.

Describe materials that will be used to recruit participants.

Does any study staff member have a dual role with the study population?

Response:

Participants selected for this study must be individuals aged 18 to 45 with moderate to high-intensity elbow pain, suffering from LE for more than three months. Additionally, the participants must engage regularly in some form of physical activity, such as sports. Participants will be selected based on their answers to screening questions as well as an ultrasonography confirming the damage. Recruitment of participants will require a nurse to operate the doppler looking at the elbow as well as someone available to document and process all participant answers. In cases of low staffing, the nurse responsible for doppler operation will also take on the responsibility of gathering and documenting patient answers.

5 Reasonable Anticipated Benefits

Minimum response: (1) paragraph; 5 – 7 sentences

Describe the potential benefits that participants may expect as a result of taking part in this study.

List the potential benefits that society and/or others may expect as a result of this research

Response:

When entering into the study, participants can expect potential improvement in their condition. The control group will be utilizing a drug already on the market and XYZ Drug is being made to potentially improve pain, function, motion, stability, strength, and overall patient satisfaction. This particular research study will be conducted with an intent to treat the individuals participating both during the study and in the future. The XYZ Drug is intended to be available to the same population being sampled for the clinical trial upon approval. In this way, participants can also expect improved treatment options for themselves and loved ones upon a positive result of the trial.

6 Risk, Harms, & Discomforts

Minimum response: (1) paragraph; 5 – 7 sentences

Describe all the reasonable expected risks, harms and/or discomforts that may apply to that participants as a result of taking part in this study.

Describe how risks, harms, and/or discomforts will be minimized.

Response:

As with any trial involving a new drug, there will always be the potential that the participant may react poorly to the injection, in which case Adverse Event Protocols are in place and weekly check-ins will be occurring to discuss potential issues and side effects. In addition, participants with metabolic syndrome like diabetes are at risk for poor functional outcomes after corticosteroid injection for lateral epicondylitis in the short term. One of the primary reasons for development of XYZ drug is that there is limited evidence on the long-term success of corticosteroid injection to treat LE, especially with the myriad of documented side effects (Roh et al., 2017). To further reduce risk, harm, and discomfort, participants should be counseled on preventive measures and optimal biomechanics for the elbow joint to avoid strain and overuse injuries. Participants must be informed to avoid extreme ranges of motion, take breaks from repetitive hand and wrist movements, use two hands for heavy items, and limit repetitive grasping motions.

7 Data Management and Confidentiality

Minimum response: (2) paragraphs; each paragraph 5 – 7 sentences

Describe briefly and in lay terminology the data analysis plan, including procedures for statistical analysis.

Describe the steps that will be taken to secure the data during the study conduct, use, transmission and storage. Such as:

- *Training, authorization of access, password protection, encryption, physical controls, certificates of confidentiality, and separation of identifiers and data*

Describe how data and any specimens will be handled:

- *What personal identifiers will be included in that data or associated with the specimens?*
- *Where and how data or specimens will be stored?*
- *How long the data or specimens will be stored?*
- *Who will have access to the data or specimens?*
- *Who is responsible for receipt or transmission of the data or specimens?*
- *How will data and specimens be transported?*
- *If data or specimens will be banked for future use, describe where the specimens will be stored, how long they will be stored, how the specimens will be accessed, and who will have access to the specimens.*
- *Describe the procedures to release data or specimens, including: the process to request a release, approvals required for release, who can obtain data or specimens, and the data to be provided with specimens.*

Response:

Prior to any data being collected, each participant will be randomized and assigned into either the control or study group. All data collected from participants either upon intake or subsequent follow-up appointments will be associated only with the participant's patient number, initials, and site number and stored in a secure, safe, locked place. Data that will be gathered and stored under the patient's number will include: date of birth, gender, race, dominant arm, height, body weight, relevant medical history, physical examination results of body temp, blood pressure, respirations, VAS, PRTEE, and ASES Scores, information about adverse events that have occurred throughout the study, pregnancy test results, ultrasonography results, and all medications being taken concurrently with the study drug. Similarly, all study drugs will be shipped to the location only after site activation and kept in a secure, safe, locked, temperature controlled place with access by authorized personnel only. Then, once the trial is complete, all vials both used and unused will be retrieved for destruction.

Data will be kept both physically on a patient's Case Report Form, to be kept in a safe, locked place with limited authorized access, and digitally in a validated database. These validated databases will be monitored by a data management team in accordance with FDA's good computing practice guidelines and be safeguarded against unauthorized access by security procedures. When the data gets entered into the database it will be validated through regular, computerized checks. Appropriate backup copies of important documents such as informed consent forms, HIPAA authorization forms, original documents, critical junctions for the protocol, and data for analysis will be maintained and backed by a database administrator and subsequently locked away and archived once the study is complete. The only data that will remain at the site of the research will be copies of patient CRF forms only identifiable by patient number.

8 Consent Process

Minimum response: (3) paragraphs; each paragraph 5 – 7 sentences

Describe the process and procedures process you will use to obtain consent. Include a description of:

- *Who will be responsible for consenting participants?*
- *Where will the consent process take place?*
- *How will consent be obtained?*
- *If participants who do not speak English will be enrolled, describe the process to ensure that the oral and/or written information provided to those participants will be in that language. Indicate the language that will be used by those obtaining consent.*
- *Don't forget any considerations that may be required for your selected vulnerable population.*

Response:

The consent process will ensure that participants are fully informed about the study and provide their consent voluntarily. Oral and written informed consent will be obtained before the participant enters the trial. The documentation and process will be in accordance with the Declaration of Helsinki, ICH-GCP, the US Code of Federal Regulations for Protection of Human Participants, the Health Insurance Portability and Accountability Act, and local regulations. A designated consenting team formed by trained research staff, study coordinators, and research nurses will be responsible for obtaining the consent. This team will have undergone specific training on ethical issues and consent procedures to ensure they can effectively communicate the study details to the possible participants.

The consent process will occur in a private and quiet room within the research facility to provide a favorable environment for open discussion. This setting will allow the participant to ask questions and discuss the study without interruptions or distractions. For participants who cannot visit the facility, consent can be obtained via a secure video conferencing platform like Zoom or Microsoft Teams. This option will ensure that all participants, regardless of their location, have the opportunity to participate in the study. Potential participants will be initially contacted in person, by phone, or by email. They will receive an overview of the study and be invited to attend an in-person or virtual meeting where further detailed information will be provided. During the meeting, a member of the consent team will provide a comprehensive explanation of the study's purpose, procedures, risks, benefits, and the participant's rights. The consent form will be provided and explained in layperson's terms.

Participants will be encouraged to ask questions and discuss any concerns. The member of the consenting team will address questions to ensure the participant fully understands the clinical trial. All consent materials will be translated into the appropriate language for participants who do not speak English. Certified translators or bilingual staff members will assist in the consent process to ensure clear communication and understanding. To ensure comprehension of the clinical trial, translators will deliberately verify that the participant understands what they will be signing. Special provisions will be made for our vulnerable population. This will include a simplified explanation, additional time to consider participation, and involvement of legal guardians or advocates. These procedures ensure participants are fully informed and consent freely and without coercion, adhering to ethical standards and regulatory requirements.

9 Principal Investigator

As Principal Investigator of this study, I assure the IRB that the following statements are true:

- The information provided in this form is correct.
- I have evaluated this protocol and determined that I have the resources necessary to protect participants, such as adequate funding, appropriately trained staff, and necessary facilities and equipment.
- I will seek and obtain prior written approval from the IRB for any substantive modifications in the proposal, including changes in procedures, co-investigators, funding agencies, etc.
- I will promptly report any unexpected or otherwise significant adverse events or unanticipated problems or incidents that may occur in the course of this study.

- I will report in writing any significant new findings which develop during the course of this study which may affect the risks and benefits to participation.
- I will not begin my research until I have received written notification of final IRB approval.
- I will comply with all IRB requests to report on the status of the study.
- I will maintain records of this research according to IRB guidelines.
- The grant that I have submitted to my funding agency which is submitted with this IRB submission accurately and completely reflects what is contained in this application.
- If these conditions are not met, I understand that approval of this research could be suspended or terminated.

Principal Investigator Name (*type first, middle initial, last*):

Signature *(type PI name here):* **Olga J Panchal** **Date: 06/29/24**

10 REFERENCES

List references cited in the application responses
APA 7th Edition format

Roh, Y. H., Oh, M., Noh, J. H., Gong, H. S., & Baek, G. H. (2017). Effect of metabolic syndrome on the functional outcome of corticosteroid injection for lateral epicondylitis: Retrospective Matched Case-Control study. *Scientific Reports*, *7*(1). https://doi.org/10.1038/s41598-017-11179-z

Smidt, N., Assendelft, W. J., Van Der Windt, D. A., Hay, E. M., Buchbinder, R., & Bouter, L. M. (2002). Corticosteroid injections for lateral epicondylitis: a systematic review. *Pain*, *96*(1), 23–40. https://doi.org/10.1016/s0304-3959(01)00388-8

Xu, J., Chen, M., Xue, X., Zhou, W., & Luo, X. (2023). Global Research Trends and Hotspots in Lateral Epicondylitis during the past 30 years: A Bibliometric and Visualization study. *Medical Science Monitor*, *29*. https://doi.org/10.12659/msm.939309