Clinical Trials: How Does It All Work & What's the Latest in the Pipeline?

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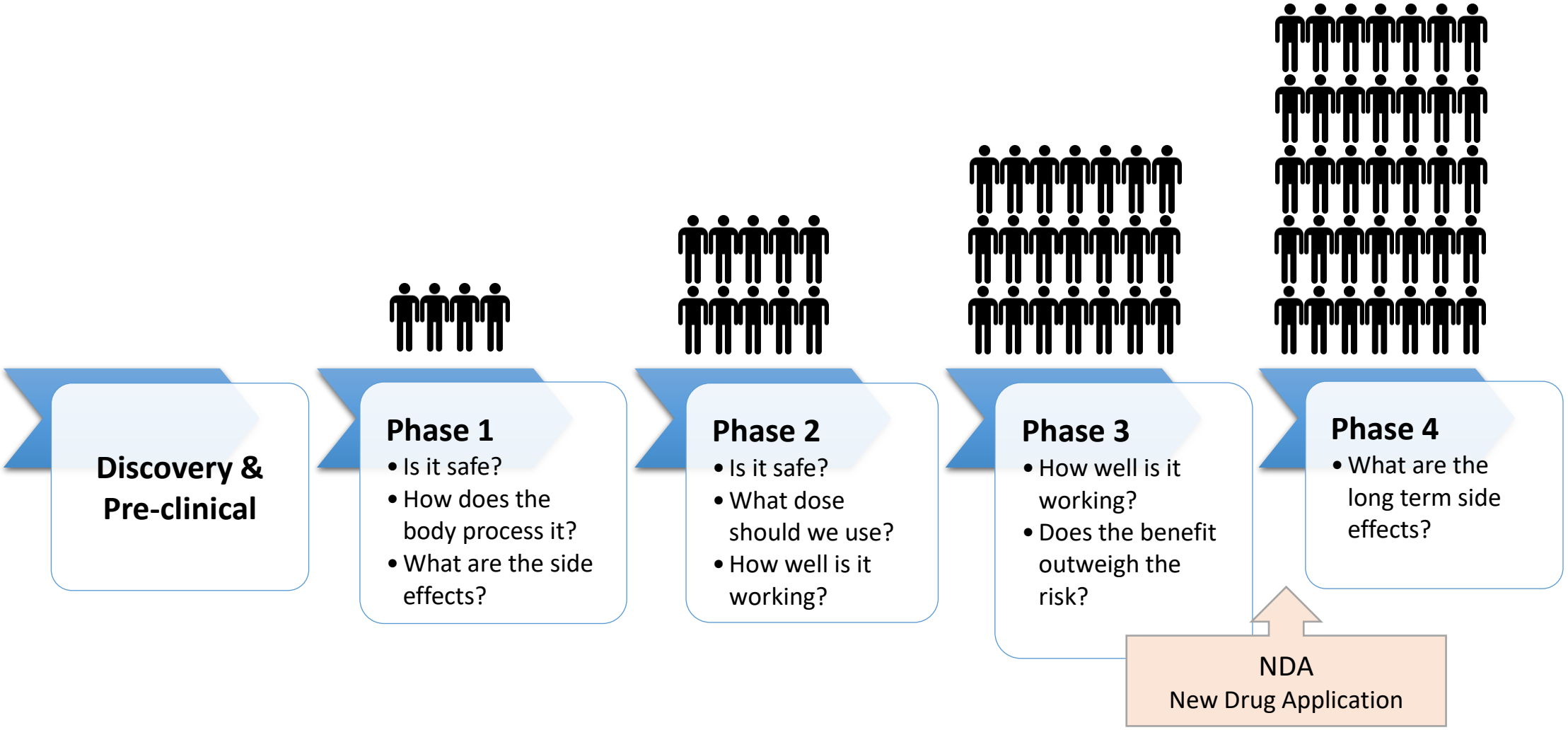
What is a Clinical Trial?

- A clinical trial is a research study that gathers information about an experimental or investigational drug
  - “Investigational” means that the study drug has not been approved for sale by the United States Food and Drug Administration (FDA) or other regulatory agencies (e.g., European Medicines Agency [EMA])

What are Commonly Used Terms in Clinical Trials?

- Protocol
  - A carefully designed plan that describes what research question is being studied and how the study will be conducted ensuring safety of patients and integrity of data
- Placebo
  - A pill or liquid that looks like the drug being studied does not have any treatment value from active ingredients
- Blinding
  - Studies are blinded so participants and/or study teams can describe what is happening without any bias
  - Single-blind: participant does not know which medicine is being used
  - Double-blind: participant and study team does not know which medicine is being used
- Randomization
  - The process by which the treatments (e.g., placebo or active study drug) are assigned to volunteers by chance rather than by choice (like flip of a coin)

What are the Phases of Clinical Trials?



Who Protects Study Participants?

- FDA
- Study must be reviewed and approved by an Institutional Review Board (IRB)
  - Independent committee established to help protect the rights of people who volunteer to join a study
  - Determine that the risks to subjects are reasonable in relation to anticipated benefits
  - Ensures study is in compliance with local, state, and federal laws
  - Ensures study complies with ethical principles
  - Ensures informed consent is accurate and understandable
  - Membership:
    - At least 5 members of varying backgrounds, both sexes, and > 1 profession
    - At least 1 scientific member, 1 nonscientific member, and 1 unaffiliated member

What Information is in the Informed Consent Form?

- Clear statement that the study is a research study and its purpose
- What the participant can expect
  - Duration
  - Study visits
  - Study procedures
  - How many other people are participating
- Risks and benefits
- Alternative treatments/procedures available
- Confidentiality information
- Compensation and/or medical treatments if injury occurs
- Who to contact for questions
- Participation is voluntary
- Signature lines

This must be reviewed and approved by the IRB before any potential participants see it

Informed Consent is a Process

Goal = to provide complete and meaningful information to a potential participant about a trial for them to make unbiased decision about whether or not to participate

Information

- Read ICF form completely
- ICF **must** contain all important information about a trial
- Speak to physician and study staff
- Ask questions - be sure to fully comprehend
- Take time to talk to friends/family

Consent

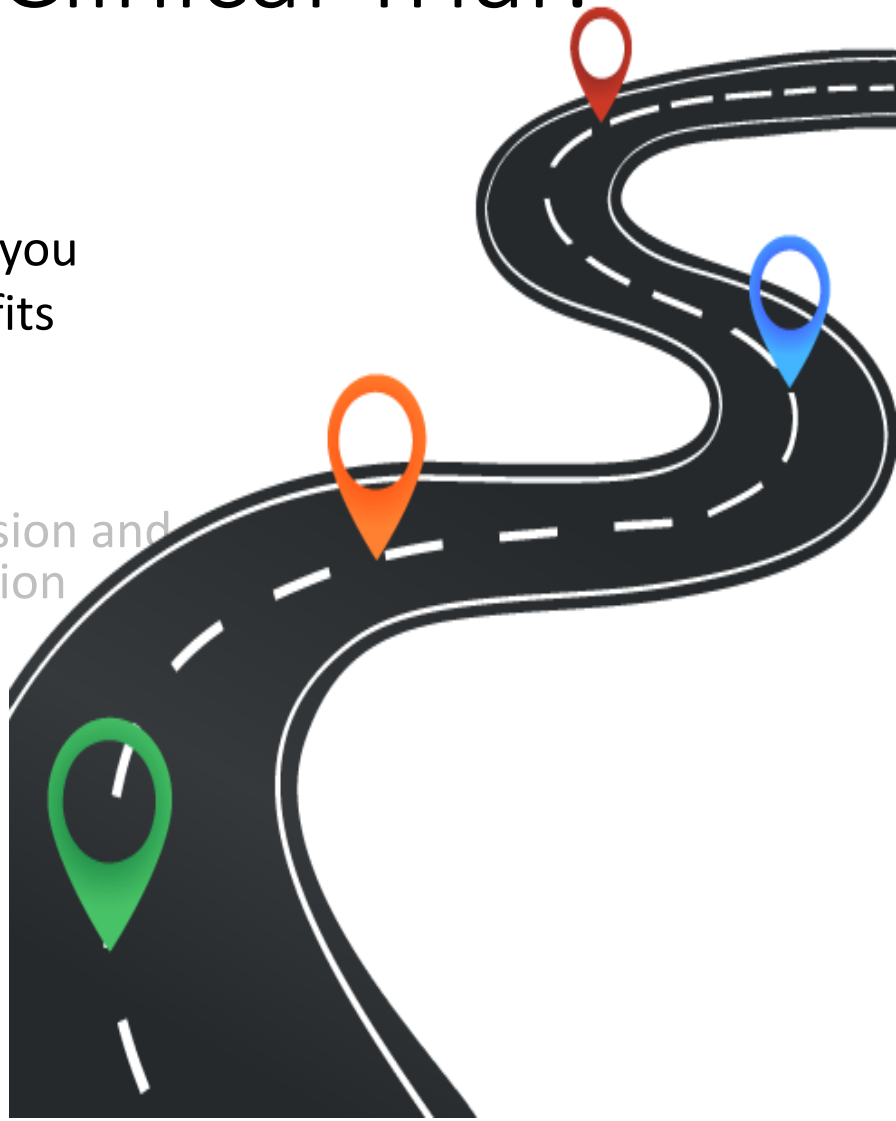
- Assess risks and potential benefits – make decision
- Sign and date to provide permission to participate
- Don't sign to refuse participation
- Patient can change mind at any point, completely voluntary
- Keep a copy of the ICF to reference

Continuing IC

- Sponsors and sites are required to inform participants of new information (e.g., new risk)
- Additional information may require a 're-consent'
- Withdrawal of consent

What is the Journey Through a Clinical Trial?

- Find a clinical trial nearby
  - Meet with the study doctor and discuss if the trial is right for you
  - Ask questions about what to expect, what are the risks/benefits
- Screening Period:
  - Read, understand, and sign the informed consent form
  - Complete eligibility assessments to ensure you meet all inclusion and exclusion criteria, including labs and medical history information
- Treatment Period:
  - After eligibility is confirmed, start the study drug
  - Visit the study site per the study visit schedule to collect data
- End of the Study:
  - Enter a long term open-label extension, if applicable



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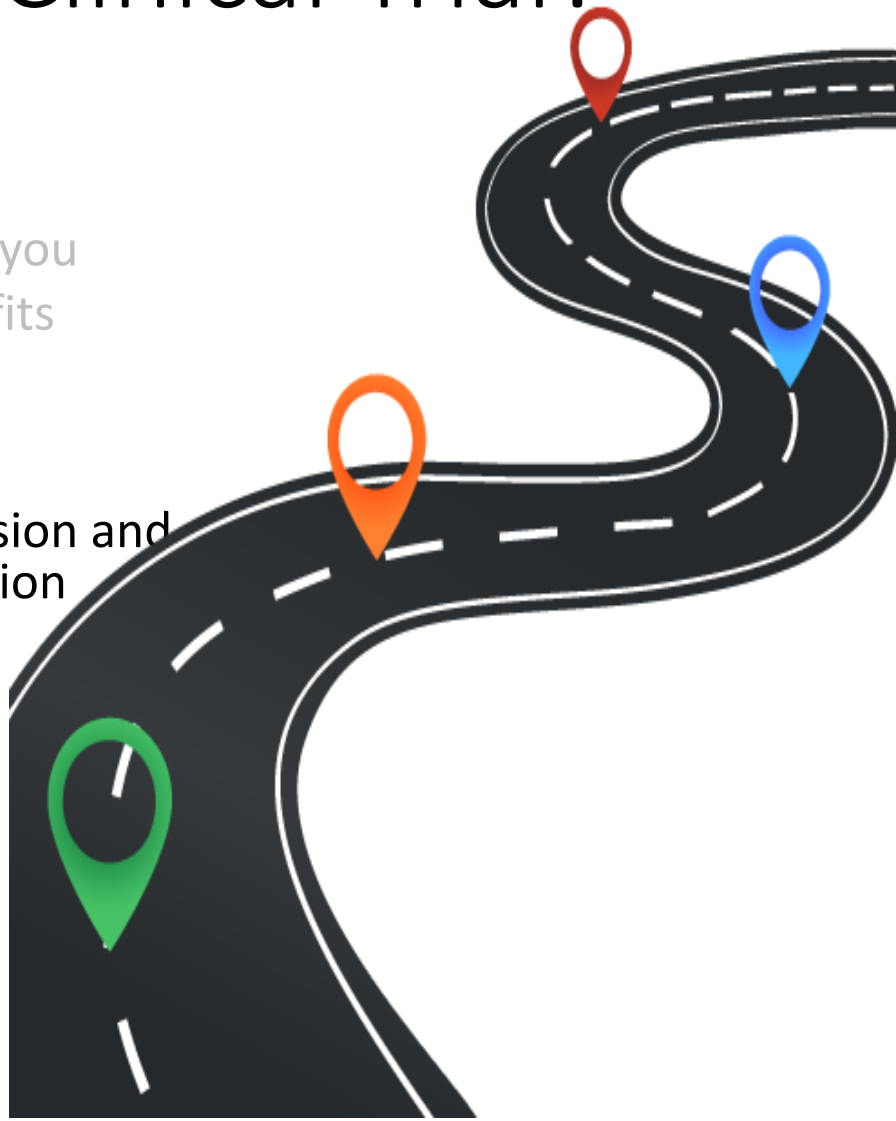

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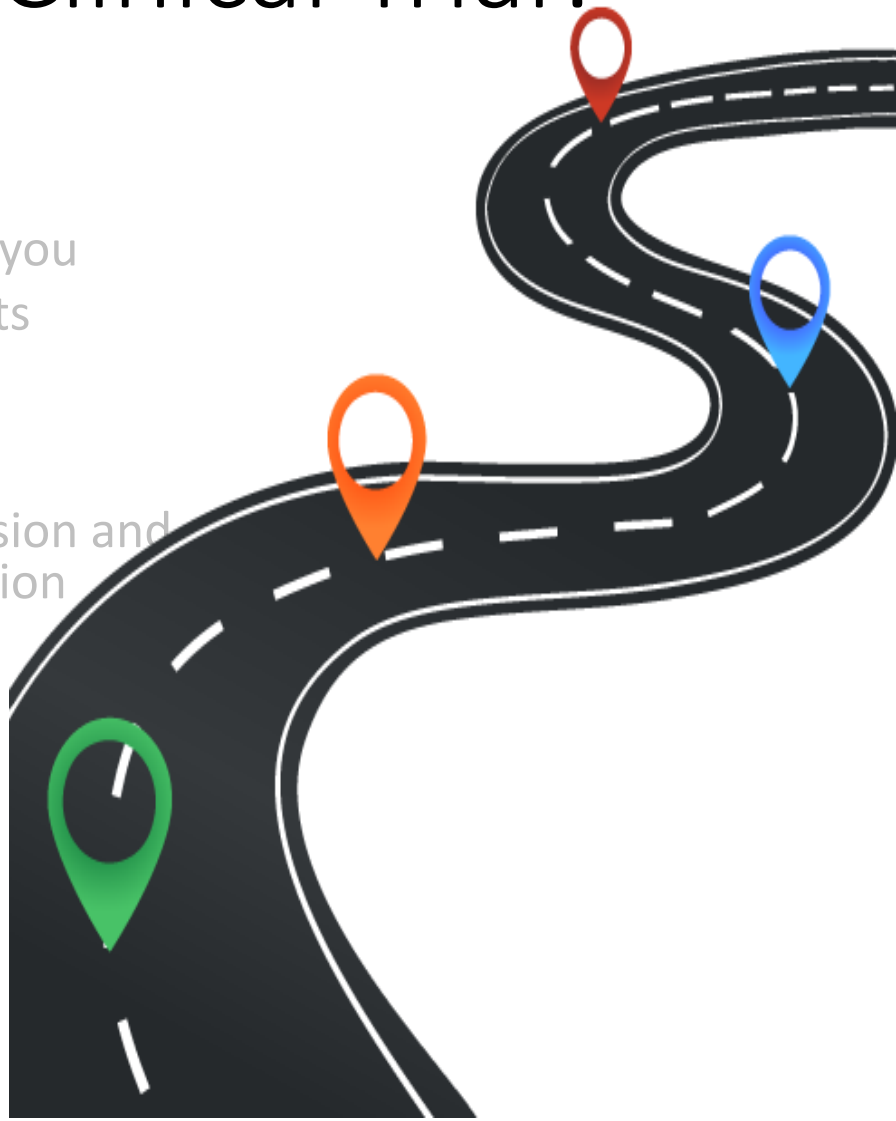

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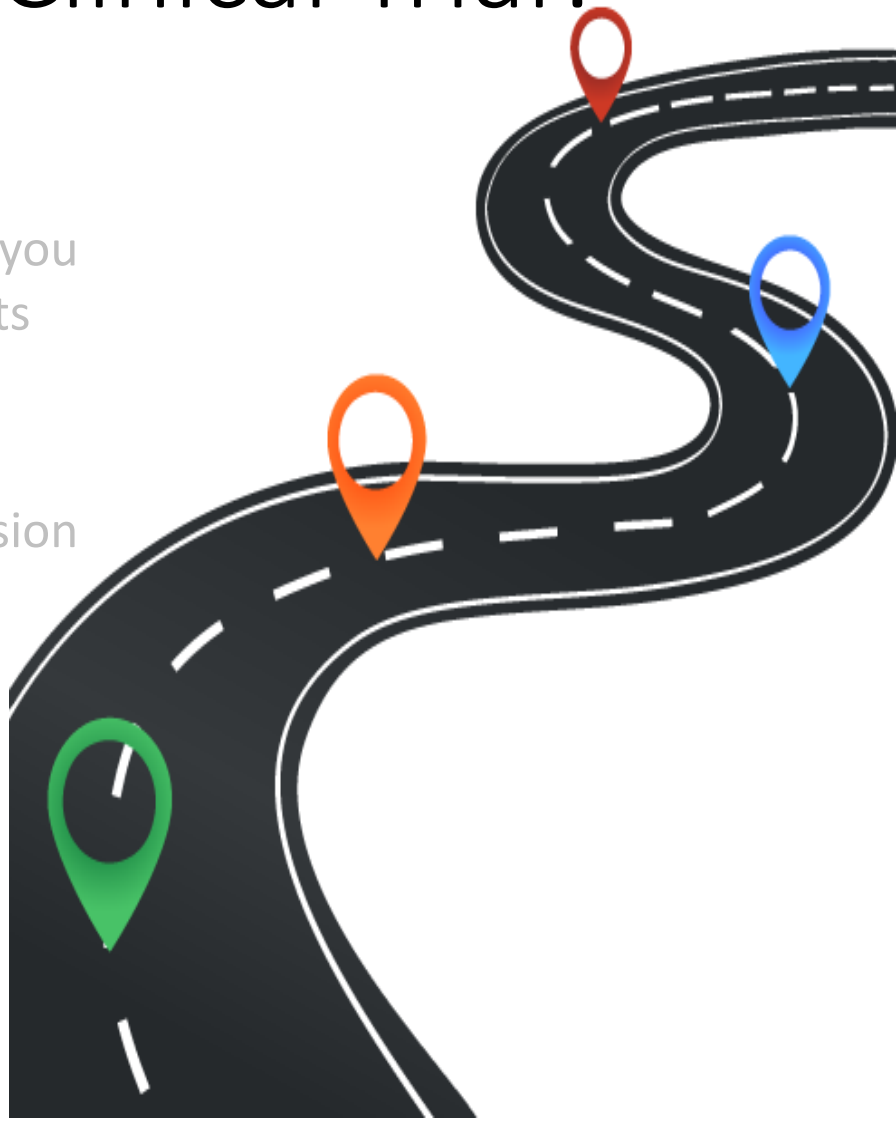

What Should I Consider When Deciding to Participate in a Clinical Trial?

Reasons patients may decide to participate:

- Altruism/contribution to medicine to help future patients
- Access to newer, possibly beneficial treatments
- Additional care/attention from trial staff
- Monetary compensation or free care

Other considerations when deciding to participate:

- Possible risks of an experimental therapy/treatment
- Study design (e.g., open label, randomized, cross-over, double-blinded, placebo control, active control)
- Burden of participation (time, samples, procedures, travel required)

Inclusion/exclusion criteria:

- Even if a patient decides to participate, they may not be able to!
- Must meet all of these criteria to participate

What Are Potential Benefits of Participating in Clinical Trials?

- Hope
- I may get access to potential treatments before they are marketed
- I change my role from Patient -> Partner in my care
- More physician/team visits provides more monitoring of my condition and may help to identify other health care needs.
- There may be an opportunity for me to receive early access after my trial participation
- Even if the trial is negative, I will be helping all present and future patients who have MG by contributing to what we know about MG
- Maybe the investigational treatment will work for me!

What Are Potential Risks if I Participate in a Clinical Trial?

- I may receive the Placebo (sugar pill)
- Sometimes the investigational treatment may show no benefit
- I may be asked to discontinue my current treatments
- I may experience unexpected, unpleasant, serious, and life-threatening risks caused by the investigational treatment being studied
- Trial participation may be time consuming and require more clinic visits, blood draws and complex procedures than I would otherwise experience
- Trial participation may involve my family members' time and involvement resulting in loss of work/leisure hours for both myself and my family

How Might I Hear About Clinical Trials?

- Ideally, I should hear about trial during my routine MG visit when my HCP may discuss the impact of trial participation on me and my family
- If I am not responding to treatment, I may be referred to a specialist who may discuss a trial where I may be able to get early access to treatment that may not be available for my usual physician to prescribe
- I may hear about a trial through social media which is now being used by Pharmaceutical companies and patients to make people aware of ongoing clinical trials. Ideally, the social media platform should be an evidence-based, trusted platform such as the MGFA website https://myasthenia.org/
- Honesty and Ethics are the two mainstays of any clinical trial and is expected from both, the participant and the researcher.

Questions to Ask My Research Physician

- Do I qualify for this trial?
- Who will pay for this research?
- Will I be able to take my regular medications while participating?
- What should I expect from research visits e.g. time commitment, blood draws, etc.?
  - If I am traveling a long distance, will I be reimbursed for travel?
  - If I have to stay overnight, will I be reimbursed for my hotel bill?
- What other treatments are available to me?
  - What other research trials are available to me?
- What are known/expected side effects? What is the worst that could happen?
  - Who will cover the cost of treatment in case I get a reaction from the study intervention or my disease gets worse?
- Can I withdraw my consent to participate if I feel the trial is inconvenient or my health is deteriorating?
- How will you communicate with my usual health care team?

Important Things to Consider

Questions to Ask My PCP

- What do you think of my participating?
- How will you communicate with my research team?
- How will I coordinate my care for non-research trial related problems?

Questions to Ask My Family

- What do you think of this consent form?
- Will you support my participation?
- Are you able to help for the time/effort involved in my participation in this trial?
- Will you continue to support my participation as long as I desire to remain in the trial?
- Do you have additional questions for my research physician before I commit?

A History Lesson ☺

- It was a randomized trial of the Salk Polio Vaccine in over 600,00 school children that led to the approval of the first preventative treatment for that disease, effectively eradicating polio in the US.
- Clinical trials contributed to the scientific foundation for tuberculosis policies and measles vaccine that are still adhered to today.
- Age-adjusted death rate in the US for Coronary Heart disease was cut in half from 1980-2000 because of resources invested in basic and clinical research.
- People do not need to die today with HIV/AIDS as there are now medicines available which were once studied in clinical trials.

Resources

- http://www.clinicaltrials.gov/ct/info/

  For more information on various ongoing clinical trials.

- http://ohsr.od.nih.gov/

  Department of Health and Human Services, Human Research Protection program

- https://www.nih.gov/health-information/nih-clinical-research-trials-you

  National Institute of Health resources for clinical trials.

- https://research.unc.edu/human-research-ethics/

  UNC-Chapel Hill Office of Human Research Ethics.

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