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Pioneering Vision: The Critical Role of Clinical Trials in Uveitis

As an uveitis specialist practicing in the USA, I have witnessed firsthand the challenges that patients with this complex eye condition face. Uveitis, characterized by inflammation of the uvea, can lead to serious vision threatening complications and permanent vision loss if not properly managed. Despite advances in treatment, there is still much to learn about this condition and how to best care for those affected by it.

Due to the rarity of uveitis and the extremely varied presentation, it is difficult to study and is best assessed by combining patient data from various clinical centers. There are known and unknown variations in presentation and response to treatment based on demographics- such as age, race, gender and geographic location. These make it all the more imperative to study uveitis as a global entity and not restricted to any region or country.

Retrospective studies are a good way to collect patient data and review as a group, but those studies are limited by not having all the data collected in a systematic manner and leading to disparities in analysis. Randomized clinical trials are very effective to evaluate the safety and efficacy of new therapies and provide valuable insights into the underlying mechanisms of the disease, however, they are not really reflective of the "real world " as they are uniquely identified and recruited as best suited for a specific clinical trial. By participating in clinical trials, patients may have the opportunity to access cutting-edge treatments that may not yet be available through standard care, leading to selection bias of subjects recruited. In addition, patients may not be recruited if they have co-morbidities which unfortunately is the majority of patients seen in a practice.

The newly developed PROTON platform holds immense potential in facilitating clinical research relevant to uveitis. PROTON offers several key features that make it particularly useful in uveitis research:

Real-time Data Collection: PROTON enables researchers to collect data from patients in a standardized manner in real-time, thereby eliminating the bias with retrospective data collection. This is especially important in uveitis, where disease activity can fluctuate and evolve over time.

Integration of Multi-modal Imaging: Uveitis often requires the use of various imaging modalities to assess disease activity and monitor treatment response. PROTON integrates these imaging techniques into its platform, providing researchers with comprehensive data for analysis.

Patient Engagement: PROTON incorporates patient-reported outcomes and feedback, ensuring that the patient perspective is central to the research process. Engaging patients as partners in clinical trials fosters a collaborative approach to improving uveitis care.

By harnessing the power of PROTON, researchers can accelerate the scope of uveitis research. This not only benefits patients by expanding treatment options but also contributes to our collective knowledge of uveitis and its underlying mechanisms.

As we look to the future of uveitis management, it is clear that clinical research will continue to play a pivotal role in shaping the landscape of care. By embracing innovative platforms like PROTON, we can forge new pathways toward better outcomes for patients with this challenging condition.

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