CLINICAL TRIALS

CONDUCTING RESEARCH IN THE IOL SPACE

Important considerations for principal investigators as they embark on this journey.

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With the advent of premium IOLs, patients undergoing cataract surgery have new choices for improved vision and quality of life. These options have also created a huge space for the integration of clinical research into traditional practice. Despite plenty of benefits, much remains for you to consider before jumping feet first into a clinical trial in the IOL space.

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POTENTIAL RISKS AND REGULATORY RESPONSIBILITIES

As with conducting any device clinical trial, understanding the potential risks of and the investigator's responsibilities in an IOL clinical trial before the study begins will facilitate success. By agreeing to become an investigator in a clinical trial, you are making a commitment to conduct the study in compliance with the clinical protocol, good clinical practices, and federal regulations and guidance related to clinical research. Although sponsors and clinical research organizations can help investigators comply with their responsibilities, it is important that you understand your legal commitments when contemplating participation in a clinical research study. The FDA may choose to audit clinical sites, both during and after participation in a clinical study. The investigator and the study staff must therefore be ready for these audits at all times.

As clinical trial protocols become more complex, deviations are becoming more common, including missed visits and missed tests during a visit. Protocol deviations put both the investigator and the sponsor at risk for questions related to the reliability of the clinical data.

Protocol deviations are considered noncompliance in that they fail to comply with the research plan as approved by a designated institutional review board. A pattern of protocol deviations may constitute continuing noncompliance, which may have serious ramifications for the principal investigator.

One of the most prominent deviations seen in IOL studies has been a failure to complete study visit procedures. It is critical that the procedures listed in the protocol be conducted with every study subject at every visit. Missing even one procedure or not documenting it can compromise the integrity of the data and the outcome of the study. Your staff should be well versed on the protocol and review each subject's case report form prior to the subject's leaving to ensure that all necessary procedures were captured. As an addendum to this, during the investigator meeting and any other kick-off meetings, the principal investigator should actively work with the sponsor to understand the surgical procedure requirements in terms of incision locations, postoperative treatment regimens, etc., to ensure that his or her preferences can work inside of the clinical protocol. Surgeons have personal preferences when it comes to surgical routine and care, so it is important

(Continued on page 89)

(Continued from page 90)

to ensure that consistency can be encompassed within the protocol design. Just as the study visit procedures need to be in line with the protocol, so does the surgical component.

A second frequently seen deviation in IOL clinical trials is missed visits. More often than not, IOL trials enroll mostly elderly patients. With this population comes the potential for missed appointments for any number of reasons—illness, forgetfulness, appointments with other doctors, lack of transportation, etc. Add to this a busy practice, and all of sudden, subjects have missed their visit windows by several days. Although study visits further out may have larger windows, those for study visits within the first 2 weeks of surgery will be much smaller. The key to avoiding missed visits resides with study subjects and staff. First, study staff should be well versed on the study windows for each visit and schedule subjects accordingly. Second, during the screening and enrollment process, study staff should emphasize to potential subjects the importance of returning promptly for each visit and maintaining their study visit schedule. Certainly, some cancellations and rescheduled appointments cannot be avoided, but it is to be hoped they will be few if study subjects understand the importance of keeping these dates.

RANDOMIZATION

Many current IOL clinical trial designs require randomization to a monofocal lens, meaning the potential study subjects must be willing to receive either the study lens or a monofocal lens. Carefully examine your practice's current patient population to assess the number of premium-channel-lens, self-paying patients versus insurance-paid patients. If, for example, you have a high percentage of premium-channel clients who are willing and able to pay for a toric or multifocal lens, it may be more challenging to recruit subjects for a randomized trial. This creates a challenge for enrollment purposes, because although individuals may be interested in the additional care and attention that go with a clinical trial, they may be unwilling to risk not receiving the lens they are looking for. If the percentage weighs more heavily in favor of Medicare patients, having a conversation about randomization may be more favorable, simply because they would have only received a monofocal lens to begin with. The chance for a premium lens, in addition to the close medical attention provided to a study subject in a clinical trial, is often a perceived benefit.

Understanding the patient population of your practic, and gauging whether or not those patients are interested in clinical research and willing to enter a study are key when considering participating in IOL clinical research. Once this assessment has been made and there is a decision to move forward with participation in the trial, a principal investigator and the study staff work with the clinical research organization and the sponsor to develop strategies that will efficiently enroll patients.

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SPECIFIC SITE REQUIREMENTS FOR AN IOL STUDY

When considering participating in an IOL study, be sure to have a complete understanding of the specific study site requirements, which are often more stringent than regular practice necessities. Video documentation is becoming more and more prevalent, including the documentation of phaco machine settings and other key surgical procedure values during a clinical trial. Having the ability to take digital images of machine settings is nearly a necessity, so it will be important to determine if you can acquire this technology. You will also need to train and/or employ study staff who will be able to properly use the new equipment.

A second consideration is the inventory component of clinical trial lenses. With a clinical trial comes a high volume of lenses that need to be accounted for and stored properly. There will likely be ranges of spherical and cylindrical powers, so careful documentation and inventory control of the trial lenses are critical. As the inventories drop, clear communication between the site and the study sponsor or clinical research organization is needed so lenses can be restocked accordingly. The documentation associated with the control of investigational products can be time consuming for your study staff but is critical to ensuring full accountability of all investigational products received from the sponsor.

CONCLUSION

Understanding the demographics of the practice, preparing site and study staff adequately, and recognizing the potential risks of an IOL clinical trial are all important considerations for principal investigators as they embark on this journey. ■

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