在罕见疾病药物临床研发中应用去中心化临床试验的技术指导原则

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1. Background

Rare diseases are a group of diseases with extremely low incidence/prevalence.

The diseases are mainly hereditary diseases, most of which occur in childhood and have low incidence,

The mortality rate is high, and most rare diseases lack effective treatments.

This seriously endangers the life and health of patients.

There are many challenges in the clinical development of rare disease drugs:

The small number of patients with different diseases and scattered residences have increased the difficulty of recruiting for clinical trials.

The clinical trial process is complex, the visit methods are diverse, the clinical trial cycle is long, and the endpoint indicators are complex.

The complexity of the disease, the need for special protection for children, etc., further increased the demand for drugs for rare diseases.

In addition, some patients with rare diseases have severe symptoms.

Mobility problems limit patients' willingness to travel to research centers to participate in clinical trials and

Therefore, exploring new clinical trial models that are more conducive to patient participation will be of great significance.

Help improve the efficiency of drug development for rare diseases.

Decentralized Clinical Trials (DCT)

Refers to clinical trials conducted outside traditional clinical trial centers through telemedicine and mobile/local

A clinical trial in which a local medical institution performs some or all trial-related activities.

Integrate digital health technologies through a fully remote model or a hybrid model

(Digital health technologies, DHT), for the clinical development of drugs for rare diseases

Experiments provide new methods and paths that are more flexible and accessible.

Using DHT to conduct patient-centered DCT and in rare disease research

It will be promoted in the research field, which will help patients to participate in drug clinical trials more conveniently.

Patients will be less likely to lose the opportunity to participate in drug clinical trials due to geographical restrictions;

Helps maximize protection for people who live in remote areas or have dyslexia

The rights of patients with disabilities to participate in drug clinical trials are beneficial to reducing the burden on subjects.

Increase the representation and diversity of subjects and improve subject participation and compliance

These advantages not only safeguard the rights and interests of patients, but also enhance the protection of subjects.

At the same time, for rare disease drugs with few patients and difficult clinical trial recruitment,

Clinical trials are a very important help.

This guideline will combine the characteristics of rare diseases to conduct clinical trials of rare disease drugs.

How to apply DCT in the R&D process? Propose suggestions for the development of rare disease drugs

It provides a reference for conducting DCT scientifically and normatively.

This guideline only represents the current views and understanding of the drug regulatory authorities.

As medical science and clinical trials develop, the relevant contents of this guideline will be

When designing and implementing research using this guideline, please

When referring to the Good Clinical Practice (Good Clinical Practice,

GCP), International Council for Harmonization of Technical Requirements for Pharmaceuticals for Human Use

Council for Harmonisation of Technical Requirements for

Pharmaceuticals for Human Use, ICH) and other relevant domestic publications

In addition, DCT may involve laws and regulations in multiple countries and regions.

When implementing DCT, it should ensure compliance with relevant laws and regulations.

II. Basic principles for conducting **DCT** of rare disease drugs

Regardless of whether DCT elements are used, the basic principles of GCP should be followed.

That is, to protect the safety and rights of the subjects and to ensure that the data is authentic, reliable and

Among them, protecting the safety and rights of the subjects takes precedence over other factors.

The use of DCT elements in the clinical development of rare disease drugs should not increase

Increased safety risk to the subjects.

In addition to following the basic principles of GCP, the following are also required when conducting DCT:

Key points: (1) Follow the principle of "patient-centered"; (2) Follow

The principle of “fit for purpose”; (3) follow the principle of “risk-based quality management”

The above three principles are mutually reinforcing: to achieve “patient-oriented

"Patient-centered" means "fit for purpose" and taking patient needs as the "goal"

"Based on the risk" to design DCT; do a good job of "quality management based on risk" to ensure

The quality of clinical trials can effectively achieve “fit for purpose”.

1. Patient-centered

"Patient-centered" is an important principle in the design and implementation of DCT.

Before designing and implementing DCT, collect and listen to patient voices and understand specific patient

The difficulties and pain points of the drug clinical trial population in participating in the drug clinical trial, and solve them

These difficulties and pain points are targeted to design and implement DCT, and this information can be used

As one of the key quality factors of clinical trials, DCT trials for rare diseases are included

On the other hand, the needs of the subjects (e.g.

The subjects have a strong need to communicate with the researchers/research doctors in person).

In order to reduce the difficulty of clinical trial operation, or at the expense of clinical trial quality,

The necessary "centralized" clinical trial process/operation is changed to "decentralized"

Even in DCT, the rights of the subjects should be protected.

Furthermore, implementation of DCT should not increase inequality in access to clinical trials.

The availability of technology and equipment, and the skill level of participants in trial data collection are not

Should be an exclusion criterion for study participants who do not have the appropriate equipment or devices

For subjects whose performance does not meet the standards, the sponsor should provide the necessary equipment;

Ensure that subjects do not accept DCT elements (such as remote informed consent) and choose traditional

The right to a clinical trial model.

2. Fit for purpose

The application of DCT in the clinical development of rare disease drugs should be in line with the “fit for purpose” principle.

The applicability of DCT elements depends on (including

including but not limited to) trial population, rare disease, type of evaluation, and the nature of the trial drug

characteristics (including its stage of development), current knowledge of its efficacy and safety profile

solution, and whether its security risks are controllable.

It is recommended that the DCT elements to be used be reviewed during the clinical trial planning stage.

Benefit and risk assessment. Based on the purpose of the trial, combined with patient needs and the trial drug

Based on the characteristics of the object, reasonable use of feasible DCT related elements, and

Overall design.

3. Risk-based quality management

Given that the current understanding of rare diseases is significantly different from that of common diseases,

Insufficient, lack of relevant research, it is recommended to plan clinical development of drugs for rare diseases

When DCT is used in the experiment, a quality management system should be established before the experiment is carried out.

Develop countermeasures for known/potential risks; at the same time, the sponsor must also have

The ability to monitor and handle unknown risks in a timely manner.

According to the principle of "design", it is recommended that the sponsor fully identify the DCT mode and DHT application process.

The possible changes in key quality factors during the process and the benefit-risk assessment and

Risk management.

3. Focus on the application of digital health technology

DHT is the application of modern computer technology and information technology to medical processes

In drug clinical trials, the application of mobile

Mobile medical or remote monitoring equipment to achieve treatment of subjects, or remote information

Program collection.

When using DHT in drug clinical trials, the potential for rare disease involvement needs to be considered.

The actual situation and needs of the test-taker (age, health status, lifestyle and treatment

goals, etc.), select DHT that meets the purpose and is suitable for the subjects to use, and the technology

The technology needs to be clinically validated to ensure its safety and effectiveness.

When developing devices, the compliance of subjects with rare diseases must also be considered to ensure that the subjects are

Willingness to use, acceptance of, and correct use of wearable devices.

Before using DHT, the sponsor needs to validate the computerized systems involved in the clinical

research process and maintain an audit trail for the initial input of data and any subsequent changes. The

application of the DHT method also needs to be confirmed before the start of the clinical trial.

Before using DHT to collect data, the subject's identity should also be identified (face/fingerprint/ID card, etc.) to

ensure that the data collected by the device is the subject's own. In order to fully protect the subject's personal

privacy data, it should be ensured that

Ensure that data security measures are in place; ensure that the data collected from patients is traceable; if

different devices or technology platforms (including patients' own mobile

When collecting data using a computer or other device, the consistency of the data and results should be considered.

When using DHT to collect data as an endpoint, careful planning and

Consider the selection of DHT appropriate for the target subject population and ensure that

The study endpoints were fully and comprehensively validated.

When planning to use data collected by DHT as a trial endpoint, applicants are encouraged to

The organizer has been carrying out relevant DHT verification work since the early R&D stage, including verification

and confirm the performance of DHT to ensure its sensitivity, specificity, accuracy, precision

density, and the data collected by the DHT in a practical environment as a test

Feasibility and rationality of the endpoint.

IV. Design and implementation of **DCT** for rare disease drugs

To design clinical trials of drugs for rare diseases in a sophisticated way and ensure the smooth progress of the trials

It is encouraged to carry out DCT framework design at the beginning of the experimental design.

That is, based on understanding the needs of patients with rare diseases, pre-design clinical trials

Which DCT elements are used in some/all links of the program, and then implement the program according to the plan.

Apply DCT.

Incorporating DCT elements into the design of clinical trials for rare disease drugs requires careful consideration.

Careful consideration should be given to the unique needs of the target indication population.

Consider the following points (including but not limited to):

When DCT elements are planned for outpatient visits and data

When collecting data, if it involves collecting data related to drug safety and/or efficacy evaluation,

Some key data related to the study (such as the primary endpoint) need to be fully evaluated in advance.

and necessary verification to avoid the implementation of DCT affecting the quality of key data.

Choose the technology that fits the purpose of the study. For example, if the trial involves wearable

device, you need to ensure that the device is suitable for the target age group and that the wearable device

If necessary, early research or exploratory

The adopted technology was validated in the cohort.

Ensure that the language is understandable and relevant to the age, comprehension level, and educational level of the participants.

Since most rare diseases involve children, it is necessary to

When studying, DCT elements should be tailored to the language and comprehension levels of children in the target age group.

Children of different ages may have their own unique needs.

Use a flexible approach to help children understand and participate in clinical trials, such as

Design animations in electronic informed consent to help patients understand the content.

Ensure data quality.

The amount may be small, so the quality of individual data should be paid special attention to ensure that the data is

For example, when subjects use nearby medical resources, ensure that

All medical activities received by the subjects outside the research center can be recorded in compliance with the regulations.

For example, when subjects use electronic logs, wearable devices,

It is necessary to improve the compliance of subjects as much as possible and ensure that the data can be continuously and completely collected.

Land preparation and collection, etc.

Develop digital trial endpoints. Consider using

The data collected by DHT is used as the test endpoint.

Through DHT, high-quality objective data can be collected continuously and accurately, which may be used to support

Support the evaluation of the effectiveness and/or safety of investigational drugs.

Using DHT to conduct adaptive clinical trials.

It can achieve timely and continuous large-scale collection of data in clinical trials of rare disease drugs

Clinical trial data can help to adopt adaptive trial designs and improve design

Flexibility, shortening test time and improving research efficiency.

Provide adequate training to all parties involved in clinical trials.

Training will help ensure the quality of clinical trials. The training may include the following:

(1) Overall DCT design and implementation process, as well as estimated key risks

(2) Training on DHT and equipment and/or software

training, through centralized training and/or reading the operation manual and simulated operation, to ensure

(3) Training on data security and personal information protection;

(4) Training on safety monitoring, especially when remote visits are planned.

How to conduct drug safety monitoring, adverse event collection, and

Provide training on emergency rescue methods.

It is important to note that the DCT implementation plan covers but is not limited to the

Summary of DCT elements, purpose of use, design basis, task scope and scenarios,

Implementation plan summary, project equipment, platforms and software, evaluation and verification

data, data management and data flow diagrams, risk assessment and risk control measures,

Training and communication plans should also be included in the study protocol overview and other relevant documents.

The division of responsibilities for related tasks, work flow, and time schedule for project implementation are detailed in the

arrangements and the actions to be taken during the test.

5. Application scenarios of DCT elements

DCT provides a new digital model for drug clinical development.

In the clinical development of disease drugs, DCT can be applied to the following scenarios:

1. Remote recruitment of subjects

Subject recruitment is a bottleneck in advancing clinical trials.

Finding suitable patients with rare diseases to participate in clinical trials

There are not only challenges in terms of quantity, but also in terms of patients'

Understanding and willingness to participate. DCT subjects in rare disease drug clinical trials

During the recruitment process, remote recruitment can be considered to allow those with rare diseases to

Patient participation in appropriate clinical trials may be accelerated through technologies such as artificial intelligence

Recruiting subjects for clinical trials of drugs for rare diseases.

2. Electronic Informed Consent

Electronic informed consent refers to electronic systems and

Procedures, including the use of text, graphics, audio, and video to communicate clinical trials

In terms of presentation format, electronic

Informed consent can be in a hybrid form of electronic and paper or entirely electronic.

From a process perspective, electronic informed consent can be conducted at the research site or

It is conducted remotely, with communication conducted through telephone, video, online meetings, etc.

When electronic informed consent is used, the informed consent process must be recorded and archived.

And ensure traceability.

Since rare diseases often occur in childhood,

In the process of interactive multimedia, such as video, audio, charts, etc.,

This will be more conducive to the understanding of child subjects and help them to be fully informed.

Cognitive impairment (eg, neurodevelopmental dyslexia) or writing impairment (eg,

Patients with rare diseases such as primary hereditary dystonia may be introduced into the care

Models such as human (agent) are adopted to better protect the rights and interests of subjects.

For rare disease subjects with limited mobility, remote informed consent

The updated informed consent form can be obtained quickly and easily, and all

All subjects can obtain the latest version in a timely manner.

Electronic devices and programs to avoid when using electronic informed consent

This places an additional burden on patients with rare diseases and requires ensuring that the program is easy to use and accessible.

At the same time, paper informed consent forms need to be prepared in case the subjects are unable to operate the equipment smoothly.

When using electronic informed consent, it is necessary to conduct preliminary assessment and verification of the subjects.

Before adopting electronic informed consent,

Subjects must be fully informed of the collection of data generated during the electronic consent process

Scope, access rights, etc., during the informed consent process, ensure data security and

The privacy information of the subjects (including their guardians) is protected.

3. Remote visits and assessments

Remote visit refers to researchers and project members visiting online through video,

Audio, phone, instant messaging tools, etc., interact with patients in real time to complete

The visit series process required by the protocol.

Remote clinical trial visits make trials more convenient and easier for subjects to participate

Is it appropriate for drug clinical trials to use remote visits or

A mixed trial approach to visits depends on the assessment process and the data that need to be collected.

When remote visits are planned, it may be necessary to conduct a review of the investigators, subjects,

Guardians or caregivers should conduct additional training on how to conduct or participate in remote visits.

Training to ensure the implementation of the procedures and data information collection methods during remote visits

When planning a remote clinical trial visit or clinical trial-related activity,

The trial protocol or trial manual should specify when it is appropriate to contact trial subjects.

Conduct remote visits and when to visit subjects in person. In addition, the trial protocol

It should also specify how adverse events detected remotely will be assessed and managed;

When reporting adverse events through the FDA's FDA-approved reporting pathway, procedures should also be in place to identify potential duplicates.

For adverse events that are urgent or require on-site attention, the plan should provide response measures.

Researchers need to ensure the timeliness and completeness of medical records of remote visits.

Remote electronic clinical outcome assessment of endpoints in clinical trials of rare disease drugs

Evaluation is an important part of DCT for rare disease drugs.

eCOA tools that implement measurement can provide real-time data collection and monitoring, reducing

Errors and omissions in data recording, improving data quality and completeness.

Clinical Outcome Assessment (COA)

The development of COA tools includes developing new COA tools, translating existing COA tools,

There are three models: translation and/or cultural adaptation, and improvement of existing COA tools.

Since there is often insufficient experience in drug development for rare diseases and a lack of previous studies to refer to,

cases, and therefore there is often a lack of efficacy endpoints that are clearly applicable to the patient population with this disease.

When conducting remote assessments or using eCOA, sponsors should carefully consider the

/Applicability of the eCOA tool developed. Encourage early drug development

Application/development of eCOA and, where appropriate, continued clinical research and follow-up

Key registration study.

4. Doctor-patient interaction/patient education

Doctor-patient interaction/patient education is crucial to ensure the success of drug clinical trials

Using DCT/DHT, researchers can

Provide educational materials related to drug clinical trials in a timely and convenient manner to

The subjects are fully explained the purpose, process, possible risks and potential benefits of the trial.

Help subjects and their families understand the background and importance of clinical trials and gain more

Clear and transparent information. At the same time, DCT/DHT provides more convenient communication

This method also helps researchers to listen to patients' voices in a timely and comprehensive manner and understand

To meet the needs of patients and adjust the trial design in a timely manner to promote early participation of patients with rare diseases

into the experimental design.

Providing more appropriate

Medical consultation and monitoring of subjects' needs can help reduce the number of subjects in clinical trials.

The doctor-patient interaction platform helps research doctors conduct remote consultation and follow-up

The platform can also be used to intelligently map patient data to electronic data.

Collection management system (Electronic Data Capture, EDC), to assist in the formation of a complete

Complete subject data link.

5. Safety Monitoring of Subjects

Some rare diseases may require more specific symptoms and responses to medications.

Frequent and continuous monitoring. To conduct DCT for safety monitoring, the sponsor may use

Use DHT to monitor and report on the safety of subjects in real time, such as through

The subjects' mobile phone APP, remote visit platform or wearable device collects data in real time

Subject safety data are communicated directly to the investigators.

When conducting DCT, the sponsor needs to develop a clear safety monitoring plan.

To ensure the safety and rights of the subjects, the accuracy and timeliness of the data;

The investigator is responsible for monitoring the safety of the subjects. It is recommended to specify in the plan when and where

In what cases and how to collect and analyze safety data (including subject reports)

It is important to note that when planning a DCT, the study

The researcher should emphasize to the subjects when/under what circumstances, such as when a specific abnormal

When an adverse reaction occurs, you should seek medical attention as soon as possible to avoid delaying the diagnosis and treatment of the adverse reaction.

If a significant safety risk arises during the DCT or during the use of the investigational drug,

The sponsor must immediately stop DCT and promptly notify the regulatory authorities and ethics committee.

The committee and all researchers will carefully and fully evaluate the

Clinical trials can continue.

6. Direct delivery and recovery of trial drugs

Rare disease subjects are geographically dispersed and include many children

Patients, some of whom are unable to move due to illness, so the medicine is delivered directly to

Direct to Patient (DTP) and remote drug recycling for patients with rare diseases

It is a convenient drug that helps to reduce the burden on subjects (including guardians).

Things management method.

When adopting DTP, the type and characteristics of the drug need to be fully considered, e.g.

Drugs that are administered orally, have a longer shelf life, and are stored at room temperature are usually more suitable.

DTP should be used with caution for biological products that need to be injected or stored at low temperatures.

Assess the feasibility of DTP; for intravenous infusion and other methods that require medical staff to operate

Drugs with different routes of administration can, under certain circumstances, be combined with DTP

Home visits/local medical institution visits, at the subject's home/nearby hospital

Administer therapeutic medication.

Before using DTP, researchers should ensure that subjects understand the correct medication and

How to store medicines, and consider special situations in advance (such as over-temperature or wrong medication)

It is recommended to regularly assess medication compliance and plan in advance

To ensure the smooth implementation of drug management,

Researchers and clinical trial institutions should clearly define the drug management plan, including the drug formulation and

delivery, recycling and safe disposal, as well as tracking and recording of remaining medicines;

First, propose a treatment plan for problems that may occur during the process (such as overheating);

In addition, the implementation of the medication management plan needs to be evaluated regularly.

In order to ensure the quality of experimental drugs, a quality control system for the entire process needs to be established.

system, including temperature control, drug monitoring, damaged drug handling, etc.

Orders should include prescription, confirmation, medication collection, medication delivery, transportation, receipt, and medication administration.

Requirements, follow-up of subjects' medication compliance, and drug return and destruction

For drugs that require temperature control during transportation, a real-time temperature control system should be established.

Degree monitoring system to ensure transportation safety.

7. Use nearby medical resources

Home care or medical care near where you live will be provided to patients with rare diseases

More convenience, which is especially useful for children, the elderly, those with limited mobility or those with immune deficiencies

Patients are particularly important.

Home medical care or medical care near residence involves multiple scenarios, including visits,

Biological sample collection, care, drug administration and drug recovery, and instrument maintenance

When home visits or care near the place of residence are used, in order to ensure

The safety of patients and the scientific, authentic and reliable data should ensure that the medical institution,

All its equipment and personnel have been evaluated and approved for relevant qualifications and are capable of carrying out

Perform clinical trial related duties and functions. Relevant personnel should have corresponding professional qualifications

If the researcher deems it necessary, the researcher/sponsor can provide training.

Provide training and guidance to ensure that relevant personnel understand the requirements and standards of clinical trials.

What kind of visiting and nursing methods should be adopted? The diagnosis, treatment and examination results should be transmitted in time.

The data are then transferred to the researchers for full evaluation and to avoid unnecessary risks to the subjects.

risk.

If sampling is done at home or near where you live, you must strictly follow laboratory procedures.

To ensure the quality of sample collection and to clarify the sample type.

For samples that require temperature control,

Transport at appropriate temperature conditions to maintain sample integrity.

A detection system is used to track the location and status of samples to ensure safety.

When planning for home or nearby medical care, the plan should clearly state

Confirm the arrangement of each visit to ensure its rationality and effectiveness.

Drugs administered by healthcare professionals can, in certain circumstances, be managed by combining DTP and

The treatment was given at the subjects' homes.

To ensure the safety of the subjects, it is recommended to conduct necessary observation and follow-up after administration.

to monitor their status.

It should be noted that not all clinical trials are suitable for the use of nearby medical institutions.

For example, when the investigational drug is administered by intravenous infusion,

From the perspective of improving convenience, it is possible to consider using nearby medical resources, but due to

Intravenous administration may be more likely to cause more rapid onset, faster progression, and more severe disease.

Adverse reactions (such as infusion reactions) are not fully exposed in their safety profile.

In cases of exposure, home visits or visits to doctors near where you live may not be appropriate.

If a marketed product is undergoing clinical trials to add indications,

Considering that there is already some experience in using this product in clinical practice,

Consider using nearby medical resources. For example, for investigational drugs that are administered orally

In the early clinical trial stage when the safety and tolerability of drugs are not yet fully understood,

It is generally not advisable to use the nearest medical resource approach; when early studies show that the experimental drug

The therapeutic window of the drug is wide, and the dose limiting toxicity (DLT)

Higher dose, received treatment dose and DLT dose/maximum tolerated dose

When there is a wide safety window between the maximum tolerable dose (MTD),

Home medical care or medical care close to where you live may be appropriate.

VI. Issues that require attention during implementation

Currently, there is limited experience in the application of DCT in drug registration clinical trials in my country.

As an emerging clinical trial model, during the implementation of DCT, attention should be paid to

Pay attention to the unknown risks that may arise in order to protect the safety and rights of the subjects,

On the basis of ensuring data reliability, we give full play to the advantages of new technologies and new methods.

Promote and advance the research and development of innovative drugs for rare diseases.

When implementing DCT in the clinical development of rare disease drugs, sponsors are advised to

Focus on the following issues (including but not limited to):

1. Clarify the responsibilities and communication channels of all parties in DCT in advance

When using the DCT model to conduct clinical research and development of rare disease drugs, the sponsor,

Clinical research institutions, researchers, ethics committees and other parties involved in clinical trials must comply with

Responsibilities and obligations stipulated in GCP and other regulatory documents.

When conducting DCT, it may also involve many DCT service providers, local

Medical resources (including nearby medical institutions and home medical care) and other related parties, when the drug

Clinical trials of drugs are conducted outside the research center and/or involve other service providers

At the same time, the sponsor, investigators and any other

The specific responsibilities of each party.

Provide appropriate oversight to ensure the rights, safety, and well-being of trial participants and

Reliability of data.

The sponsor's responsibilities in DCTs are different from those in traditional center-based clinical trials.

Coordinate and manage DCT activities in the clinical development process,

DCT elements establish feasible operational procedures; sponsors may adopt adaptive measures to ensure

Ensure the diversity of participating patients and develop a scientific data management plan (Data

Management Plan (DMP) to ensure data reliability and robustness.

The scheme describes how to implement the relevant operations of DCT.

In drug clinical trials, researchers are responsible for the medical care and safety of the subjects.

The sponsor bears the responsibility of fully supervising the implementation of the clinical trial.

In DCT, researchers and sponsors may face challenges in fulfilling their responsibilities.

Therefore, it is necessary to establish in advance the relationship between all relevant parties (including subjects, researchers,

effective communication channels between the sponsor and any service providers; all parties involved

Should understand and perform their duties and information related to the implementation of clinical trials at any time;

Develop an effective communication plan in advance for emergencies so that all parties involved can

Sponsors should share information promptly and respond to emergencies promptly.

Ensure that the subjects are fully aware of the communication channels and contact methods in the study before the exhibition

(e.g., who to contact in case of medical emergencies, equipment failure,

contact person for questions regarding the program visit, etc.).

2. Develop an effective risk control plan

When planning a DCT, there may be potential risks and

For example, how to ensure the integrity, privacy and security of data, and how to

How to carry out remote data collection and monitoring management, etc.

When planning to implement a DCT, sponsors are advised to conduct a comprehensive risk assessment.

Identify potential risks related to data quality, privacy, and security in DCT and recommend

Develop emergency plans to minimize related risks (for example, DHT failure may lead to

loss of data, interruption of planned visits), and ensure that

Minimize the impact on safety of personnel.

If there are changes to the DCT plan or implementation process, they should be described and recorded in

The time and reason for changes during the research process, the process of deciding the changes, and the person responsible for

The individuals or groups to be changed, and the impact of the change on the trial and subsequent conduct

Action plan.

3. Focus on compliance and data security

DCT adopts new methods and models, involving the protection of personal privacy of subjects,

Data security and other compliance issues need to be addressed on the basis of traditional clinical trial implementation.

Special consideration is given to the DCT process.

DCT may involve laws and regulations of multiple countries and regions.

When doing so, we must ensure compliance with the requirements of relevant laws and regulations.

Under the premise of clinical trial, necessary authorization is required, for example, in DCT,

If you need to entrust a service provider to provide DTP services, you need research institutions and research

Authorize the DTP service provider; when planning to use nearby medical resources,

Confirm their qualifications and, if necessary, provide local or home medical services through researchers

Authorize the provider to ensure that they can provide medical care in accordance with the program regulations and standards.

For example, when conducting remote electronic informed consent, the subject is required to provide

Subsignature.

When using DHT-related tools (such as telemedicine, real-time video conferencing,

When using electronic health records, wearable devices, etc., attention should be paid to whether they are compatible with data privacy and security.

If there is a conflict between national laws and regulations, implement data security and privacy protection measures to ensure

Ensure the security and privacy of the subjects' personal information.

4. Pay attention to data traceability

In the implementation of DCT, the sponsor needs to pay attention to and ensure that the resulting

The data is well, truthfully, and completely recorded and can be traced.

The sponsor should prepare the source data and source files of the DCT system before the trial is implemented.

If necessary, the definition can be determined through consultation with the research institution/researcher or with the drug

Sponsor, clinical research institution/investigator, service provider

All relevant parties, including the supplier and the subjects, shall submit their respective source data and source documents.

The source data and source files of the DCT system should be well recorded and preserved.

Able to fully reconstruct and evaluate the clinical trial related process, reflect the protection of subjects,

The implementation of the plan, data recording, and result reporting are available when necessary.

Review to meet the needs of monitoring, auditing and inspection.

The management of necessary clinical trial documents should comply with GCP and relevant laws and regulations

Ensure the integrity and readability of the necessary documents and

The requirements can be viewed directly.

5. Strengthen communication with regulatory authorities

In the process of implementing new technologies and methods, especially in the early stages of implementation,

Due to the lack of relevant experience, there may be some unknown risks, so it is recommended

When sponsors plan to include DCT elements and DHT in their clinical development plans,

Communicate with the Center for Drug Evaluation as early as possible and work closely with the Center for Drug Evaluation during the overall implementation process.

Maintain close communication with the Center for Drug Evaluation.

When new technologies, new models and other related elements are adopted in clinical trials,

The sponsor should explain its necessity, scientificity and feasibility in the proposal and

The Center for Drug Evaluation encourages sponsors to continue to explore and develop multi-party collaborations.

New research methods and technologies implemented to support patient-centered rare diseases

See Disease Drug Development.

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