



Single Day Event

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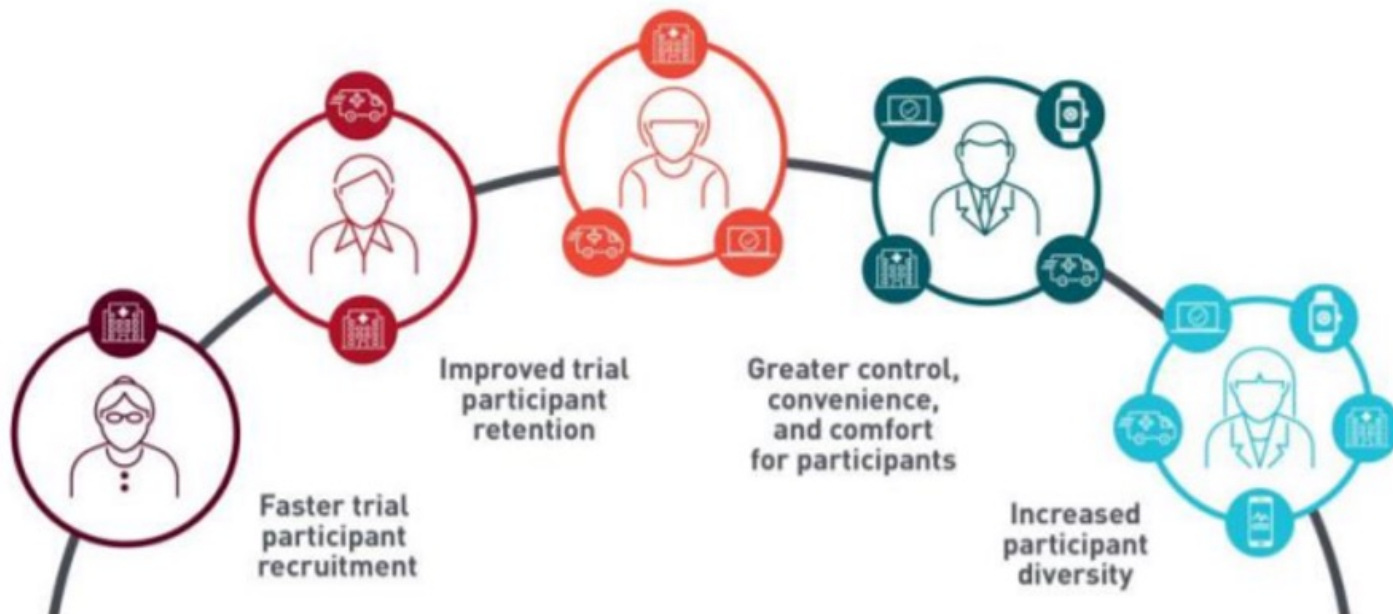
What is Decentralized Clinical Trial (DCT)

DCT





DCT – A Pioneering Approach





Challenge

There was no standard approach to how COVID-19 modifications to be identified in clinical trial datasets submitted to the US FDA.



Considerations from the US FDA for performing a DCT

VIRTUAL VS. REMOTE VS. CLINIC VISITS





US FDA Proposals on DCT

- 1) Creation of a COVIDMOD dataset that will document the timing of when REMOTE trial modifications to address COVID19 were permitted at the patient and site level.

**COVIDMOD [PatientID], [Site],
[ModType], [DateModStart],
[DateModStop]**

**Purpose: Document the date that
remote assessments
were permitted at the patient and
site level**

**Telemedicine visits, Remote labs,
Remote imaging, Remote
administration of investigational
product (IP), Remote site monitoring,
Other**



US FDA Proposals on DCT

2) Flag individual assessments (clinic visits, laboratory assessments, imaging assessments, delivery of IP) as to whether they were conducted REMOTE or at the standard trial site

**Separate column in the ADAE, ADLB,
ADRS, and ADEX**

**Adding additional columns in
SDTM.SUPPSV dataset**



US FDA Proposals on DCT

3) Assess the data quality

Adding Data quality Flag

Compare missing data rates/ out of window rates

Compare scan quality (interpretable vs uninterpretable)

Compare missed doses, dose modifications

Compare missed visits, out of window visits

Compare dose mod rate, AE/SAE rate, hospitalization rate



Considerations from the Clinical Trials Transformation Initiative (CTTI) for performing a DCT



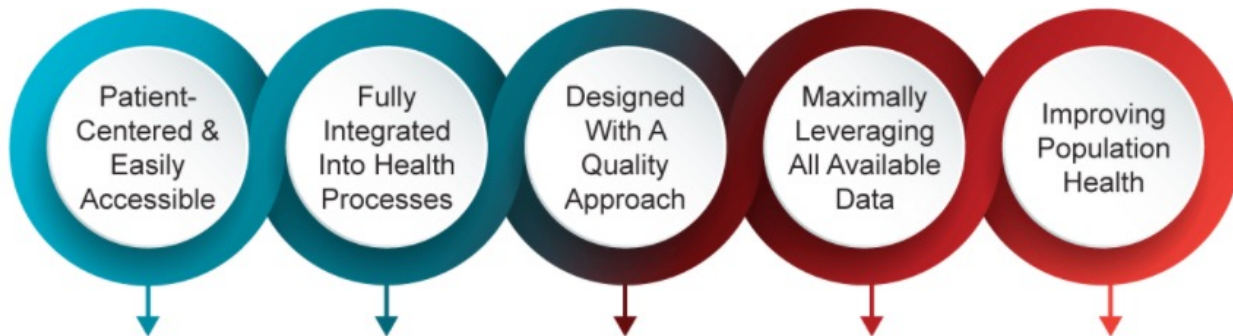
Clinical Trials Transformation Initiative (CTTI), a public-private partnership co-founded by Duke University and the U.S. Food and Drug Administration, seeks to develop and drive adoption of practices that will increase the quality and efficiency of clinical trials. CTTI has brought together more than 500 organizations across the clinical trials ecosystem to blend diverse perspectives representing academia, clinical investigators, government and regulatory agencies, industry, institutional review boards, patient advocacy groups, and other groups. Many regulatory agencies and organizations have applied CTTI's existing recommendations and associated resources to make better clinical trials a reality.



CTTI Vision – By 2030

TRANSFORMING TRIALS 2030

By 2030, clinical trials need to be:



A critical part of the Evidence Generating System

DCT Approaches and Protocol Design – CTTI Recommendations

1) A DCT does not have to be an all-or-nothing approach.

Partially decentralized or hybrid approaches

Hybrid Model

Assessments by Mobile HCPs

Video Conferencing

Local Labs





DCT Approaches and Protocol Design – CTTI Recommendations

2) Engage with all stakeholders during the protocol design stage



Stakeholder kick-off meeting

Stakeholders (e.g., patients, US FDA, IRBs, investigators, CROs, pharmacies, state medical boards, mobile HCPs)

US FDA's Center for Drug Evaluation and Research (CDER) or Center for Biologics Evaluation and Research (CBER)

US FDA's Center for Devices and Radiological Health (CDRH) and Investigational Device Exemption (IDE) approval

Meet Experienced Vendors (Mobile HCPs)

DCT Approaches and Protocol Design – CTTI Recommendations

3) A DCT will need some fit-for-purpose protocol design, including the following:

Activities performed at Investigative site

Activities Performed by Mobile HCPs/Local Labs

Protocol Compliance

Site Management

Technological Support



DCT Approaches and Protocol Design – CTTI Recommendations

4) Proactively address and map data flow,
data storage, and associated procedures :



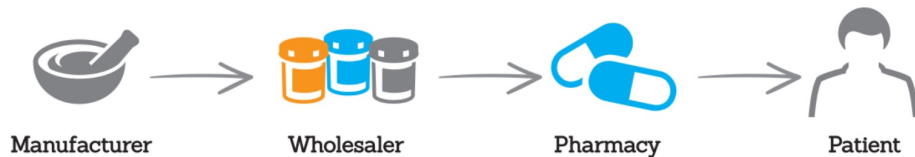
**Integrity and Reliability (CTTI's
Mobile Technologies
recommendations)**

**Data Flow in Protocol/Data
Management Plan**

**Data Privacy Laws and
Regulations**

DCT Approaches and Protocol Design – CTTI Recommendations

5) Drug Supply Chain:



**Direct-to-trial participant
shipping – State Law
Requirements**

**Physician Dispensing Law
Requirements**

Tracking IMP

**IMP Storage/Inventory
IMP Dispensation**

**Documentation of Supply
Chain Logistics**



DCT Approaches and Protocol Design – CTTI Recommendations

6) Mobile Healthcare Providers:

Credentials and Qualification



**Trained on Sponsor Specific
SOPs**

**Trained on SOPs like Human
Subject Protection, GCP, Data
Integrity and Protection,
Clinical Trial Billing**

**Local HCPs as Sub-Investigator
List in US-FDA form 1572**



DCT Approaches and Protocol Design – CTTI Recommendations

Responsibilities of local HCP:

Blood Draws (Lab Samples/PK Samples)

Training and education of the trial participant (e.g., IMP self-administration)

Biological sampling (e.g., pharyngeal and oral mucosal swabs, urine or fecal samples)

Clinical assessments (e.g., vital signs, electrocardiograms, concomitant medications, adverse events)

IMP administration

Administration of questionnaires or in-home compliance checks (e.g., timely completion of trial participant diaries, proper storage of IMP)



7) Safety Monitoring

Train investigative staff on processes that are unique to DCTs

Trial participant at a remote location should be capable to address possible adverse events IMP administration.

Develop protocol-specific safety monitoring and communication escalation plans.

Frequent Patient Monitoring and Pre coordination between mobile HCPs and Investigative staffs





Our Goal







References

Regulatory/Governance:

<https://www.fda.gov/about-fda/oncology-center-excellence/advancing-oncology-decentralized-trials>

<https://www.fda.gov/about-fda/fda-organization/center-biologics-evaluation-and-research-cber>

<https://www.fda.gov/about-fda/fda-organization/center-drug-evaluation-and-research-cder>

CTTI:

https://ctti-clinicaltrials.org/wp-content/uploads/2021/06/CTTI_DCT_Recs.pdf

https://ctti-clinicaltrials.org/wp-content/uploads/2021/06/CTTI_Digital_Health_Technologies_Recs.pdf

Learning Resources:

<https://www.law.cornell.edu/cfr/text/21/part-601/subpart-E>

<https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?CFRPart=314&showFR=1&subpartNode=21:5.0.1.1.4.8>

Community:

<https://www.dtra.org/>



The Global Healthcare Data Science Community

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