ClinicalTrials.gov Protocol Registration and Results System (PRS) Receipt
Release Date: February 3, 2020

ClinicalTrials.gov ID: NCT04252664

Study Identification

Unique Protocol ID:	CAP-China remdesivir 1
Brief Title:	Mild/Moderate 2019-nCoV Remdesivir RCT
Official Title:	A Phase 3 Randomized, Double-blind, Placebo-controlled Multicenter Study to Evaluate the Efficacy and Safety of Remdesivir in Hospitalized Adult Patients With Mild and Moderate 2019-nCoV Respiratory Disease.
Secondary IDs:	

Study Status

Record Verification:	February 2020
Overall Status:	Not yet recruiting
Study Start:	February 5, 2020 [Anticipated]
Primary Completion:	April 10, 2020 [Anticipated]
Study Completion:	April 27, 2020 [Anticipated]

Sponsor/Collaborators

Sponsor:	Capital Medical University
Responsible Party:	Principal Investigator Investigator: Bin Cao [bcao] Official Title: Professor Affiliation: China-Japan Friendship Hospital
Collaborators:	Chinese Academy of Medical Sciences

Oversight

U.S. FDA-regulated Drug:	No
U.S. FDA-regulated Device:	No
U.S. FDA IND/IDE:	No
Human Subjects Review:	Board Status: Approved Approval Number: 2020-15-K12 Board Name: Ethics Committee of China-Japan Friendship Hospital Board Affiliation: China-Japan Friendship Hospital Phone: Email: Address:

No 2, East Yinghua Road, Chaoyang District, Beijing, China.

Data Monitoring: No

FDA Regulated Intervention: No

Study Description

Brief Summary: In December 2019, Wuhan, in Hubei province, China, became the center of an outbreak of pneumonia of unknown cause. In a short time, Chinese scientists had shared the genome information of a novel coronavirus (2019-nCoV) from these pneumonia patients and developed a real-time reverse transcription PCR (real time RT-PCR) diagnostic assay.

Given no specific antiviral therapy for 2019-nCoV infection and the availability of remdesvir as a potential antiviral agent based on pre-clinical studies in SARS-CoV and MERS-CoV infections, this randomized, controlled, double blind trial will evaluate the efficacy and safety of remdesivir in patients hospitalized with mild or moderate 2019-nCoV respiratory disease.

Detailed Description: In December 2019, Wuhan, in Hubei province, China, became the center of an outbreak of pneumonia of unknown cause. In a short time, Chinese scientists had shared the genome information of a novel coronavirus (2019-nCoV) from these pneumonia patients and developed a real-time reverse transcription PCR (real time RT-PCR) diagnostic assay.

Whilst the outbreak is likely to have started from a zoonotic transmission event associated with a large seafood market that also traded in live wild animals, it soon became clear that person-to-person transmission was also occurring. The number of cases of infection with 2019-nCoV identified in Wuhan increased markedly over the later part of January 2020, with cases identified in multiple other Provinces of China and internationally. Mathematical models of the expansion phase of the epidemic suggested that sustained person-to-person transmission is occurring, and the R-zero is substantially above 1, the level required for a self-sustaining epidemic in human populations.

The clinical spectrum of 2019-nCoV infection appears to be wide, encompassing asymptomatic infection, a mild upper respiratory tract illness, and severe viral pneumonia with respiratory failure and even death. Although the per infection risk of severe disease remains to be determined, and may differ from the initial reports of 10-15%, the large number of cases in Wuhan has resulted in a large number of patients hospitalised with pneumonia. Progression from prodromal symptoms (usually fever, fatigue, cough) to severe pneumonia requiring supplementary oxygen support, mechanical ventilation, or in some cases ECMO appears to occur most commonly during the second week of illness in association with persistent viral RNA detection. This provides a window of opportunity to test candidate antiviral therapeutics.

This new coronavirus, and previous experiences with SARS and MERS-CoV, highlight the need for therapeutics for human coronavirus infections that can improve clinical outcomes, reduce risk of disease progression, speed recovery, and reduce the requirements for intensive supportive care and prolonged hospitalisation. In addition, treatments for mild cases to reduce the duration of illness and infectivity may also be of value were 2019-nCoV to become pandemic and/or endemic in human populations.

Given no specific antiviral therapy for 2019-nCoV infection and the availability of remdesvir as a potential antiviral agent based on pre-clinical studies in SARS-CoV and MERS-CoV infections, this randomized, controlled, double blind trial will evaluate the efficacy and safety of remdesivir in patients hospitalized with mild or moderate 2019-nCoV respiratory disease.

Conditions

Conditions:	2019-nCoV
Keywords:	

Study Design

Study Type:	Interventional
Primary Purpose:	Treatment
Study Phase:	Phase 3
Interventional Study Model:	Parallel Assignment
Number of Arms:	2
Masking:	Quadruple (Participant, Care Provider, Investigator, Outcomes Assessor)
Allocation:	Randomized
Enrollment:	308 [Anticipated]

Arms and Interventions

Arms	Assigned Interventions
Experimental: Remdesivir group active remdesivir	Drug: Remdesivir RDV 200 mg loading dose on day 1 is given, followed by 100 mg iv once-daily maintenance doses for 9 days. Other Names: • GS-5734
Placebo Comparator: Control group Placebos matched remdesivir	Drug: Remdesivir placebo RDV placebo 200 mg loading dose on day 1 is given, followed by 100 mg iv once-daily maintenance doses for 9 days.

Outcome Measures

Primary Outcome Measure:

1. Time to Clinical recoveryTime to Clinical Recovery (TTCR)
   TTCR is defined as the time (in hours) from initiation of study treatment (active or placebo) until normalisation of fever, respiratory rate, and oxygen saturation, and alleviation of cough, sustained for at least 72 hours.

   Normalisation and alleviation criteria:

   - Fever - ≤36.6°C or -axilla, ≤37.2 °C oral or ≤37.8°C rectal or tympanic,
   - Respiratory rate - ≤24/minute on room air,
   - Oxygen saturation - >94% on room air,
   - Cough – mild or absent on a patient reported scale of severe, moderate, mild, absent.

   [Time Frame: up to 28 days]

Secondary Outcome Measure:

2. All cause mortality
   baseline SpO2 during screening, PaO2/FiO2 #300mmHg or a respiratory rate ≥ 24 breaths per min without supplemental oxygen

   [Time Frame: up to 28 days]

3. Frequency of respiratory progression
   Defined as SPO2≤ 94% on room air or PaO2/FiO2 <300mmHg and requirement for supplemental oxygen or more advanced ventilator support.

   [Time Frame: up to 28 days]
4. Time to defervescence (in those with fever at enrolment)
   [Time Frame: up to 28 days]
5. Time to cough reported as mild or absent (in those with cough at enrolment rated severe or moderate)
   [Time Frame: up to 28 days]
6. Time to dyspnea reported as mild or absent (on a scale of severe, moderate, mild absent, in those with dyspnoea at enrolment rated as severe or moderate,)
   [Time Frame: up to 28 days]
7. Frequency of requirement for supplemental oxygen or non-invasive ventilation
   [Time Frame: up to 28 days]
8. Time to 2019-nCoV RT-PCR negative in upper respiratory tract specimen
   [Time Frame: up to 28 days]
9. Change (reduction) in 2019-nCoV viral load in upper respiratory tract specimen as assessed by area under viral load curve.
   [Time Frame: up to 28 days]
10. Frequency of requirement for mechanical ventilation
    [Time Frame: up to 28 days]
11. Frequency of serious adverse events
    [Time Frame: up to 28 days]

Eligibility

Minimum Age:	18 Years
Maximum Age:	
Sex:	All
Gender Based:	No
Accepts Healthy Volunteers:	No
Criteria:	Inclusion Criteria:

1. Age ≥18 years at time of signing Informed Consent Form
2. Laboratory (RT-PCR) confirmed infection with 2019-nCoV.
3. Lung involvement confirmed with chest imaging
4. Hospitalised with:
   - Fever - ≥36.7# -axilla or Oral temperature ≥ 38.0 # or ≥38.6°C tympanic or rectal or
   - And at least one of Respiratory rate >24/min Or Cough
5. ≤8 days since illness onset
6. Willingness of study participant to accept randomization to any assigned treatment arm.
7. Must agree not to enroll in another study of an investigational agent prior to completion of Day 28 of study.

Exclusion Criteria:

1. Physician makes a decision that trial involvement is not in patients' best interest, or any condition that does not allow the protocol to be followed safely.

2. Severe liver disease (e.g. Child Pugh score ≥ C, AST>5 times upper limit)
3. SaO2/SPO2≤94% in room air condition, or the Pa02/Fi02 ratio <300mgHg
4. Known allergic reaction to remdesivir
5. Patients with known severe renal impairment (estimated glomerular filtration rate ≤30 mL/min/1.73 m2) or receiving continuous renal replacement therapy, hemodialysis, peritoneal dialysis
6. Pregnant or breastfeeding, or positive pregnancy test in a predose examination
7. Will be transferred to another hospital which is not the study site within 72 hours.
8. Receipt of any experimental treatment for 2019-nCoV (off-label, compassionate use, or trial related) within the 30 days prior to the time of the screening evaluation.

Contacts/Locations

Central Contact Person: Bin Cao, Professor
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Central Contact Backup: Yeming Wang, Doctor

Study Officials:

Locations:

IPDSharing

Plan to Share IPD: Undecided

References

Citations:

Links:

Available IPD/Information: