CERS Critical Appraisal Sheet

1. **Date of appraisal:** 30 March 2020

2. **Name of appraiser:** Prof Dr. Liew Su May

3. **Clinical Question:** Mesenchymal stem cell treatment for COVID-19

4. **PICO:**
   - P: COVID-19 patients
   - I: mesenchymal stem cell treatment
   - C: placebo
   - O: safety and efficacy

5. **Article:**
   - Author: As above
   - Published date: As above

**Appraisal:** This is an intervention question so should be assessed by RAMmbO.

Representativeness: Yes
Patients with COVID-19 diagnosed with RT-PCR in Beijing YouAn Hospital
Inclusion criteria – 18-95 with no improvement on standard treatment (unclear)
Exclusion criteria – cancer, critically severe group, participants of clinical trials in the past 3 months

Allocation: No
This was a pilot study on seven patients [intervention] and 3 [control with placebo transplant] with no randomization.

Maintenance: No
The selection and maintenance of the control group is not clear.

Measurement:
Blinded: No
There was no indication of blinding.

Objective: The main outcome was safety of MSC treatment which included symptoms [not objective] and clinical parameters [some objective eg temperature, oxygen saturation, inflammatory and immune markers]

Summary of Results:
This is a pilot study of seven patients and 3 controls. There is indication that MSC treatment is beneficial but this is of low evidence level as this is more like a case series.

Evidence Summary:
MSC treatment in is potentially beneficial and safe in COVID-19 patients but the evidence level is low and should be verified by a trial.