### SECTION 1: REMAP-CAP CYSTEAMINE DOMAIN INTERVENTIONS

This domain aims to determine the effectiveness of cysteamine for patients with severe community-acquired pneumonia, including patients with suspected or confirmed COVID-19. In this domain, patients are randomised to receive:
- No cysteamine (no placebo)
- Cysteamine

### SECTION 2: NO CYSTEAMINE INTERVENTION

**Intervention**

Patients allocated to the *no cysteamine* intervention should not receive any cysteamine until the end of study day 10.

**Duration of intervention**

Withholding of any cysteamine is to continue until the end of study day 10 or ICU discharge, whichever occurs first.

### SECTION 3: CYSTEAMINE INTERVENTION

**Intervention**

Cysteamine will be administered for 10 days or until ICU discharge, whichever occurs first.

**Dosing**

Cysteamine will be administered every 8 hours at a dose of 5mg/kg estimated or measured body weight, with a maximum dose of 500mg. The dose will be diluted in 50-100mL of 0.9% saline and administered as an IV infusion over 10 minutes via central or peripheral venous catheter.

**Duration of intervention**

Cysteamine is to be administered for 10 days (i.e. 30 doses) or until ICU discharge, whichever occurs first. Omission of three or more consecutive doses of cysteamine will be considered a protocol deviation.

**Discontinuation of study drug**

Cysteamine can be discontinued at any time by the treating clinician if doing so is regarded as being in the best interests of the patient. If clinically significant hypotension occurs during infusion, the rate should be slowed and, if necessary, ceased.

Discontinuation prior to completion of the course while still admitted to an ICU will be considered a protocol deviation.

### SECTION 4: CONCOMITANT CARE

Intravenous N-acetylcysteine and enteral carbocisteine are not to be administered for any patients randomised to this Domain. Administration of IV N-acetylcysteine due to radiographic contrast is not considered a protocol deviation. Administration of enteral or nebulised N-acetylcysteine outside of a clinical trial is permitted.

All other treatment that is not specified by assignment within the platform will be determined by the treating clinician.