

## ABCD Mnemonic in moderate to severe COVID-19 management

Dear Editor,

The second wave of coronavirus disease 2019 (COVID-19) pandemic has made an emotional and psychological effect on the health care workers.<sup>[1]</sup> While working during COVID-19 pandemic they are entrusted to work under stressful conditions.<sup>[2]</sup> Mnemonics also called the memory aids are used for quick referral and recalling information in a busy workplace. The role of mnemonic is to verify and not to replace higher order thinking or conceptual understanding.<sup>[3]</sup> We devised a mnemonic considering all aspects of medical management through a simple ABCD format for patients suffering from severe to critical COVID-19 infection [Figure 1]. However, the indication

or contraindication of these drugs depend as per the clinical condition of the patient. E.g. Considering antiviral drugs like remdesvir which are to be prescribed during first 10 days of onset of COVID-19 symptoms with moderate to severe infection and which is contraindicated during pregnancy, deranged liver and renal function test. Similarly, use of steroid or tocilizumab have well defined criteria and any indiscriminate use is strongly discouraged. Early or indiscriminate use of antibacterial and antifungal drugs is discouraged to avoid antibiotic resistance.<sup>[4]</sup> Use of anti-thrombotic drugs during severe and critical COVID requires judgement for use as prophylactic or therapeutic dosage.<sup>[5]</sup> Use of drugs for comorbid conditions prior to COVID infection, antacids, diuretics, stool softeners and bronchodilators are part of intensive care unit (ICU) management. In ABCD mnemonic the choice of drugs are not influenced by the sequence of drugs for COVID management. The details for each drug are beyond the scope of this article and details may be referred to current guidelines for COVID management. It is worth mentioning here that firstly, all the components of the ABCD mnemonics are not necessarily to be followed in all the patients. Secondly, the treatment guidelines are still evolving e.g., the use of monoclonal antibodies and the mnemonics should be modified accordingly. We conducted a survey on 30 postgraduate students to evaluate its feasibility. We have found that pre mnemonic only 3 of the drugs of the total 8 drugs were included in prescription of moderate to severe SARS-COV 2 infection. The most commonly missed out supportive drugs were; antacid, bronchodilators, laxative, comorbid status related medications, diuretics and deep vein thrombosis prophylaxis. After getting acquaintance up to 7 of the 8 drugs required in the treatment were recalled by the residents. The requirement of diuretic was the most commonly missed out drug which later reduced from 96% to

A	Antimicrobials (Antibacterial, Remdesvir, antifungal)
	Antacids
B	Bronchodilators (Metered dose inhalers, oral / IV)
	Bowel/bladder drugs (Diuretics, laxatives)
C	Co-morbidity drugs (Antihypertensive/ Hypoglycaemics/other co morbid drugs)
	Cytokine storm drugs/ Steroids (Tocilizumab, Baricitinib Dexamethasone/ Methyl prednisolone/Hydrocortisone)
D	Diuretic
	DVT prophylaxis (Unfractionated heparin, Low molecular weight heparin, Oral anticoagulant)

**Figure 1:** ABCD mnemonic for pharmacological management of moderate to severe COVID-19 in Intensive care unit

20% following the ABCD mnemonic. To conclude, use of ABCD mnemonic may be helpful in quickly reviewing the requirements of drugs in a busy ICU with patients admitted with moderate to severe COVID-19 infection.

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### Conflicts of interest

There are no conflicts of interest.

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