



One Fast Hugs Bid COVID: COVID Care Bundle Modified Mnemonic to Facilitate COVID 19 Critical Care Medicine

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Introduction

General care of patients admitted in critical care units entails regular checking and implementation of some basic care principles for all patients. Having a mnemonic to regularise and ease the check has been shown to consistently improve care practices and outcomes in patients. The most commonly used mnemonic to this effect was described and published by JL Vincent as the FAST HUG acronym.⁽¹⁾ There have been several additions and modifications to this one, to suit different subgroup of patients. WR Vincent and Hatton modified it to FAST HUGS BID⁽²⁾. For issues related to drugs, it has been modified to FAST HUG MAIDENS by Mabasa VH et al⁽³⁾. In surgical ICU patients it was used to reduce the incidence of VAP by Papadimos et al⁽⁴⁾. FAST HUG BID contents has been modified to facilitate

nutritional support to ICU patients by Monares Zepeda and Galindo Martin⁽⁵⁾. Recently the same mnemonic is used to address the post operative issues in patients of surgical ICU by Abhijit et al in 2017⁽⁶⁾.

The COVID pandemic has been an unprecedented challenge to healthcare systems worldwide, particularly bringing into sharp focus critical care medicine and issues of assisted respiration, oxygen support, mechanical ventilation, infection control practices and occupational safety. Never has standards of ICU care provided being under such wide and public scrutiny.

The challenges posed by this novel coronavirus has been magnified by the complex nature of the disease process, limited pharmacological options and need for continuous fluidity in assessment and treatment protocols.

The Fast Hugs Bid mnemonic is thus being proposed to be modified as One Fast Hugs Bid COVID to ease the daily assessment and treatment decisions for critically

ill patients with covid19 illness. The components are as follows, with their detailed implications and observations that needs to be kept in mind while taking care of covid patients in ICU.

O	ORAL CARE	Regular brushing of teeth Oral mouthwash, oral care, any ulcerations, ET tube fixation care. Throat Pain, Loss of Taste Special concerns in prone ventilation, lip swelling excessive oedema or discolouration.
N	NASAL CARE	Ryles tube care, Fixation. Excessive dryness or irritation Any nasal bleeding Nasal bridge trauma or excoriation related to NIV. Anosmia, any running nose, excessive sneezing or URI Symptoms.
E	EYE & EAR CARE	Lubricant drops, Eye padding for unconscious patients Daily inspection for corneal ulcers Extra special care during prone ventilation to avoid excessive pressure injury .
F	FEEDING/ FLUIDS / FACE MASK	Focused Nutritional Assessment and Plan. Assisted feeding with Ryles tube. Fluid assessment, aim for negative fluid balance, post resuscitation. Facemask to be used by patients frequently and during HFNC, Nebulisation .
A	ANALGESIA /ANTIBIOTICS/ AWAKE PRONING	Empirical broad spectrum Antibiotics & Culture directed antibiotics Daily VAS scoring. Multimodal analgesics and antipyretics mainly paracetamol De-escalation as per antibiotic stewardship program. Awake proning ,very beneficial , Even Awake proning tried using NIV, BiPAP, HFNC Even lateral position helped in improving oxygen saturation levels.
S	SEDATION, SENSORIUM	Role of melatonin in covid patients for regulating sleep cycle has been established. Disturbed sleep, delirium, psychosis are common issues in covid icu. Mild anxiolytics may be prescribed on case to case basis. There could be neurological /Neuro Psychiatric issues related to covid illness, hypoxic encephalopathy, viral encephalopathy.
T	THROMBOPROHYLAXIS DRUG / DOSAGE / DAYS	Pro thrombotic state is established in covid illness and associated thrombotic complications. LMWH to be prescribed in all moderate and severe category patients. There are few reports of thrombolysis in selective cases. No role of aspirin prophylaxis No recommendations to use NOACs, maybe at discharge for long term prophylaxis in some cases. Rule out contraindications for LMWH.

H	HEAD UP/HEMODYNAMICS/HIGH FLOW MASK/HFNC/NIV	30 degree head elevation reduces incidence of regurgitation and VAP. Helps in improvement of oxygenation and lung mechanics. hemodynamically unstable covid patient warrants urgent assessment to rule out pulmonary embolism,viral myocarditis, viral pericarditis, pericardial effusion,coronary event, ongoing developing sepsis. Pateints on HFNC, NIV, NRM needs special care to address there oxygen demands and may need intubation and mechanical ventilation.
U	ULCER PROPHYLAXIS	Proton pump inhibitors, H2 blockers as per institutional protocol.
G	GLYCEMIC CONTROL	Deranged blood sugars, even in non diabetic patients are frequently seen. Further hyperglycemia due to concomitant steroid use is common. Regular monitoring and insulin for blood sugar control needed in most patients. HbA1C on Admission to ICU.
S	SPONTANEOUS BREATHING TRIAL STEROIDS DRUG / DAYS / DOSE	For ventilated patients, to assess readiness for extubation. Weaning is done slowly and gradually. extubation should also be guarded. Post extubation NIV support. STEROIDS Dexamethasone .1mg per kg body weight OD or BD. Based on severity of covid disease. Methyl prednisolone 1 to 2 mg per kg per day equally effective. Steroids need to be tapered gradually. some upcoming evidence for pulse therapy methyl prednisolone.
B	BOWEL MOVEMENT BEDSORE PREVENTION	Stool softeners, laxatives, enema as per requirement. Frequent posture change, Air mattress, DVT Pump etc to prevent bedsore formation.
I	INDWELLING CATHETERS CVP/ARTERIAL/DIALYSIS/RYLES TUBE/FOLEYS CATHETER.	Multiple invasive lines are placed. Strict asepsis in line handling, adherence to HIC protocols for minimising risk of HAI should be insisted upon. Daily assessment of need for invasive monitoring and removal of lines as soon as feasible also strongly recommended.
D	DEESCALATION OF ANTIBIOTICS DIALYSIS /DOSE MODIFICATIONS DE ESCALATION OF TREATMENT	Antibiotics deescalated as per in house antimicrobial stewardship programme and hospital antibiogram. Patient on dialysis needs dose modifications. Patients with renal or liver dysfunction may also needs dose modifications. Deescalation, Discuss end of life issues, palliative and supportive care with family.
C	COVID19 CARE THERAPY COMORBID ILLNESS	Standard covid care in the form of vitamin C, Zinc Vitamin D,Ivermectin, Doxycycline .HCQ, Azithromycin etc. Better optimization and management of co morbid disease is very important for better outcomes.
O	OFF LABEL COVID19 THERAPY DAYS/DURATION OXYGEN THERAPY CHARTS ORGAN IMPAIRMENT	Antivirals- early in the illness Remdesivir and Favipirapir. Based on clinical condition and inflammatory markers trend. Tocilizumab/ Itolizumab/ Ulinastatin Convalescent plasma therapy. These drugs are being used as per the clinical experience of different covid centres. Research being published and guidelines

		<p>by ICMR, various societies, can help fine-tune therapies to individual requirements.</p> <p>Oxygen therapy chart every hourly or second hourly depicts mode of oxygen delivery, flow, device, FiO₂, SpO₂, Very helpful in decreasing the oxygen requirements based on the clinical improvement and oxygen demands.</p> <p>Organ impairment and its severity is directly related to outcomes, better optimization and care is very important to preserve organ functions. Multi organ impairment leads to poor prognosis and outcomes.</p>
V	VENTILATION (INVASIVE)	<p>Need for invasive ventilation in severe ARDS and decreasing PF ratio along with clinical worsening. The occurrence of silent hypoxemia predisposes patients to significant desaturation and arrest like situation during intubation. elective planned ventilation with all equipment and personnel ready facilitates the process. Post intubation ventilation strategy needs to be tailored as per patients need. Prone ventilation has been very useful to improve oxygenation.</p>
I	INFLAMMATORY MARKERS	<p>For early detection and treatment of cytokine storm. CRP, D Dimers, Ferritin, LDH, PCT, Fibronogen, Interleukin 6 levels are serially monitored every 48 hourly or more early.</p>
D	DISCUSS and REASSURE DOCUMENTATION	<p>Discuss management plans and worsening clinical triggers to decide the best management plan with seniors and multispeciality consultations. REASSURE FAMILY & PATIENT Due to restricted access, clear concise communication between family, doctors and other members of the treating team is essential. Psycho Social Support is very important for patient, family and staff.</p> <p>All relevant communication must be documented as per in-house formats to allow transparency and continuity of clinical care. Use of technology whatsapp video call, telecommunication robots, computer on wheels, zoom meeting etc to ensure better and clear communication with doctors, patients and family. Video counselling, family calls, are important to prevent a feeling of isolation and abandonment in patients. Medical documentation must improve and be strictly followed to ensure proper healthcare delivery.</p>

Our modified mnemonic can be very useful in better daily assessment of patients of covid disease admitted in intensive care unit. This can also be important tool for overall assessment, as well as treatment modification plans and its execution.

Documentation and considering all points as One Fast Hugs Bid COVID daily can really bring better care to covid patients and family.

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References

1. Vincent JL. Give your patient a fast hug (atleast) once a day. Crit Care Med .2005; 33:1225-9.
2. Vincent WR,^{3rd} Hatton Kw, Critically Ill patients need FAST HUGS BID (an

updated mnemonic) Crit Care Med .2009;37:2326-7.

3. Mabasa VH, Malyuk DL, Weatherby EM, Chan A. A standardized, structured approach to identifying drug related problems in the intensive care unit: FASTHUG –MAIDENS. Can J Hosp Pharm.2011;6464:366-9
4. Papadimos TJ, Hensley SJ, Duggan JM, Khuder SA, Borst MJ, Fath JJ, et al. Implementation of the FASTHUG Concept decreases the incidence of ventilator associated pneumonia in asurgical intensive care unit.Pateint Saf Surg.2008;2;3
5. Monares Zepeda E,Galindo Martin CA. Giving a nutritional fasthug in the intensive care unit.Nutr Hosp.2015;2212-9.
6. Abhijit S, Vibhavari Naik, Basanth Kumar Rayani. FAST HUGS BID: Modified Mnemonic for Surgical Pateint.Indian J Crit Care Med ,2017 oct ;21(10):713-714.