

A Newsletter on Pharmacy Practice

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Dear reader,

COVID 19 is unprecedented and shockingly has been trembling the entire world, especially, India. Vaccination has become the priority for Indian government, as the number of pandemic victims is increasing day by day. Rumours and hesitations are ruled out by the government and awareness regarding vaccination along with safety measures are taken up on a major scale. Before the country goes for another lockdown, the citizens of India have to get themselves vaccinated. Second Wave has been taking its toll, with

India observing a victim rate of 4 lakh daily. Third Wave of Corona Virus, before it surges up, entire India has to get vaccinated, Indian and State Governments have to take up contact tracing also as the major criterion, and increase surveillance on affected zones. Pharmacists as front-line health warriors participating in health awareness programmes are playing a major role in adding up to the National Health Policy and I appreciate all my students and faculty members who have been carrying out their due responsibilities, offline and online during the grave situation.

Hope to see a Corona free India soon!

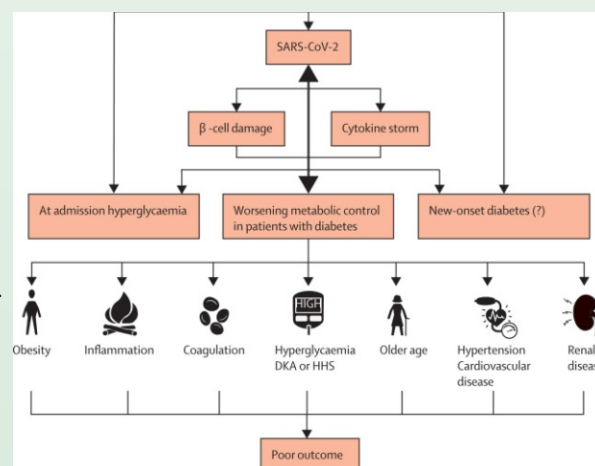
Diabetes Mellitus and Hypertension Increase the Risk of Death in Novel Corona Patients Irrespective of Age

Elderly people and people with comorbidities have emerged as the most vulnerable group at risk of developing complications and succumbing to this illness. They are also at increased risk of requiring intensive care unit (ICU) care and critical care resources. In a resource-scarce country like India, it is imperative that the effects of co-morbidities on overall prognosis of COVID-19 cases to effectively allocate healthcare resources and plan the overall management strategy of COVID-19. As higher the age, presence of tachycardia, HTN, tachypnoea with baseline lower SpO₂ and higher grade of fever were associated with more chances of ICU admission. Mortality was also significantly more in cases initially admitted in ICU.

Viral infections are known to cause leucopenia with relative lymphocytosis and COVID-19 infection is no different. Lower hemoglobin and serum albumin leads to poorer outcomes in ICU patients. Higher total leucocyte count, absolute neutrophil count, international normalized ratio and transaminases have been reported in COVID-19 infection. The most common co-morbidities in patients were HTN, DM, cancer, HD, CKD, ND and Respiratory diseases. The probability of ICU admission was significantly more in cases of Respiratory diseases, DM, CKD, and HTN.

Patients with 2 or more co-morbidities had poorer outcomes and higher age as a significant risk factor for poorer outcomes in older patients with COVID-19 infection. In other words, younger age had a relatively

protective effect in terms of outcome in COVID-19 infection. However, it was brought that in patients with HTN and DM, younger age did not provide any major advantage in survival. It was always being suspected that younger patients with these co-morbidities also had a significantly higher risk of ICU admission and mortality. HTN and DM were common and associated with greater risks of adverse events. Young adults with more than 1 of these conditions faced risks comparable with those observed in middle-aged adults without them. Public health experts in our country should target young people with comorbidities and reinforce that social distancing, face masks and other approaches to prevent transmission are as important in young adults as in older persons.



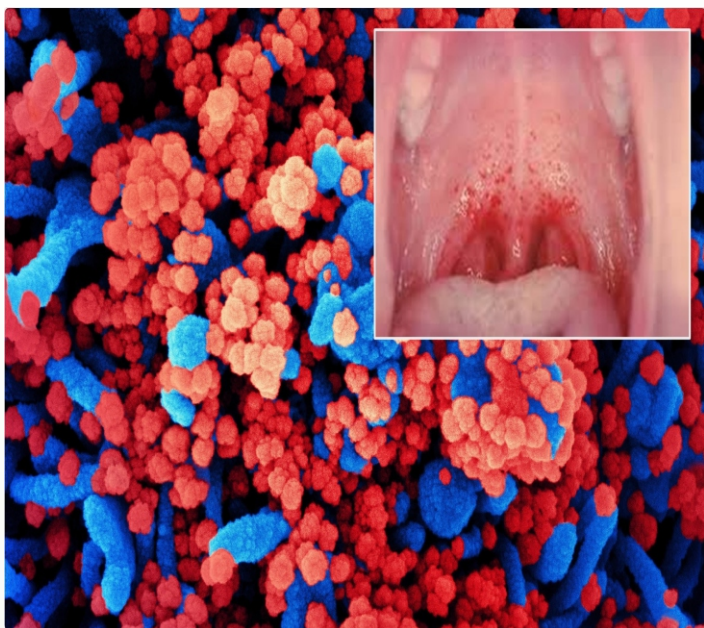
Source: [https://www.thelancet.com/journals/landi/article/PIIS2213-8587\(20\)30238-2](https://www.thelancet.com/journals/landi/article/PIIS2213-8587(20)30238-2)



VIJAYA INSTITUTE OF PHARMACEUTICAL SCIENCES FOR WOMEN

Oral manifestations of COVID-19 disease

Viral invasion by the SARS-CoV-2 virus causes injury to the respiratory system, mouth cavity and lungs. When viral load increases in the body, there is defense activity, which includes the secretion of inflammatory immune molecules called

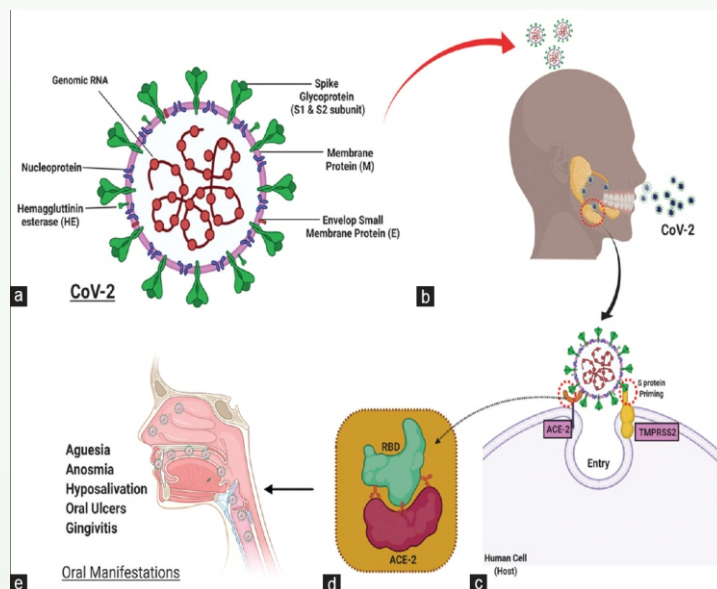


cytokines. The cytokine surge leads to a cytokine storm and the excess pro-inflammatory cytokines themselves cause damage to the lungs, there is also intravascular coagulation. Excess cytokines also damage other organs (such as the heart, liver and kidneys). This multi-organ damage leads to morbidity and mortality. Hence, it is prudent to constantly reduce the viral load in the nasal and oropharyngeal tissues. Similarly, the use of suitable oral rinses for mouth rinsing and throat gargling has rendered lowering of viral load.

Dysgeusia or distorted taste sensation is the first oral symptom of Covid-19. The other prominent sign is 'oral mucosal lesions' of various types. The tongue is the region with maximum lesions in Covid-19 patients. The next is the labial mucosa or the inner mucosal lining of the lips. The third in descending order for oral cavity lesions in Covid-19 patients is the palate or roof of the mouth. These oral lesions are commonly occurring in Covid-19 patients of both genders. Elderly patients of Covid-19 and those with severe Covid-19 disease had more incidences of oral lesions. The occurrence of oral lesions (or wounds or tissue damage) is increased with bad oral hygiene. Further, in Covid-19 cases that have weak immunity as with patients on steroids (glucocorticoids) and uncontrolled hyperglycemia (diabetes), there was an increased incidence of oral lesions. Opportunistic infections (in the mouth and other parts of the body) occur as a side effect of various drugs used in the management of Covid-19. This also includes secondary bacterial infections. These opportunistic infections cause

lesions including in the inner layer of lip and roof of the mouth (palate).

Steroids are useful as powerful anti-inflammatory drugs, they suppress the signs and symptoms of inflammation locally and systemically, however, the oral or injectable use of steroids (glucocorticoids) also causes a cycle of immune suppression and hyperglycemia – both these encourage opportunistic infections - both fungal and bacterial infections. Such infections are also called superinfection (for example due to steroid usage). The use of anti bacteria and antivirals also interferes with carbohydrate metabolism and causes dysbiosis. This side effect in turn results in folic acid and Vit. B complex deficiency, and thereby oral lesions form. Thus, we see there is a multi-modal manner in which opportunistic infections cause oral lesions. The use of oral care products is crucial and the oral care range is an ideal adjuvant to all oral or parenteral antibiotics, antivirals and steroids. The side effects of drugs used to manage viral infections like Covid-19 and bacterial infections most often result in oral lesions. In such situations, oral care products help alleviate the suffering, discomfort and pain of oral lesions. The pandemic has accentuated the role of community pharmacists as healthcare advisors and dispensers of medications. Further, pharmacists



are the most accessible trusted healthcare professionals for patients. Hence, pharmacists should understand the oral manifestations such as mucosal lesions, loss or altered sense of taste in Covid-19 patients, and consequently provide counsel, and dispense suitable oral care products. This will enhance the role of the pharmacist for benefit of patients.

Source:

<https://www.magonlinelibrary.com/doi/full/10.12968/denu.2021.48.5.418>

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REGULATORY NEWS

Alemtuzumab

Risk of cardiac toxicity, hepatotoxicity and hematological toxicity

The National Pharmaceutical Regulatory Agency (NPRA) has announced that the approved indication of Alemtuzumab (Lemtrada®) has been revised, to include restrictions for use due to the risk of myocardial ischemia, myocardial infarction, autoimmune hepatitis, hemorrhagic stroke and thrombocytopenia. Alemtuzumab is indicated to treat active relapsing remitting multiple sclerosis. Alemtuzumab is now restricted for use in patients with at least one disease modifying therapy, including those with highly active disease despite a full and adequate course of treatment. Additionally alemtuzumab is contraindicated in patients with uncontrolled hypertension and with a history of stroke, including those with severe active infection. Additional risk minimization measures have been implemented regarding initiation, infusion and post infusion monitoring.

Reference: Safety Alerts, NPRA, 20 January 2021 (www.npra.gov.my/) (ipc.gov.in)

Tramadol

Potential risk of hallucinations

Health Canada has announced that it will work with manufacturers to update the product safety information for tramadol containing products to include the risk of visual and auditory hallucinations. Tramadol is indicated to treat moderate to moderately severe pain in adults who require treatment for several days or more. Health Canada reviewed the risk of hallucinations with the use of tramadol containing products using information from the Canada vigilance database, international databases and scientific literature. Also, Health Canada reviewed 24 serious case reports of hallucinations with the use of tramadol containing products. Health Canada's review of the available information has established a link between the use of tramadol containing products at normal doses and the risk of visual and auditory hallucinations, particularly in patients over 65 years of age.

Reference : Summary Safety Review, Health Canada, 29 December 2020 (www.hc-sc.gc.ca)

Chloroquine

Risk of psychiatric disorders

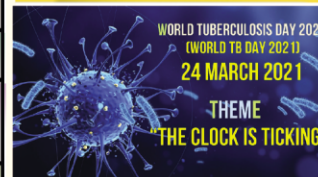
Pharmacovigilance Risk Assessment Committee (PRAC) has recommended updating the product information for chloroquine and hydroxychloroquine containing medicines to include the risk of psychiatric disorders and suicidal behavior. Chloroquine and hydroxychloroquine are indicated for the treatment of certain autoimmune diseases such as rheumatoid arthritis and lupus, as well as for prophylaxis and treatment of malaria. They are not authorized for the treatment of COVID-19, but both medicines have been used as off-label treatments in patients with the disease. In view of the use during the COVID-19 pandemic, the EMA had reminded health-care professionals of the risks in 2020. It is already known that chloroquine and hydroxychloroquine can cause a broad range of psychiatric disorders, even if used in approved doses for authorized indications. The review confirmed that psychiatric disorders have occurred and may be serious, both in patients with and without prior mental health problems. Patients using chloroquine or hydroxychloroquine who experience mental health problems should contact a health-care professional.

Reference: EMA, 27 November 2020 (www.ema.europa.eu)

NOVEL DRUG APPROVALS FOR 2021

DRUG NAME	ACTIVE INGREDIENT	APPROVAL DATE	USES
Verquvo	Vericiguat	19.01.21	To treat chronic heart failure
Cabenuva	Cabotegravir and rilpivirine	21.01.21	To treat HIV
Tepmetko	Tepotinib	03.02.21	To treat non-small cell lung cancer
Evkeeza	Evinacumab-dgnb	11.02.21	For the treatment of homozygous familial hypercholesterolemia
Fotivda	Tivozanib	10.03.21	To treat patients with renal cell carcinoma
Ponvory	Ponesimod	18.03.21	To treat patients with relapsing forms of multiple sclerosis
Zegalogue	Dasiglucagon	22.03.21	To treat severe hypoglycemia
Qelbree	Viloxazine	02.04.21	For the treatment of attention deficit hyperactivity disorder
Nextstellis	Drospirenone and estetrol tablets	15.04.21	To prevent pregnancy

Source : <https://www.fda.gov/drugs/new-drugs-fda-cders-new-molecular-entities-and-new-therapeutic-biological-products/novel-drug-approvals-2021>





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Campus News

- Ms. Vemparala Lakshmi Chaitra Pharm.D appointed as Research Intern (Scientific & Clinical Development) in the CliMed Research Solutions.
- On 31-01-2021, III B. Pharm students participated in the Pulse Polio Campaign organized by the Government of India.
- On 15-02-2021, Dr. Nagesh, Psychologist and Advisor on Covid 19 to the state of Telangana delivered a motivational Guest Lecture on "Behavioral Psychology."
- On 22-02-2021, on account of International Mother Tongue Day, (Mathru Bhasha Diwas), Dr. G. Naga Raju, Lecturer in Telugu, KBN College, Vijayawada -1 was invited to deliver a Guest Lecture.
- On 28-02-2021, II Pharm D students were made a part of Health Camp organized at Bhavanipuram organized on the occasion of Golden Jubilee Celebrations of Almighty Nursing Home (Kola Hospitals), Bhavanipuram, Vijayawada.
- On account of Water Conservation Day on 23.03.2021, Dr. P. Prabhakar, Asst. Professor, Dept. of Sciences & Humanities, Andhra Loyola Institution of Engineering & Technology, Vijayawada delivered a Guest Lecture on "Significance of Conserving Water for Future Generations".
- Red Cross Society of India, on account of Centennial Cycle Rally, on 25-03-2021 organized a meet for NSS students and Coordinators of Vijayawada. Mrs. K. R Rajeswari along with NSS Volunteers of the institution attended the Grand Finale at S Convention Hall, Vijayawada graced by Sri Biswabhusan Harichandan Ji, Honourable Governor, AP and President, IRCS, AP State Branch.

To,

We are pleased to receive your feedback and suggestions :