DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY

Tuesday 20210323

कोरोना वायरस

देश में बीते 24 घंटों में आए कोरोना के 40 हजार मामले, 199 लोगों की मौत (Dainik Jagran: 20210323)

https://www.jagran.com/news/national-coronavirus-india-latest-update-40-thousand-new-corona-cases-of-in-the-country-in-the-last-24-hours-199-died-21490820.html?itm_source=website&itm_medium=homepage&itm_campaign=p1_component

देश में कोरोना वायरस की दूसरी लहर के खतरे के बीच कई शहरो में लॉकडाउन लगाया गया है। देश में बीते 24 घंटों में कोरोना के 40 हजार नए केस आए हैं। इसके साथ ही सक्रिय मामलों की संख्या भी बढ़ी है।

नई दिल्ली, एएनआइ। Coronavirus India Latest Update, देश में कोरोना वायरस महामारी की दूसरी लहर का कहर जारी है। देश के 5 राज्यों में कोरोना के बढ़ते मामलो ने सरकार की चिंता बढ़ा दी है। इस बीच, देश में कोरोना वायरस का ताजा आंकड़ा सामने आया है। केंद्रीय स्वास्थ्य मंत्रालय के ताजा आंकड़ों के मुताबिक देश में बीते 24 घंटों में कोरोना संक्रमण के 40,715 नए मामले सामने आए हैं। इस दौरान 199 लोगों की कोरोना संक्रमण की वजह से मौत हो गई है। इसके साथ ही देश में कोरोना वायरस के सक्रिय मामले भी लगातार बढ़ रहे हैं।

केंद्रीय स्वास्थ्य मंत्रालय के ताजा आंकड़ों के मुताबिक, देश में कोरोना वायरस संक्रमण के अब तक कुल 1 करोड़ 16 लाख 86 हजार 796 मामले सामने आ चुके हैं। हालांकि, इसमें से 1 करोड़ 11 लाख 81

हजार 253 लोग कोरोना संक्रमण से ठीक हो चुके हैं। देश में कोरोना के सक्रिय मामले बढ़कर 3 लाख 45 हजार 377 हो गए हैं। भारत में कोरोना से अब तक कुल 1 लाख 60 हजार 166 लोगों की मौत हो चुकी है।

कोरोना के सक्रिय मामले बढ़े

देश में एक बार फिर से कोरोना के सक्रिय मामले तेजी से बढ़ने लगे हैं। बीते 24 घंटों में देश में कोरोना के 10,731 सक्रिय मामले बढ़े हैं। इससे एक्टिव रेट की दर बढ़कर (2.96% हो गई है। देश की रिकवरी दर भी बढ़ रही है। बीते 24 घंटों में कोरोना से 29785 लोग ठीक हुए हैं। इससे रिकवरी रेट बढ़कर 95.67% हो गई है। भारत की कोरोना मृत्यु दर फिलहाल 1.37% है।

कोरोना वायरस (Hindustan: 20210323)

https://epaper.livehindustan.com/imageview_720684_83868100_4_1_23-03-2021_3_i_1_sf.html

निर्देशः कोविशील्ड की दूसरी डोज डेढ़ महीने बाद लगेगी

नई दिल्ली | विशेष संवाददाता

केंद्र सरकार ने कोविशील्ड टीके को लेकर नए दिशा-निर्देश जारी किए हैं। स्वास्थ्य मंत्रालय ने राज्यों से कहा है कि कोविशील्ड की दूसरी खुराक लोगों को पहली खुराक के छह से आठ सप्ताह के बाद दी जाए। अभी तक चार से छह हफ्ते के बीच दूसरी खुराक दी जाती थी।

केंद्रीय स्वास्थ्य सचिव राजेश भूषण ने राज्यों के मुख्य सचिवों को पत्र भेजकर इसकी जानकारी दी है। पत्र में उन्होंने बताया है कि सरकार ने यह निर्णय नेशनल टेक्निकल एडवाइजरी ग्रुप ऑन इम्युनाइजेशन तथा नेशनल एक्सपर्ट ग्रुप ऑन वैक्सीन एडमिनिस्ट्रेशन फॉर कोविड की बैठक में लिया। हालांकि, लेकिन किसी भी दशा में आठ सप्ताह से ज्यादा विलंब नहीं किया जाए।

कोवैक्सीन छह हफ्ते में ही

स्वास्थ्य मंत्रालय स्पष्ट किया है कि नए दिशा-निर्देश सिर्फ कोविशील्ड टीके के लिए हैं। 'कोवैक्सीन' की दूसरी खुराक को पहले की भांति 4-6 सप्ताह के भीतर ही देना जारी रखा जाएगा। इसे स्वदेशी कंपनी भारत बायोटेक ने बनाया है।

79 फीसदी प्रभावी टीका

एस्ट्राजेनेका वैक्सीन कोविड-19 के खिलाफ 79 फीसदी प्रभावी पाई है। इतना ही नहीं, यह टीका लेने के बाद गंभीर रूप से बीमार होने का खतरा 100 फीसदी तक कम हो जाता है। अमेरिका और दो दक्षिण अमेरिकी देशों में 30 हजार लोगों पर परीक्षण के बाद यह नतीजा आया है।

छह से आठ हफ्ते में टीका ज्यादा प्रभावी

दुनिया के कई देशों में हुए अध्ययनों में पाया गया है कि कोविशील्ड की दूसरी डोज 6-8 सप्ताह के बीच लेने पर इसका प्रभाव ज्यादा हो रहा है। मंत्रालय ने कहा, इन वैज्ञानिक तथ्यों को ध्यान में रखते हुए निर्णय लिया गया कि कोविशील्ड की दूसरी खुराक और पहली खुराक के बीच अंतर 6-8 सप्ताह का रखा जाना चाहिए।

Use science to stem the rising Covid wave. Ramp up vaccination drive, include rest of population (The Times of India: 20210323)

https://timesofindia.indiatimes.com/blogs/Plainspeak/use-science-to-stem-the-rising-covid-wave-ramp-up-vaccination-drive-include-rest-of-population/

India's vaccination drive started on January 16, 2021, in line with WHO prescribed guidelines of sequentially vaccinating its stratified population in three phases. Phase 1 aimed to cover 10 million healthcare workers and 20 million essential frontline workers (police, armed forces, municipal workers) within the government system. Two months later, India has achieved only half the target.

Phase 2 of the vaccination drive was initiated on March 1 to cover 100 million people who include those over the age of 60 and those above 45 years with comorbidities. Till March 18, nearly 15 million first doses have been given to those covered under Phase 2. Cumulatively, over 37 million people in India have received at least one vaccine shot accounting for a little over 2.5% of our population as of March 18.

Meanwhile, India's Covid-19 caseload has been increasing steadily over the last few weeks, after crossing a peak around September 2020 and dipping to a low in January 2021. The bulk of new cases are being reported from Maharashtra. As on March 18, the cumulative national positivity rate is a notch below 5%.

The rising numbers and the eventuality of the earliest batches of Covid-19 vaccines reaching their expiry dates soon have increased the urgency for the government to be more aggressive in pushing the Covid-19 vaccination drive in the country.

Therefore, the government should look at starting Phase 3, which would include the rest of the population, by end-April. Assuming that we can ramp up to 5 million vaccinations per day from about 2 million doses a day currently, it would allow us to ramp up to 150 million per month and theoretically vaccinate the entire adult population by October 2021.

However, these assumptions are meaningless if we're not willing to be agile and innovative in vaccine deployment. Sequential and stratified vaccination is no doubt logical and stands to reason. However, it's well accepted the world over, that such a logic-led decision making process for vaccine deployment is an equitable model but will impede speed and scale.

Scientific rationale, on the other hand, might create skewed deployment which may be viewed as inequitable but in effect can stem the spread of infections.

Protecting the elderly and those vulnerable because of comorbidities is logically undebatable. However, this group isn't safe until they receive their second shot. It's therefore imperative that those who live with the elderly also need to be vaccinated to protect and stop transmission.

Science will therefore drive decision making in the direction of incidence, rate of infection and demographics. Data driven deployment must necessarily depend on algorithms that factor probability of exposure, vulnerability, infection rates and variants. India can lead the way to develop such paradigms for vaccine deployment.

We simply must initiate Phase 3 without further delay. Already, the Ludhiana district administration has extended the 'frontline workers' label for vaccination of teachers, bankers, judges, journalists and NGO workers. Why not extend this to the students and the working class to get the economy going.

Time is of the essence and the sooner we initiate Phase 3, the more control over the pandemic we'll have.

India ought to look at parallel deployment of the Phase 1, 2 and 3 vaccination drives to cover the maximum number of people in the shortest period of time. It's only logical to believe that sequential processing is likely to impede speed and introduce a lag in ramping up. Parallel processing is always a way to introduce speed and scale.

Whilst it's essential to ensure safety when embarking on such a huge scale of immunisation, the first phase ought to have given us adequate assurance and experience.

Furthermore, we also require regulatory speed to enable more vaccines to be added to our arsenal. Rather than mandating a bridging trial, it'd be better to accord emergency use authorisation (EUA) under a trial mode as was done for Covaxin for the vaccines in the pipeline. We've no time to lose and we must ramp up both speed and scale to quell the virus.

WHO: Global coronavirus deaths rise for first time in 6 weeks (The Times of India: 20210323)

https://indianexpress.com/article/world/who-global-coronavirus-deaths-rise-for-first-time-in-6-weeks-7240734/

WHO emergencies chief Dr. Michael Ryan acknowledged an urge among the public in many places to emerge from pandemic restrictions.

A top World Health Organization expert on the coronavirus pandemic said Monday the weekly global count of deaths from COVID-19 is rising again, a "worrying sign" after about six weeks of declines.

Maria Van Kerkhove, technical lead on COVID-19 at the U.N. health agency, said the growth followed a fifth straight week of confirmed cases increasing worldwide. She said the number of reported cases went up up in four of the WHO's six regions, though there were significant variations within each region.

"In the last week, cases have increased by 8% percent," Van Kerkhove told reporters. "In Europe, that is 12% — and that's driven by several countries."

The increase is due in part to the spread of a variant that first emerged in Britain and is now circulating in many other places, including eastern Europe, she said.

Southeast Asia registered a 49% week-to-week jump in confirmed cases, while WHO's Western Pacific region reported a 29% rise largely fueled by the Philippines, Van Kerkhove said. The eastern Mediterranean region saw cases rise 8% percent, while the number of cases reported in the Americas and Africa declined.

"I do want to mention that it had been about six weeks where we were seeing decreases in deaths," said Van Kerkhove. "And in the last week, we've started to see a slight increase in deaths across the world, and this is to be expected if we are to see increasing cases. But this is also a worrying sign."

WHO emergencies chief Dr. Michael Ryan acknowledged an urge among the public in many places to emerge from pandemic restrictions. Ryan insisted that any easing should coincide with measures such as strict case surveillance and high levels of vaccination, but said vaccines alone would not be enough.

"I'm afraid we're all trying to grasp at straws. We're trying to find the golden solution: `So we just get enough vaccine and we push enough vaccine to people and that's going to take care of it,"' he said. "I'm sorry, it's not."

जल संकट

दुनिया में पांच में से एक बच्चे को जरूरत का पानी उपलब्ध नहीं, UNICEF की रिपोर्ट (Dainik Jagran: 20210323)

https://www.jagran.com/world/other-unicef-report-says-globally-one-in-five-children-do-not-have-enough-water-21490823.html?itm_source=website&itm_medium=homepage&itm_campaign=p1_component

रिपोर्ट में 37 हॉटस्पॉट देशों को चिह्नित किया गया है। इन जगहों पर जल संकट की स्थिति अधिक विकराल है।

रिपोर्ट के अनुसार 80 देशों में बड़ी संख्या में बच्चे ऐसी जगहों पर रह रहे हैं जहां पानी के संकट से वे बुरी तरीके से जूझ रहे हैं। पूर्वी और दक्षिणी अफ्रीका के आधे से अधिक बच्चों को इस परेशानी का सामना करना पड़ रहा है।

नई दिल्ली, अनुराग मिश्र। पूरी दुनिया में पानी का संकट लगातार बढ़ता जा रहा है। इसके सबसे अधिक शिकार बच्चे हो रहे हैं। यूनीसेफ की ताजा रिपोर्ट के अनुसार, दुनियाभर में पांच में से एक बच्चे को उसकी जरूरत के मुताबिक पीने का पानी उपलब्ध नहीं है। रिपोर्ट के अनुसार, दुनियाभर में 4.5 करोड़ बच्चे ऐसी जगहों पर रह रहे हैं, जहां पर पानी की काफी समस्या है। यही नहीं, वैश्विक स्तर पर 1.42 अरब लोगों को पर्याप्त मात्रा में पानी उपलब्ध नहीं है।

रिपोर्ट के अनुसार, 80 देशों में बड़ी संख्या में बच्चे ऐसी जगहों पर रह रहे हैं, जहां पानी के संकट से वे बुरी तरीके से जूझ रहे हैं। पूर्वी और दक्षिणी अफ्रीका के आधे से अधिक बच्चों को इस परेशानी का सामना करना पड़ रहा है। पश्चिमी और मध्य अफ्रीका में यह आंकड़ा क्रमश: 31 और 25 फीसद का है, जबकि मध्य एशिया में यह स्थिति 23 फीसद बच्चों की है।

इन 37 देशों में स्थिति है खराब

रिपोर्ट में 37 हॉटस्पॉट देशों को चिह्नित किया गया है। इन जगहों पर जल संकट की स्थिति अधिक विकराल है। इन देशों में अफगानिस्तान, पाकिस्तान, हैती, इथोपिया, तंजानिया, यमन, केन्या, बुरकीना फासो, सूडान आदि देश शामिल हैं।

यूनीसेफ की कार्यकारी निदेशक हेनरिटा फोर का कहना है कि पानी का संकट एकदम से नहीं आया है। यह लंबे समय से था और क्लाइमेट चेंज ने इसे भयावह बना दिया। जब अकाल ने फूड सप्लाई को बाधित किया तो बच्चे कुपोषण के शिकार होने लगे। जब बाढ़ आई तो बच्चे पानी जनित रोगों से बीमार पड़ने लगे। वहीं, जब पानी के स्रोत कम हो गए तो बच्चों के पास इतना पानी नहीं था कि वे अपने हाथ धो सकें और रोगों से बचाव कर सकें।

मांग बढ़ रही, स्रोत घट रहे

रिपोर्ट में कहा गया है कि दुनियाभर में पानी की मांग लगातार बढ़ रही है, जबकि संसाधनों में लगातार कमी आ रही है। इसके अतिरिक्त, जनसंख्या का लगातार बढ़ना, शहरीकरण, पानी का दुरुपयोग और कुप्रबंधन, क्लाइमेट चैंज और मौसम की अप्रिय घटनाओं ने उपलब्ध पानी की मात्रा को कम कर दिया है। यूनीसेफ की रिपोर्ट में चेताया गया है कि 2040 तक चार में एक बच्चा पानी की गंभीर समस्या का सामना करेगा।

ऐसी है भारत की स्थिति

यूनीसेफ की रिपोर्ट के अनुसार, भारत में 9.14 करोड़ बच्चे जल संकट का सामना कर रहे हैं, यानी बच्चों की कुल आबादी के 20 फीसद बच्चे इस समस्या का सामना कर रहे हैं।

तनाव

दिमाग के लिए अच्छा है थोड़ा सा तनाव, बिल्कुल ही तनाव नहीं होने से कमजोर पड़ती है बौद्धिक गतिविधियां (Dainik Jagran: 20210323)

https://www.jagran.com/world/america-a-little-stress-is-good-for-the-brain-intellectual-stress-is-weakened-by-not-having-any-tension-at-all-21488845.html

इमोशन नामक जर्नल में प्रकाशित इस शोध के लिए 2711 लोगों के डाटा एकत्र किए गए। शोध शुरू किए जाने से पहले सभी सहभागियों की संक्षिप्त बौद्धिक जांच की गई। उसके बाद लगातार आठ रात उनका साक्षात्कार लिया गया जिसमें उनसे सवाल-जवाब किए गए।

न्यूयॉर्क, आइएएनएस। आमतौर पर यही सुनते आ रहे हैं कि मानसिक तनाव स्वास्थ्य के लिए अच्छा नहीं होता है। जो लोग तनाव मुक्त रहते हैं, वे खुशहाल रहकर ज्यादा ऊर्जावान बने रहते हैं। लेकिन एक शोध से यह निष्कर्ष निकाला गया है कि यदि आप थोड़ा-सा तनाव लेते हैं तो यह आपके दिमाग के लिए अच्छा ही है।

पेन स्टेट के एक शोधकर्ता एम. अल्मेडा बताते हैं कि यदि आप बिल्कुल ही तनाव नहीं लेते हैं तो उससे आपका बौद्धिक कामकाज कमजोर पड़ सकता है। उनका कहना है कि मान लीजिए कि जूम मीटिंग के दौरान अचानक ही आपका कंप्यूटर खराब हो जाए तो उस समय जो तनाव पैदा होता है, उससे आप अपने कंप्यूटर को ठीक करने की कोशिश करते हैं। परेशानी पैदा होने के बावजूद वह स्थिति आपको अपनी समस्या का समाधान करने का मौका उपलब्ध कराता है, जिससे आपके बौद्धिक गतिविधियों में इजाफा होता है।

अब तक यह बात कही जाती रही है कि तनाव के कारण लोगों में नकारात्मकता बढ़ती है, भावनात्मक रूप से कमजोर भी होते हैं तथा क्रानिक बीमारियों के शिकार हो जाते हैं। लेकिन अल्मेडा का कहना है कि यदि आपको थोड़ा-सा तनाव होता है तो उससे पार पाने पर आप अच्छा भी महसूस करते हैं।

शोध में दो हजार से ज्यादा लोगों का एकत्र किया गया डाटा

इमोशन नामक जर्नल में प्रकाशित इस शोध के लिए 2,711 लोगों के डाटा एकत्र किए गए। शोध शुरू किए जाने से पहले सभी सहभागियों की संक्षिप्त बौद्धिक जांच की गई। उसके बाद लगातार आठ रात उनका साक्षात्कार लिया गया, जिसमें उनसे सवाल-जवाब किए गए। उस दौरान उनका मूड, पुरानी

बीमारी की स्थिति, उनके लक्षण जैसे कि सिरदर्द, कफ या गला खराब होने जैसे तकलीफों तथा दिनभर की गतिविधियों के बारे में जानकारी ली गई।

इस आधार पर जुटाए गए आंकड़ों के विश्लेषण में पाया गया कि जिन 10 फीसद लोगों ने कोई तनाव नहीं होने, पुरानी बीमारियों का प्रकोप कम होने और मूड अच्छा रहने की बात बताई, उनकी बौद्धिक जांच का परिणाम कमजोर रहा। इसके साथ ही उन लोगों ने दिनभर में घटित सकारात्मक घटनाओं को भी मानसिक तौर पर पूरी शिद्दत से महसूस नहीं कर सके।

Heart Disease

Does body fat protect females against heart disease? (Medical News Today: 20210323)

https://www.medicalnewstoday.com/articles/does-body-fat-protect-females-against-heart-disease

A study found that in both males and females, higher muscle mass was associated with lower mortality from cardiovascular disease (CVD).

Higher body fat was also associated with lower CVD mortality risk in females but not in males.

The researchers claim that in females, building muscle mass may be more important than losing weight for cardiovascular health.

The researchers behind the study note that over the past 50 years, death rates from CVD have fallen in both males and females in the United States.

However, the rate of decline has been slower among females than males, and the rate of heart attacks in females aged 35–54 years is actually increasing.

In addition, research suggests that even though females have a lower incidence of CVD than males, they have a higher mortality rate and worse prognosis after an acute cardiovascular event.

As CVD seems to affect the sexes differently, there is an urgent need to determine whether doctors should offer different advice about prevention to their male and female patients.

A new study by researchers at the University of California, Los Angeles, suggests that the focus for females should be on maintaining or increasing muscle mass rather than losing fat.

The findings appear in the Journal of the American Heart Association.

Body composition

The researchers analyzed body composition data from the National Health and Nutrition Examination Survey (NHANES) 1999–2004 and CVD mortality data from NHANES 1999–2014.

The data came from a total of 5,627 females and 5,836 males, all aged over 20 years.

Based on the data, the researchers split the study participants into four groups:

low muscle mass and low body fat

low muscle mass and high body fat

high muscle mass and low body fat

high muscle mass and high body fat

In both sexes, the raw data showed that higher levels of fat were associated with higher CVD mortality, regardless of muscle mass.

However, after accounting for other factors that are known to affect CVD mortality, the relationship between body fat and the risk of dying from CVD changed completely in females.

After making these adjustments, the researchers found that females with high body fat and high muscle mass had a 42% lower risk of dying from CVD compared with females who had a low muscle mass and low body fat.

By contrast, males with high muscle mass and high body fat had a 26% reduced risk of dying from CVD compared with males with low measurements, while those with high muscle mass and low body fat had a 60% decreased risk.

Less emphasis on weight loss?

The researchers believe that their study supports the need for a shift in the focus of the advice that healthcare professionals give to females. This shift is toward increasing muscle mass through physical exercise and away from weight loss.

They write:

“[I]t demonstrates the potential importance of advice to maximize muscle mass in women. This diverges from the current emphasis on weight loss in CVD prevention, and thus methods to practically achieve such body composition alteration need to be further evaluated.”

It is worth emphasizing that the apparent protective effect of fat in females only emerged after adjusting for other CVD risk factors.

Among these CVD risk factors were:

cholesterol levels

high blood pressure (hypertension)

diabetes and prediabetes

hormone replacement therapy (HRT)

There is a highly complex interplay between body fat and these other risk factors. For example, excess body weight increases the risk of diabetes and hypertension, which, in turn, raise the risk of CVD.

Nonetheless, the authors note several plausible ways in which fat might provide some protection to females.

For instance, they highlight research suggesting that fat in the thighs and buttocks has a protective effect on metabolism that offsets the harm from abdominal fat.

They also note that in premenopausal females, the body stores about 50% of its fat just beneath the skin in the thighs and buttocks, whereas in males, the body stores 98% of the total fat more deeply in the upper body.

During and after menopause in females, however, fat tissue begins to accumulate in the abdomen, where it is associated with increased CVD risk.

The authors also note that in individuals of the same age and weight, the female body tends to accumulate fat by multiplying the number of fat cells, whereas the male body typically grows larger fat cells.

Large (“hypertrophied”) fat cells are associated with negative metabolic consequences, they write.

Limitations of the study

The researchers acknowledge some limitations of their study.

Firstly, the study design did not allow them to prove cause-and-effect relationships between muscle mass or fat mass and CVD mortality, only associations.

In addition, they say that the technique that they used to measure the body composition of volunteers — called "dual energy X-ray absorptiometry" or DXA — can overestimate muscle mass in older people and individuals who lead sedentary lives.

Public Health

Leprosy drug may help fight COVID-19 (Medical News Today: 20210323)

https://www.medicalnewstoday.com/articles/leprosy-drug-may-help-fight-covid-19#A-partner-for-remdesivir-and-more

In an effort to combat SARS-CoV-2, and with the rise of other coronaviruses likely, experts are looking for existing drugs that can fight these infections.

A leprosy drug called clofazimine has shown promise against SARS-CoV-2 in hamsters.

Clofazimine blocks the ability of SARS-CoV-2 to enter cells and replicate via RNA.

The drug has also shown promise against Middle East respiratory syndrome (MERS) in laboratory experiments.

SARS-CoV-2, which is the virus that causes COVID-19, is not the only zoonotic coronavirus. In fact, it is the third to have emerged since the turn of the century. It was preceded by severe respiratory syndrome (SARS) in 2003 and MERS in 2012.

There are likely to be more coronaviruses if the recent past is any indication. However, there are not currently many drugs that can effectively combat them.

Researchers have been racing to identify existing drugs that may be of use in this fight, with one team last year identifying 21 existing drugs as showing promise. Among these was a leprosy drug called clofazimine, which has proven effective against both SARS and MERS in laboratory experiments.

Stay informed with live updates on the current COVID-19 outbreak and visit our coronavirus hub for more advice on prevention and treatment.

A new study from researchers at Sanford Burnham Prebys Medical Discovery Institute in San Diego, CA, and the University of Hong Kong in Pok Fu Lam suggests that it may also be useful in treating COVID-19.

Clofazimine exhibits antiviral properties against SARS-CoV-2 and limits the extreme inflammatory response that commonly occurs with COVID-19.

The study has undergone peer review and will soon appear in edited form in the journal Nature.

A drug that is well-known and safe

If researchers confirm clofazimine's efficacy, experts could immediately deploy the drug against SARS-CoV-2 and COVID-19.

The Food and Drug Administration (FDA) have already approved it for use against leprosy, and it is on the World Health Organization (WHO)'s Model List of Essential Medicines. Experts have thoroughly vetted the drug for safety, though it is not currently available for sale in the United States.

Co-senior study author Dr. Sumit K. Chanda — of the Immunity and Pathogenesis Program at Sanford Burnham Prebys — says, "Clofazimine is an ideal candidate for a COVID-19 treatment. It is safe, affordable, easy to make, taken as a pill and can be made globally available."

Dr. Chanda explains, "We hope to test clofazimine in a phase 2 clinical trial as soon as possible for people who test positive for COVID-19 but are not hospitalized," adding:

"Since there is currently no outpatient treatment available for these individuals, clofazimine may help reduce the impact of the disease, which is particularly important now as we see new variants of the virus emerge and against which the current vaccines appear less efficacious."

The effect of clofazimine

In the study, the researchers administered clofazimine to hamsters with SARS-CoV-2 and prophylactically (preventively) to other hamsters that did not yet have the virus.

Both groups that the researchers treated with clofazimine had less SARS-CoV-2 in their lungs after taking the drug.

Clofazimine also prevented the often deadly inflammatory overreaction that commonly occurs in humans. This is called the "cytokine storm."

Co-senior study author Dr. Ren Sun, of the University of Hong Kong, reports, "The animals that received clofazimine had less lung damage and lower viral load, especially when receiving the drug before infection."

Dr. Sun adds, “Besides inhibiting the virus, there are indications that the drug also regulates the host response to the virus, which provides better control of the infection and inflammation.”

The study suggests that clofazimine fights SARS-CoV-2 by doing two things: blocking the virus’s entry into cells and disrupting RNA replication of the virus.

A partner for remdesivir and more

The researchers also found that clofazimine, when they administered it to hamsters, worked synergistically with remdesivir. This is the most prominent drug currently in use as a COVID-19 treatment.

Since clofazimine is affordable and easy to make, it may help stretch the limited — and comparatively expensive — supply of remdesivir.

Considering experts’ concerns regarding future coronaviruses, it is equally exciting that clofazimine seems to prevent the in vitro replication of MERS in human lung tissue.

“Potentially most importantly, clofazimine appears to have pan-coronavirus activity, indicating [that] it could be an important weapon against future pandemics,” says co-senior study author Dr. Kwok-Yung Yuen, of Infectious Diseases at the University of Hong Kong.

For live updates on the latest developments regarding the novel coronavirus and COVID-19, click here.

Physical Fitness

Cells burn more calories after just one bout of moderate aerobic exercise: Study (Hindustan Times: 20210323)

https://www.hindustantimes.com/lifestyle/health/cells-burn-more-calories-after-just-one-bout-of-moderate-aerobic-exercise-study-101616474337941.html

A new study has proven to be encouraging for people who do not follow a regular exercise routine as it revealed that even a single session of moderate aerobic exercise makes a difference since cells burn more calories after just one bout and turn fuels such as sugars and fats into energy

In a study testing the effects of exercise on overall metabolism, researchers at Oregon State University found that even a single session of moderate aerobic exercise makes a difference in the cells of otherwise sedentary people.

Mitochondria are the part of the cell responsible for the biological process of respiration, which turns fuels such as sugars and fats into energy, so the researchers focused only on mitochondria function.

"What we found is that, regardless of what fuel the mitochondria were using, there were mild increases in the ability to burn off the fuels," said Matt Robinson, lead author on the study and an assistant professor in the College of Public Health and Human Sciences.

OSU researchers recruited participants who do not follow a regular exercise routine and had them ride a stationary bike for an hour at a moderate intensity. They biopsied their muscles 15 minutes later to test how efficient the mitochondria were after the exercise was completed and compared those results with a resting day.

Post-exercise, study participants' mitochondria burned 12-13% more fat-based fuel and 14-17% more sugar-based fuel. While the effects were not drastic, they were consistent, Robinson said.

"It's pretty remarkable that even after just one hour of exercise, these people were able to burn off a little more fuel," he said.

Previous research in the field has long established that regular exercise creates lasting change in people's metabolism, making their bodies burn more energy even when they're not working out.

Prior studies have looked at highly trained or athletic people, but Robinson's team wanted to look specifically at singular bouts of exercise in people who were generally active and disease-free but who did not have structured exercise regimes.

These people were on the lower end of fitness, which is associated with low mitochondrial abundance and energy production. Participants were monitored while working out at approximately 65% of their maximal effort, where they could keep up the cycling pace for an hour or more and still comfortably carry on a conversation.

Robinson said they're hoping these results help break down the mental barrier of people thinking they need to be elite athletes for exercise to make an impact on their health.

"From a big picture health perspective, it's very encouraging for people to realize that you can get health benefits from a single session of exercise," Robinson said. "We're trying to encourage people, 'You did one, why don't you try to do two? Let's do three.'

"We know that exercise is good for you, in general. But those benefits of that single bout of exercise seem to fade away after a day or two. You get the long-term benefits when you do that exercise again and again and you make it a regular habit."

In this study, Robinson's research team focused narrowly on mitochondria to find out how big a role mitochondria play in the overall function of muscle metabolism. Other studies are looking at changes in blood flow to the muscle and how the muscle metabolizes fats versus sugars.

From a disease perspective, Robinson said it's clear that obesity and diabetes involve impairments in metabolism. Physiologically, when the body undergoes exercise, sugars tend to be burned off first while fats are stored, but in cases of diabetes and obesity, there is some dysregulation in metabolism that causes the body to not be able to switch between the two types of fuel.

Exercise can help reset that system, he said. "Since those get burned off in the mitochondria, our hope is that with exercise, we could increase the mitochondria and then improve how the body burns off fats and sugars," he said.

Mental Disease

Study links severe mental illness to higher death rate after heart attack (Hindustan Times: 20210323)

https://www.hindustantimes.com/lifestyle/health/study-links-severe-mental-illness-to-higher-death-rate-after-heart-attack-101616473610562.html

As per a new study, the risk of death 30 days after a heart attack for people with schizophrenia was doubled when compared with those without a psychiatric diagnosis

A new research has found that people with a severe mental illness are more likely to die following a heart attack than those without a psychiatric diagnosis.

The study was funded by the Scottish Government's Chief Scientist Office and was published in the journal BMC Medicine.

As per the study, the risk of death 30 days after a heart attack for people with schizophrenia was doubled when compared with those without the condition.

There was no evidence of any improvement across the 24 year period up to 2014 examined in the study.

Researchers said that the findings highlight the chronic health inequalities faced by people with serious mental illness and are calling for disparities to be urgently addressed.

Experts at the University of Edinburgh examined anonymous hospital data for more than 235,000 people admitted for heart attack in Scotland from 1991 to 2014.

They compared the risks of death and further heart attack and stroke among heart attack patients with schizophrenia, major depression, or bipolar disorder to patients without a history of mental illness.

The research team found that people with one of these three conditions were more likely to die within 30 days, one year, and five years - and to have another heart attack or stroke - compared with those without mental ill-health.

After 30 days, patients with schizophrenia were twice as likely to have died, and patients with bipolar disorder or major depression had a 30-50 per cent increased risk of death.

People with severe mental illness were also less likely to receive revascularisation - an operation to restore blood flow - which researchers said may indicate differences in care.

Researchers said the findings may be due to a number of reasons including poor general health, social exclusion, and possible differences in longer-term treatment.

The research team advised that people with mental health conditions should continue to seek advice from their medical team if they have any concerns about their health.

Dr Caroline Jackson, the lead researcher at the University of Edinburgh's Usher Institute, said, "This study highlights marked and persistent mental health inequalities in heart attack outcomes in Scotland. The underlying reason is likely to be multifactorial and complex and remains poorly understood."

"We need to know how comorbidities and lifestyle factors contribute to these disparities. We also need detailed investigation of the entire patient journey, from heart attack onset to rehabilitation among people with severe mental illness, to identify any areas of weakness in clinical care," Dr Jackson added.

Frances Simpson, CEO of Support in Mind Scotland, who was not involved in this study, said, "Parity of esteem between physical and mental health is imperative if we are to reduce premature deaths. We need to raise awareness amongst physical health professionals of symptoms that can be masked by the side effects of psychiatric medication, and accept that people with mental illness may need more time and support to accept medical procedures."

"Poor physical health is often accepted as an inevitable outcome of living with schizophrenia or bipolar illness, but we believe that everyone has a right to the best possible health care," Simpson concluded.

AIDS

The battle against AIDS has slowed down. And UN's new strategy won't be enough (Hindustan Times: 20210323)

https://www.hindustantimes.com/world-news/the-battle-against-aids-has-slowed-down-and-un-s-new-strategy-won-t-be-enough-101616478534076.html

A new UNAIDS document, End inequalities, end AIDS: Global AIDS Strategy 2021-26, to be presented to its Board of Management on March 25, has come at a critical juncture of failing global response to AIDS. The strategy attempts to identify "where, why and for whom the HIV response is not working"

A new UNAIDS document, End inequalities, end AIDS: Global AIDS Strategy 2021-26, to be presented to its Board of Management on March 25, has come at a critical juncture of failing global response to AIDS. The strategy attempts to identify "where, why and for whom the HIV response is not working" and to "build back better, supporting systems for health to be more resilient and place people at the centre".

It bases rest of the strategy on ending inequalities, identified as the most important reason for failed AIDS response. It tries to identify inequalities in every setting that prevent access to services. Inequalities exacerbate the spread of not just HIV but many communicable diseases, with Covid-19 being the latest example. But basing the entire strategy on correcting inequalities as a precondition for ending AIDS runs the risk of non-performance by countries who are indifferent to addressing such imbalances and where the programmes are failing and infections are on the rise.

The missing piece in the document was a bold, honest and impartial assessment of why the response has not been working. The roles played by country leadership, the joint United Nations (UN) programme, donors and civil society should have been critically analysed and lessons learnt identified to lay the foundation for a new well thought out strategy for the next five years.

A perimeter fence is constructed around what is officially known as a vocational skills education centre in Dabancheng in Xinjiang Uighur Autonomous Region, China.

Australia, New Zealand welcome sanctions against Chinese over Uighur abuses

Japan agreed in August to support expanding the Matarbari plant with three additional units planned in a second phase of construction, according to a Japanese government official, who asked not to be identified citing policy.

Japan eyes overseas coal units in Bangladesh, ignores climate pressure

The paper has not adequately addressed the role leadership and political commitment play in a global programme such as AIDS. The single most important reason for the response going off the track was the declining political support for AIDS programmes for various reasons. The joint UN programme should be accountable for rejuvenating this commitment, country by country.

A critical requirement for successful implementation of AIDS programmes is the functioning of efficient governance structures to deliver services. Global AIDS programme was the first to advocate for dedicated structures under the "Three Ones" principle for AIDS governance. Much of the success achieved earlier was due to strong country level buy-in of the Three Ones structures — one national level coordinating authority, one national AIDS control programmes and a single monitoring and evaluation system. These served as effective platforms for a truly multisectoral response for AIDS by bringing the non-health state actors, the UN system and the civil society into a unique partnership, not seen earlier in any national programme.

In the last few years, the multisectoral nature of AIDS response has all but evaporated and AIDS has been relegated to the narrow confines of the health ministries at the country level. This, in a large measure, is responsible for the lack of visibility and failed response in the last few years.

The strategy paper gives a strong push for full integration of HIV services under Universal Health Coverage (UHC). It does not recognise that the health system itself has a stigmatising impact on the key marginalised populations who do not feel encouraged to access services from the heath system. While bio medical interventions like antiretroviral treatment (ART) and elimination of mother to child transmission (eMTCT) services can be progressively integrated into UHC, prevention of HIV among key populations needs to stay strongly rooted in communities.

While it is essential to bring the inequality lens to evaluate the scenario, the strategy paper should have advocated for a strong public health approach to put the response back on track by re-establishing strong political commitment followed by resources, improving the governance structures, focused primary prevention among key populations, maximising treatment access through community based test and treat programmes and introduction of new technologies such as Pre Exposure Prophylaxis (PreP) and HIV self testing.

The joint UN programme should assume the role of being a strong and fearless advocate and activist for re-establishing AIDS response into national priorities to regain their lost importance at policy and implementation level.