How will the reopening of schools affect the pandemic?

Diagnostic dilemma and high viral load in children infected with Covid-19 are key factors to consider

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▶ HILDREN are less commonly infected by Covid-19. When infected, they are less symptomatic and the development of the disease in their systems are less severe than adults infected with Covid-19. Symptoms, if present, are also nonspecific and resemble other non-Covid respiratory viruses, which creates a diagnostic

The factors that are related to lower rates of SARS-CoV-2 infection (the virus that causes Covid-19) is related to less gene expression in the nasal epithelium. Scientifically speaking, the nasal epithelium is one of the first sites of infection with SARS-CoV-2, where the angiotensin-converting enzyme 2 (or ACE2), a protein/enzyme found on the surface of many cells, binds with the SARS-CoV-2 spike protein. According to experts writing in *The* Conversation, this binding, prior to entry and infection of cells, is like "a key being inserted into a lock", where ACE2 acts as "a cellular doorway" or "receptor" for the virus that causes Covid-19.

Fortunately, this ACE2 expression is less in children less than 10 years of age and therefore, children are less affected than adults. However, once infected, children carry high levels of the virus in their upper airway, particularly early on in the development of acute SARS-CoV-2 (first two days of symptoms), compared with adult patients with severe Covid-19 infection. Yet, children display relatively mild or no symptoms.

What is more important is that although ACE2 expression increases the susceptibility of infection, once infected child can carry a high viral load, regardless of ACE2 expression. There is no age correlation in children to the viral load, indicating that infants through young adults can have a high load of the virus, which is the major concern

didn't miss a beat

General Assembly,

would not accept a

Palestinian conflict

unlike the United Arab

Emirates and Bahrain,

solution to the Israeli-

insisting that he,

when thinking about opening schools and daycare centres.

Fallacies in diagnostic tests of severe Covid-19 in children

Although most paediatric Covid-19 patients are less symptomatic and less severe, a subset of them develop a severe disease called the Multi-system Inflammatory Syndrome in Children (MIS-C). This can include having

symptoms are observed a few weeks after SARS-CoV-2 infection. When symptoms appear, the RT-PCR test for SARS-CoV-2 usually comes as negative. Not infrequently, patients and their caretakers also cannot recall exposure to Covid-19, resulting in diagnostic dilemmas.

However, it is crucial to diagnose Covid-19 in order to isolate affected children and for



A little girl, dressed in school uniform but with no classes to attend.

fever, the involvement of at least two organs,

therapeutic interventions such as intravenous

hypotension (low blood pressure), and

cardiac involvement requiring aggressive

immunoglobulin (IVIG), steroids, oxygen

supplements, fluid resuscitation, empiric

antibiotics etc. The disease is also associated

with hyper inflammatory markers and SARS-

CoV-2 antibodies. MIS-C is a post-infectious

immune dysregularity disorder and clinical

PHOTO: TITU DAS

optimum clinical management. Under these conditions, antibody tests for SARS-CoV-2 has diagnostic value, even though it is primarily used for serosurvelliance and concerned authorities in Bangladesh are planning to approve its use, provided it is not used for diagnostic purposes. The antibody test usually becomes positive two weeks after infection.

For more specific serodiagnosis, the serum

IgM antibody of the receptor binding domain prolonged absenteeism from school. (RBD) of the SARS-CoV-2 spike protein is important, the testing of which are conducted in specialist laboratories. A positive test with IgM antibodies strongly suggests SARS-CoV-2 infection in symptomatic patients, according to an article in The Lancet from July 2020. While IgG antibodies also last long, they are nonspecific as they cross-react with other coronavirus IgG antibodies. In the absence of sophisticated antibody tests, a simple rapid antibody test can be used, which is easy to perform, requires a few drops of blood from the fingertip to be placed on the test strip with no processing, and the results are obtained within 15 to 20 minutes.

From an infection control perspective, it is crucial to identify the infected children early on for quarantine purposes, as up to one-third of school age children presenting with illnesses during the height of the pandemic were found to have SARS-CoV-2 infections. Children with mild symptoms of SARS-CoV-2 but with a high viral load in their upper respiratory tract usually present with nonspecific symptoms and overlap considerably with non-Covid respiratory related illnesses. Identifying SARS-CoV-2 infection will be more challenging during the coming winter season when increased aeroallergens and respiratory viruses, including RSV (causing bronchiolitis) and influenza, will be high.

Limiting the spread of SARS-CoV-2 infection in children is of particular concern when schools plan to reopen and the end of the pandemic is not quite in sight. It is also a matter of concern that children have not been going to school for about six months. We should weigh the balance of safety and wellbeing of the children, communities, and the families and households of these children, against the learning loss from

Once schools are reopened, infected children with mild nonspecific symptoms but with high viral load can spread the disease to their peers in the classroom and to school staff, as well as in the community during transport to and from school. Children being infected by their peers from school can carry the virus into their homes, exposing adults who are at higher risk of developing severe disease. The risk is higher in low income communities where household size is often larger with multigenerational cohabitants, which include the grandparents of the

What precautions should be taken if schools reopen?

The Ministry of Primary and Mass Education is planning to reopen schools, and has prepared preventive health guidelines to be followed in schools and has advised the Directorate of Primary Education accordingly. Depending on symptoms, including temperature monitoring, to identify SARS-CoV-2 infection will be unreliable as children have nonspecific symptoms and up to 50 percent of infected children do not have fever. Instead, infection control measures should minimise the possibility of viral spread. We should focus on a strategy that includes compulsory use of face masks, social distancing, hand washing, maintenance of respiratory hygiene and/or remote learning. If possible, all students should be screened for SARS-CoV-2 infection and routine screening protocols should be established. If school authorities don't take necessary precautions and follow the aforementioned steps, it is likely that children will play a much larger and more dangerous role in the pandemic.

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over Israel and Palestine is the upcoming US

of who wins, Turkey has lost to the UAE the

Nonetheless, an electoral victory by

Democratic challenger Joe Biden, who is

by the UAE and other Gulf states and take

them to task on human rights issues, could

foot. A Biden victory would be for Turkey a

lost opportunity. The very issues that are at

are likely to complicate its relations with a

Erdogan that Biden had described him in a

conversation with The New York Times early

this year as an "autocrat." The Democratic

"embolden" his opponents to defeat him in

In the conversation, Biden mentioned

other issues, including the Kurds, Syria, and

tension in the Eastern Mediterranean that do

not bode well for US-Turkish relations should

the Democrat occupy the White House. Biden

is expected to also be critical of the UAE's

Nonetheless, the UAE, despite its own

issues with the US, is likely to still find itself

who emerges victorious from the November

in a better place in Washington, no matter

interventions in Yemen and Libya.

candidate suggested that the US should

Recent media reports reminded

Democratic administration.

elections.

put both Turkey and the Emirates on the back

the core of its strained relations with the UAE

presidential election in November. Irrespective

beneficial mantle of being Israel's best Muslim

expected to be more critical of arms purchases

UAE and Turkey's competition to shape Palestinian politics

Who has the upper hand?



more cards to play.

emerge over time.

interest.

that is not endorsed by the Palestinians.

Erdogan's solemn pledge may earn him

Eastern and Muslim public opinion critical

of the establishment of diplomatic relations

loggerheads over Libya, Syria, and the future

it thinks in bringing Israelis and Palestinians

back to the negotiating table, but has, for now,

of political Islam, may have less clout than

What those cards are worth will only

The UAE is betting that a combination

of soft power garnered through recognition

of Israel and close security, economic and

independent Palestinian state is in Israel's

While there is little reason to believe that

the UAE will succeed where others have failed

in recent decades, Emirati leaders, in contrast

to Turkey, potentially could in cooperation

with Israel also try to impose an unpopular

Palestinian figure who has close ties to the US,

The move would be designed to install

technological cooperation will enable it to convince the Israeli government that an

between Israel and the two Gulf states, but

The UAE, with whom Erdogan is at

does not strengthen his weak hand.

brownie points with large segments of Middle

a leader who would be more conducive to engaging in peace talks on terms that hold President Recep out little hope of meeting long-standing Tayyip Erdogan Palestinian aspirations. It is a scenario that 84-year-old Palestinian during his address to the United Nations

President Mahmoud Abbas appears to be taking seriously and appears to be trying to pre-empt.

The Democratic Reform Bloc, a political group headed by Mohammed Dahlan, a controversial Abu Dhabi-based former Palestinian security chief believed to be close to Crown Prince Mohammed bin Zayed, the UAE's de facto ruler, said dozens of his supporters had been arrested or summoned for questioning by Palestinian security forces in recent days.

Dahlan appeared to be walking a fine line when he recently denied any role in mediating relations between the UAE and Israel.

Abbas' suspicions stem from an unsuccessful effort last year by the UAE to engineer a deal in which Hamas, the Islamist group that controls the Gaza Strip, would share power with Dahlan.

Dahlan went into exile in the UAE in 2007 after Hamas defeated his US-backed efforts to thwart the group's control of Gaza. US President George W Bush described Dahlan at the time as "our boy."

He has since been indicted by Abbas' Palestine Authority on corruption charges.

UAE recognition of Israel constituted an acknowledgment that the 18-year old Arab peace plan that offered Israel diplomatic relations in exchange for land and a Palestinian state had produced naught.

In its rivalry with Turkey, whose assertive support for the Palestinian cause has likewise failed to produce results so far, the UAE is banking on the expectation that it has the upper hand in getting not only Israeli but also the attention of Washington, that under US

President Donald J. Trump has disregarded Palestinian rights.

The UAE assumes that it will be able to capitalise on the fact that Emirati recognition of Israel has further complicated Turkey's relations with its NATO ally, the United States.

Turkey's relations with the US are already troubled by US support for Syrian Kurds;

Earlier, it cancelled Turkey's acquisition of the same plane in response to the country's S-400 deal with Russia.

For now, Turkey can look at appreciation from important segments of Arab and Muslim public opinion as an upside of its strident support for the Palestinians.

Seeking to capitalise on its Palestinian



PHOTO: AP

Turkish military backing of the Libyan government in Tripoli; tensions between Turkey and Greece, another NATO ally, in the Eastern Mediterranean; and Turkey's acquisition of Russia's S-400 anti-missile defence system.

The Trump administration hopes to finalise by December the sale of F-35 fighter planes to the UAE in the wake of the deal with Israel.

goodwill, Turkey has been attempting to end the rift between Abbas' Al Fatah movement and Hamas in a bid to get the Palestinians to agree on elections and the formation of a joint government.

The two groups agreed during talks in Istanbul this week to work together and hold long overdue elections in the next six months. The joker in Turkish-Emirati differences

election.

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QUOTABLE Quote

Emirati and Israeli leadership.

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