Letters to the Editor

[The Editor is not responsible for the views expressed by the correspondents]

Should JN 1 Trigger an Alarm?

Sir, — Human Coronaviruses from the Beta coronavirus group mainly affect the respiratory tract, causing mild infections, except for Severe Acute Respiratory Syndrome Coronavirus (SARS-CoV) and related viruses, which cause severe disease.SARS-CoV-2 constantly mutates, resulting in new variants such as alpha, beta, gamma, delta, and Omicron[1].

The Omicron variant (B.1.1.529) has many mutations in the spike protein, which may affect vaccine efficacy and increase its transmissibility. Omicron has spawned several sub-variants, some of which have become dominant: BA.2, BA.4, BA.5, BQ.1 and BQ.1.1[2]. In September 2023, a new variant known as JN.1 emerged from BA.2.86. This variant, named "Pirola" (a combination of Pi and Rho), has over 30 mutations in its spike protein compared to its earlier versions XBB.1.5 and EG.5, which only had one or two mutations[3]. In JN.1, out of many, only a single known mutation at a specific location in L455S is known; the sequence of amino acids has been altered, replacing leucine with serine. This small change is present at a crucial region of spike protein at the Receptor Binding Domain (RBD), which helps to bind to ACE 2, which allows viruses to enter into cells[3]. The mutation could lead to an increase in the binding affinity of the virus to ACE 2, making it easier for the virus to enter cells and alter the shape of RBD, which makes it harder for the antibodies from the present vaccines to neutralise the virus, leading to immune evasion. The protection against JN 1 amongst already vaccinated individuals is debatable[3]. As of 23 December 2023, JN.1 is projected to account for approximately 39-50% of circulating variants in the United States (US), majorly affecting infants and older adults[3]. The number continues to increase more rapidly than other variants. Considering the available yet limited evidence, the additional public health risk posed by JN.1 is currently evaluated as low globally. India's first case was detected on 8 December 2023, with a significant surge in fresh instances daily. In India, out of 163 cases of Jn.1, there were three reported deaths by December 31, 2023, which is a contrast to its milder course earlier[4,5]. Given the limited data on the JN1 variant, it is advisable to continue following COVID-19 safety protocols in public spaces. The need for a booster dose has yet to be studied.

References

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Quality over Quantity in Health Care

"Life isn't about quantity, it's about quality."
– Malorie Blackman

Sir, — ***Quality i***s a measure of excellence or of a state of being. It describes something, either of how it was made, or how it is as compared to others. ***Quantity,*** on the other hand, is the extent, size, or sum of something. It is countable or measurable and can be expressed as a numerical value.

India is the most populus country with a population of 142.6 Cr in Jun 2023. The issues and problems related to the needs for quantity and quality in health care have been discussed by policy makers.

The need for quantity has been quite successfully addressed in the last few years by either increasing number of new under and postgraduate medical colleges or increasing under and postgraduate sits in existing colleges, creating a greater number of health and wellness centres, laboratory networks (MAHALAB in Maharashtra), reaching the unreached population through Community Health Officers (CHO) and paramedical staff (ASHA, ANM, AWW etc) at gross root level.

Quality of care is the degree to which health services for individuals and populations increase the likelihood of desired health outcomes. It is based on evidence-based professional knowledge and is critical for achieving universal health coverage (UHC)[1].

Universal Health Coverage (UHC) means that all people have access to the full range of quality health services they need, when and where they need them, without financial hardship. Past couple of decades has witnessed a profound change in the healthcare scenario with path breaking advances in therapeutics, investigations rather in all fields of healthcare[2]. Directly or indirectly these changes are compromising on quality component of UHC. Better quality of health care is also very much in the minds of policy makers, providers, and the informed public. In India quality assessment and assurance of health care system is a programmed and on-going process in individual hospitals, is systematically promoted and developed through various quality assurance programme like NQAS, LAKSHYA, Kayakalp etc.

Quality improvement initiatives have held a place in healthcare for at least the past 200 years. In 1846, for instance, a Hungarian obstetrician named Dr Ignaz Semmelweis became an early proponent for handwashing to prevent the spread of disease and other healthcare-associated infections. Later, in 1918, the American College of Surgeons established a hospital standardization program to maintain minimum quality standards during surgical procedures.

In 1966 Dr Donabedian—a professor of medical care organization at the University of Michigan's School of Public Health—laid out three key components for evaluating and maintaining care quality: Structure, Process and Outcomes. Each of these measures helps to determine whether a healthcare facility is equipped to deliver quality care by assessing the provider's care capacity, treatment processes, and patient outcomes.

Domains of Health Care Quality[2] :

Safe — avoiding harm to patients from the care that is intended to help them.

Effective — providing services based on scientific knowledge to all who could benefit and refraining from providing services to those not likely to benefit.

Patient-centered — providing care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions.

Timely — reducing waits and sometimes harmful delays for

both those who receive and those who give care.

Efficient — avoiding waste, including waste of equipment, supplies, ideas and energy.

Equitable — providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location and socioeconomic status.

Many quality assessment programs only focus on effectiveness and safety, a few include timeliness and patient-centeredness, and still, fewer address the efficiency and equity of care[3]. The new research on health care quality measures suggested that a failure to address components missing from the original six domains has led to risk and harm to vulnerable populations.

Guidelines, Protocols and Pathways[4] :

Guidelines are often put forward as high-level recommendations about what to do. They form a skeleton that needs to be fleshed out by protocols detailing the processes and procedures that describe how to implement guidelines in a particular clinical setting. hospitals always have protocols, often they are separate and disconnected. Clinical pathways provide a road map for a particular condition's entire care process. They organize the totality of care at a higher level than a set of protocols. Used in this way, pathways represent the integration and coordination of care as worked out by a multidisciplinary team—not in a crisis or dependent on who is on call, but through extensive dialogue among all parties when there is no patient to treat.

Table 1 — *Relationship Among Guidelines, Protocols, and Pathways*

Guidelines	Skeleton	What to do
Protocols	Flesh	How to do it
Pathways	Brain	Who is doing it, and why

With the doctor-population ratio in the country (1:834) which is better than the WHO standard of 1:1000[5] each one of doctor should focus on health maintenance, preventative care, and the common good more than on managing disease. Wellness, equity, and health are interrelated, as are personal health and public health. Providers and clinicians should emphasize health care as a service to create positive health outcomes for more people. Also, Healthcare providers should address societal issues such as structural racism and inequalities, including food insecurity, gender inequality, marginalized populations, and violence.

References

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