



BLOOD BANKS DURING COVID-19 PANDEMIC

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KEYWORDS :

The current century faces two major pandemics as of now. First was the severe acute respiratory syndrome (SARS) in 2003, as it spread across continents, resulting in more than 8,000 infections. [1] Covid-19 pandemic is the second outbreak causing an exponential rise in the number of cases and mortality.[2] These pandemics cause a significant impact on the blood banks and correspondingly, the effect on covid-19 pandemic in India appears to be unnoticed but has rippling effects.

According to the American association of blood bank "The single greatest risk of domestic disaster and acts of terrorism is not the lack of supply but disruption of the blood distribution systems". From the lessons learnt from the previous pandemics, the blood community has ascertained that blood collectors and hospitals need to maintain a minimum seven day supply of blood and control excessive blood collections in disasters such as covid-19 infection. To avoid over collection, it is also important to communicate to the public and blood community about the status of the blood supply. There should be a consistent planning for disasters, which should also include how transportation services should communicate so that blood can be transported to the area in need in the wake of a disaster is critical.[3]

Impact on blood supply safety during the pandemic

Covid-19 infection outbreak is known to be theoretically transmitted by blood transfusions.[4] Any pandemic has the ability to decrease the stores of blood and its components. Blood bank services should take important steps to assess and plan appropriately. [5]

There should be an efficient and accurate risk assessment for the regular blood supply and safety such as extent of spread, extent of transmission, local factors, risk of transmission, requirement of blood components, quality of health care, response of public health, and cost effectiveness of blood components and safety.[6]

Impact on donor availability

One of the major risks for the blood services before, during and after the pandemic is the reduction of donor numbers. Recent intake of antibiotics or antiviral as part of prevention or treatment protocols also leads to a decrease in the donor numbers. There should be early assessment of sufficiency risk of blood services to enable appropriate management and response.

Close monitoring of the total number of blood donations should be done to take prompt measures to manage any decrease in donor availability.[7] Monitoring is essential for the blood components with less shelf life, such as platelets.

There should be regular and appropriate campaigns on awareness of the importance of maintaining an adequate supply of blood components, decreased availability of blood donors, and safety in the donation procedures. [8]

The preventive strategies during covid-19 pandemic such as lockdown don't allow blood collection teams for campaigning in densely covid-19 affected areas. Easy measures should be taken such as switching to feasible sites for blood collections, providing transportation to donors, and increasing pre-scheduled donor appointments. Recalling healthy repeat donors as a targeted basis can be considered.[3]

Re-entry of infected donors after 28 days of full recovery should be strategically enabled. This increases the availability of convalescent plasma for the treatment of Covid-19 infected patients. Blood and its components can also be imported from the unaffected areas of our country.[4]

Impact on clinical demand

During the pandemic, blood transfusions are necessary for emergency conditions such as trauma, post-partum hemorrhage, severe anaemia, blood dyscrasias, severe sepsis and requiring extracorporeal membrane oxygenation support. This increases the demand of blood and its components. [9]

Impact on blood service operations

Proportionate strategies should be taken to mitigate the risk for general public during the pandemic as there are no emergency medical facilities.[10] National public health guidelines for covid-19 infection should be followed during acute symptoms presentation as well as contact management.

Proper safety measures should be followed during the donation procedure such as physical distancing of staff. Effective measures should be taken if the donor center is situated near to the sick patients ward.

Standard laboratory national or international guidelines must be followed in all circumstances.

CONCLUSION

We are currently facing vast number of problems during this covid-19 pandemic and it is challenging to put optimal and substantial care in using every modality and resource. It becomes more ennobling for a developing nation like India to conserve appropriate resources like blood components.

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