



Recommendations for Enhancing Blood Supply in Response to Contingencies

The COVID-19 pandemic has proposed a new challenge to blood safety and blood supply. The flood and earthquake in some areas in recent months, as well as the earlier SARS and Wenchuan earthquake, have repeatedly reminded us that almost every public contingency, including natural disaster, accident disaster, pandemic disease and social security incident, may all impact blood collection and supply at each of every aspect or step, such as blood demand, blood collection, blood donation mobilization, as well as the operation and material supply of blood establishments. It also prompts us to realize the importance of establishing and improving the mechanism in responding to contingencies.

In view of COVID-19, CSBT deliberately sent letters to blood establishments and related enterprises in key epidemic areas and supporting areas, and requested for their contingency material reserve plans and recommendation lists, on the basis of their real experiences in response to the epidemic. In accordance with relevant laws and regulations, and based on the opinions, suggestions and demands gathered from blood establishments, the Working Party on Blood Equipment of CSBT (CSBT/BE) was charged the responsibility by the society to draft this recommendation. The previous experiences from handling earthquake, flood and other disasters were also considered. The document has gone through several rounds of commenting and debating among relevant institutions and experts.

From the aspects of improving the plan and material reserves, this recommendation puts forward the reference opinions for blood establishments on the establishment and improvement of mechanisms in response to various contingencies.

CSBT wishes to emphasize that the content of the recommendations is generated on practical experience from various institutions. They are not necessarily universally applicable, nor mandatory. Each blood establishment may set procedures according to its quality management specifications and own situation.

If you find anything inappropriate or have any other opinions and suggestions, please contact with CSBT secretariat in time so that we can continually make adjustment and issue the updated edition.

1. Improvement of the Contingency Plans

Both external public contingencies and internal organizational emergencies may affect blood collection and supply in different extents. The former includes but not limited to all types of natural disasters, accidents disasters, public health incidents, and social

security incidents, etc., while the latter includes all kinds of human errors, system faults of facilities and equipment, toxic/medical waste accidents, etc. The impacts of these incidents may affect many aspects, such as the changes on blood demand and supply, excess or scarcity of blood donors, the limited blood collection, detection, processing, storage and transportation, the operation of departments and equipment, the shortage of materials, and lack of qualified personnel, etc. All impacts will eventually show on the imbalance between blood demand and supply, and the lack of guarantee for effective and continuous operation of blood establishments.

Leaders and staffs of blood establishments should have definite consciousnesses and full understanding on all possible risks and consequences, make forward-looking and full consideration, formulate detailed countermeasures, and implement material reserves and staffing.

Leaders and relevant personnel in blood establishments should report initiatively and fully to the administrative and supervision departments, and all other bodies in concern, on the possible impacts and consequences of contingencies on blood collection and supply. They shall strive for understanding and support of relevant departments.

The contingency preparation, either mechanism design or practical operation, should be an important component of organization management and quality management system. It shall be based on routine work and oriented for contingency, rather than an isolated or dissociated function.

The contingency support plan of blood establishment, including material reserves and capacity construction, should take advantage of blood management information system and available resources. It is advised to achieve sharing of information, resources and capabilities-- laboratories and personnel, among blood establishments at all levels, local institutions and suppliers.

2. Material Reserves

This recommendation lists material reserves that should be considered as key objects when establishing contingency plans. Therefore, this list is not a comprehensive one but one of key points. Meanwhile, the same type of work could be carried out in different ways due to the differences in scales and economic conditions of blood establishments, so there may be several materials of the same type in the reserve list for selection.

Referring to the experience of drafting units and in order to simplify the description, this recommendation unifies the contingency reserve amount of consumables to 2 months from domestic supplies and 3 months from imported ones (properly reserving time for transportation and customs clearance), in addition to routine consumption and reserve. Each blood establishment should comprehensively consider the relationship between contingency reserves and procurement/storage costs according to factors such as

business volume (related to purchase batches), location (related to time of supply, and the possibility of redeployments between units), etc.

Blood establishments should also comprehensively coordinate between the contingency reserve supplies and routine supplies in procurement mode, suppliers, product batches, quality inspection and validity periods, so as to reduce costs of management and operation.

Contingency supplies are reserved for emergencies not for daily use. Blood establishments should strive for support from the administrative and financial departments, so as to incorporate the funds for procurement, storage and replacement of contingency supplies into the governmental budget of medical and health rescue funds for public contingencies, instead of relying on annual financial budget of blood establishments.

3. Some Practical Advices

Some of the feedbacks from CSBT members as well as other relevant contingency response materials are of great significance for reference, key points of which are now listed as below.

- The occurrence of major public contingencies may induce excessive donor and blood collections, which may cause blood oversupply, declined blood service and blood quality, or overdrawn blood collection capacity. So it is significant to estimate blood collection need by understanding and predicting the clinical demand.
- Essential procedures, such as blood screening, component separation, etc. should be backed up with other laboratories or establishments.
- In case a blood establishment could not fully run due to certain special reasons, such as epidemic prevention, power restrictions or understaffing. It is advised to identify in advance in the contingency plans key departments to which full operation must be kept, personnel must be deployed explicitly.
- Reliable contacts should be accessible for essential external support, such as contacts of water and electricity supply, manufacturers and maintenance services.
- If critical support or facility is out of service due to certain reasons, such as power failure, refrigeration failure or information system failure, alternatives such as inventory shifting, offline operation, etc. should be selected according to the predicted recovery time and these options should have been contained in the contingency plans.
- It is advised to understand adequately local supply and demand of plasma products (plasma-derived medicinal products, PDMPs), and get ready to offer professional advices when necessary, or meet extra blood demands caused by PDMPs shortage.
- The information of blood demand should be timely, explicitly and continuously published, when necessary.
- The maximum and continuous working capability of essential procedures should be clearly understood in advance.
- If employees need to work for a long time and with high load, the replacement and

logistics support measures should be properly arranged to avoid adverse effects on their physical and mental health, blood service and blood safety.

Appendix:

Recommended List of Contingency Reserves

Acknowledgements (in no order)

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