Saskatchewan Health Authority

MEMO

DATE: 2020-01-27

TO: Saskatchewan Health Authority - Clinical Staff

FROM: Dr. Erwin Chao and Ms. Edith Hein, Co-Chairs, Former PA Parkland Health Region Transfusion Committee
Dr. Oksana Prokopchuk-Gauk, Transfusion Medicine Consultant, Northern Saskatchewan

RE: **Prince Albert Massive Hemorrhage Protocol Approval and Fibrinogen Replacement Product Update**

A Prince Albert Massive Hemorrhage Protocol (PA MHP) has been officially approved for use at the Victoria Hospital as of January 18, 2021. The PA MHP was developed through a collaborative process involving multidisciplinary team members from the Victoria Hospital and consultants from Saskatoon Transfusion Medicine and Clinical Perfusion.

A copy of the new PA MHP algorithm is appended. Electronic copies will be available on the following Saskatchewan Health Authority intranet webpage and at https://saskblood.ca/mhp/. Laminated copies are available for use in the Victoria Hospital Emergency Department, Maternal Services Ward, Operating Theatres and Intensive Care Unit. Educational sessions organized by the former PA Parkland Health Region Transfusion Medicine Committee are currently underway.

We bring to your attention the incorporation of Fibrinogen Concentrate (FC) as an integral part of the new PA MHP. The blood component cryoprecipitate has historically been the primary means of fibrinogen replacement in patients with congenital or acquired fibrinogen deficiency. Cryoprecipitate is cumbersome to prepare as it requires thawing prior to issue and must be manually extracted from multiple bags prior to administration.

The Victoria Hospital Transfusion Medicine Lab currently has the FC product RiaSTAP® within its inventory. A recent high-quality trial in post-cardiac surgery patients with acquired hypofibrinogenemia has demonstrated FC to be non-inferior to cryoprecipitate in terms of effectiveness. FC has several logistical advantages including reliable dosing, refrigerator (or room temperature) storage, and easy bedside reconstitution and administration. The recommended dose of FC in a bleeding patient with fibrinogen deficiency is 4 grams, which should increase the plasma serum level by 0.5-1 g/L. Further information on the use of FC in acquired hypofibrinogenemia is found here.

The Victoria Hospital will no longer stock cryoprecipitate as a fibrinogen replacement strategy. The option to order FC (RiaSTAP®) is on the current Transfusion Medicine Testing and Product Requisition VH-TM-10-01 Appendix A & B. An electronic copy of these forms and local resources for RiaSTAP® administration can be found at the following Saskatchewan Health Authority intranet webpage.

Thank you for your attention. Questions can be directed to:

- Ms. Edith Hein at 306-765-6149 or Dr. Erwin Chao at 306-765-6267
- Dr. Oksana Prokopchuk-Gauk via Royal University Hospital Switchboard at 306-655-1000

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