

## 473649 - RECOMBINANT FACTOR V11A USE IN CANADA

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**Introduction:** Recombinant Factor VIIa (rFVIIa) has been in use for several years in Canada(1). While it has been shown to be of benefit in hemophiliacs with inhibitors to Factors VIII and IX (2-3), the literature on its use in massive bleeding is limited to several randomized controlled studies(4-6), or anecdotal clinical experience in local settings(7-9). There are currently no guidelines for its administration in massive bleeding, and the dosage employed has varied greatly among its users (6,10-12). The Physicians and Nurses for Blood Conservation (PNBC) is a non-profit national organization that has an interest in promoting blood conservation. Utilizing the PNBC network allows information to be collected from a large number of hospitals in Canada; with this in mind, the PNBC undertook a review of the use of rFVIIa in Canada.

**Methods:** PNBC contacted 52 hospitals from across Canada through regional coordinators. All provinces except P.E.I. were included. Data collection sheets were sent to the coordinators who contacted the individual hospitals to provide the information. Not all hospitals were able to contribute due to Ethics Review processes or resource issues. The data was based on a 12 month 'snapshot' in 2005-2006. Most of the information came from hospital Blood Banks, and patient demographics were excluded. The requested information included: Hemophilia use and Non-hemophilia use and dosage

**Results:** Of the 52 hospitals contacted, 29 provided the requested data. Of a total of 715 records reported, 546 (76.4%) were for non-hemophilia use. The average dose for non-hemophilia use per treatment episode varied by institution (range 1.9 - 16 mg per patient), with the overall mean being 5.3 mg. Because of exclusion of patient demographics, a dose in mcg/kg was not available.

**Discussion:** This audit provides a general representation of rFVIIa use across Canada, with all provinces except Alberta, Saskatchewan, and P.E.I. reporting. There appears to be uncertainty in what dose of rFVIIa should be used in the non-hemophilia population. In the absence of specific Guidelines, this variable practice will probably continue until further studies are conducted or Guidelines developed. In addition to having consensus Guidelines, there would be a benefit in establishing a national registry for rFVIIa use.

**References:** 1.CMAJ 1995 153: 147-157 2.Haemostasis 1996; 26: 118-23. 3.Thromb Haemost 1998; 80: 773-778. 4.Journal of Trauma 2005; 59: 8-18 5.NEJM 2005; 352; 777-85. 6.The Cochrane Collaboration, 2007. 7.Journal of Thrombosis and Haemostasis 2005 3: 640-648. 8.Transfusion Jan 2005; 45: 26-34. 9.Interact Cardiovasc Thorac Surg. 2006 Aug;5(4):493-8. 10.Anesthesia Analg 2006; 102: 1320-1326 11.Critical Care 2006, 10: R120. 12.Am J Health Syst Pharm. 2007 Sep 1;64(17):1808-12.