

# Roman Numerals to Denote Clotting Factors: A Potential Source of Medical Errors

Author: David Page, National Executive Director  
Canadian Hemophilia Society  
dpage@hemophilia.ca

## Issue

**Based on anecdotal reports, the use of Roman numerals to denote clotting factors is a potential source of medical error.**

*In one case, a carrier of hemophilia B, was scheduled for elective surgery. Her surgeon, knowing her carrier status and tendency to bleed, ordered a factor IX assay in advance of the surgery. When the woman went to hospital for the results, the surgeon reported that her factor IX level was close to C per C. The woman, who was past LXXX, looked across the desk at the chart in front of the physician, who looked about XXVIII years of age, and said, "It may well be, but you've tested my factor XI level." Indeed, this was the case. The test had to be repeated.*

*Factor VII or Factor VIII? How many little bars? II or III? It's very hard to tell. How many errors have slipped into publications when writers and proofreaders have been unable to tell the difference?*

*In another report, a person with factor XIII deficiency needed treatment at the Emergency Department at IV o'clock in the morning. The hematologist on call ordered factor XIII concentrate. The patient was dismayed to see the ED staff preparing factor VIII concentrate. The medical error was barely averted.*

Whether because of inattention, dyslexia or unfamiliarity with Roman numerals, IX and XI, VIII and XIII, and VII and VIII are frequently written or read in error. A letter by the author to the JTH (Page DA. *Change designation of clotting factors to Arabic numerals.* J Thromb Haemost MMIX; DOI: X.MCXI/j.MDXXXVIII-MMMMMMMDDCCCXXXVI. MMIX. MMMDXXIV.x.) elicited from physicians many other examples of errors or near misses. Discussion with manufacturers and regulators revealed that a universal change to Arabic numerals was simply not realistic.

## Recommendations

**To reduce the potential for medical errors, some precautionary measures include:**

- **prescribing brand names of clotting factor concentrates;**
- **writing the number of the coagulation factor in brackets in Arabic numerals as in "factor IX (factor 9)".**



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