Annual Bleeding vs. Factor VIII/IX consumption – comparison of result in 2014 and 2015 according to electronic diary smart medication™


Background:
Bleeding frequency and factor VIII/IX consumption (FC) differs widely among patients with the same coagulation defect. However, the individual year to year patterns are often similar. It was analyzed whether or not this is supported by the database of the electronic diary smart medication™.

Methods:
FC and Joint bleeds (JB) from 192 patients in 2014 were compared to 213 patients in 2015 from the same centers that completed electronic documentation smart medication™.

Results:
The average FC was 2,442 IU/kg BW (±2,038 IU/kg BW) in 2014 and 2,701 IU/kg BW (±1,837 IU/kg BW) in 2015. The average number of JB was 2.1 (±3.9) in 2014 and 2.5 (±4.9) in 2015 (Fig. 2). Four groups were identified and compared between 2014/2015 (Tab. 1, Fig. 1): The majority (group A, 45%/40%) had 2 or less JB with less than average FC, followed by (B, 31%/35%) who also had 2 or less JB but above average FC. A minor group (C, 14%/11%) had more than 2 JB and more than average FC and was similar to a group (D, 10%/14%) who had more than 2 JB but less than average FC. Distribution of patients (Fig. 2) and Consumption of factor VIII/IX were similar comparing data from 2014 to 2015.

Conclusion:
• A majority (76%/73%) of patients documented 2 or less JB per year as a result of optimal home treatment showing no major difference between two consecutive years.
• Patients with high bleeding frequency in spite of above average FC again revealed a small (14%/11%) but important group requiring intensified attention of target joints.
• The electronic diary smart medication™ is suitable to focus on groups of patient which may require more (group D) or less factor treatment (group B), or need otherwise intensified treatment (group C).
• A shift of resources from group B to group D may improve the overall outcome by reducing costs at the time.

FIG. 1
MEAN AS LIMIT FOR BLEEDS AND FACTOR CONSUMPTION

FIG. 2
ANNUAL FACTOR CONSUMPTION (IU/KG BW) AND BLEEDS 2015 AND 2014

FIG. 3
NUMBER OF PATIENTS ACCORDING TO FACTOR CONSUMPTION VS. BLEEDING IN 2014 AND 2015

FIG. 4
FACTOR VIII/IX CONSUMPTION IN GROUPS A TO D IN 2014 AND 2015

TAB. 1
DIVISION INTO GROUPS ACCORDING TO FACTOR CONSUMPTION AND NUMBER OF BLEEDS