

Comparison of electronic documentation with smart medication™ between 2014 and 2017

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Background:

Annual joint bleeding rate (AJBR) and annual factor VIII/IX consumption (AFC) differ widely among patients with severe haemophilia. The year to year pattern may, however, be similar.

Methods:

AFC and AJBR were compared among 277 patients with haemophilia A/B from 9 haemophilia centers between 2014 and 2017 according to electronic documentation smart medication™.

Results:

The average AFC (IU/kg BW) was 2442, 2701, 2575 and 2670 (Fig. 1), the average AJBR 2.1, 2.5, 2.3 and 2.2 (Fig. 2) between 2014 and 2017, respectively. Four groups, comparing above or below average AFC and AJBR (Fig. 3), were compared between 2014 -2017: The majority (45%/40%/44%/45%) had an AJBR of ≤ 2 with less than average AFC, followed by a group (31%/35%/32%/32%) with ≤ 2 AJBR but above average AFC. A minor group (14%/11%/15%/15%) had an AJBR > 2 and more than average AFC. Only few (10%/14%/8%/8%) had an AJBR > 2 but less than average AFC (Fig. 4).

FIG. 1 ANNUAL FACTOR VIII/IX CONSUMPTION BETWEEN 2014 AND 2015

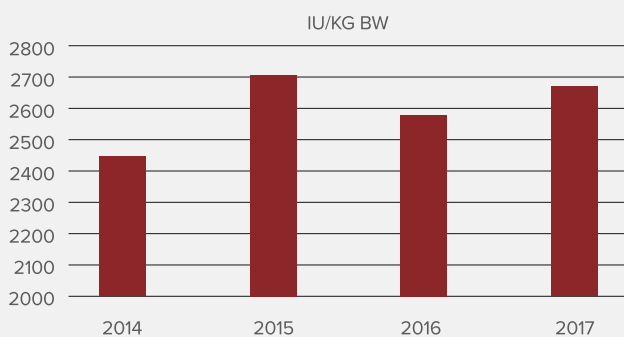


FIG. 2 ANNUAL JOINT BLEEDING RATE BETWEEN 2014 AN 2017

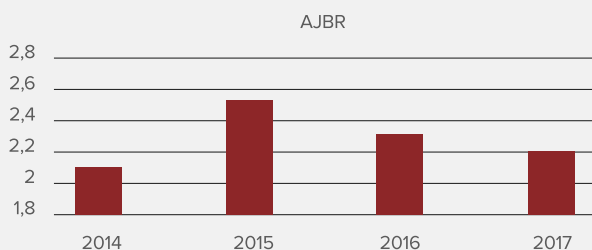


FIG. 3 PATIENTS WITH ABOVE OR BELOW AVERAGE AJBR (2,27) AND AVERAGE AFC (2597 IU/KG BW)

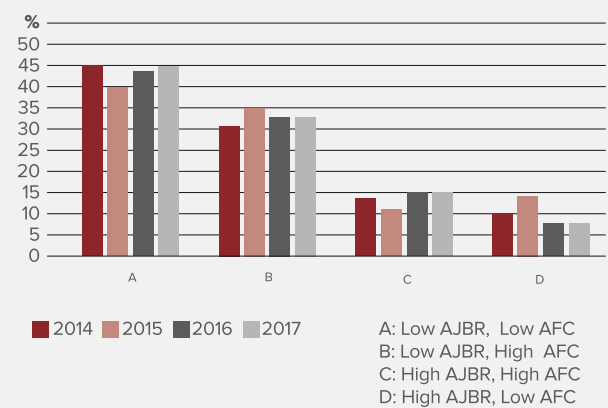
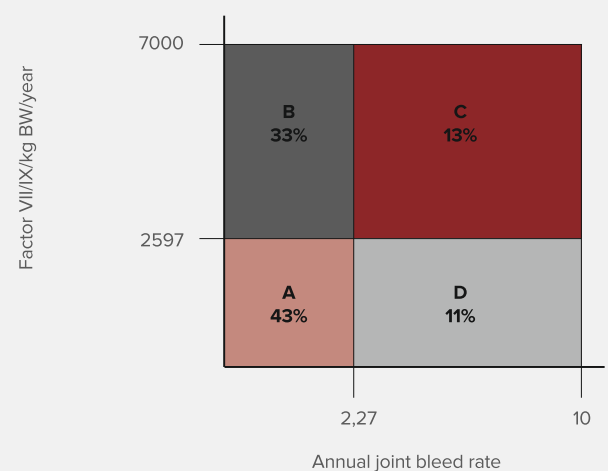


FIG. 4 AJBR VS. AFC AMONG 277 HAEMOPHILIA A/B PATIENTS IN 9 GERMAN HAEMOPHILIA CENTERS



Conclusion:

Between 2014 and 2017 a majority of patients (75-77%) had an AJBR of ≤ 2 as a result of sufficient home treatment. A minor group (8-14%) may possibly require increased factor dosing due to frequent bleeding and below average AFC. Moreover, smart medication™ data analysis enables the identification of patients with a combination of both above average AJBR and AFC (11-15%) indicating individual and urgent treatment strategies in these patients. The results were similar during four consecutive years.