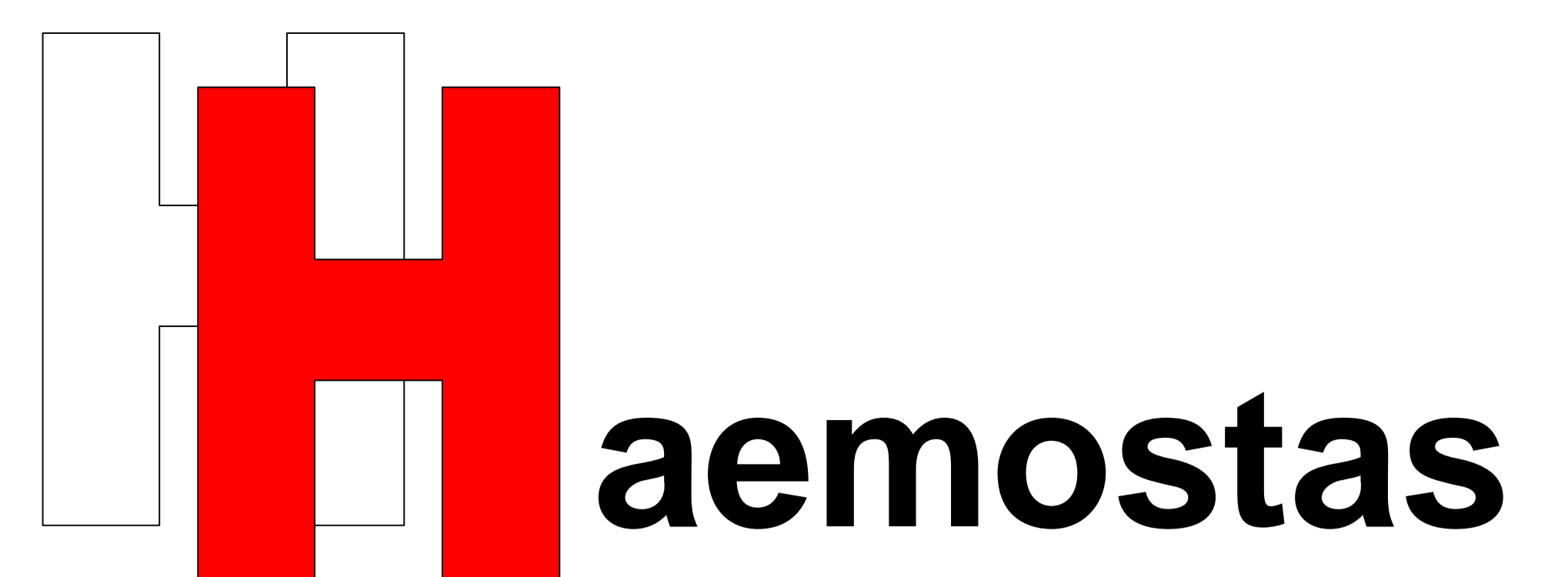


The electronic diary smart medication™ allows a rapid and comprehensive overview of haemophilia home treatment



W. Mondorf¹, C. Mondorf¹, H. Pollmann², B. Siegmund², A. Rösch³, D. Schmoltdt³

¹Haemostas-Frankfurt/M, ²Haemophilie-Zentrum Münster, ³Rösch & Associates, Dreieich

Fig. 1
Online overview of patient summary

= Daily monitoring tool for physician and haemophilia nurse.

ID	All Entries	Last Entry	Dispense 12 month	Consumpt 12 month	Home stock	Total Bleeds	Bleeds last 3 months	Bleeds last 7 days
Pat10101	837	2 Tage (08.09.2013)	380.000	376.000	4.000	19		
Pat10102	795	13 Tage (28.08.2013)	526.000	400.000	126.000	14		
Pat10103	747	4 Tage (06.09.2013)	167.000	144.000	23.000	20		
Pat10104	801	11 Tage (30.08.2013)	390.000	299.000	91.000	23		
Pat10105	981	30 Tage (11.08.2013)	109.000	60.000	49.000	452	4	
Pat10106	4	102 Tage (31.05.2013)	30.000	11.000	19.000	2		
Pat10107	125	0 Tage (10.09.2013)	180.000	162.000	18.000	8	4	1
Pat10108	57	5 Tage (05.09.2013)	130.000	117.000	13.000	40	13	1
Pat10109	210	18 Tage (23.08.2013)	473.000	456.000	17.000	10		
Pat10110	7	304 Tage (10.11.2012)	160.000	24.000	136.000	7		
Pat10111	4	35 Tage (06.08.2013)	14.000	6.000	8.000	2	1	
Pat10112	90	5 Tage (05.09.2013)	180.000	96.000	84.000	4	1	

Order new factor

No bleeds, high consumption, maybe reduce prophylaxis

Recent bleeds, maybe increase factor dose

Does not document properly

Background: The electronic diary smart-medication™ allows rapid and easy online surveillance of haemophilia home treatment. Adherences to documentation and treatment recommendations as well as subsequent bleeding patterns can be analyzed from day to day and retrospectively.

Method: Monitoring of concentrate supply vs. consumption allows online analysis of adherence to documentation (increasing home stock) and possible shortness of home supply (Fig. 1). The amount and pattern of home treatment and documented bleeds enables the center to analyzing the individual adherence to treatment recommendations. Changes in treatment patterns (amount, frequency, daytime of treatment) can be analyzed in comparison to bleeding frequency in a real time fashion and thus may allow early identification of bleeding problems(Fig. 2).

Results: Within two years 220 patients with haemophilia A/B transmitted 14300 treatment entries with a total of 18.500.000 IU. The difference between prescribed and documented concentrates was low demonstrating a high rate of adherence to the electronic documentation format. Higher bleeding frequencies could be identified within less than one week since occurrence allowing early initiation of education and subsequent improvement of home treatment.

Summary: Two years experience with smart-medication has proven to optimized surveillance of haemophilia home treatment. Although the majority of patients document thoroughly using an appropriate amount of factor and show low bleeding tendency during prophylaxis, some patients with low adherence and high bleeding frequency could easily be identified and included into appropriate educational programs.

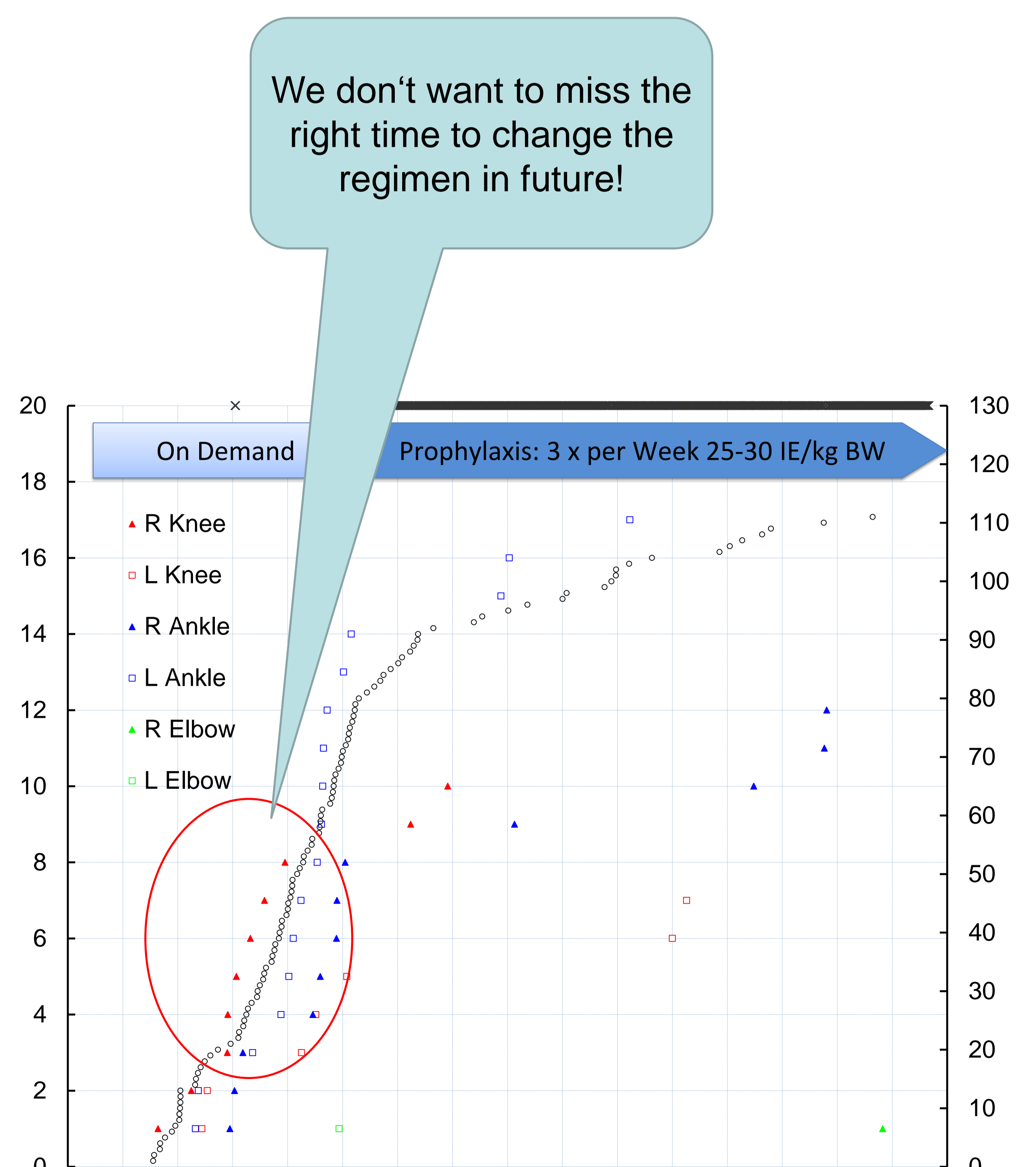


Fig. 2 Retrospective and current data which are collected and updated automatically by smart medication™