



## 2014 European Conference on Donor Health and Management

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## Conference Report

### 2014 European Conference on Donor Health and Management

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#### Abstract

The first European Conference on Donor Health and Management was held in the Hague from 3th-5th September 2014 and hosted by Sanquin, the Dutch national blood donation organization. This is the first international conference with a focus on “donor health”, including donors of blood, organs, and other substances of human origin.

The conference covered 5 main themes: Donor Health, Donor Base Management, Donor Recruitment, Donor Retention and Donor Blood Collection. This overview presents selected research topics for each of the five themes.

#### Introduction

It is surprising that the broad topic of donor health has attracted relatively little attention from epidemiological, clinical and behavioural science. Last year, Sanquin, the Dutch national blood donation organization, hosted the first European Conference on Donor Health and Management with a broad remit extending across “donor health”, including donors of blood, organs, and other substances of human origin. The scope was therefore wider than traditional blood donation.

The presentations and posters covered the areas Donor Health, Donor Base Management, Donor Recruitment, Donor Retention and Donor Blood Collection and this report reviews some of the major topics in each theme.

#### Donor health

A number of presentations on the subject of donor health focused on the health effects of blood and component donation. The impact on a variety of factors including iron levels, bone density and insulin resistance were considered.

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2  
3 Methods used for the management of low hemoglobin (Hb) and iron deficiency in blood donors  
4 were also presented, including ferritin testing, low hemoglobin deferral prediction models and  
5 various devices for hemoglobin screening.  
6

#### 7 *Iron deficiency*

8  
9  
10 Ferritin testing for the management of low iron in blood donors may enhance donor health by  
11 reducing iron deficiency and deferral. Previous studies on the Danish donor cohort had shown that  
12 the strongest predictors of iron deficiency were sex, menopausal status, the number of blood  
13 donations in a 3-year period, and the time since last donation. Other significant factors included  
14 weight, age, intensity of menstruation, iron tablets, vitamin pills, and consumption of meat and wine  
15 (Rigas et al, 2014). Karin Magnussen (Center of Donor Hemoglobin and Iron , Copenhagen University  
16 Hospital) presented the Danish model for management of iron deficiency and low Hb in blood  
17 donors implemented 2 years ago (Magnussen et al, 2015). The system relies on the centralized  
18 measurement of Hb and ferritin with Hb measured at each donation and ferritin measured at the  
19 first and tenth donation, or more frequently for donors with low Hb levels and offering intermittent  
20 iron supplementation to some of the donors. Implementation of the centralized measurement  
21 system and this directed iron supplementation only to those that would benefit was followed by a  
22 significant decrease in the number of donors with low Hb and an overall increase in Hb levels in male  
23 and female donors.  
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#### 27 *Bone density in frequent apheresis donors*

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29  
30 The effects of frequent apheresis donation on bone density in female apheresis donors were  
31 communicated by Peter van den Burg (Sanquin). The impact of over 100 plasmapheresis collections  
32 on lumbar spine T-scores were compared in 20 female apheresis donors and 20 whole blood donors  
33 matched on diet, smoking and physical activity, with no significant differences found between the  
34 two groups (Boot et al, 2015).  
35  
36

#### 37 **Donor base management**

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39 Donor base management focuses on improving the logistics of the blood bank through selection of  
40 appropriate donors and adequate planning of donation sessions to maximize the likelihood of  
41 successful donations.  
42

43  
44 A variety of research was presented, focusing mainly on the study of donor selection, donor  
45 demographics, and planning of blood donations.  
46

#### 47 *The use of prediction tools in blood supply management and collection*

48  
49 The use of forecasting tools in the management of the Irish blood supply was described by Olga  
50 Flinter and Stephen Cousins (Irish Blood Transfusion Service -IBTS). Such tools rely on use of data on  
51 previous issues and use of blood products to predict stock levels in the near future (~13 weeks).  
52 These forecasting tools have been successfully incorporated into the IBTS to facilitate medium term  
53 planning of blood collection (preferentially contacting donors of certain blood groups) and short  
54 term actions (targeted recruitment using text messages) in response to predicted severe shortages.  
55  
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#### 57 *Defining the best interval for blood donation*

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2  
3 Study coordinator Carmel Moore from the University of Cambridge & NHS Blood and Transplant,  
4 presented a 50,000 donor randomized controlled trial conducted within NHSBT which seeks to shed  
5 light on the most appropriate interval for blood donation. The INTERVAL study, which completed  
6 recruitment in May 2014, will follow up donors for 2 years to assess the effects of donating blood at  
7 3 different intervals specific to men and women (8, 10 and 12 weeks for men; 12, 14 and 16 weeks  
8 for women), on number of donations, iron levels and cognitive function. The possibility of tailoring  
9 donation intervals to certain subgroups of the donor population will also be explored (Moore et al,  
10 2014).  
11  
12

### 13 Donor recruitment

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15 Topics covered in the donor recruitment sessions included marketing based approaches to increase  
16 the blood donor pool, target group recruitment and public relations. The use of social media as a  
17 means of communicating with new prospective donors was also highlighted in a number of research  
18 communications.  
19  
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### 21 *Targeting ethnic minorities for donor recruitment*

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23 The Dutch blood supply organization, Sanquin has designed two programs presented by Anne Van  
24 Dongen and Anna-Mari Vermeulen-Merilainen aimed at targeting recruitment of blood donors from  
25 ethnic minority groups.  
26  
27

28 The first program, a collaboration between Sanquin and the Turkish immigration organization  
29 Diyanet, seeks to increase the recruitment of new donors via the Turkish network through the use of  
30 translated brochures and presentations on blood donation by imams.  
31

32 The second program, the Blood Match-Availability study, aims at investigating the prevalence of rare  
33 blood types in diverse ethnic groups in order to select one or more ethnic groups for a targeted  
34 strategy to increase recruitment of blood donors. Diversity sensitive recruitment and retention  
35 strategies will be assessed in these minority groups over the course of the study.  
36  
37

### 38 Donor retention

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40 Donor retention topics focused on the importance of donor satisfaction with regards to adverse  
41 events, the donation process and location of donation sites. Motivators differentiating long term and  
42 short term donors were also presented with a highlight on first time donors as a new population to  
43 target in the prevention of donor loss.  
44  
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### 46 *Elucidating reasons for loss of first time and inactive donors*

47  
48 Dr Sousa (Portuguese Blood and Transplantation Institute) presented results of an investigation into  
49 motivations and barriers to return for donation in inactive and first time donors contacted by  
50 telephone. Primary reasons for declining a donation invitation by telephone were temporary failure  
51 to meet eligibility requirements, and unavailability, with a minority of donors expressing  
52 dissatisfaction with service organization.  
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### 55 *Impact of adverse events on donor return*

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3 Daniel Waller (Australian Red Cross Blood Service) highlighted the importance of donor perception  
4 following a vasovagal event and the impact on further willingness to donate. A broad range of  
5 experiences were reported by donors, with differences in the perception of care and service  
6 provided by the blood donation organization which seemed to impact donor willingness to return.  
7

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9 Donor blood collection

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11 Presentations in this theme centered on methods for improving blood collection productivity and  
12 efficacy. Topics covered included the qualification of donor staff, optimization of donor sessions and  
13 analysis of spatial patterns in blood donation for improved targeting of session location.  
14

#### 15 *Measuring efficiency to optimize the performance of donor sessions*

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17 A new method of capturing flow and resource efficiency at donation sessions was presented by  
18 Teemu Laakso of the Finish Red Cross Blood Service. The measure of cycle time or end-to-end  
19 donation time were proposed as better performance indicators than resource efficiency (completed  
20 donations/FTE/hour) to estimate the efficacy of various donation setups.  
21

22  
23 The most efficient set-up in the Finish blood service was determined to be a one-nurse to one-donor  
24 setup, where the same nurse is responsible for the health assessment and blood collection.  
25

#### 26 **European Conference on Donor Health and Management 2016**

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28 The next European Conference on Donor Health and Management will be held in Cambridge and  
29 hosted by NHSBT and the University of Cambridge.  
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