

Donor complications outside the donation room and their impact on donor return



BANC DE SANG
I TEIXITS

Dra. Núria Nomen

16th International Haemovigilance Seminar (IHS)

06-03-2014



Generalitat de Catalunya
Departament de Salut

www.bancsang.net

There are several factors that influence whether or not a first-time donor will donate again such as:

- Demographic characteristics
- Family tradition
- Psychological approach
- Treatment received by staff during the donation itself and the following days
- **Adverse reactions as a result of the donation**

There 2 kind of adverse reactions as a result of the donation:

- ❑ Immediate adverse reactions, those that happen during the extraction, that are better known and easier to analyze.
- ❑ **Delayed Adverse Reactions (DAR)**, those that happen beyond the control and vigilance of the donation staff, it is more difficult to document.

To evaluate the extent and characteristics of the **delayed adverse reactions** and its impact on first-time donor **loyalty**.

We initiated a first-time donors' phone follow-up in February 2012.

Our goal was twofold:

- To increase loyalty.
- To detect any delayed adverse reaction that happened during the following 24 hours after the donor left the transfusion center.

Those follow-ups were executed by members of the transfusion center using a specific questionnaire, 15 days after the donation.

Materials and methods

For this study, we analyzed the impact in donors' loyalty during a 3 month period and whether they returned for a second donation in the following 12 months.

Between February and May 2012, we analyzed 77,501 donors.
19,742 of them were first-time donors (25.5%).

We contacted **4,389** of those first-time donors.

Phone call and loyalty

Loyalty			
Phone call	Subsequent donation	No subsequent donation	Total
No call	3,803 (24.8%)	11,550 (75.2%)	15,353 (77.8%)
Yes call	2,112 (48.1%)	2,277 (51.9%)	4,389 (22.2%)
Total	5,915	13,827	19,742

**p<0.001

Donors' loyalty was significantly higher for those involved in the study 48,1% versus 24,8% for those we didn't contact.

Characteristics of donor groups and returning for a second grant

	Subsequent donation	No subsequent donation	Total donors
Sex	n=2,112	n=2,277	n=4,389
Male	977 (47.8%)	1,065 (52.2%)	2,042 (46.5%)
Female	1,135 (48.4%)	1,212 (51.6%)	2,347 (53.5%)

- We can see that there are almost no differences in loyalty among sex.

Characteristics of donor groups and returning for a second grant

	Subsequent donation	No subsequent donation	Total donors
Age 1 st donation	n=2,112	n=2,277	n=4,389
<30 years	720 (48.6%)	762 (51.4%)	1,482 (33.8%)
30-44	803 (47.0%)	905 (53.0%)	1,708 (38.9%)
≥45 years	589 (49.1%)	610 (50.9%)	1,199 (27.3%)

We can see that there are almost no differences in loyalty among age.

There are two main variables that affect loyalty:

- Type of donation center.
- Delayed adverse reactions.

Characteristics of donor groups and returning for a second grant

	Subsequent donation	No subsequent donation	Total donors
Center type**	n=2,112	n=2,277	n=4,389
Fixed center	1,259 (45.8%)	1,492 (54.2%)	2,751 (62.7%)
Mobile unit	853 (52.2%)	785 (47.9%)	1,638(37.3%)

** p <0.05

The return of donors from mobile centers was greater (52%) than those who donated at a fixed center (46%).

Loyalty is higher in mobile centers.

Characteristics of donor groups and returning for a second grant

	Subsequent donation	No subsequent donation	Total donors
DAR**	n=2,103	n=2,254	n=4,357
No DAR	1,932 (49.1%)	2,005 (50.9%)	3,937 (90.4%)
Yes DAR	171 (40.7%)	249 (59.3%)	420 (9.6%)

** p < 0.05

Delayed adverse reactions strongly affect loyalty

- 49% of the donors that didn't have any DAR came back.
- 41% of donors that had a DAR.

Characteristics of donor groups and returning for a second grant

- 21% of the DAR were arm injury (hematoma, arm pain).
- 79% of them were general (fainting, dizziness, nausea and /or vomiting, asthenia).

Characteristics of donor groups and returning for a second grant

	Subsequent donation	No subsequent donation	Total donors
DAR type**	n=171	n=249	n=420
Arm injury	43 (48.9%)	45 (51.1%)	88 (21%)
General	128 (38.6%)	204 (61.4%)	332 (79%)

** p < 0.05

- Local DAR didn't decline loyalty.

As we can see loyalty among these group in 50% roughly the same as loyalty among donors with no DAR.

- However, general delayed adverse reactions did affect loyalty. As we can see, 38% of them came back, 10 points less than donors with no adverse reactions.

Multiple regression analysis, for different factors related to coming back

	Adjusted OR (IC 95%)
DAR	
Yes	1
No	1.45 (1.18-1.79)
Sex	
Male	1
Female	1.04 (0.92-1.17)
Age of 1st donation	
<30	1
30-44	0.94 (0.82-1.09)
>=45	1.05 (0.9-1.23)
Center type*	
Fixed center	1
Mobile unit	1.31 (1.16-1.49)

We deduce an OR of 1.45 when evaluating the relationship between having DAR and the probability of coming back.

Donors that didn't have any DAR have a 45% higher probability of returning than those that had one DAR.

Multiple regression analysis, for different factors related to coming back

We have an OR of 0.64 for general DAR.

The probability of coming back for a donor that had a general DAR is 36% lower than those that didn't have.

	Adjusted OR (IC 95%)
DAR *	
No	1
Arm injury	0.94 (0.6-1.4)
General	0.64 (0.5-0.8)

- ❑ We increased loyalty by doing a personal follow-up and acknowledging our donors.
- ❑ General DAR reduces the probability of coming back for 1st time donors.
- ❑ Local DAR doesn't reduce the probability of coming back for 1st time donors.

Contributors

BST Mobile unit Barcelona: N. Nomen Calvet, C. Pastoret Pascal,
M. Tarifa Chicano

BST Promotion: A. Albert López, S. Arcos Rivera, G. Cortel Mañé,
S. Delgado Torres, C. Díaz Von Der Fecht, M. Hernández Cilleros,
A. Maspons Castells, J.A. Pellejero Gómez, V. Pleguezuelos Hernández

BST Haemovigilance: E. Muñiz Díaz

BST Blood division: Ll. Puig Rovira, P. Ortiz Murillo

BST Girona: J. Profitós Tuset, A. Mingo Sánchez, E. Sanfeliu Riera

BST Lleida: J.M. Sánchez Villegas, A. Bobet Garcés, M. Morlans Boldu

BST Tarragona: E. Contreras Barbeta, N. Vilanova Cabayol,
E. Vallejo Genaro, T. Roldán Tiscar

BST Catalunya Central: R. Salinas Argenté, R. Claret Roset,
M. Perucho Manjón

BST St. Pau: A. Bosch Llobet, C. Dalmau Verger, M. Izquierdo Costa,
M. Sáez Bruguera

BST Bellvitge: Ll. Massuet Bosch

BST Trias i Pujol: J.R. Grifols Ronda, F. Carpio Caniego

BST Clínic-Vall d'Hebrón: D. Castellá Cahiz, N. Pla Fernández,
C. Sillué Bagués, S. Tejedor Pagés

BST Director: E. Argelagués Vidal



*Moltes
gràcies*

