The Haemovigilance Nurse in Spain

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Introduction

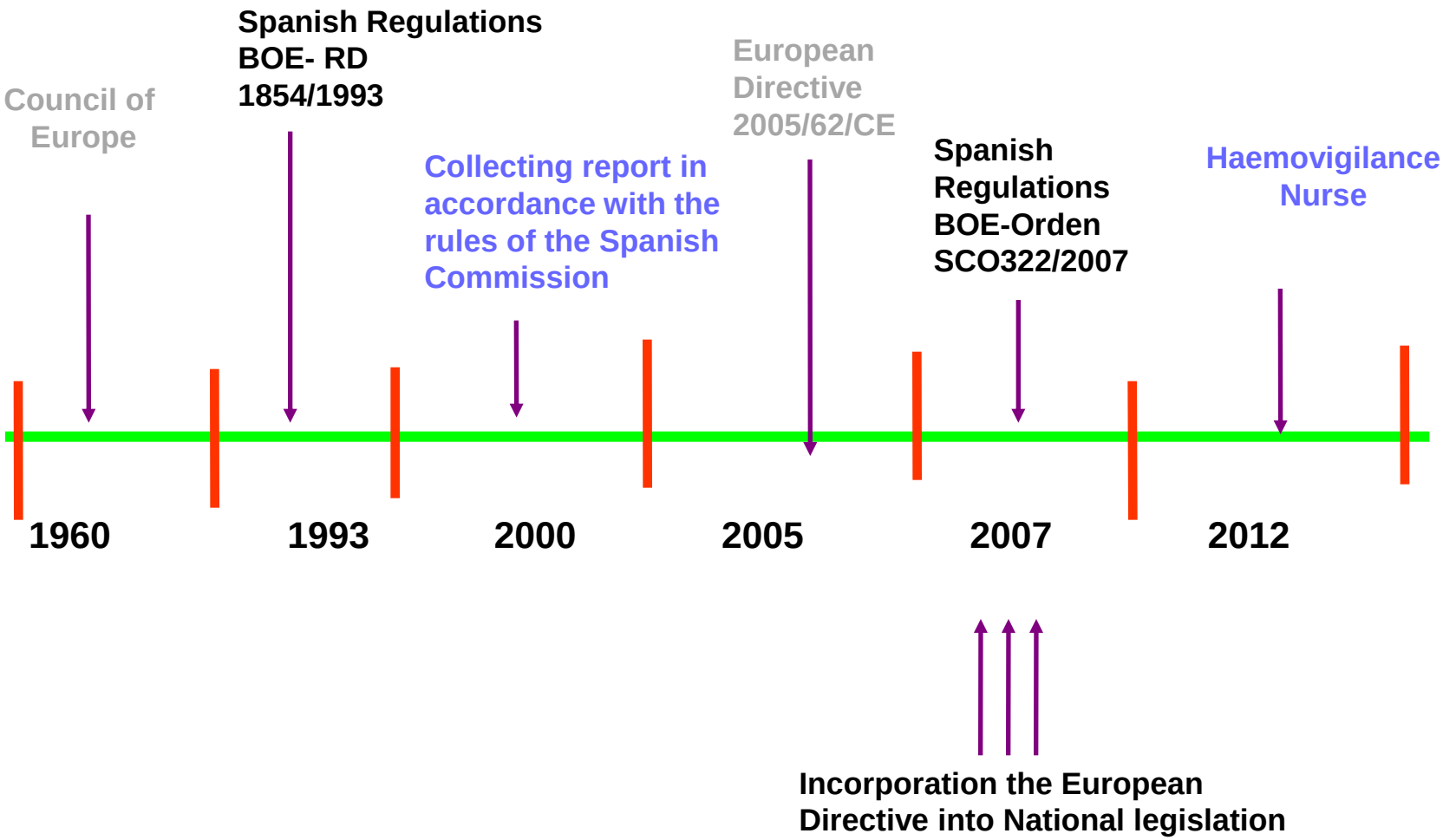
Haemovigilance is a well-known control program during the transfusion process. The procedures for its implementation in a Transfusion Service are not so clear. It depends on several factors:

- The most important factors are related to the transfusion activity
- Type of pathology involved
- Transfusion health care outside the hospital

Our Centre has 900 beds

- Every year nearly: 50,000 blood components are transfused
- 160 TPH (60% allogeneic)
- 250 organ transplant are performed
- We attend to home blood transfusions for adult and pediatric patients
- Some local dialysis centers
- Medium and long term stay patients in another hospital

Evolution of the Haemovigilance Program in our Center



Adverse Reactions 2000-2007

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ADVERSE EFFECTS	Nº	%
Hemolytic Transfusion Reactions	75	12,2
Transfusion-Related Acute Lung Injury(TRALI)	9	1,4
Post-Transfusion Purpura (PTP)	3	0,5
Febrile and Hypotensive Reactions	135	22
Allergic and Anaphilactic Reactions	132	21,6
Transfusion-Transmitted Infection (TTI)	1	0,1
Transfusion-Associated Circulatory Overload (TACO)	6	1,0
Viral Infection	5	0,8
Related to Autologous Transfusion	26	4,4
Unclassified	17	3,0
Incorrect Blood Component Transfused (IBCT)	62	10
Near Miss Events (NME)	140	23
Total	611	100

Serious Adverse Effects 2000-2007

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Adverse Effects	Nº	S (n)	I(n)
Hemolytic Reaction	4	2 (4)	2 (1) 3 (3)
IBCT	3	2(3)	3 (3)
TRALY	2	1(2) 4(1)	1(2) 3(1)
Febrile/Hypotensive	7	2(7)	2(4) 3(3)
Allergic/Anaphylactic	9	2(9)	2(9)
TTI	2	2(1) 4(1)	3(1) 2(1)
Total	27		

	Severity	Imputability
0	No symptoms	Excluded
1	Immediate morbidity	Posible
2	Long-term morbidity	Likely
3	Life-threatening	Certain
4	Death	

Death		N	
	TRALY	1	Unknown
	TTI	1	Platelets

Rate of Serious Adverse Effets
1 to 11,082 (0,009%)

Total of components transfused in this period	Rate of death by component
299.222	1 to 149.611

Incorrect Blood Component Transfused Period 2000-2007

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Consequences	Nº
Administration of ABO-incompatible components	4
Administration of Rh-D incompatible components	2
Administration of ABO-compatible components	9
Administration of non-irradiated components	18
Over transfusion	22
Administration of blood components without special requirements	7
Total	62

Human Errors in Transfusion in 2000-2007

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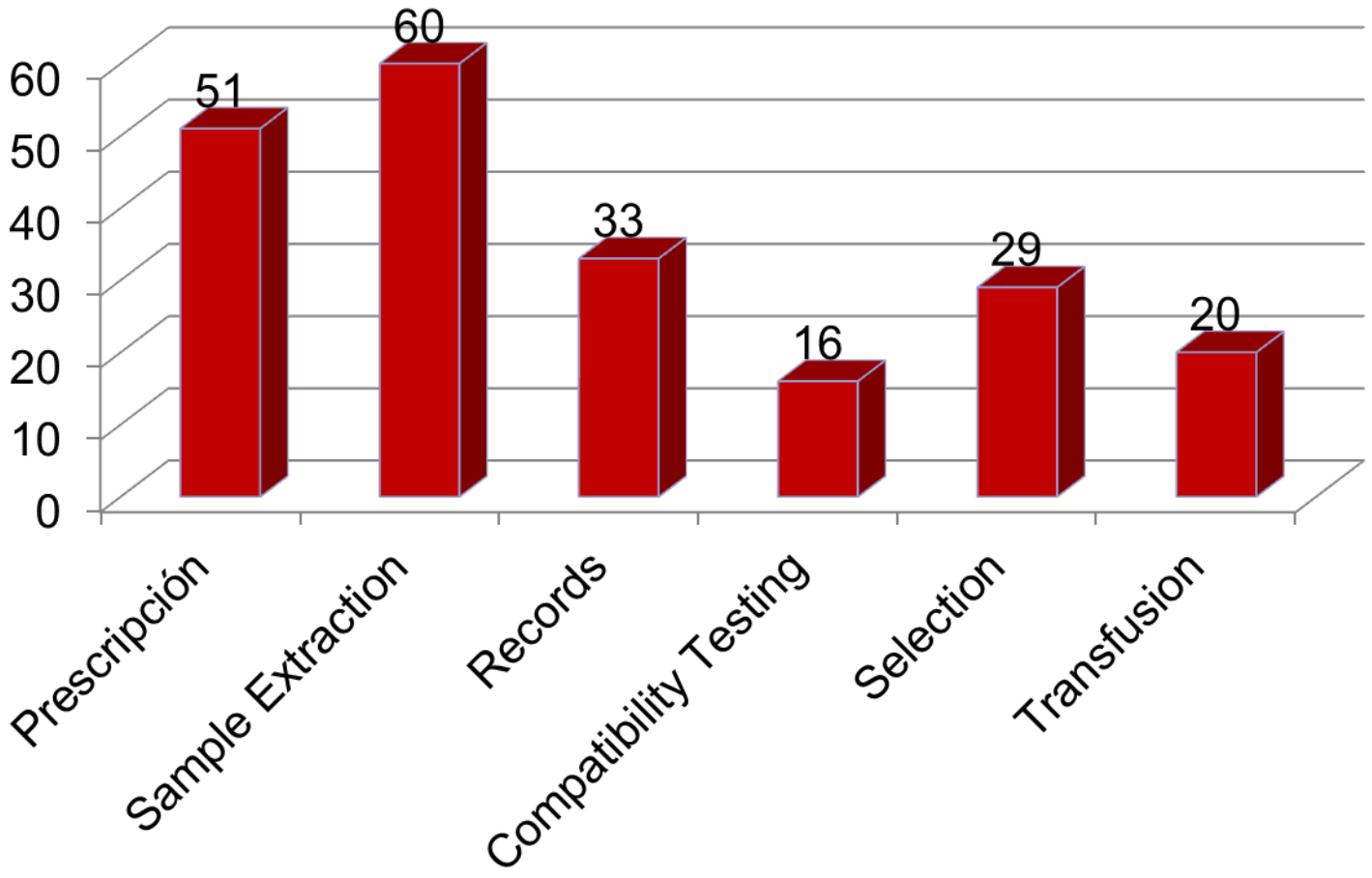

Trasfusional Security Electronic Devices

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Technology is one of the first steps to prevent human errors

Haemovigilance Team in 2008

In 2008 the present Haemovigilance team was formed and it is still the same today. Every morning there is a short meeting with he team and the doctors and nurses responsible for all the areas of the Blood Bank:

- The incidents that have happened in the last 24 hours.
- The workers implicated
- The transfusion phase errors implicated and the best way to prevent errors.

Note of non-compliance with the Service

- The Haemovigilance Nurse concerned, holds a meeting to explain detailes of the error.
- Simultaneously a presentation is given recalling the most important steps in the transfusion process and the dangers of breaking the rules.
- The presentation has two parts, one general and one specific for the particular errors that occurred.
- A tour of the Blood Bank is given following the presentation so that the procedures are fully understood.
- Other professionals from the service where the error occurred are also invited to a similar presentation and tour.
- At present there is a two month waiting list

More about the Meeting

The Meeting also discusses all the possible errors that may have occurred by tracing the components given to the patients.

- Units sent for Transfusion.
- Units returned unused or broken.
- Component bags full or empty accompanying patients from their hospital of origin.

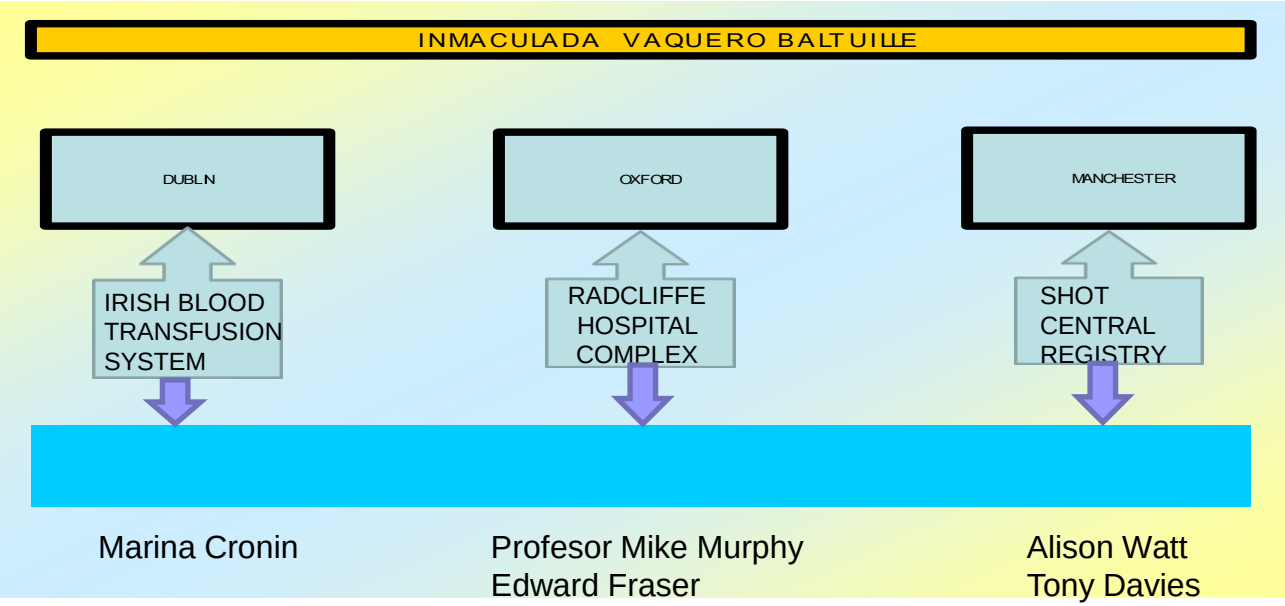
Finally, we discuss the problems with the equipment and others matters of interest

Year	Nº Meeting	Nº Nurses	Satisfaction Index (0 to 10)
2013	16	190	8,7


MÉDICO

La Fe Health Research Institute

In 2011, a member of our team obtained a grant from La Fe HRI to visit and be familiar with the programs of Haemovigilance in other European countries



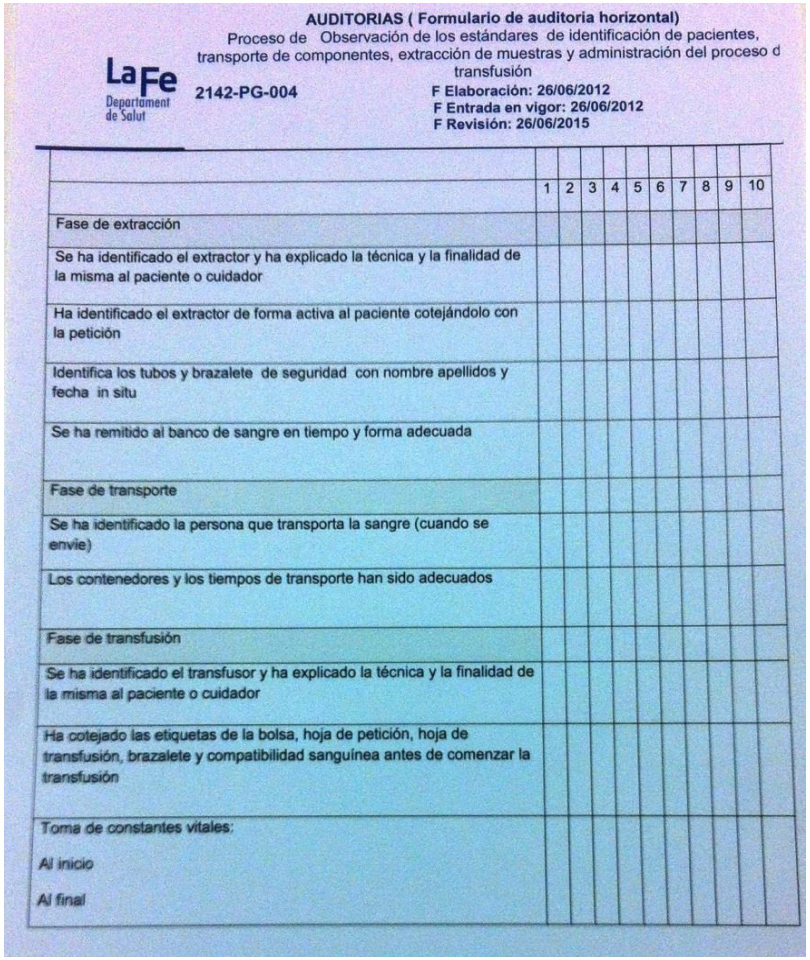
As a result we have taken many of our procedures from these Centers

Audits

- Are performed by the Haemovigilance team and others voluntary part-time nurses that collaborate with the team.
- The Audit evaluates all the staff members implicated in the transfusion process including doctors, nurses, technicians, etc….
- The Audits are carried out with the permission of the hospital management and allow us to identify areas of non compliance
- For the Audit we use a checklist previously defined which allows us to compare results with other audits
- As a result we take corrective actions: Training and information sessions.
- We never take punitive measures

Types of Audits

Procedures from the sample extraction to the transfusion at the bed side



AUDITORIAS (Formulario de auditoria horizontal)

Proceso de Observación de los estándares de identificación de pacientes, transporte de componentes, extracción de muestras y administración del proceso d transfusión

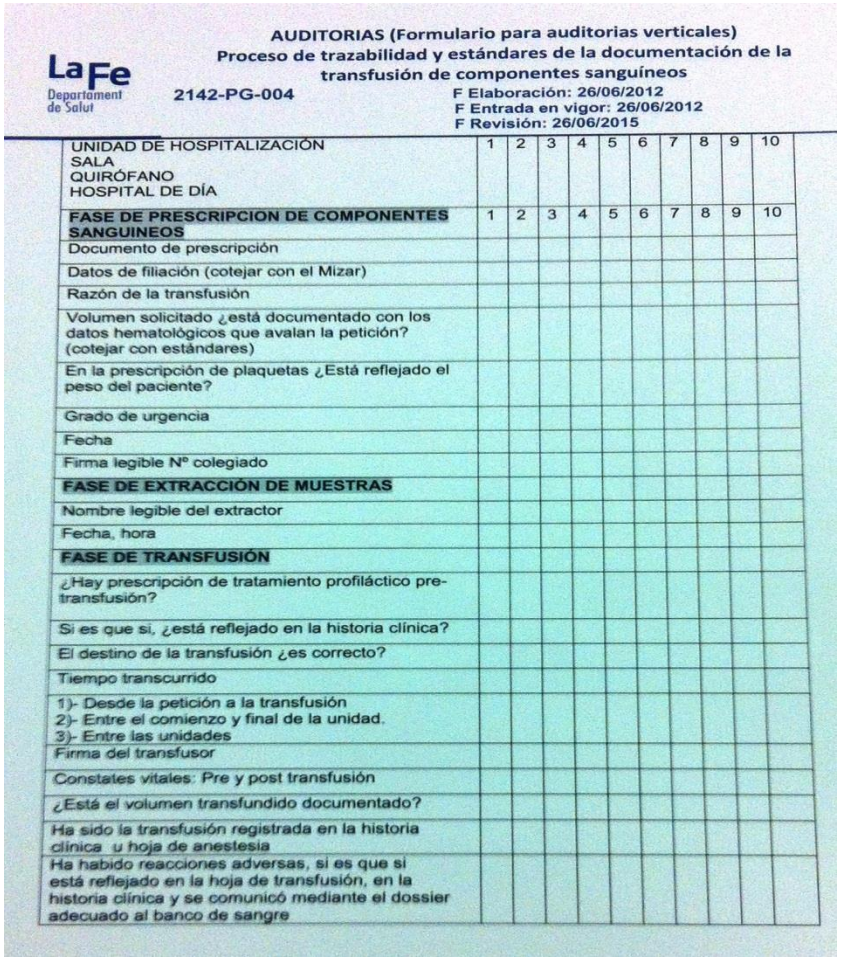
La Fe Departament de Salut

2142-PG-004

F Elaboración: 26/06/2012
F Entrada en vigor: 26/06/2012
F Revisión: 26/06/2015

	1	2	3	4	5	6	7	8	9	10
Fase de extracción										
Se ha identificado el extractor y ha explicado la técnica y la finalidad de la misma al paciente o cuidador										
Ha identificado el extractor de forma activa al paciente cotejándolo con la petición										
Identifica los tubos y brazalete de seguridad con nombre apellidos y fecha in situ										
Se ha remitido al banco de sangre en tiempo y forma adecuada										
Fase de transporte										
Se ha identificado la persona que transporta la sangre (cuando se envie)										
Los contenedores y los tiempos de transporte han sido adecuados										
Fase de transfusión										
Se ha identificado el transfusor y ha explicado la técnica y la finalidad de la misma al paciente o cuidador										
Ha cotejado las etiquetas de la bolsa, hoja de petición, hoja de transfusión, brazalete y compatibilidad sanguínea antes de comenzar la transfusión										
Toma de constantes vitales: Al inicio Al final										

Review records from where a request was received to the return of the empty bags



AUDITORIAS (Formulario para auditorias verticales)

Proceso de trazabilidad y estándares de la documentación de la transfusión de componentes sanguíneos

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UNIDAD DE HOSPITALIZACIÓN SALA QUIRÓFANO HOSPITAL DE DÍA	1	2	3	4	5	6	7	8	9	10
FASE DE PRESCRIPCION DE COMPONENTES SANGUINEOS	1	2	3	4	5	6	7	8	9	10
Documento de prescripción										
Datos de filiación (cotejar con el Mizar)										
Razón de la transfusión										
Volumen solicitado ¿está documentado con los datos hematológicos que avalan la petición? (cotejar con estándares)										
En la prescripción de plaquetas ¿Está reflejado el peso del paciente?										
Grado de urgencia										
Fecha										
Firma legible Nº colegiado										
FASE DE EXTRACCIÓN DE MUESTRAS										
Nombre legible del extractor										
Fecha, hora										
FASE DE TRANSFUSIÓN										
¿Hay prescripción de tratamiento profiláctico pre-transfusión?										
Si es que si, ¿está reflejado en la historia clínica?										
El destino de la transfusión ¿es correcto?										
Tiempo transcurrido										
1)- Desde la petición a la transfusión 2)- Entre el comienzo y final de la unidad. 3)- Entre las unidades										
Firma del transfusor										
Constates vitales: Pre y post transfusión										
¿Está el volumen transfundido documentado?										
Ha sido la transfusión registrada en la historia clínica u hoja de anestesia										
Ha habido reacciones adversas, si es que si está reflejado en la hoja de transfusión, en la historia clínica y se comunicó mediante el dossier adecuado al banco de sangre										

Results

	2007	2013	p
Components Transfused	38367	39973	
Errors in Request	14	24	
Errors in Sample Extraction	13	10	
Errors in Registration	16	1	
Errors in Compatibility Tests	7	1	
Errors in Selection of Blood Components	9	3	
Errors in Transfusion	3	4	
Total errors	62	43	<0,01

Errors in Request	2007	2013
	1 to 2.740	1 to 1.665

Conclusion

- Training is the best way to improve transfusion procedures
- The nursing staff is the best suited to carry out this training and to analyze and implement improvements
- Health workers involved in the transfusion process, have a high degree of satisfaction with this program.


Thanks for your Attention