

Presence of medication taken by blood donors in plasma for transfusion



Hemo- en biovigilantie



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- 70-year-old female patient, von Willebrand disease type II, with known allergies (plasters, barium contrast, fruit, penicillin?)
- Fractured collar bone

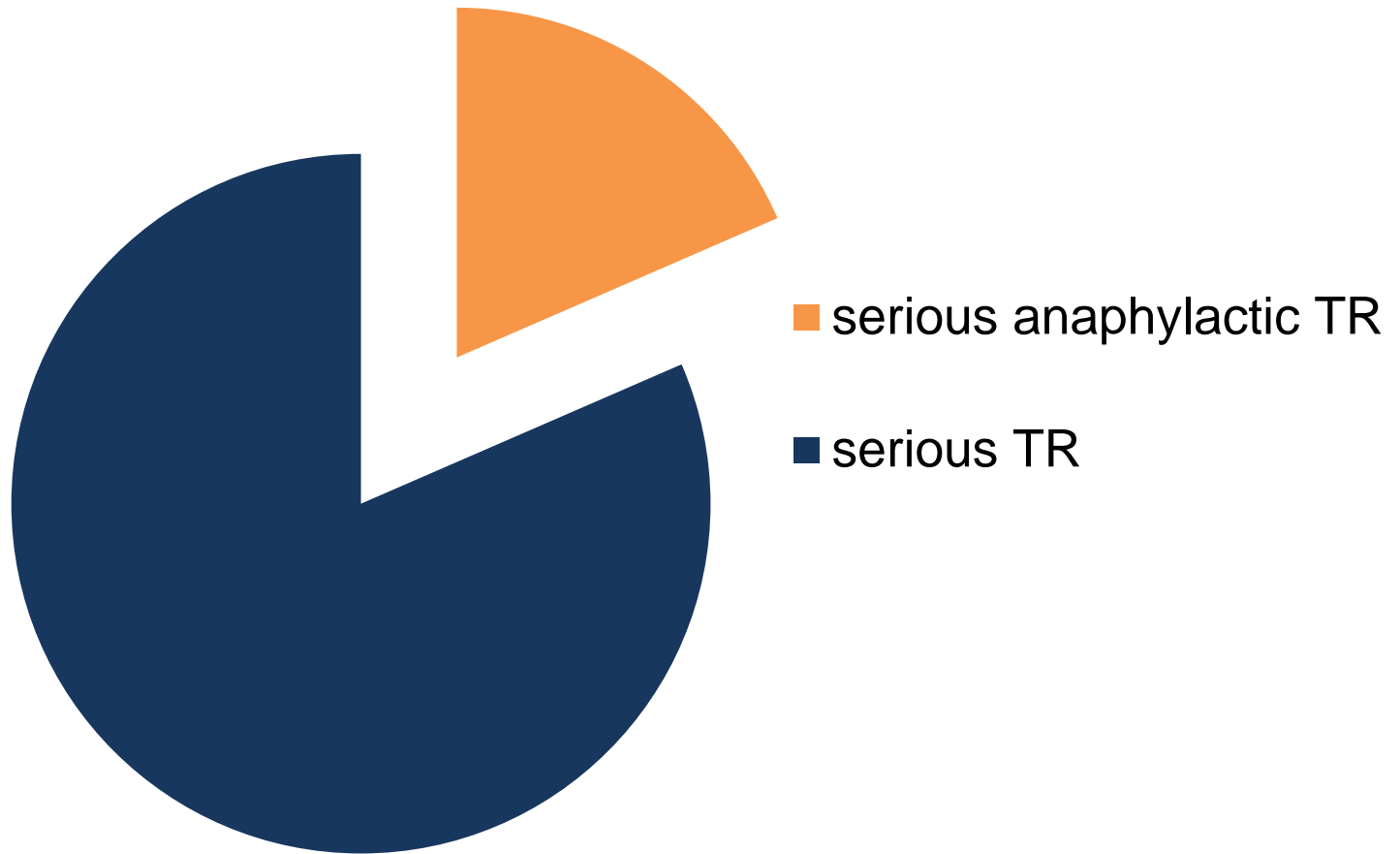
21/1 14.00 hrs start platelet transfusion, BP 160/71

21/1 14.10 hrs bronchospasm, glottis edema, urticaria,
hypotension

- Tavegil and hydrocortisone: quick recovery (BP 180/90)
- No IgA deficiency

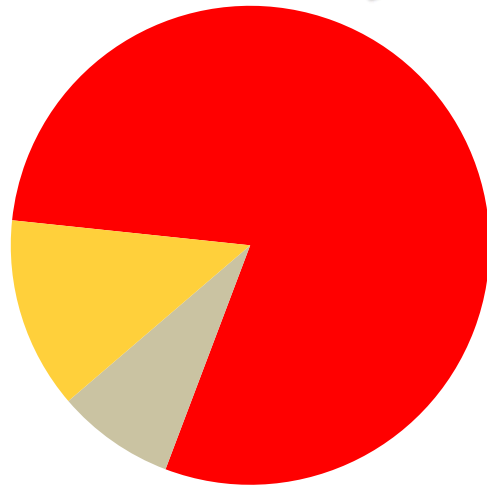
TRIP report: Anaphylactic reaction,
imputability probable, severity grade 2

TR severity grade 2 or higher 2008-2012

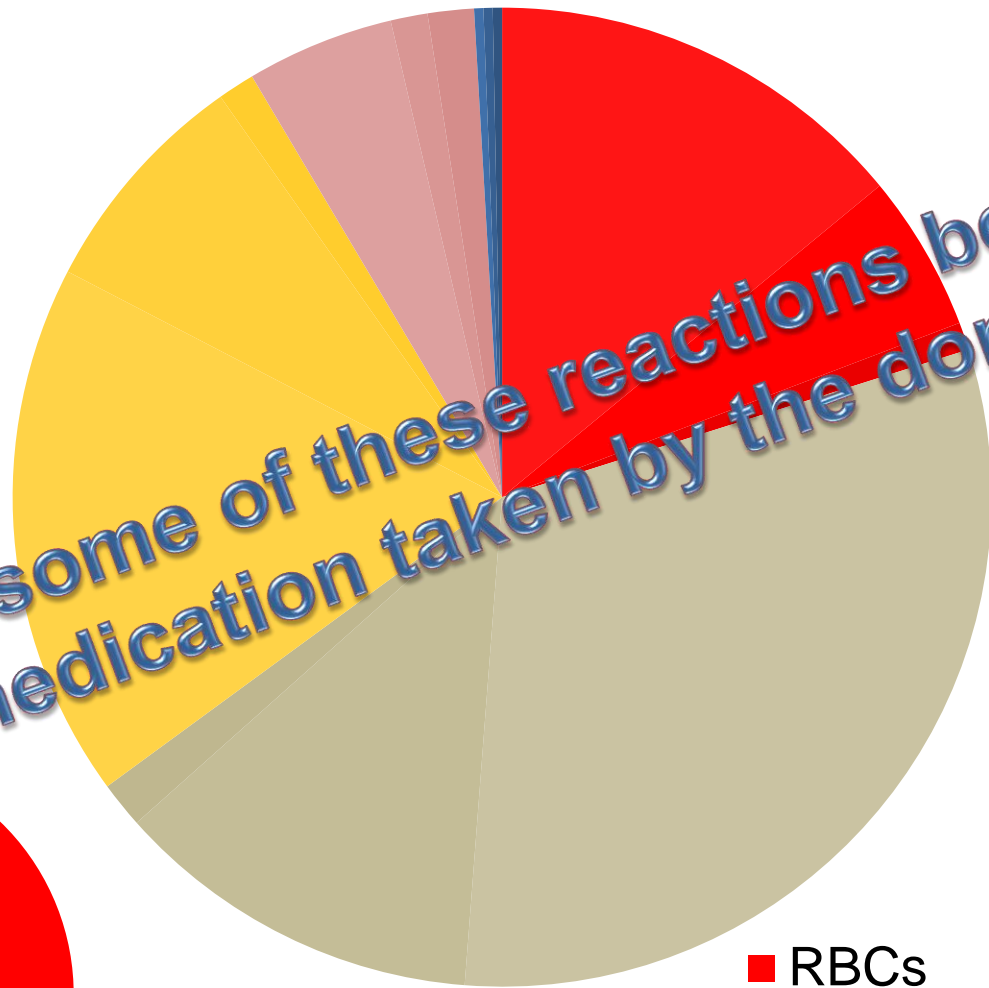


anaphylactic TR 2008-2012

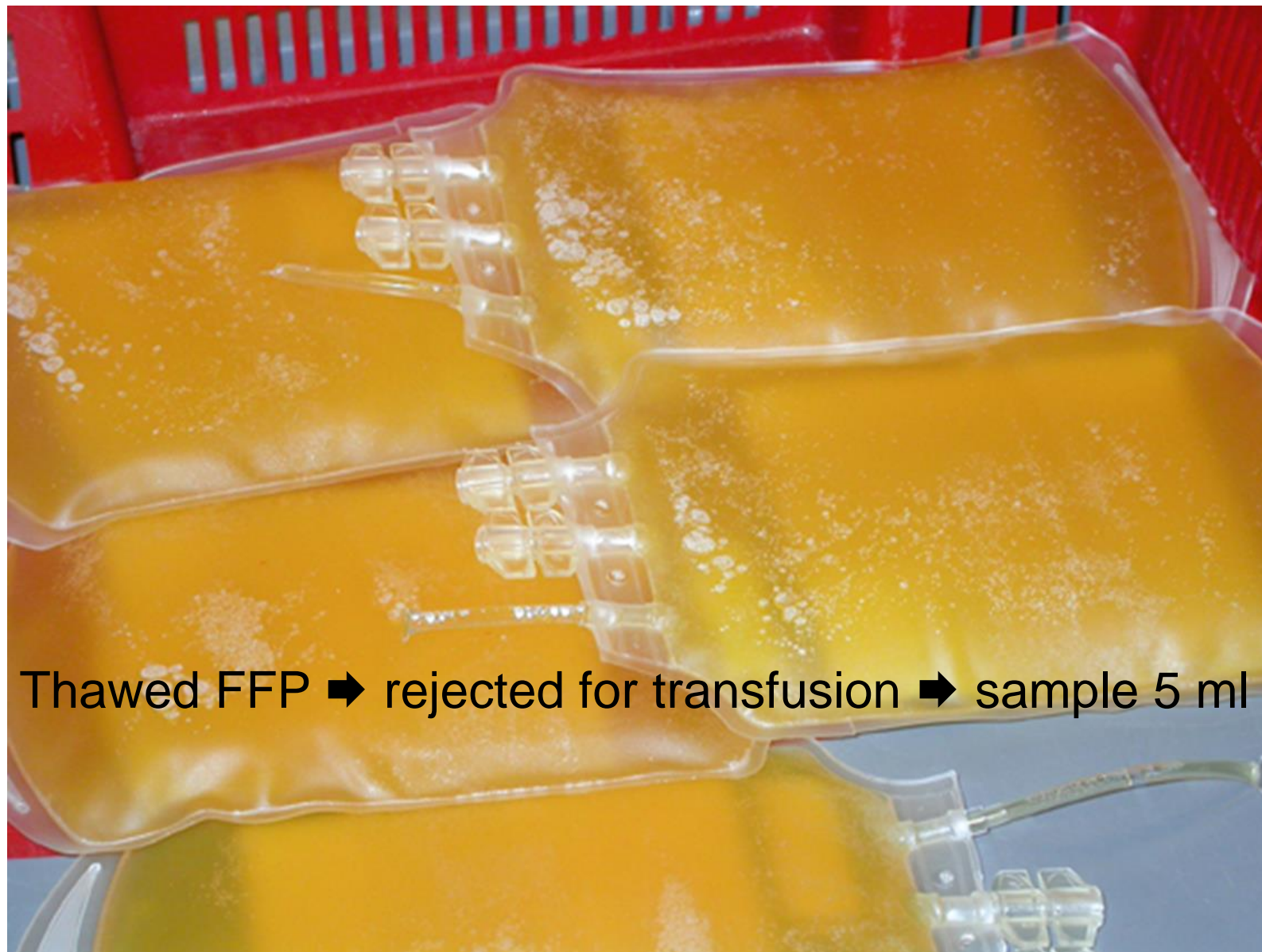
Could some of these reactions be due to medication taken by the donor?



Distributed blood components



- RBCs
- platelets
- plasma
- combination
- other (drain blood)



Thawed FFP ➡ rejected for transfusion ➡ sample 5 ml

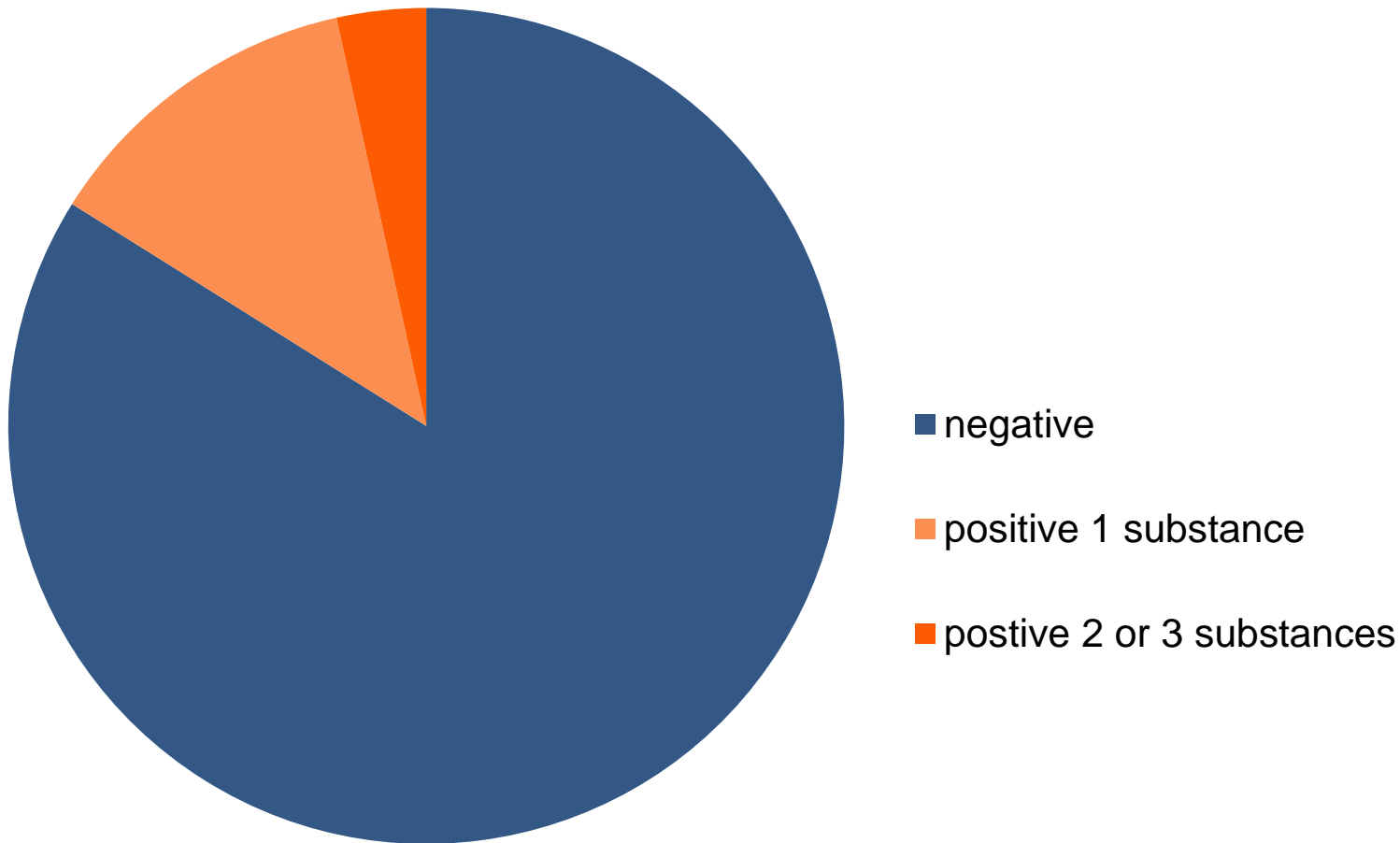


I-Tox screening

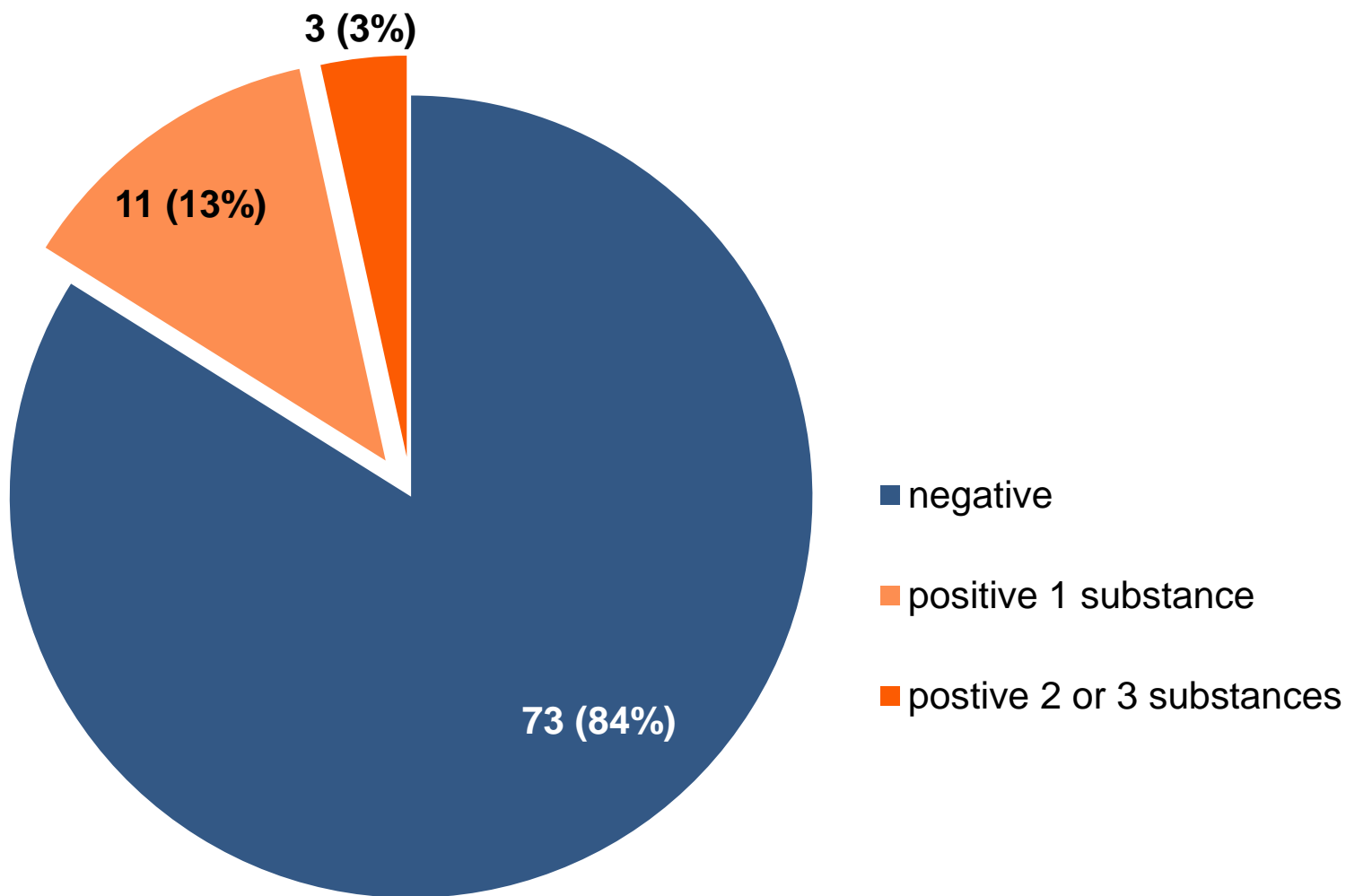


87 samples have been processed

87 samples



87 samples



The most prescribed drugs in The Netherlands in 2009/2010

- Metoprolol
- Omeprazol (also OTC)
- Acetylsalicylic acid (also OTC)

What did we find?

Type of drug	Name	Freq	Publication / FTK#	Lareb\$
Antidepressant (SSRI)	Paroxetine	1		
	Citalopram	1 (C1*)		
Antipsychotic	Pipamperon	1 (C1*)		
	Quetiapine	1 (C1*)		
Antihypertensive (ARB)	Valsartan	2		
	Telmisartan	3 (C2*)		
Ca channel blocker	Amlodipine	1 (C2*)		
β-blocker	Metoprolol	1 (C2*)		
Antidiabetic	Glicazide	1		

Anaphylactic reactions?

* C. = combination of medication

Publication Yes – No / mentioned in FTK = Farmacotherapeutisch Kompas

\$ Lareb = Netherlands Pharmacovigilance center, number of reports in database

Type of drug	Name	Freq	Publication / FTK#	Lareb\$
Antidepressant (SSRI)	Paroxetine	1	N /very rare(<0.01%)	9
	Citalopram	1 (C1)	Y / ?	6
Antipsychotic	Pipamperon	1 (C1)	N / ?	-
	Quetiapine	1 (C1)	N /sometimes (<1%)	2
Antihypertensive (ARB)	Valsartan	2	N / ?	3
	Telmisartan	3 (C2)	N /rare (<0,1%)	1
Ca channel blocker	Amlodipine	1 (C2)	N /very rare(<0.01%)	3
β-blocker	Metoprolol	1 (C2)	N / -	9
Antidiabetic	Glicazide	1	N / -	-

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	Quetiapine	1 (C1)	- / sometimes (<1%)	2
Antihypertensive (ARB)	Valsartan	2	- /	3
	Telmisartan	3 (C2)	- / rare (<0,1%)	1
Ca channel blocker	Amlodipine	1 (C2)	- / very rare (<0.01%)	3
β-blocker	Metoprolol	1 (C2)	- / -	9
Antidiabetic	Glicazide	1	- / -	-
PPI (OTC)	Omeprazol	1	Y / rare (<0,1%)	16
NSAID (OTC)	Naproxen	4	Y / rare (<0,1%)	50

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	Quetiapine	1 (C1)	- / sometimes (<1%)	2
Antihypertensive (ARB)	Valsartan	2	- /	3
	Telmisartan	3 (C2)	- / rare (<0,1%)	1
Ca channel blocker	Amlodipine	1 (C2)	- / very rare (<0.01%)	3
β-blocker	Metoprolol	1 (C2)	- / -	9
Antidiabetic	Glicazide	1	- / -	-
PPI (OTC)	Omeprazol	1	Y / rare (<0,1%)	16
NSAID (OTC)	Naproxen	4 (C3)	Y / rare (<0,1%)	50
Anabolic steroid	Metenolon	1 (C3)	-	-
Preservative	Methylparaben	1	Y	-

Non-allergic anaphylaxis

Conclusions

- **It is possible to detect medication in donor plasma after freezing, quarantine, storage and thawing**
- **It cannot be excluded that medication taken by the donor in plasma for transfusion could cause an anaphylactic reaction in the recipient**



Acknowledgements to:
Any questions?

Janet van der Kolk, Haga Ziekenhuis
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