Fatigue following whole blood donation:
electronic survey in a cohort of young new and novice donors

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Study design and method

- **Fatigue** was a prespecified secondary outcome measure in study of interventions to optimise success of whole blood donation (“EPISoDe”)
- We here report results for control group (routine care only)
- Electronic questionnaire
  - Informed consent after donor screening
  - Sent within 7 days
  - 1 reminder if no response
  - Replies within 28 days
  - Each donor once only
- Use of routinely recorded data (computer system eProgesa)

Our cohort

- Young (< 30 years old)
- Whole blood donation
- New (1st donation) and “novice” (2nd, 3rd and 4th donations)

Inclusion July 2015-August 2016

After data cleaning:

2,165 eligible donors registered
1,703 responses (79%)

54% of donors experienced some measure of fatigue

		Women n=1283	Men n=420
Age	New	21.9	22.7
	Novice	22.6	23.1
Hb mmol/l (g/dl)		8.5 (13.7)	9.6 (15.5)
EBV		4.2 l	5.5 l
Fatigue (any)		758 donors (59%)	155 donors (37%)
Mean score (SD)		1.99 (1.02)	1.50 (0.76)

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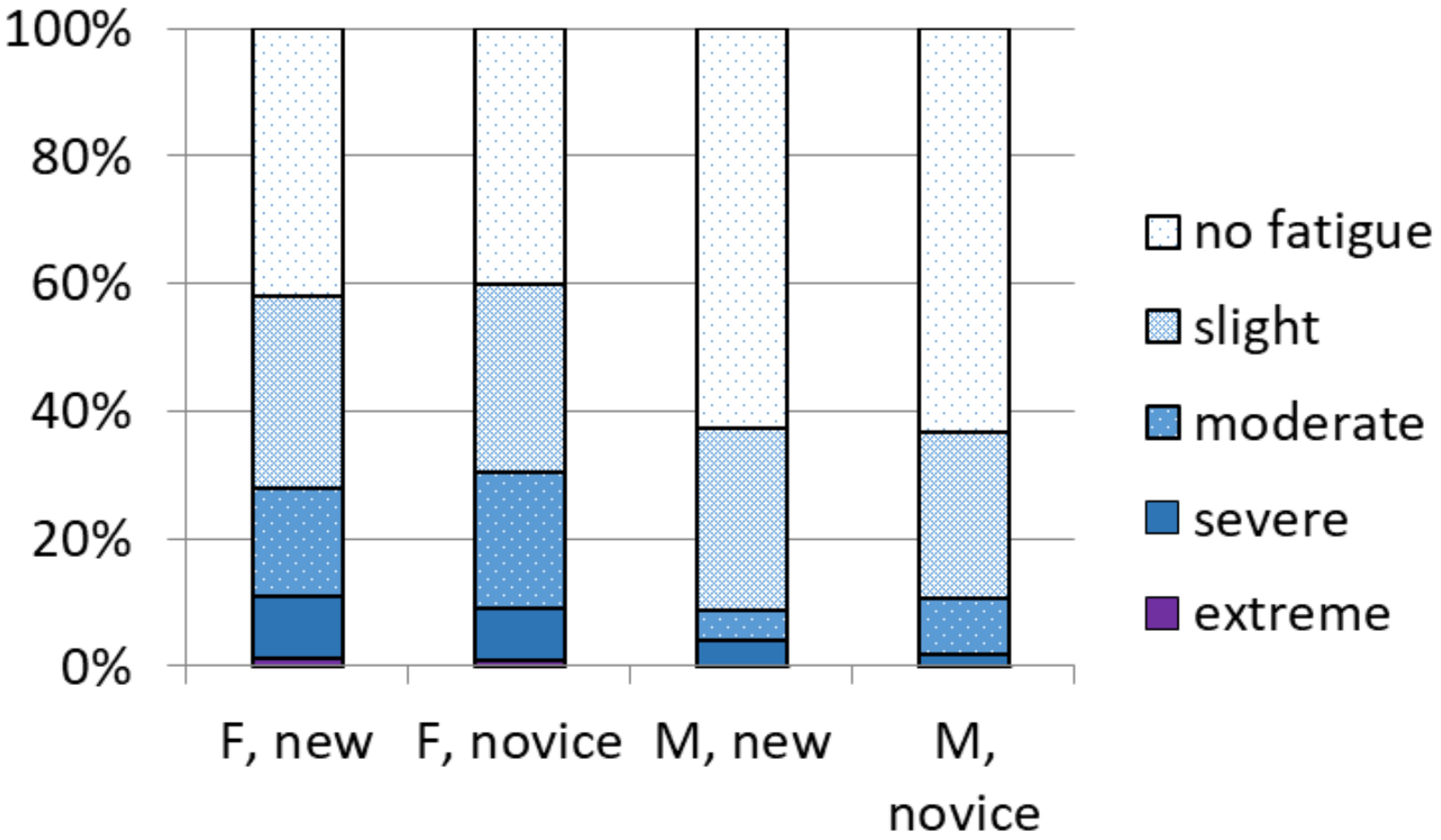
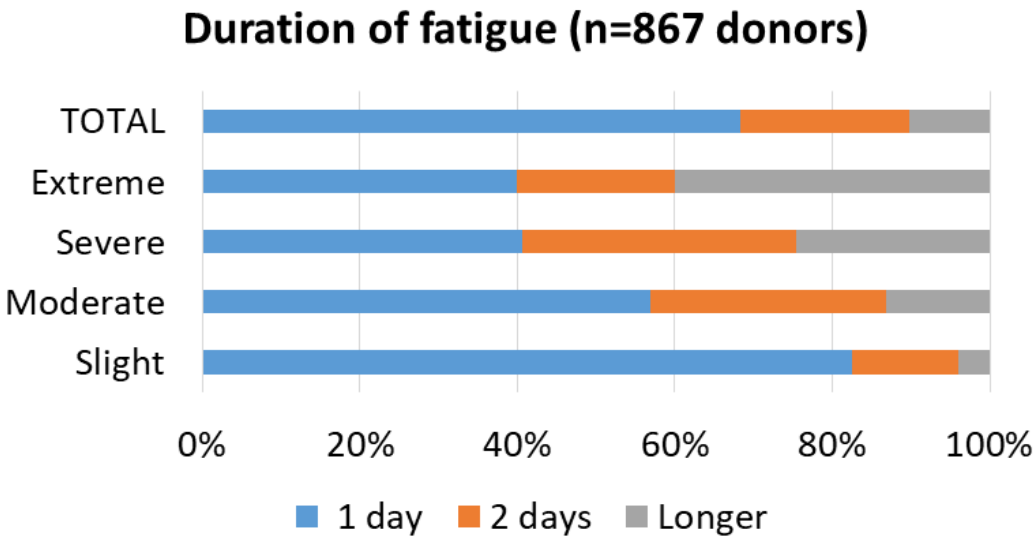
No difference between new vs novice donors



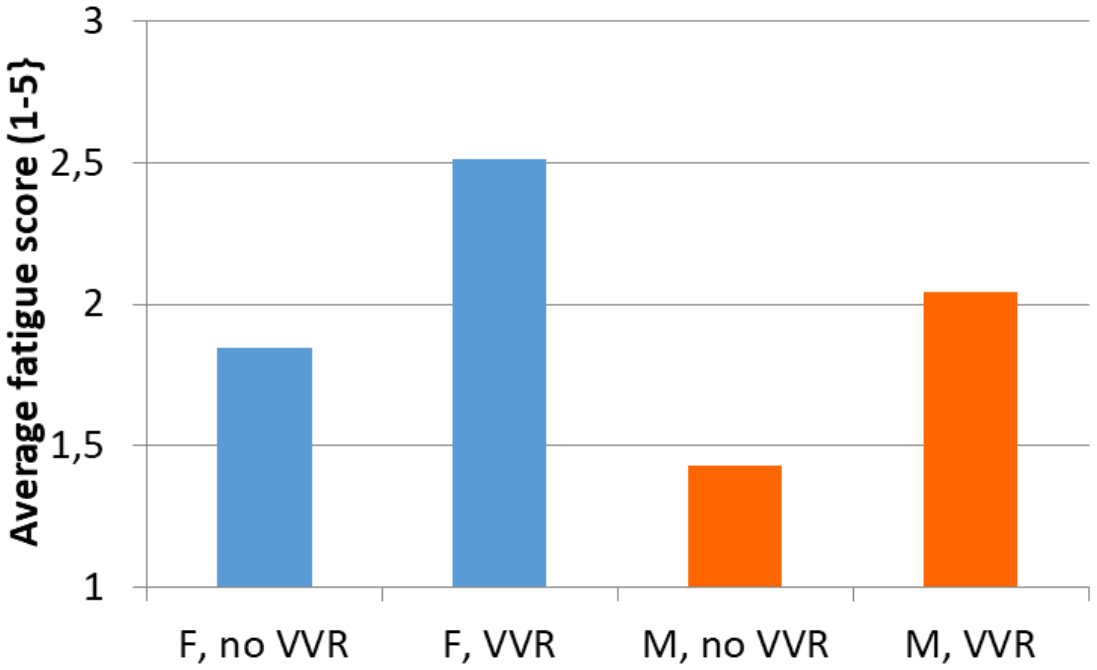
Duration and severity of fatigue



- Moderate, severe or extreme fatigue reported by:
  - 10% of female donors
  - 5% of male donors
- Duration of fatigue correlated with severity
  - ($r=0.359$, $p<0.001$)
- Fatigue lasted no longer than 1 day in:
  - 66% of female donors
  - 78% of male donors

Link between VVR and fatigue

- Donors with VVR more likely to report fatigue (chi-square=93.8, df 1, p<0.001)



Subgroup of donors with fatigue *but no VVR*

	Odds ratio	95% C.I.
Female sex	2.09	1.12-3.93
Haemoglobin mmol/l	0.73	0.54-0.95
Age, new vs novice, estimated blood volume showed no significant association with fatigue		

i.e. more likely to report fatigue if a donor is female; less likely if a donor has a higher Hb

Conclusion

- 54% of our cohort of young, new and novice donors reported some measure of fatigue
- more females than males
- more likely if donor had vasovagal symptoms.
- In +/- 30% donation-related fatigue lasted for > 24 hours.
- Fatigue was related to lower pre-donation Hb levels

We don't yet know:

- What does it mean to donors?
- What is the mechanism?
- Can it be prevented?

Acknowledgements

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