Haemovigilance and Blood Donation

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Haemovigilance and Blood Donation

- Events related to the donation
- Events related to handling and management of donor and donor data

Issues of importance for security of donor and patient

Donation
- Frequency (men, women)
- Kind (WB, aferese, platelets, plasma)

Administrative handling of data related to donor
- Information obtained
- Identity, donation number, donor file

Laboratory methods
- Validity, ocurrence of abnormal results
- Haemoglobin
- Markers of infectious diseases

Good Donor Practice (GDP)
Service from blood facility

Distance	Close to the donor
Opening hours	Convenient
Transportation	Possible
Communication	Kind
Food and beverage	Offered deliberately

Good Donor Practice (GDP)
Education of donor

- Importance of blood supply
- Use of donated blood
- Donation procedure — Explain each step
  - Risk — Kinds, occurrence
  - Symptoms — kind, tell staff
  - Prophylaxis — Sleep, drink & Eat
    - Car driving
    - work post donation

Good Donor Practice (GDP)
Education of donor

- Donor questionnaire
  - why
  - how to fill in
  - importance
- Testing of donor blood
  - Interpretation of results
- Donor rights
  - To say no at any step
  - To be informed
  - To be anonymous

Good Donor Practice (GDP)
Risk management

- Treatment — Blood Centre responsible
- Insurance — Cover all expenses
- Prophylaxis — Iron deficiency
  - Hb control
  - Supplemental iron
- Donor education
- Quality Control of risk

DATA

- Single unit
- Manual technique

Working Group on Donor Vigilance

Definition of categories and severity

Data on incidence

Complications Related to Blood Donation

Incidence Per 100,000	Vasovagal reactions	Haematoma	Nerve Injury	Total
Newman (immediatly)	2100	324	16	2440
Newman (3 weeks)	6400	1700	900	9000

Donor Complications

(Incidence: cases per 100,000 WB donations)

General symptoms	Incidence
Vasovagal reaction	500
Local symptoms (needle injuries)	
Haematoma	250
Nerve injury	50
Any kind even very mild	800

Severe Complications

- Some complications related to blood donation have a severe outcome with
  symptoms for more than a year after donation
- Incidence of 7 per 100,000 procedures
- Especially nerve injuries with paraestesiae

Aagaard B, Samuelsen B, Jorgensen J et al.Vox Sang (2004) 87 (suppl 3) Abstract M12.03)

National Data on Severe Complications (Standard version 2007)

Incidence Per 100,000	Vasovagal reaction	Haematoma	Nerve injury	Total
Denmark	7	1	11	18
England	9	3	2	14
France	5	1	0.4	6
Japan	5	2	3	10

Donor Complications (DK)

Incidence	V V R	Local injury
Symptoms	500	305
Symptoms > 1 year	0.2	5
All cases	500	300

Nerve Injuries: Symptoms

- Pressure from a haematoma

  Constant pain (more often)

  Pain when arm was moved — initial phase (only)

  Diminished function — later phase (oly)

- Direct nerve injury — radiating pain (only)

Donor Vigilance

Results

Vasovagal Reactions

- Most common complication
- Most cases are mild
- Long term morbidity especially in delayed fainting
- Delayed reaction more common in females
- Fluid (½ liter)

Results of blood donor vigilance (first 4 years)

- Standard for collecting and presentation of data including
  - internationally accepted and used definitions of categories and severity
  - Code for categories
- National data on the occurrence of complications based on the standard
- Detection of category specific symptoms

Results of blood donor vigilance (first 4 years)

- Vasovagal reaction

Is the most common complication

Very few are real severe

Most often caused by delayed syncope accident

Prophylaxis

Drink water just before bleeding

Delayed reactions are more common females

Results of blood donor vigilance (first 4 years)

- Nerve injuries

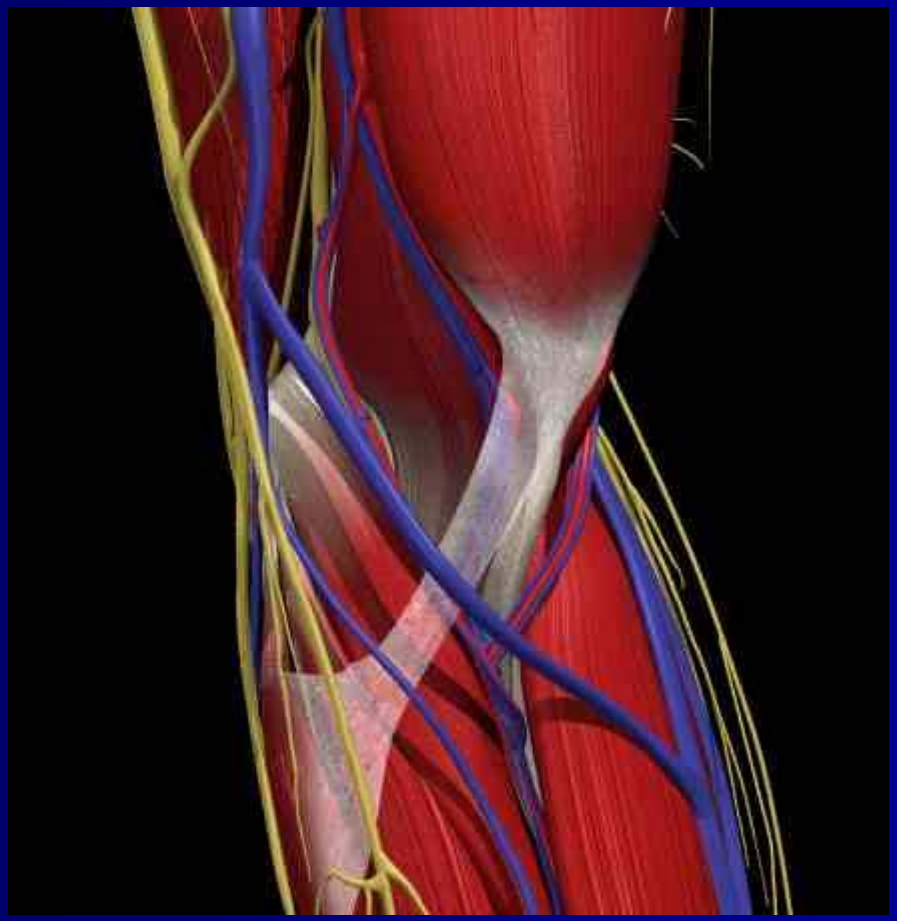
Is not a common reaction

However, most complications with symptoms >1 year are nerve injuries

Standard operational procedure on needle insertion is very often not follow

Cases with a complicated needle insertion occur more often in cases with nerve injuries and long lasting symptoms

Elbow (left)



Haemovigilance in Transfusion Medicine

Introduction of Haemovigilance in Transfusion Medicine has shown that the most import and dangerous complications

- patients are transfusion of an incorrect blood component
- donors are nerve injuries with a iatrogenic injury of a local nerve

Both of these are caused by malpractice of procedures described in existing standard operational procedures