NHS
Blood and Transplant

Leadership in Transfusion
Basic Cases

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NHSBT

Caring Expert Quality

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Case 1: Know your numbers

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Case 1

Patient: 32 year old female

- Hb 4g/dl
- Bleeding Duodenal Ulcer
- Dubious biochemistry results

What might you query?

Case 1 cont.

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- BMS queried sample taken from drip arm
- Repeat sample requested but ward insisted that the sample was genuine and that the patient had had a massive bleed
- No repeat sample taken
- Patient received 4 units overnight

Was this appropriate?

What should have been done?

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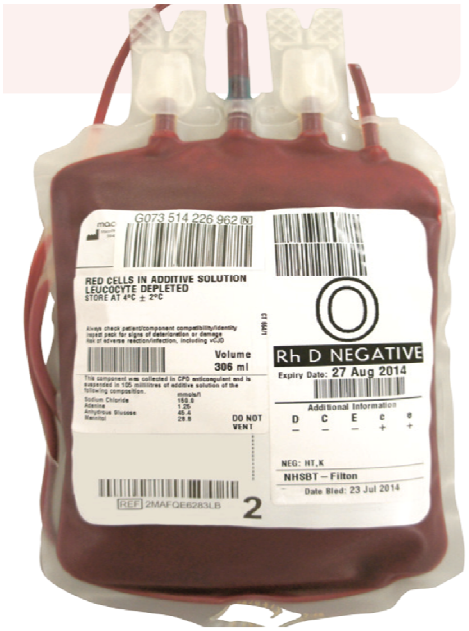
Case 1 cont.

- The following afternoon the patient went for an endoscopy and experienced another bleed
- 6 more units were requested
- 6 units crossmatched and issued at 16:50
- 18:00 sample received for FBC
- Hb 14.5g/dl



What would have prevented this?

What should be done now?

1930s concerned nurse talking on telephone

mage by © Camerique/ClassicStock/Corbi

Case 1 cont.

- The lab telephoned the results to the ward at 19:45

- The nurse reported that the doctor had told them the patient's Hb was 8.9g/dl and a second unit had been started at 18:45
  - The 8.9 taken to be the Hb was actually the date

  - **What should they have done now?**

‘We can not solve our problems with the same thinking we used to create them’

Albert Einstein

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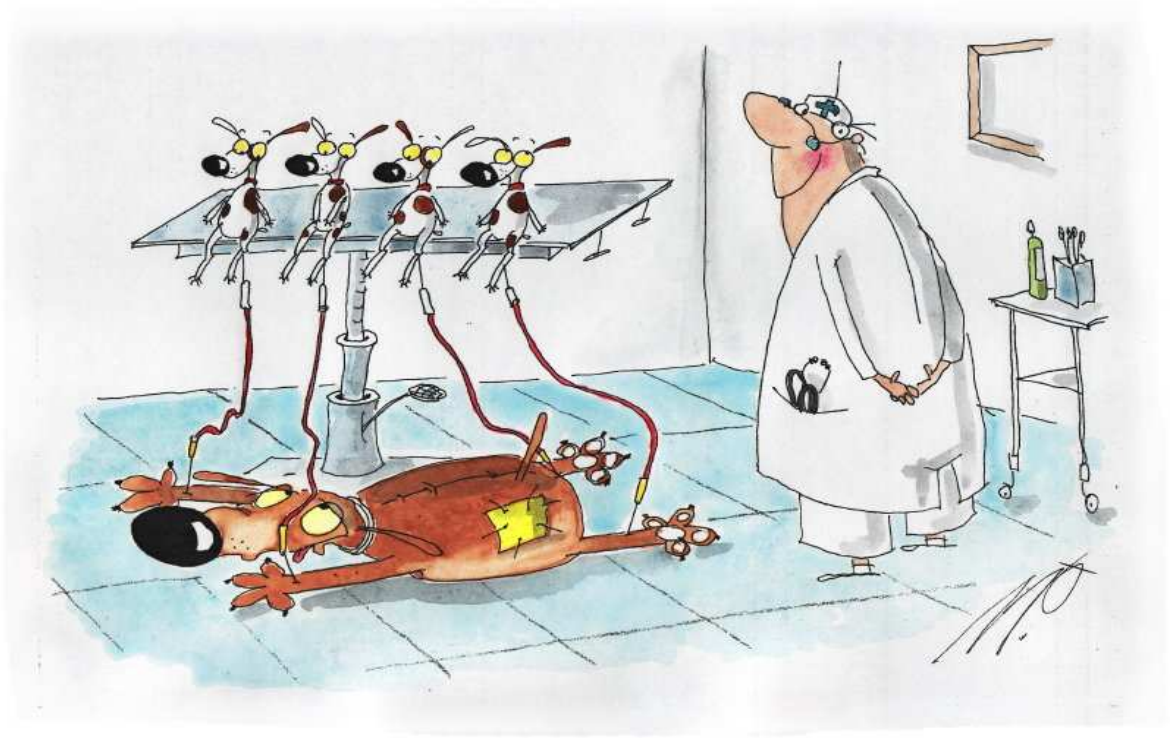
Case 2 – Whose life is it anyway?



Overuse of blood transfusions increases infection risk in dogs
Science Daily, September 17, 2007
http://vetscite.org/cartoons/

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Case 2

- A young woman with menorrhagia presented at her GP surgery - blood tests revealed iron deficiency anaemia with a Hb 55g/L
- **What should her treatment be?**
- GP referred her to the Emergency Department for a blood transfusion
- **What should ED have done?**
- Patient stated that she did not want a blood transfusion and she was sent home with a supply of iron tablets
- **Did the patient receive the correct treatment?**

Case 2 cont.

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- The GP was not satisfied and sent her back to the ED
- **Who could the ED department contact?**
- The transfusion practitioner discussed the patient's concerns with her and requested that the GP reconsider alternative treatment
- The patient was sent home
- The GP still was not satisfied and sent the patient back to ED with a letter instructing ED that a transfusion was needed
- The patient was reluctantly transfused
- **Did the patient receive an appropriate transfusion?**
- **Could this have been prevented and what might the consequences have been?**
- **How would things have been different with good leadership?**

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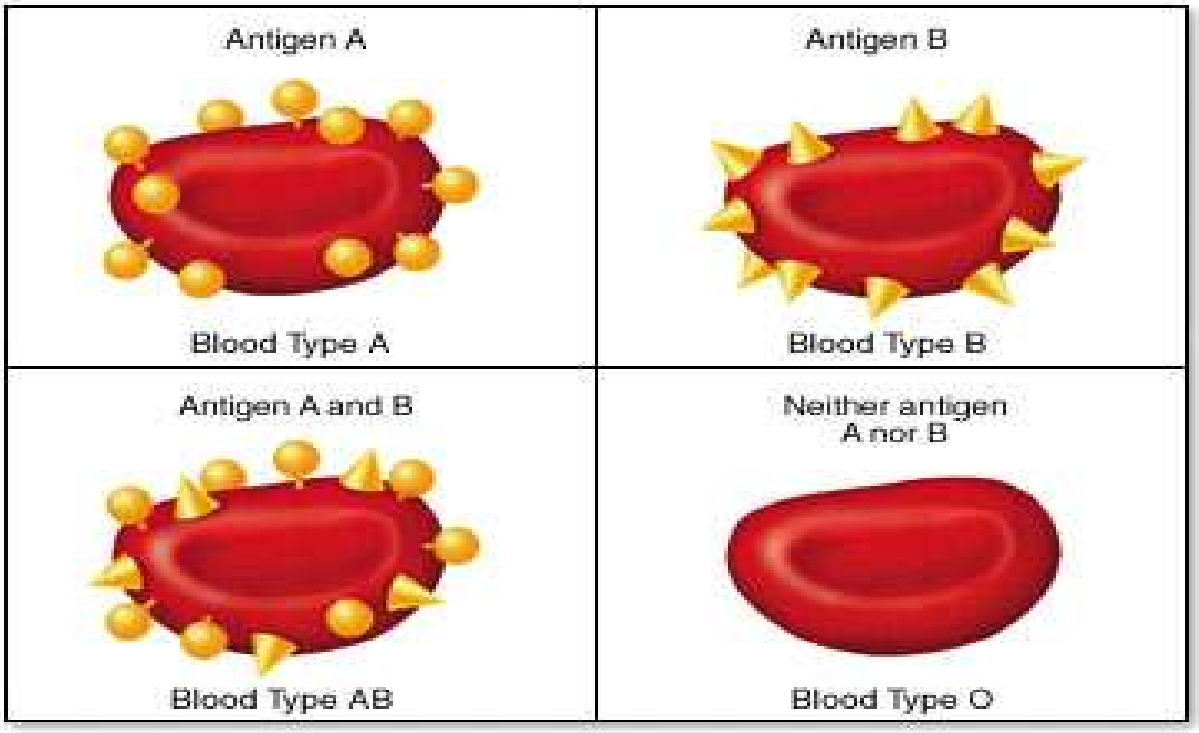
Blood groups on red cells

https://www.**nobel**prize.org/educational/medicine/**bloodtypinggame**



The presence of A and / or B **antigens** on the surface of red cells determines the ABO group.

Blood groups are inherited

Case 3
A Never Event

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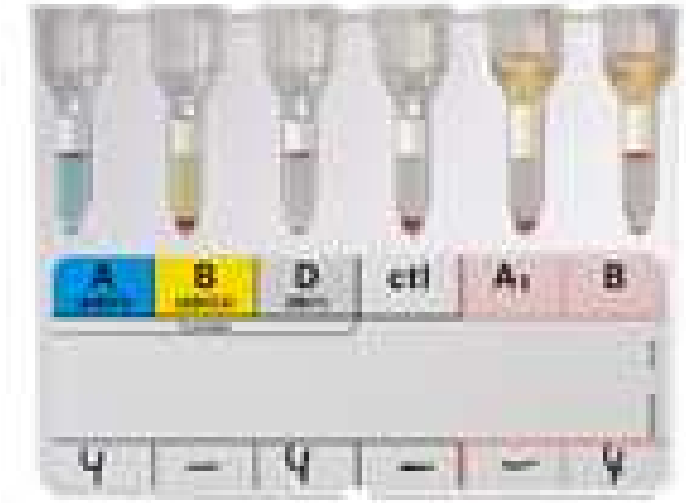

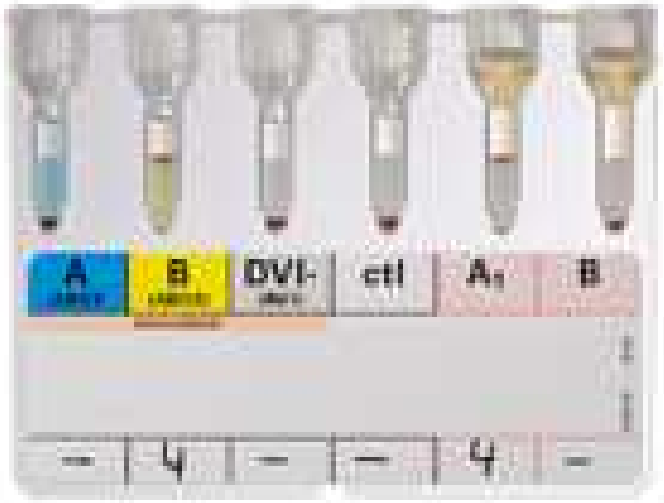

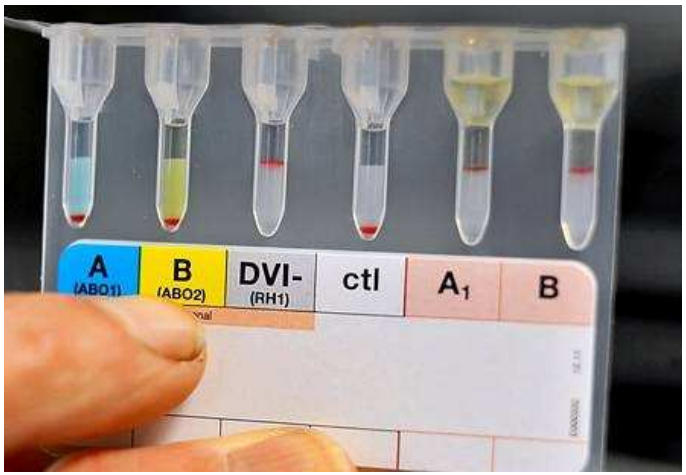

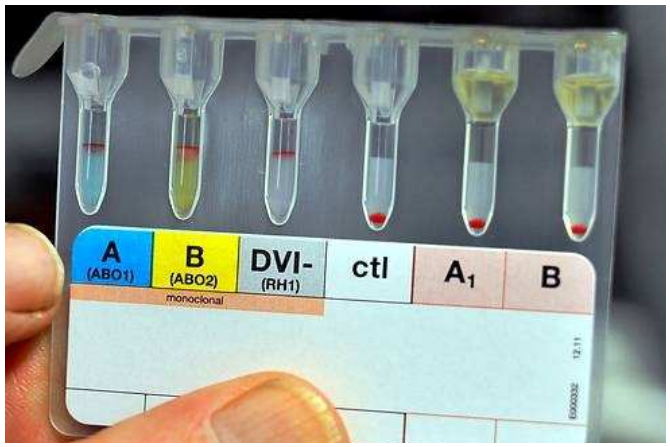

What group is this?

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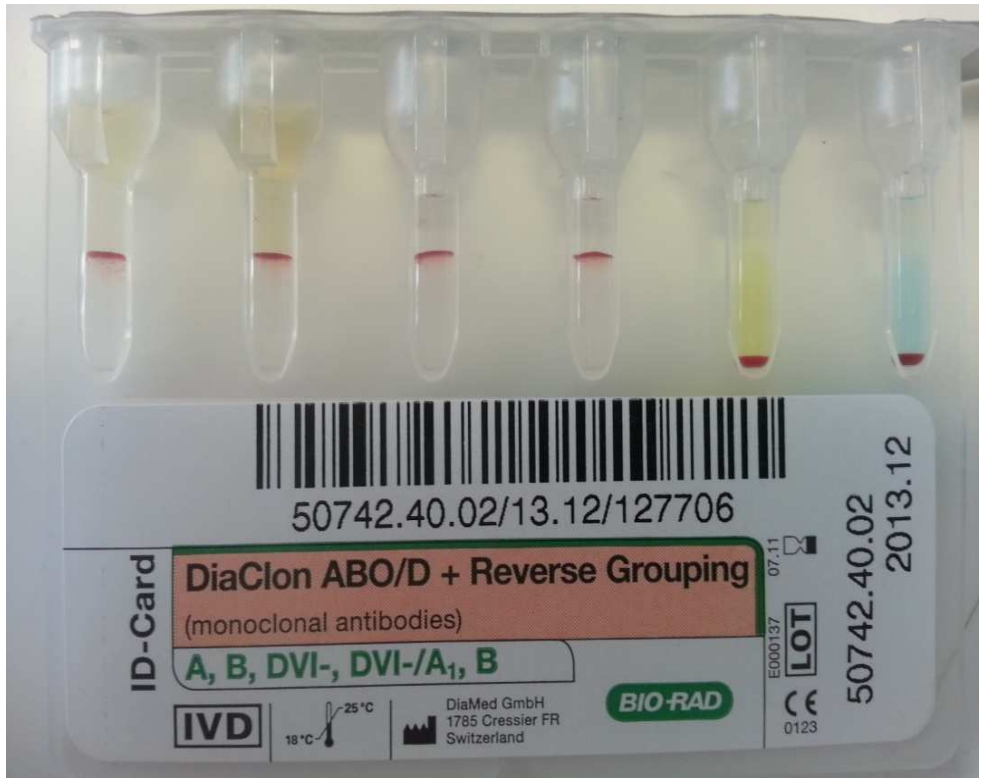

~~AB~~ Pos!

No

O Pos

Yes this really happened!

- Patient JJ, age 76
- Wrongly typed as AB neg by lab and transfused A neg
- Died of multi-organ failure 4 days later
- The patient was in for ankle surgery
- When was the transfusion requested?
  - Post-op recovery
- Have a guess at the Hb level…
  - Hb 118g/L
- What about the reason for the transfusion?
  - Patient on aspirin
- ‘let’s pink her up a bit’...!!

The Biomedical Scientist

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- Wrongly grouped 2 patients as AB
- Missed the incompatibility in the serological crossmatch for JJ
  - these units were not electronically issued

- **Why might this have happened?**

- Failed to follow lab procedures
- Used expired cards
- What image have you got in your head?!
- No! Deputy manager of the transfusion lab of 25 years experience

Muppet wiki

- **What do you have in place to stop this happening?**

The Transfusion...

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- JJ collapsed after transfusion of unit 1 (Group A)

- **What should be done at this point?**

- Signs & symptoms of acute HTR NOT recognised
- Patient's 'state' attributed to prolific bleeding into ankle
- Unit 2 given to 'correct'
- No improvement seen
- Another blood sample taken & further units ordered

Mistake spotted

- Second sample correctly typed as group O (different BMS)

What happened next

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- Reported to Serious Hazards of Transfusion (SHOT) and investigation started
- BMS
  - Reported to the Health and Care Professions Council
  - Suspended from job pending investigations
  - Suspended from BMS register
  - Interim Order; suspended for 18 months
  - On trial for gross negligence manslaughter but case collapsed
  - Dismissed from hospital
  - Struck-off by HCPC

Case 4
Spellbound

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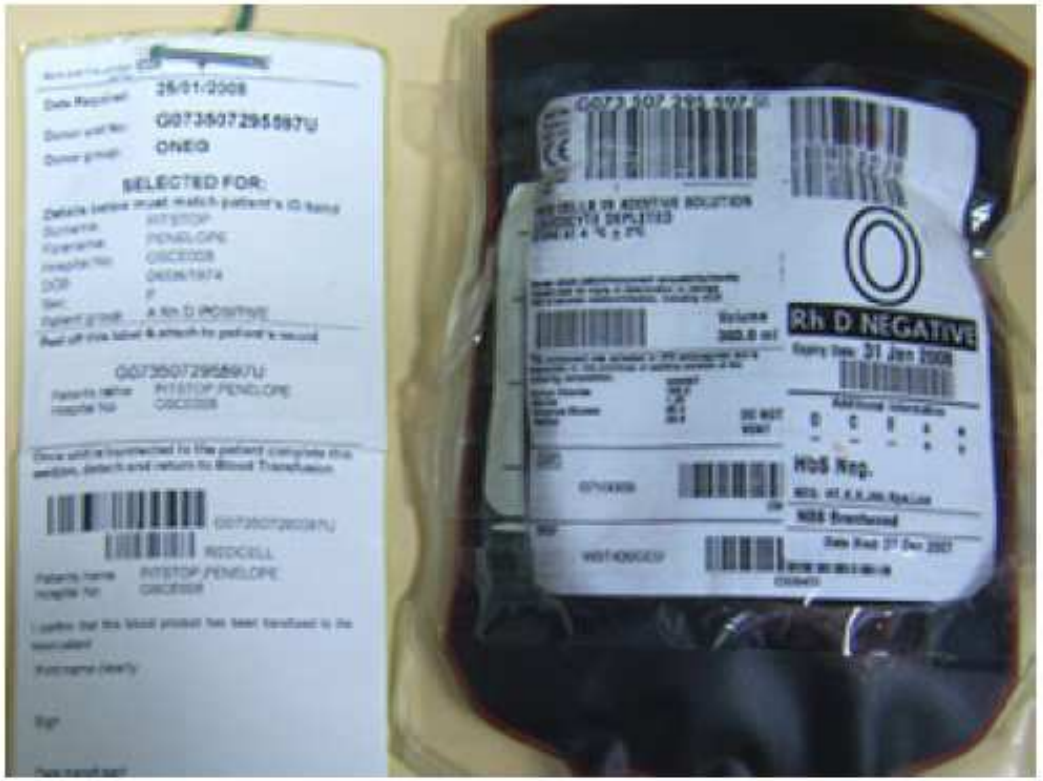

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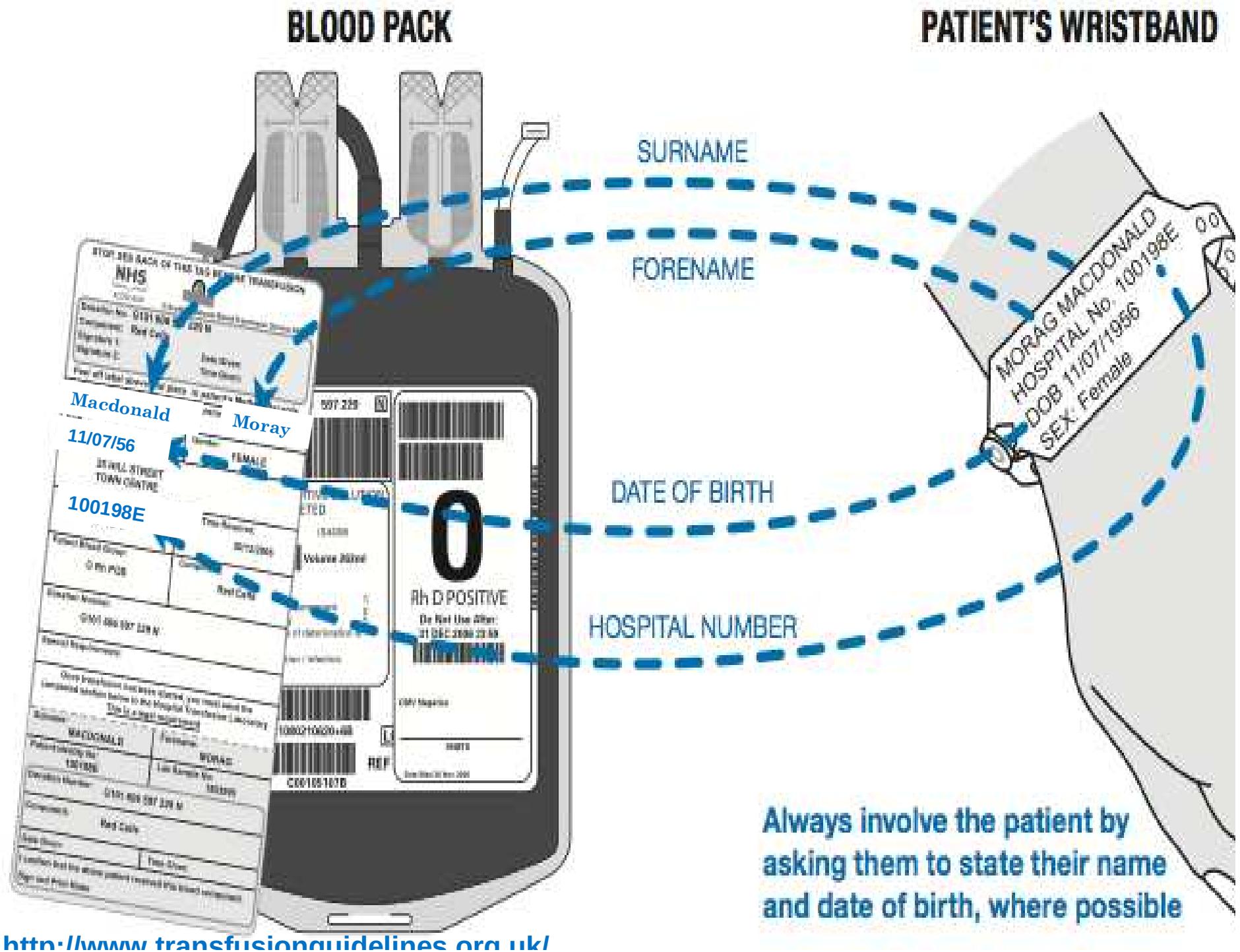
Case 4

- 86 year old female
- Elective aortic aneurysm repair
- Transferred to another hospital
- Blood requested, 6 units crossmatched and sent to the theatre



http://www.transfusionguidelines.org.uk/

Blood returned

- Theatre noticed discrepancy and returned blood (one letter in first name)
- **Was this the right option?**
- Blood compared with case notes as wristband was not accessible during operation
- **Was this the right option and what should you do next?**
- Two new samples sent to lab who advised a 45-50 minute delay
- Surgical complications resulted in urgent need for blood
- **What should they have done now?**
- No emergency blood available – failed to instigate a major haemorrhage call

Case 4 cont.

Woman 'bled to death after operation because her name was misspelt on spare blood'

Ross Lydall
Health Editor

A WOMAN died after a successful operation because a spelling mistake meant that emergency blood supplies were unavailable.

Irmgard Cooper had just had surgery at Northwick Park hospital, in Harrow, to repair a life-threatening bulge in the main artery to her heart when her blood pressure dropped.

As a surgeon began unclamping the artery to allow blood to recirculate, he found a weak pulse and called for extra blood. The anaesthetist told him there was no cross-matched blood and although all-purpose O-negative blood was obtained within an hour, Mrs Cooper died shortly before midnight.

It was discovered that there was no blood on standby because it had been returned to the blood bank because the German-born grandmother's name had been wrongly spelled as Irngard on the supplies.

After the operation, her daughter Lorraine Booker was told by the surgeon that the operation had gone as planned, despite a "little problem" with her blood clotting.

However, when Mrs Booker was taken to intensive care, she found her mother "lying in a pool of blood, which was running off the bed" and the "floor was drenched in blood".

Barnet coroner Andrew Walker found Mrs Cooper died from neglect and said her death was avoidable. He found gross failings in the failure to provide blood at a critical time when it was known supplies would be needed.

Mrs Cooper, 85, who had two children and three grandchildren and had been married to Raymond for 62 years, was admitted to hospital in May last year for an aortic aneurysm repair.

Mrs Booker, from Chesham, Buckinghamshire, who was at the hospital during the operation, said: "I phoned home and told my father and the rest of the family that she had come through the operation, which devastates me now. I went to intensive care to see her, I took one look at all her readings and felt her body, which was ice cold, and I knew she was going to die. She was lying in a pool of blood, which was running off the bed. The floor was drenched in blood.

"My father has suffered from nightmares over my mother's death ever since. We just feel very let down and betrayed by the hospital for a death that should never have occurred."

A serious incident investigation by the hospital found that Mrs Cooper, from Hayling Island, Hampshire, died from serious blood clotting difficulties, cardiovascular collapse, haemorrhage and the delay in giving blood.

Renu Daly, of medical negligence firm Hudgell Solicitors, said: "Mrs Cooper was effectively dead from the time she arrived in intensive care. She was already suffering from catastrophic internal bleeding, which meant death was inevitable. This catalogue of errors demonstrates an enormous breach of care."

London North West Healthcare, which runs Northwick Park, has admitted liability. Chief executive Jacqueline Docherty said: "I would like to offer my sincere condolences to the family of Irmgard Cooper." @RossLydall

Grandmother: Irmgard Cooper, with her daughter Lorraine Booker, had undergone a successful heart operation

'We feel let down and betrayed by the hospital for a death that should never have occurred'
Lorraine Booker, daughter

- Delay in provision of blood
- Patient deteriorated and developed coagulopathy
- She died later that night
- Delay in transfusion contributed to her death (SHOT 2015)
- **What was the root cause of this incident?**

"Once the practice of anaesthesia became established, although the surgeon caused the bleeding, the anaesthetist took the blame

JM Leigh The history of controlled hypotension BJ Anesth 1975

Final Thoughts

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For more information on Transfusion Related Cases

SERIOUS HAZARDS OF TRANSFUSION SHOT

Annual SHOT Reports

www.shotuk.org

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