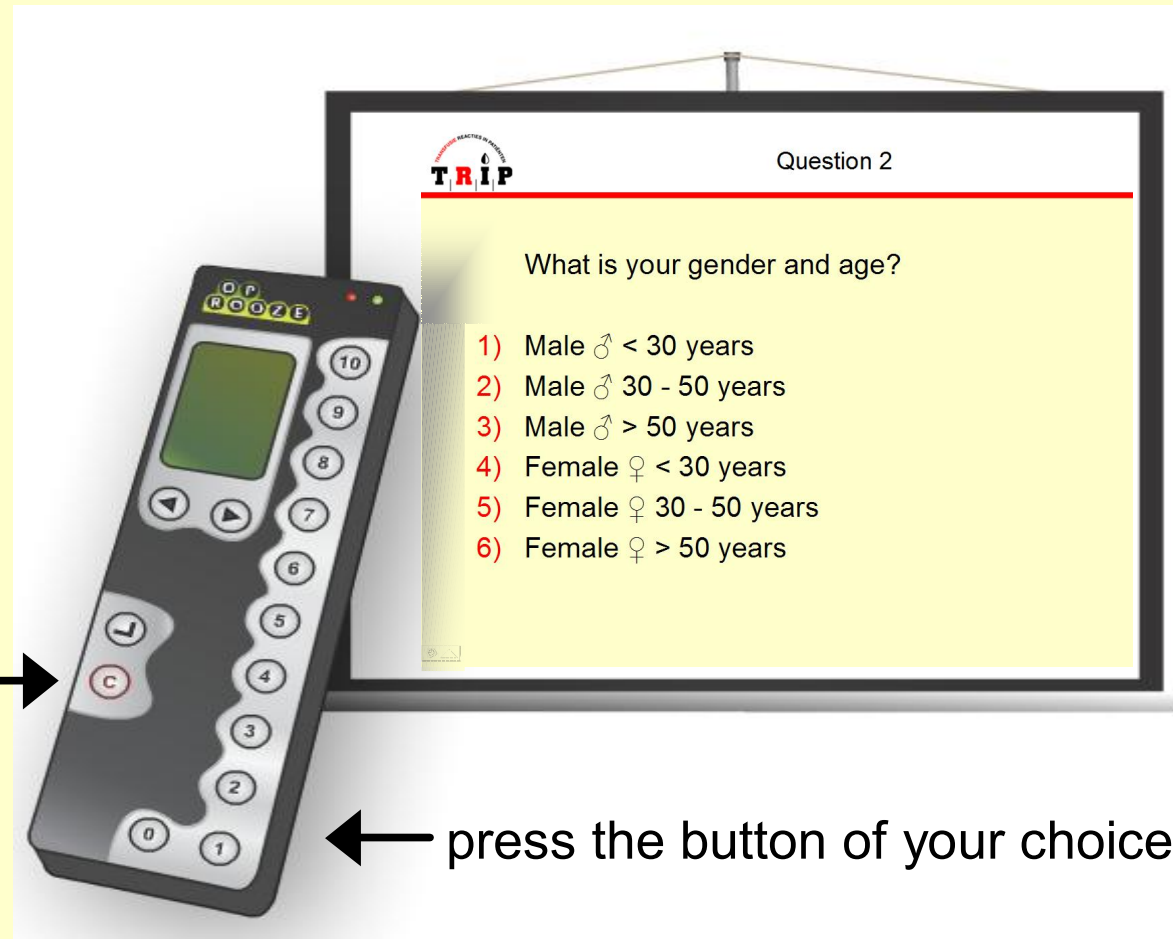


# Assessing reports of transfusion reactions

Do we arrive at the same answers?

- Adverse reaction / adverse event?
- Reporting category
- Imputability
- Severity grade

TRIP Dutch National Hemovigilance Office: Pauline Zijlker-Jansen  
Anita van Tilborgh-de Jong  
Erasmus MC: Peter te Boekhorst

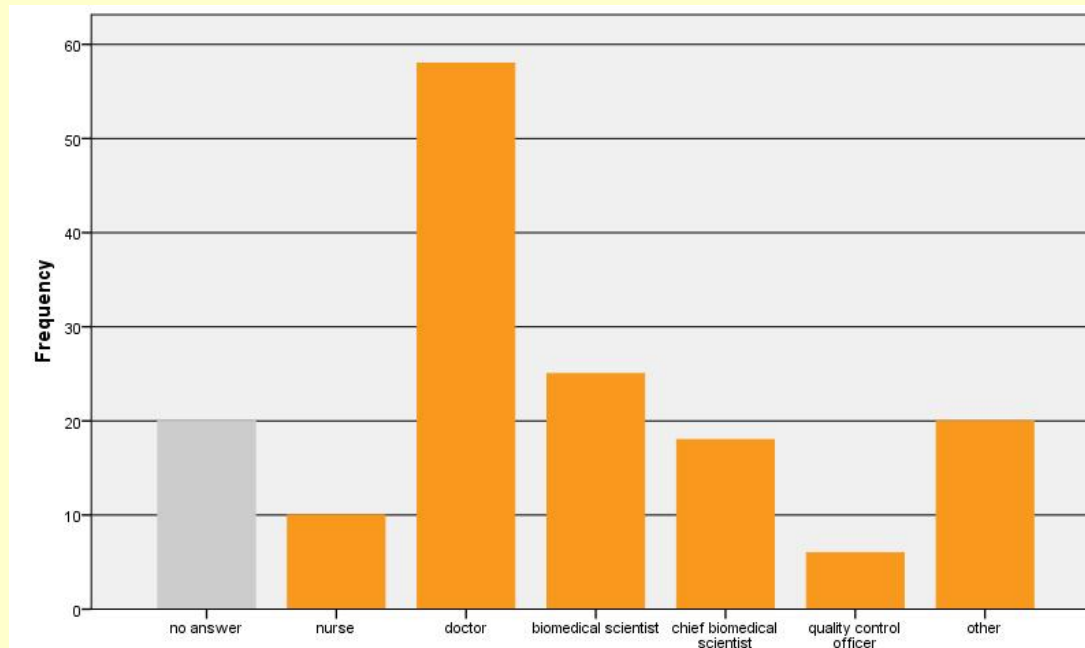


you have 15 seconds to vote

## Question 1

What is your profession by training?

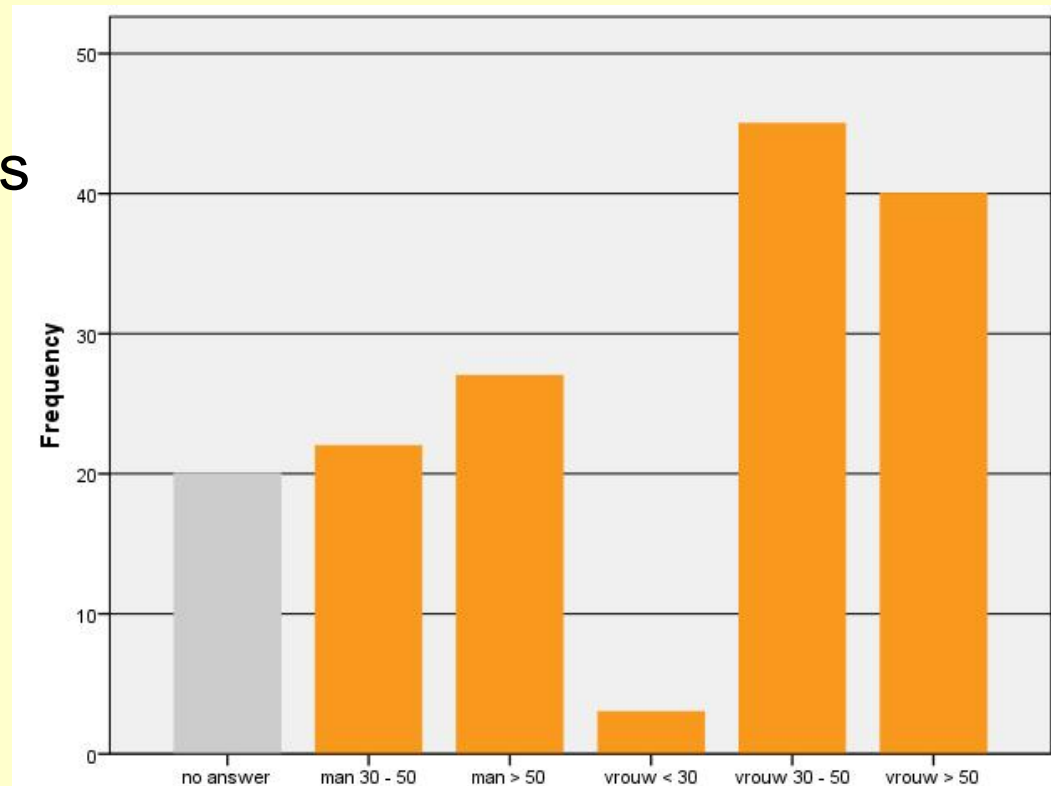
- 1) nurse
- 2) doctor
- 3) biomedical scientist (BMS)
- 4) chief biochemical scientist (Chief BMS)
- 5) quality control officer (QCO)
- 6) other



## Question 2

What is your gender and age?

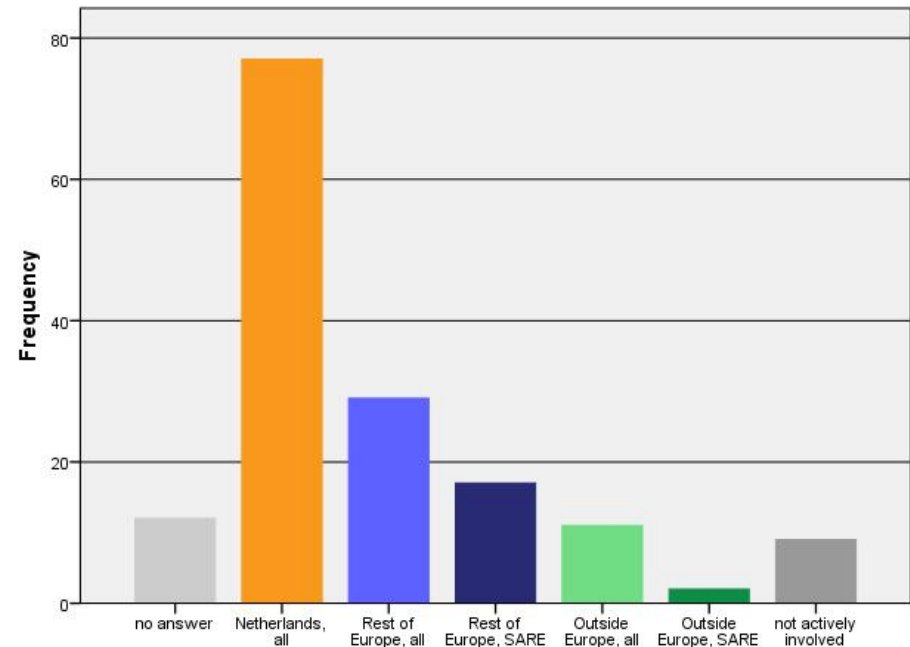
- 1) Male ♂ < 30 years
- 2) Male ♂ 30 - 50 years
- 3) Male ♂ > 50 years
- 4) Female ♀ < 30 years
- 5) Female ♀ 30 - 50 years
- 6) Female ♀ > 50 years



## Question 3

In which part of the world do you work?  
 In what type of hemovigilance system are you employed/involved?

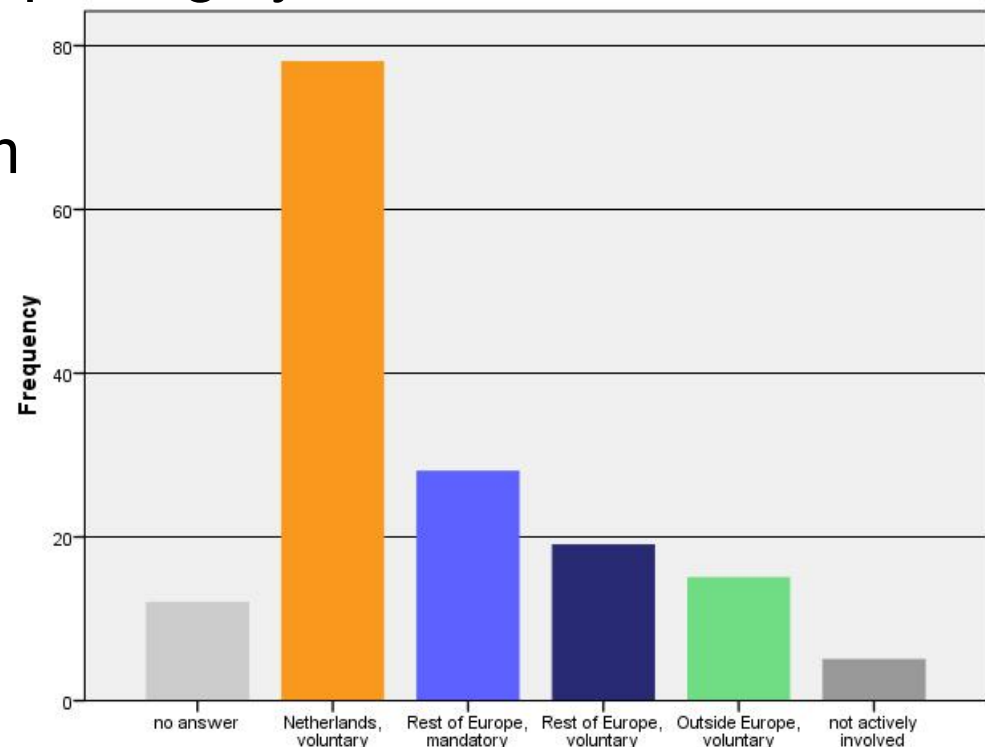
- 1) Netherlands, all AE and AR
- 2) Rest of Europe, all AE and AR
- 3) Rest of Europe, only serious AE and AR (SARE)
- 4) Outside Europe, all AE and AR
- 5) Outside Europe, only serious AE and AR (SARE)
- 6) I am not actively involved in hemovigilance



## Question 4











What was the original setup of the hemovigilance system in the country where you work?

- 1) Netherlands, voluntary reporting system
- 2) Rest of Europe, mandatory reporting system
- 3) Rest of Europe, voluntary reporting system
- 4) Outside Europe, mandatory reporting system
- 5) Outside Europe, voluntary reporting system
- 6) I am not actively involved in hemovigilance



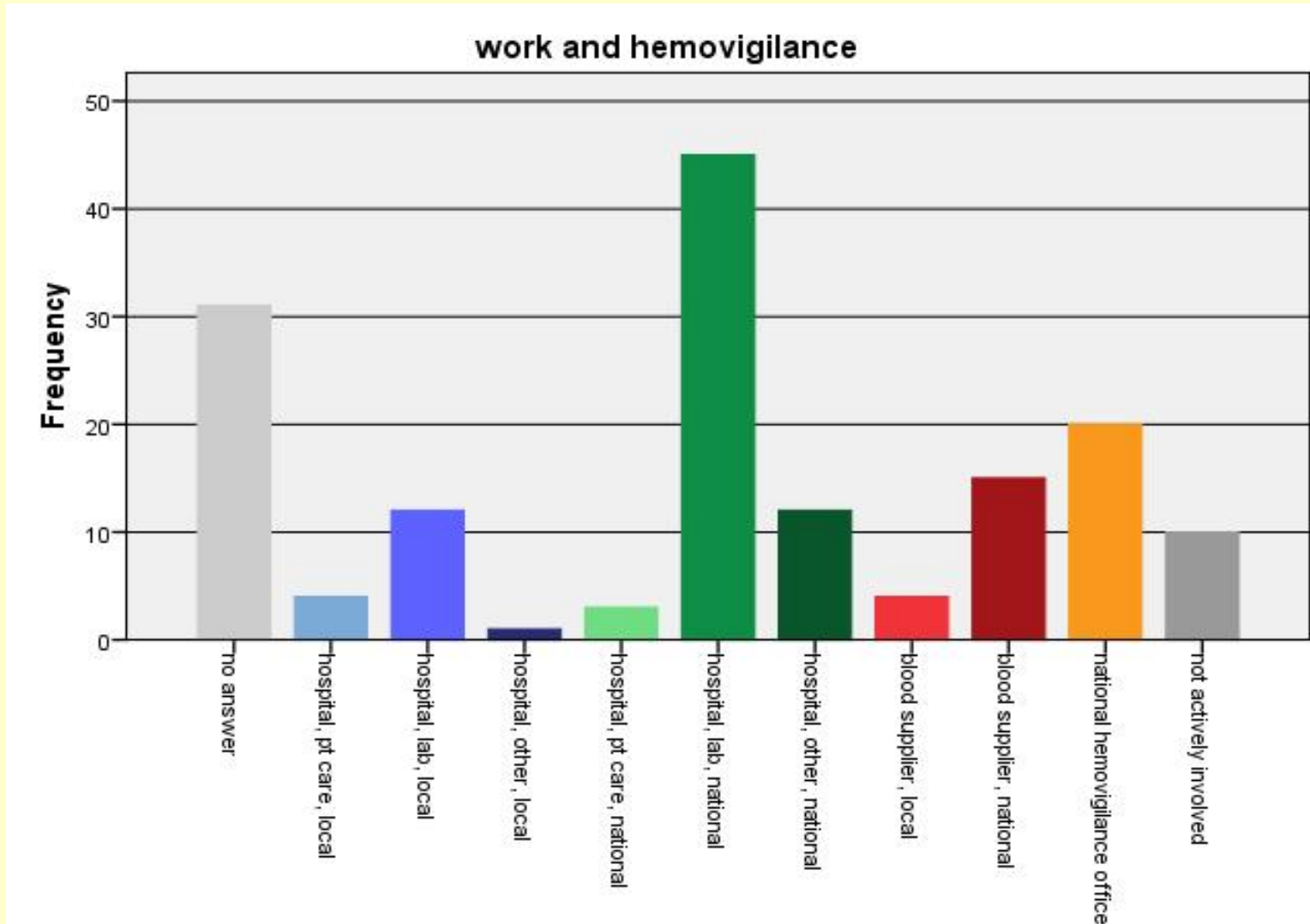
## Question 5

Where are you employed and in what way are you involved in hemovigilance?

- 1)  Hospital (ward, operating theatre) patient care, reporting to **local hemovigilance officer**
- 2)  Hospital (laboratory), reporting to **local hemovigilance officer**
- 3)  Hospital (other), reporting to **local hemovigilance officer**
  
- 4)  Hospital (ward, operating theatre) patient care, reporting to **national hemovigilance office**
- 5)  Hospital (laboratory), reporting to **national hemovigilance office**
- 6)  Hospital (other), reporting to **national hemovigilance office**
  
- 7)  Blood supplier, reporting to **local hemovigilance officer**
- 8)  Blood supplier, reporting to **national hemovigilance office**
  
- 9)  National hemovigilance office
  
- 10)  I am not actively involved in hemovigilance

## Question 5

Where are you employed and in what way are you involved in hemovigilance?





## Case 1

Patient Z, male, 55, blood group O pos, aplastic anemia,  
antibody screen: anti-Kp(a)

± 15:15 hrs unit of RBC O neg started,  
temp 37.6 °C (99.7 °F), BP 140/74, p 84

16:15 hrs temp 38.9 °C (102 °F), BP and pulse unchanged

## Case 1, question A

Patient Z, male, 55, blood group O pos, aplastic anemia,  
antibody screen: anti-Kp(a)

± 15:15 hrs unit of RBC O neg started,  
temp 37.6 °C (99.7 °F), BP 140/74, p 84

16:15 hrs temp 38.9 °C (102 °F), BP and pulse unchanged

A. Should this be regarded as a transfusion reaction (AR)?

- 1) Yes
- 2) No
- 3) Don't know

## Case 1, question A

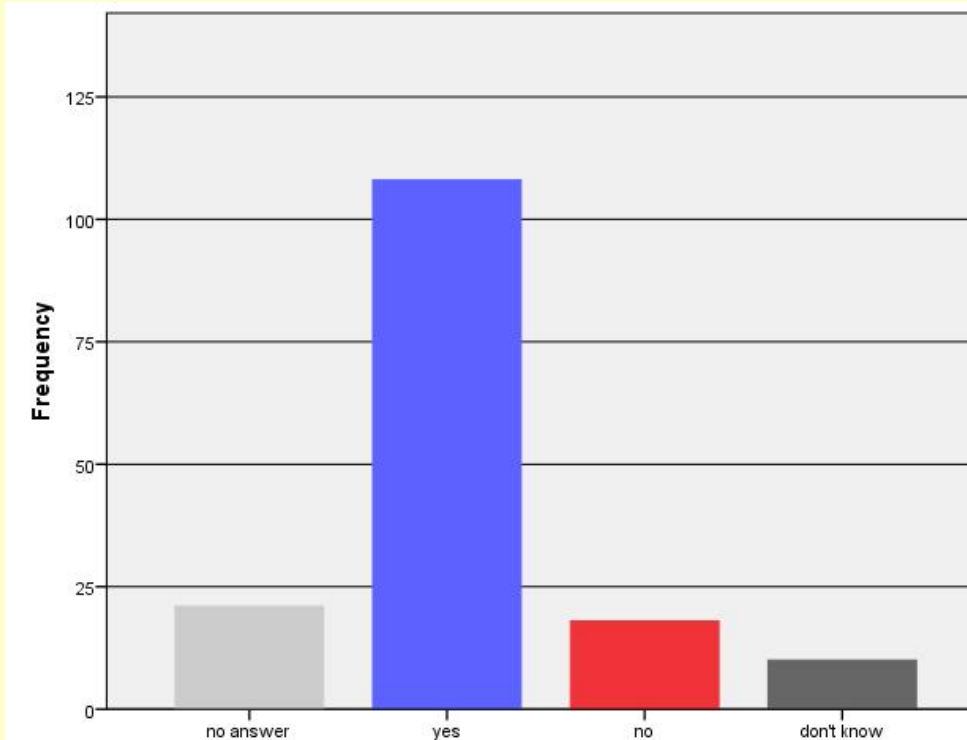
Patient Z, male, 55, blood group O pos, aplastic anemia,  
antibody screen: anti-Kp(a)

± 15:15 hrs unit of RBC O neg started,

temp 37.6 °C (99.7 °F), BP 140/74, p 84

16:15 hrs temp 38.9 °C (102 °F), BP and pulse unchanged

A. Should this be regarded as a transfusion reaction (AR)?





## Case 1 continued

Patient Z, male, 55, blood group O pos, aplastic anemia, antibody screen pos: anti-Kp(a)

±15:15 hrs	RBC unit started(ABO RhD, antibody compatible)
16:15 hrs	1.3 °C rise in temperature from baseline (2.3 °F)
21:00 hrs	red urine, difficulty in passing water, reduction in urine production

## Case 1, question B

Patient Z, male, 55, blood group O pos, aplastic anemia,  
antibody screen pos: anti-Kp(a)

±15:15 hrs RBC unit started (ABO RhD, antibody compatible)

16:15 hrs 1.3 °C rise in temperature from baseline (2.3 °F)

21:00 hrs red urine, difficulty in passing water, reduction  
in urine production

B. Should this be reported as a transfusion reaction (AR)?

1) Yes

2) No

3) Don't know

## Case 1, question B

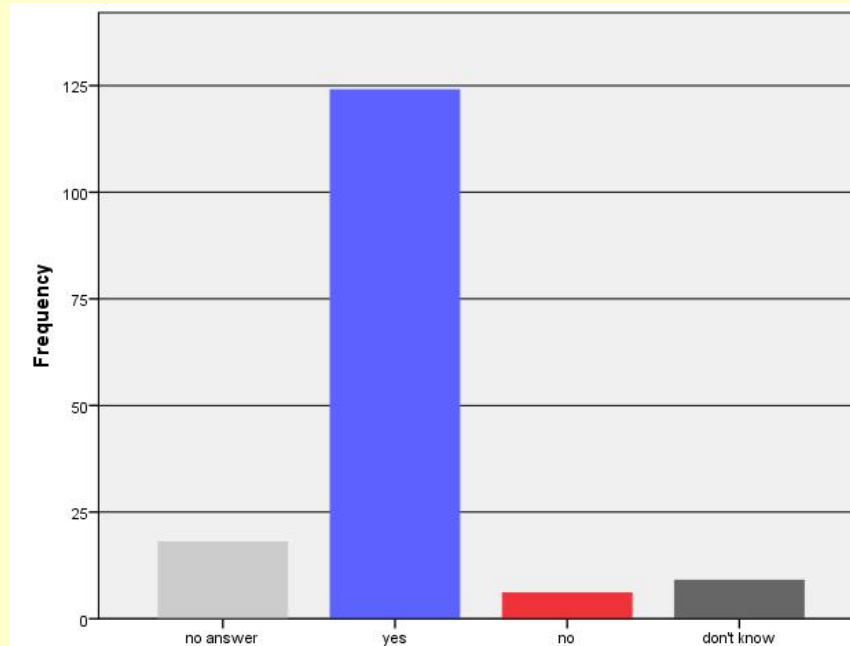
Patient Z, male, 55, blood group O pos, aplastic anemia, antibody screen pos: anti-Kp(a)

±15:15 hrs RBC unit started (ABO RhD, antibody compatible)

16:15 hrs 1.3 °C rise in temperature from baseline (2.3 °F)

21:00 hrs red urine, difficulty in passing water, reduction in urine production

B. Should this be reported as a transfusion reaction (AR)?

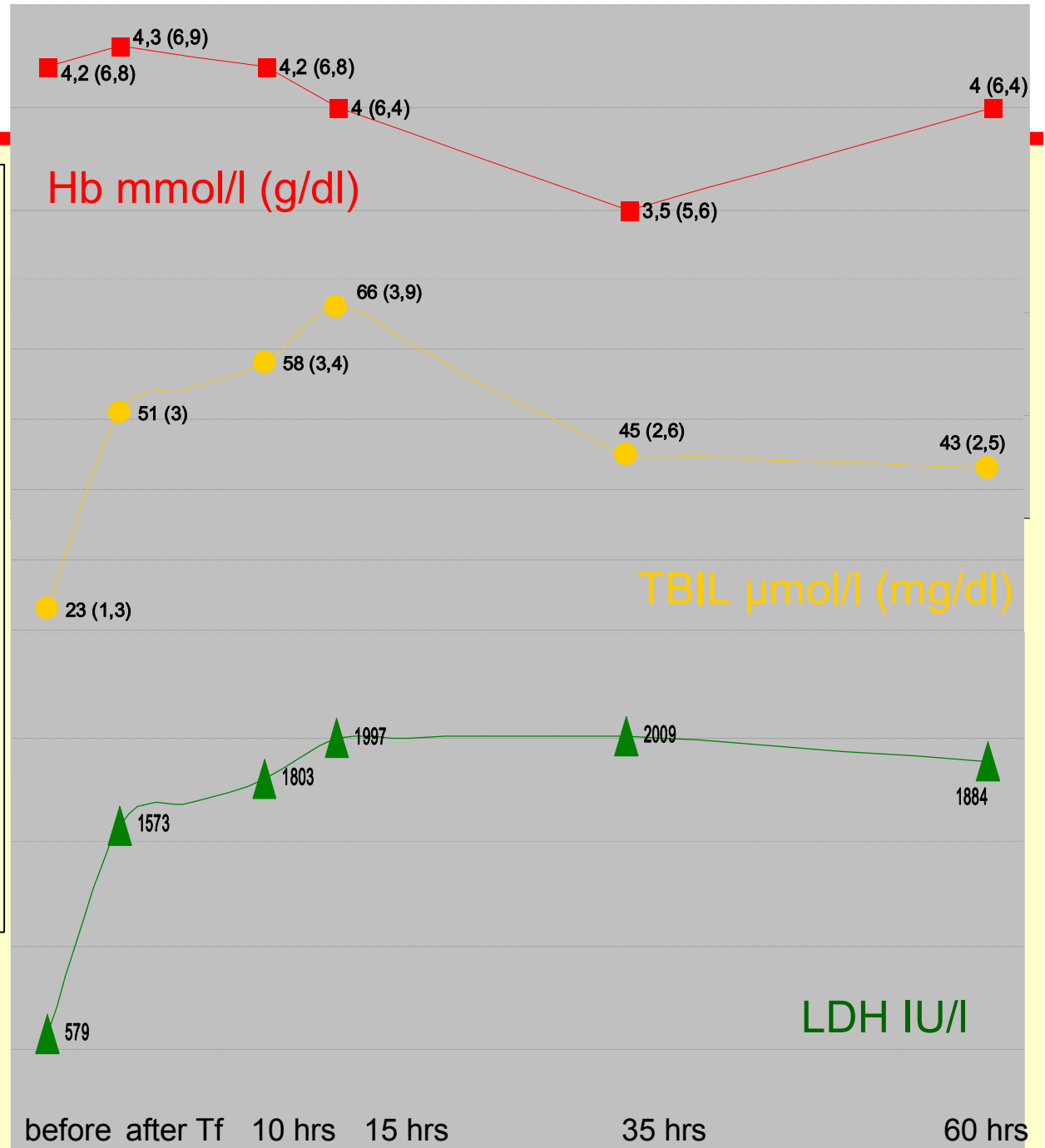


# Case 1

Patient Z, male, 55, O pos, aplastic anemia, known anti-Kp(a) ± 15:15 hrs start RBC unit 16:15 hrs Δ temp 1.3 °C (Δ temp 2.3 °F)

21:00 hrs red urine, difficulty in passing water, reduction in urine production

DAT 2+; anti-C3b/C3d = 2+; IgG neg; eluate weakly positive, no specificity



## Case 1 question C

Patient Z, male, 55 , O pos  
 aplastic anemia,  
 known anti-Kp(a)  
 ± 15:15 hrs start RBC unit  
 16:15 hrs  $\Delta$  temp 1.3 °C  
 ( $\Delta$  temp 2.3 °F)

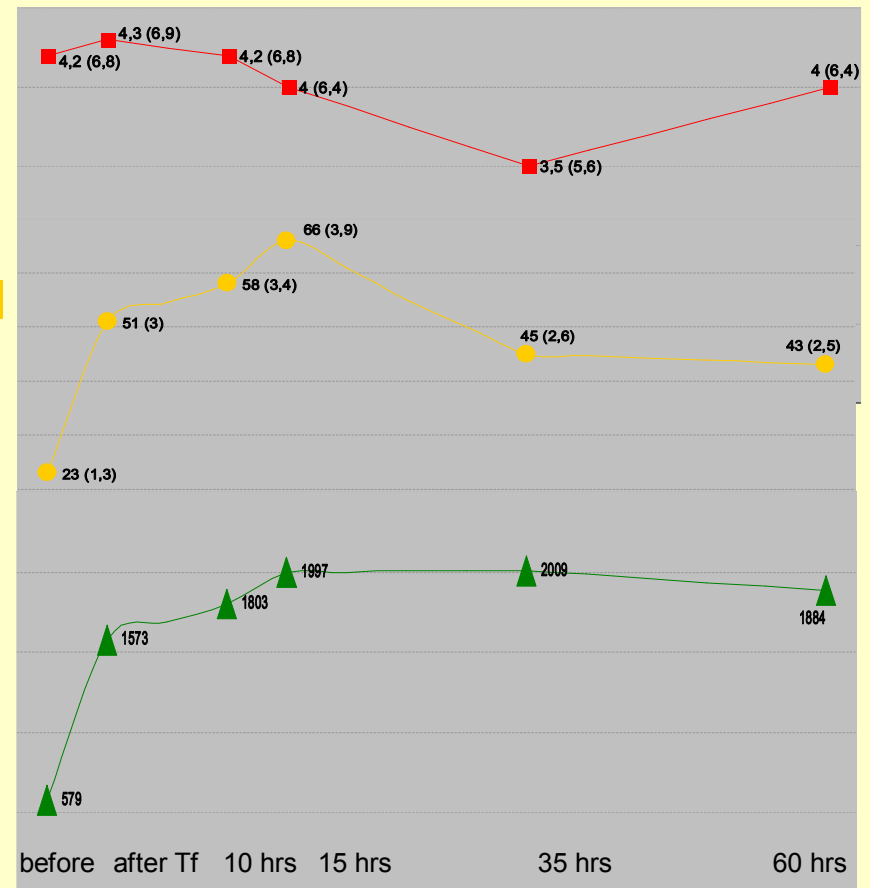
21:00 hrs red urine, difficulty  
 in passing water, reduction in  
 urine production

DAT 2+; anti-C3b/C3d = 2+;  
 IgG neg; eluate weakly  
 positive, no specificity

Hb mmol/l  
 (g/dl)

TBIL  $\mu$ mol/l  
 (mg/dl)

LDH IU/l



C. How would you report this reaction?

- 1) (Acute) hemolytic transfusion reaction = (A)HTR
- 2) (Febrile) non hemolytic transfusion reaction=(F)NHTR
- 3) Other reaction (unclassified AR)

## Case 1 question D

Patient Z, male, 55 , O pos  
 aplastic anemia,  
 known anti-Kp(a)  
 ± 15:15 hrs start RBC unit  
 16:15 hrs  $\Delta$  temp 1.3 °C  
 ( $\Delta$  temp 2.3 °F)

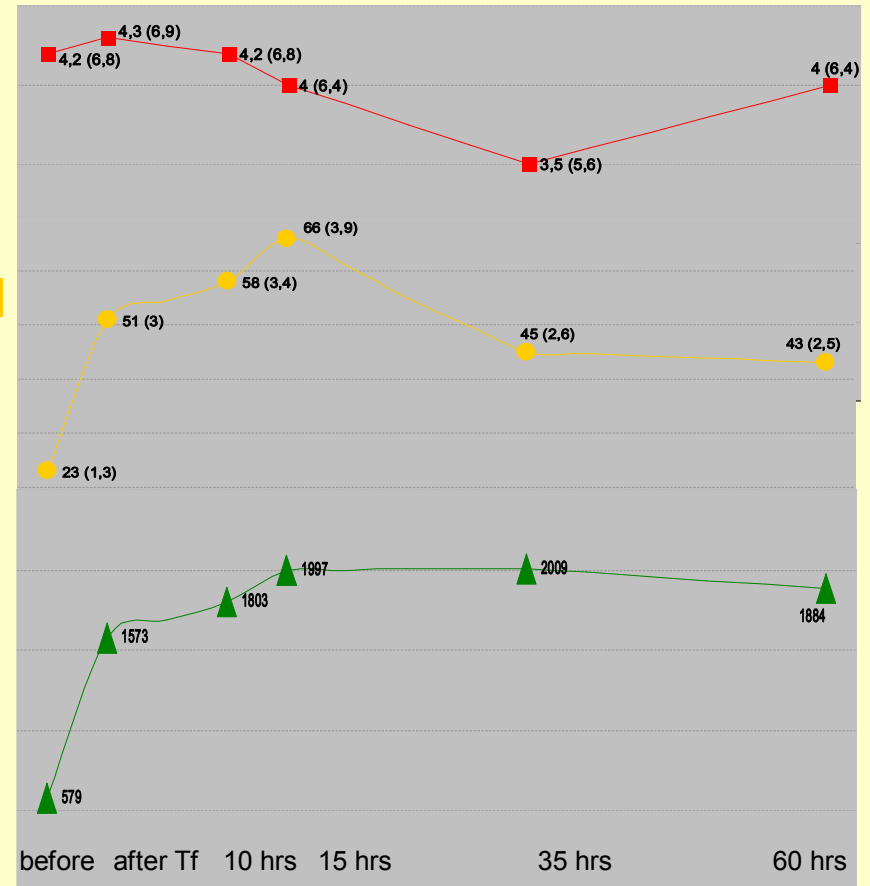
21:00 hrs red urine, difficulty  
 in passing water, reduction in  
 urine production

DAT 2+; anti-C3b/C3d = 2+;  
 IgG neg; eluate weakly  
 positive, no specificity

Hb mmol/l  
 (g/dl)

TBIL  $\mu$ mol/l  
 (mg/dl)

LDH IU/l



D. How would you assess imputability?

- 1) Unlikely    2) Possible    3) Probable    4) Certain

# Case 1 question E

Patient Z, male, 55 , O pos  
 aplastic anemia,  
 known anti-Kp(a)  
 ± 15:15 hrs start RBC unit  
 16:15 hrs Δ temp 1.3 °C  
 (Δ temp 2 °F)

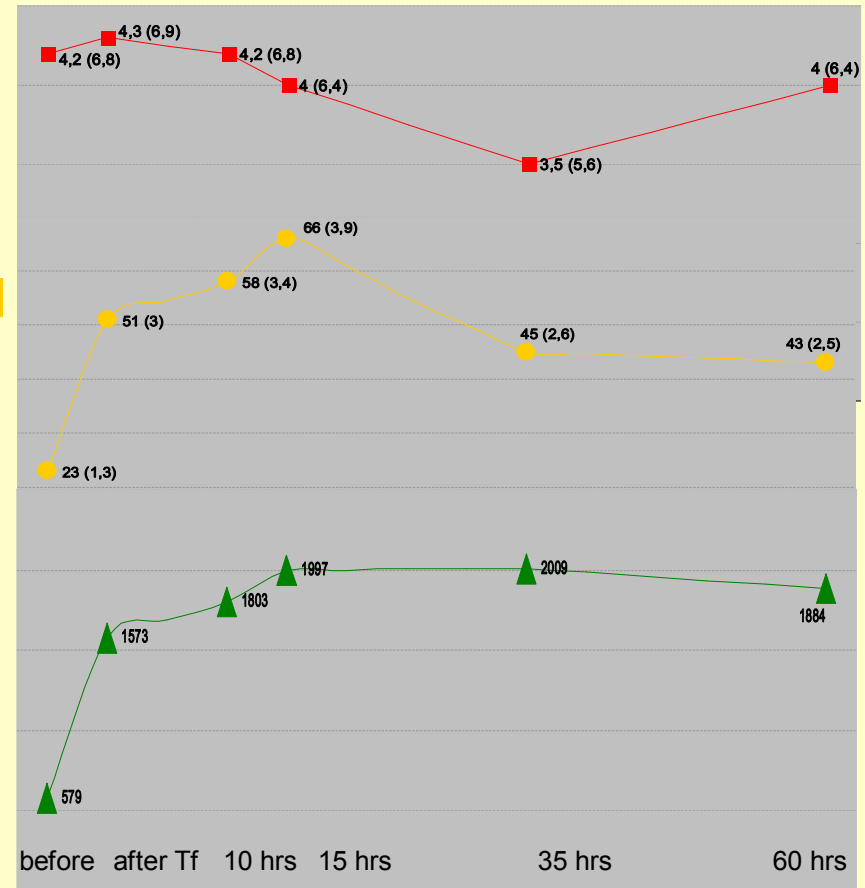
21:00 hrs red urine, difficulty  
 in passing water, reduction in  
 urine production

DAT 2+; anti-C3b/C3d = 2+;  
 IgG neg; eluate weakly  
 positive, no specificity

Hb mmol/l  
 (g/dl)

TBIL μmol/l  
 (mg/dl)

LDH IU/l



Large dose IV fluids administered. During the following days  
 patient Z completely recovered from the reaction.

# Case 1 question E

Patient Z, male, 55 , O pos,  
 aplastic anemia,  
 known anti-Kp(a)  
 ± 15:15 hrs start RBC unit  
 16:15 hrs Δ temp 1.3 °C  
 (Δ temp 2.3 °F)

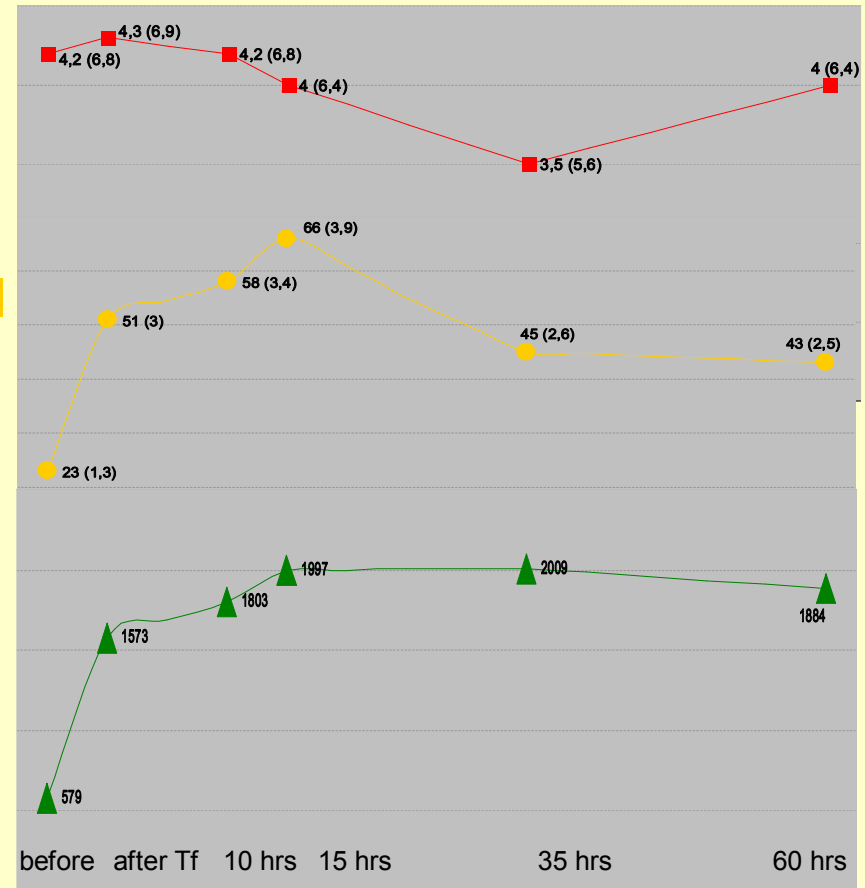
21:00 hrs red urine, difficulty in  
 passing water, reduction in  
 urine production

IV fluids administered. During  
 the following days the patient  
 completely recovered from the  
 reaction.

Hb mmol/l  
 (g/dl)

TBIL μmol/l  
 (mg/dl)

LDH IU/l

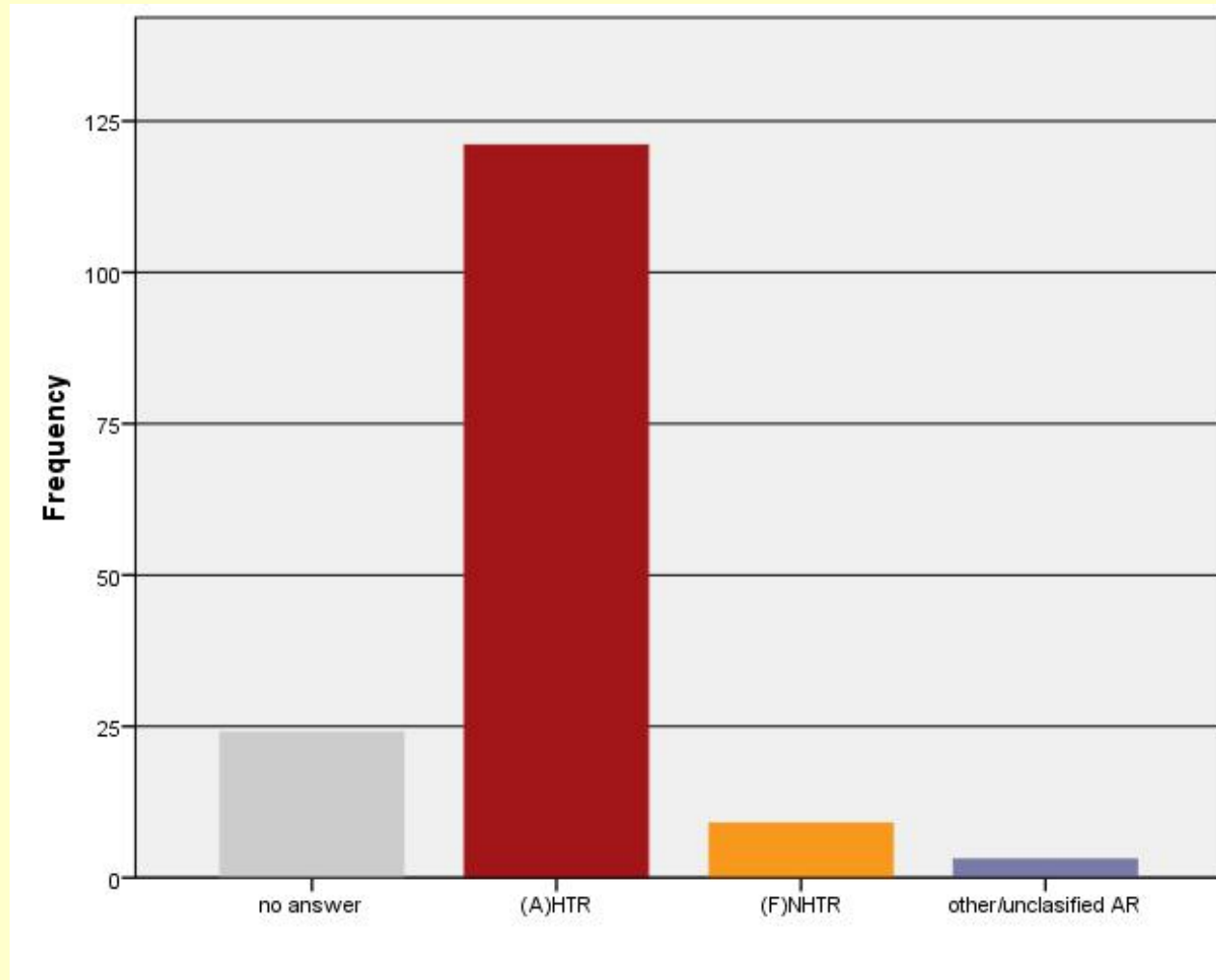


E. How would you assess grade of severity of this reaction?

- 1) No morbidity
- 2) Minor morbidity
- 3) Moderate to severe
- 4) Life threatening

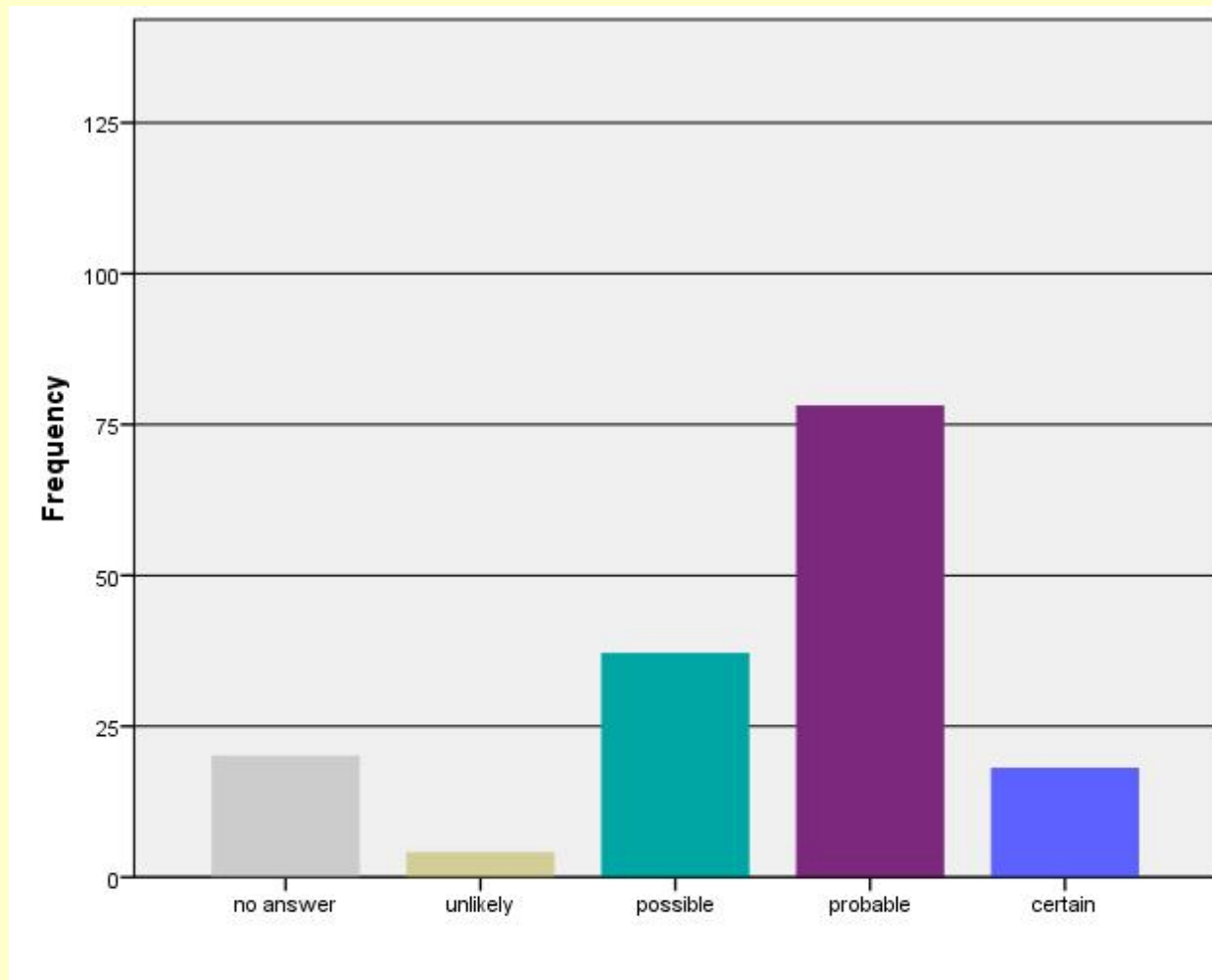
## Case 1 question C

C. How would you report this reaction?



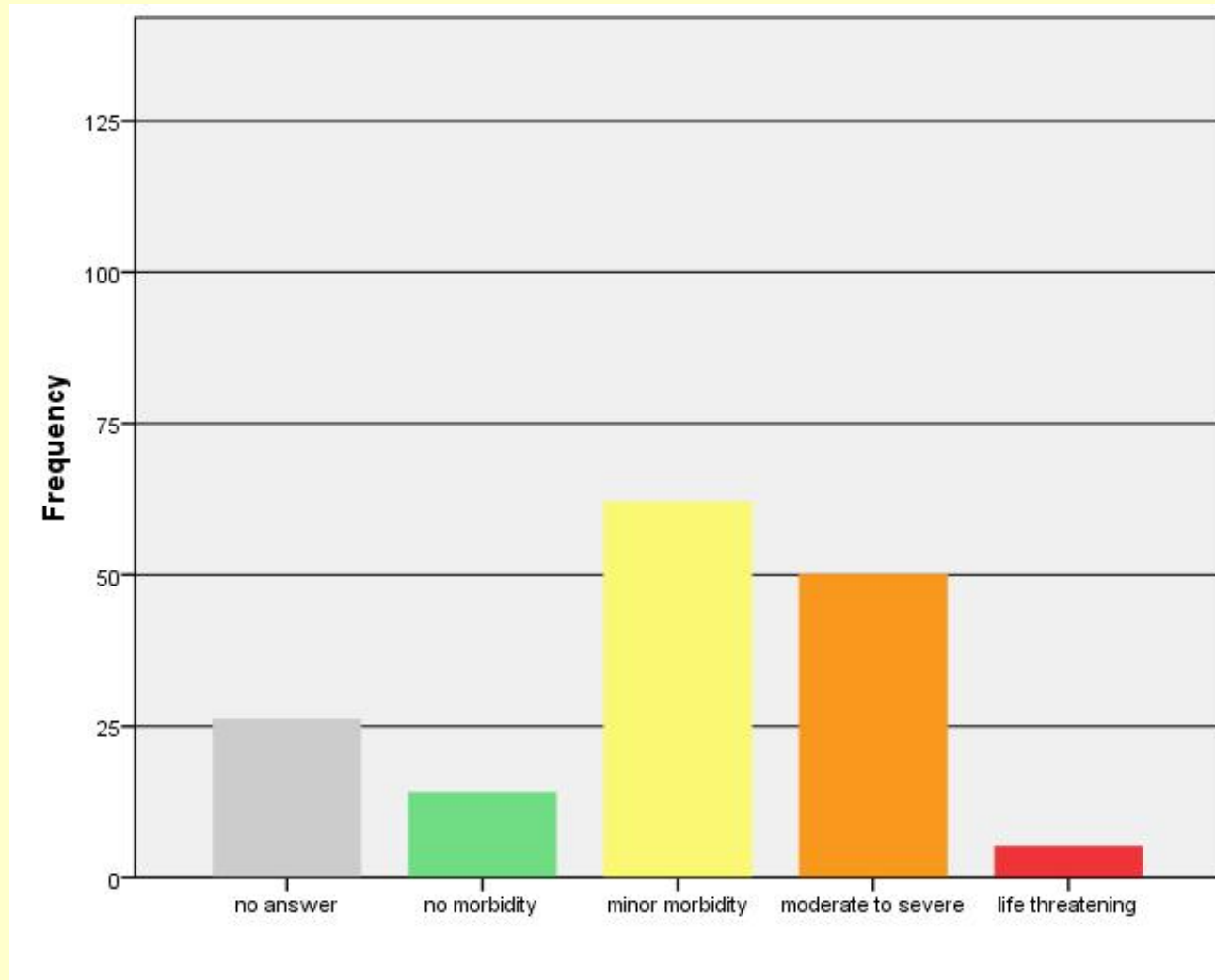
## Case 1 question D

D. How would you assess imputability?



## Case 1 question E

E. How would you assess grade of severity of this reaction?



## Case 1 TRIP registration

- Acute hemolytic transfusion reaction
- Imputability: certain
- Grade 1: minor morbidity

2009 online report, with clinical symptoms and lab.results before and after TR  
Reporter's assessment accepted by TRIP without further questions



## Case 2

Patient Y, female, 49, B pos, anemia due to menorrhagia

19:15 hrs      3rd RBC unit B pos started

BP before Tf 110/65, temp 37.4 °C (99.3 °F)

19:25 hrs      BP 140/70, temp 37.6 °C (99.7 °F)

20:00 hrs      pale, nausea and vomiting, tendency to  
(±100 ml)      faint, dyspnea, chills/rigors

BP 120/75, temp 38.0 °C (100.4 °F)

## Case 2, question A

Patient Y, female, 49, B pos, anemia due to menorrhagia

19:15 hrs 3rd RBC unit B pos started

BP before Tf 110/65, temp 37.4 °C (99.3 °F)

19:25 hrs BP 140/70, temp 37.6 °C (99.7 °F)

20:00 hrs pale, nausea and vomiting, tendency to faint,  
(±100 ml) dyspnea, chills/rigors

BP 120/75, temp 38.0 °C (100.4 °F)

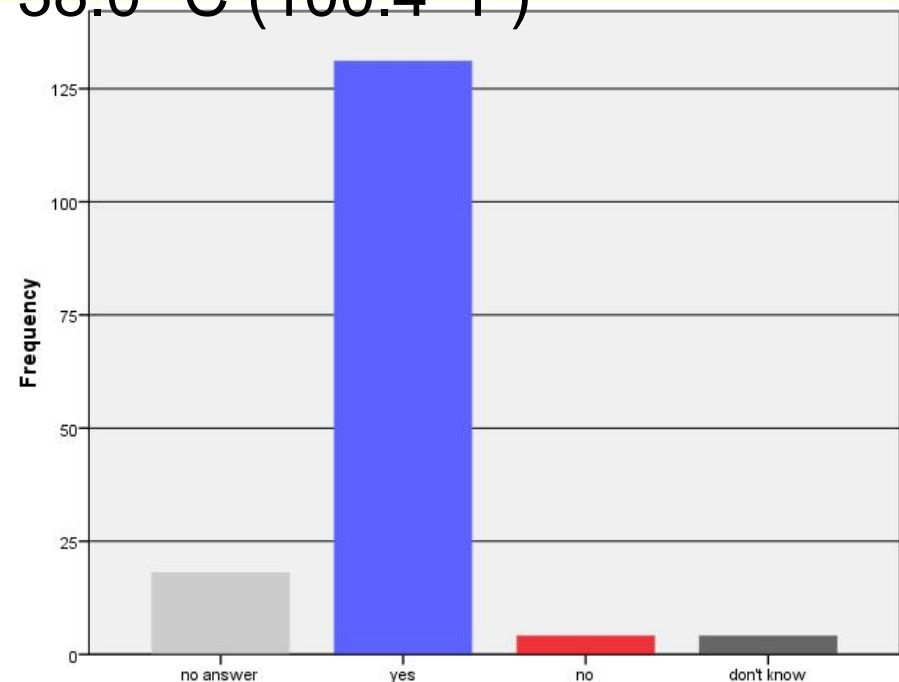
A. Should this be reported as a transfusion reaction (AR)?

- 1) Yes
- 2) No
- 3) Don't know

## Case 2, question A

Patient Y, female, 49, B pos, anemia due to menorrhagia  
 19:15 hrs 3rd RBC unit B pos started  
 BP before Tf 110/65, temp 37.4 °C (99.3 °F)  
 19:25 hrs BP 140/70, temp 37.6 °C (99.7 °F)  
 20:00 hrs pale, nausea and vomiting, tendency to faint,  
 (±100 ml) dyspnea, chills/rigors  
 BP 120/75, temp 38.0 °C (100.4 °F)

A. Should this be reported  
 as a transfusion reaction (AR)?



## Case 2 continued

Patient Y, female, 49, B pos, anemia caused by menorrhagia

19:15 hrs

3rd RBC unit B pos started

20:00 hrs

(±100 ml)

pale, nausea and vomiting, tendency to faint, dyspnea, chills/rigors,  $\Delta$  temp 0.6 °C (1.1 °F)

	before Tf	after TR	later
Temp °C (°F)	37.4 (99.3)	38.0 (100.4)	
BP	110/65	120/75	
Plasma colour	clear	clear	
Crossmatch	neg	neg	
Irregulair a.b.	neg	neg	neg at 6 months
DAT	pos	pos	
Hb mmol/l (g/dl)	3.6 (5.8)	5.3 (8.5)	5.4 (8.7) at 4 days
LDH IU/l		423↑	
Haptoglobin g/l	0.82	0.68	



## Case 2 continued

Patient Y, ♀ 49, B pos,  
anemia caused by  
menorrhagia  
19:15 hrs start 3rd unit RBC  
20:00 uur TR: pale, nausea  
and vomiting, tendency to  
faint, dyspnea, chills/rigors,  
 $\Delta$  temp 0.6 °C (1.1 °F)

	before Tf	after TR	later
Temp °C(°F)	37.4(99.3)	38.0(100.4)	
BP	110/65	120/75	
Plasma colour	clear	clear	
Crossmatch	neg	neg	
Irregulair a.b.	neg	neg	neg at 6 months
DAT	pos	pos	
Hb mmol/l(g/dl)	3.6(5.8)	5.3(8.5)	5.4(8.7) at 4 days
LDH IU/l		423↑	
Haptoglobin g/l	0.82	0.68	

Cultures negative

Full recovery, discharged next day

## Case 2, question B

Patient Y, ♀ 49, B pos,  
 anemia caused by  
 menorrhagia  
 19:15 hrs start 3rd unit RBC  
 20:00 uur TR: pale, nausea  
 and vomiting, tendency to  
 faint, dyspnea, chills/rigors,  
 $\Delta$  temp 0.6 °C (1.1 °F)

Cultures negative  
 Full recovery, discharged  
 next day

	before Tf	after TR	later
Temp °C(°F)	37.4(99.3)	38.0(100.4)	
BP	110/65	120/75	
Plasma colour	clear	clear	
Crossmatch	neg	neg	
Irregulair a.b.	neg	neg	neg at 6 months
DAT	pos	pos	
Hb mmol/l(g/dl)	3.6(5.8)	5.3(8.5)	5.4(8.7) at 4 days
LDH IU/l		423↑	
Haptoglobin g/l	0.82	0.68	

B. What reporting category would you choose?

- 1) (Acute) hemolytic transfusion reaction = (A)HTR
- 2) (Febrile) non hemolytic transfusion reaction = (F)NHTR
- 3) Other reaction (unclassified AR)
- 4) Anafylactic reaction



## Case 2, question C

Patient Y, ♀ 49, B pos,  
anemia caused by  
menorrhagia  
19:15 hrs start 3rd unit RBC  
20:00 uur TR: pale, nausea  
and vomiting, tendency to  
faint, dyspnea, chills/rigors,  
Δ temp 0.6 °C (1.1 °F)

Cultures negative  
Full recovery, discharged  
next day

	before Tf	after TR	later
Temp °C(°F)	37.4(99.3)	38.0(100.4)	
BP	110/65	120/75	
Plasma colour	clear	clear	
Crossmatch	neg	neg	
Irregulair a.b.	neg	neg	neg at 6 months
DAT	pos	pos	
Hb mmol/l(g/dl)	3.6(5.8)	5.3(8.5)	5.4(8.7) at 4 days
LDH IU/l		423↑	
Haptoglobin g/l	0.82	0.68	

C. How would you assess imputability?

1) Unlikely    2) Possible    3) Probable    4) Certain



## Case 2, question D

Patient Y, ♀ 49, B pos,  
 anemia caused by  
 menorrhagia  
 19:15 hrs start 3rd unit RBC  
 20:00 uur TR: pale, nausea  
 and vomiting, tendency to  
 faint, dyspnea, chills/rigors,  
 Δ temp 0.6 °C (1.1 °F)

Cultures negative  
 Full recovery, discharged  
 next day

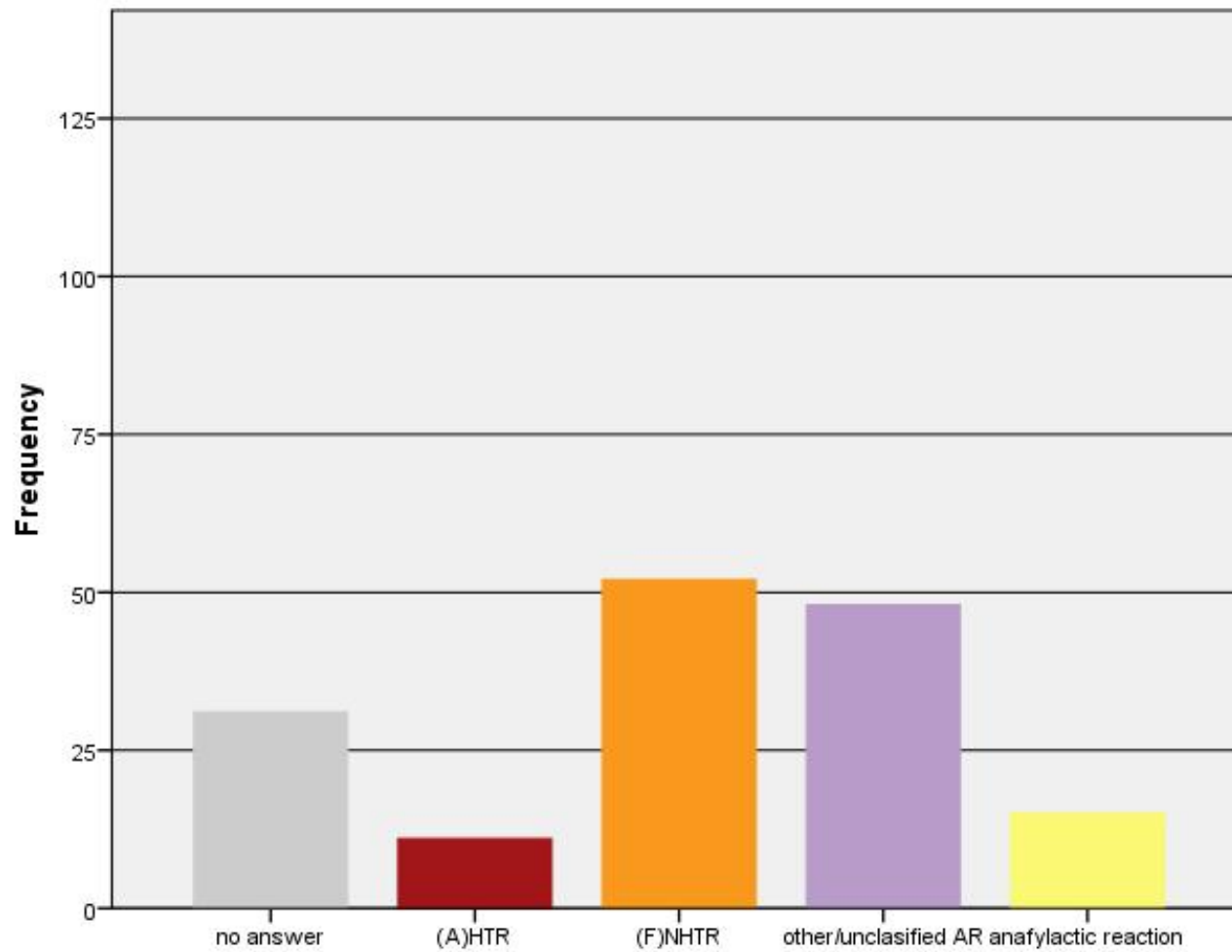
	before Tf	after TR	later
Temp °C(°F)	37.4(99.3)	38.0(100.4)	
BP	110/65	120/75	
Plasma colour	clear	clear	
Crossmatch	neg	neg	
Irregulair a.b.	neg	neg	neg at 6 months
DAT	pos	pos	
Hb mmol/l(g/dl)	3.6(5.8)	5.3(8.5)	5.4(8.7) at 4 days
LDH IU/l		423↑	
Haptoglobin g/l	0.82	0.68	

D. How would you assess grade of severity of this reaction?

- 1) No morbidity      2) Minor morbidity      3) Moderate to severe      4) Life threatening

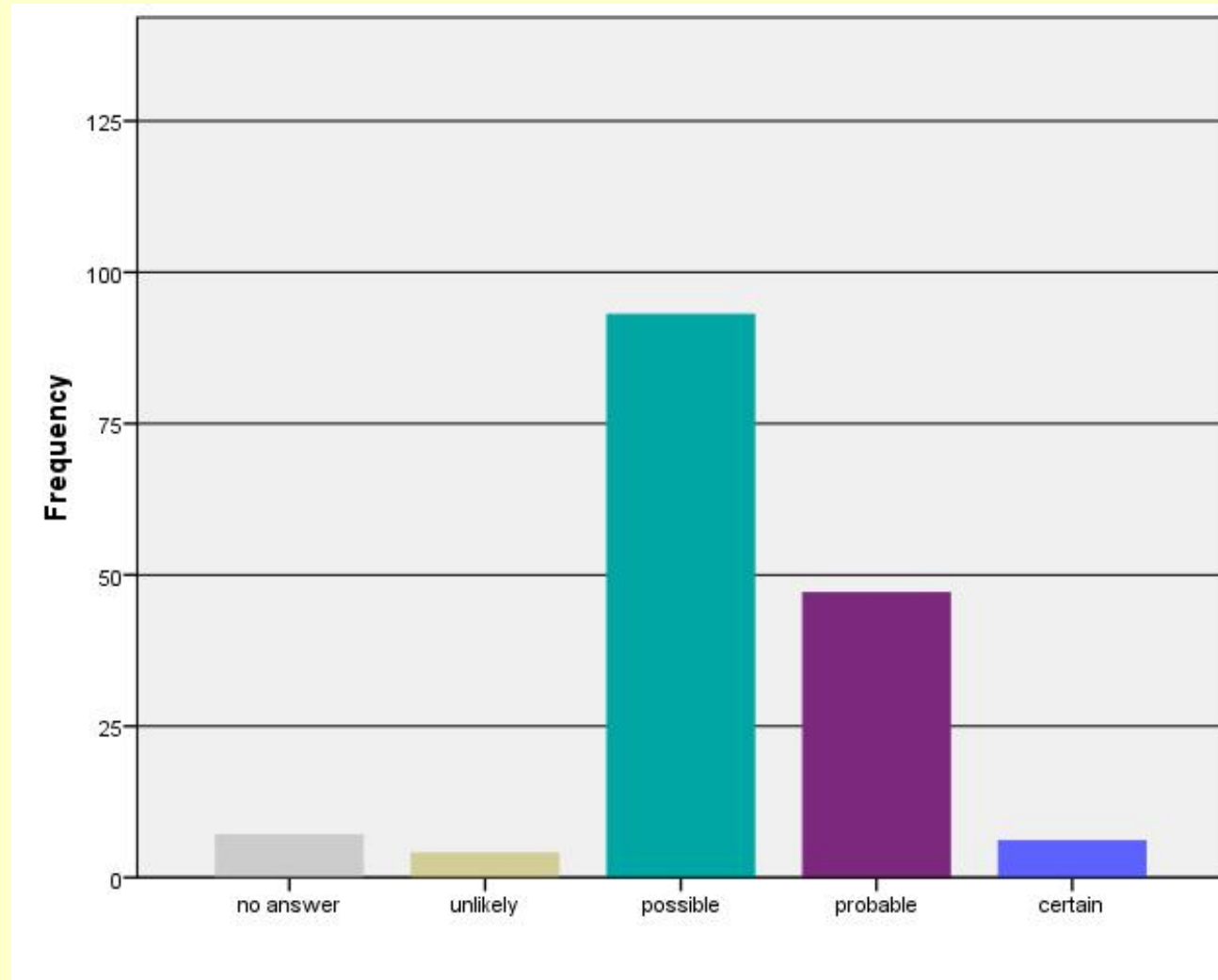
## Case 2 question B

B. How would you report this reaction?



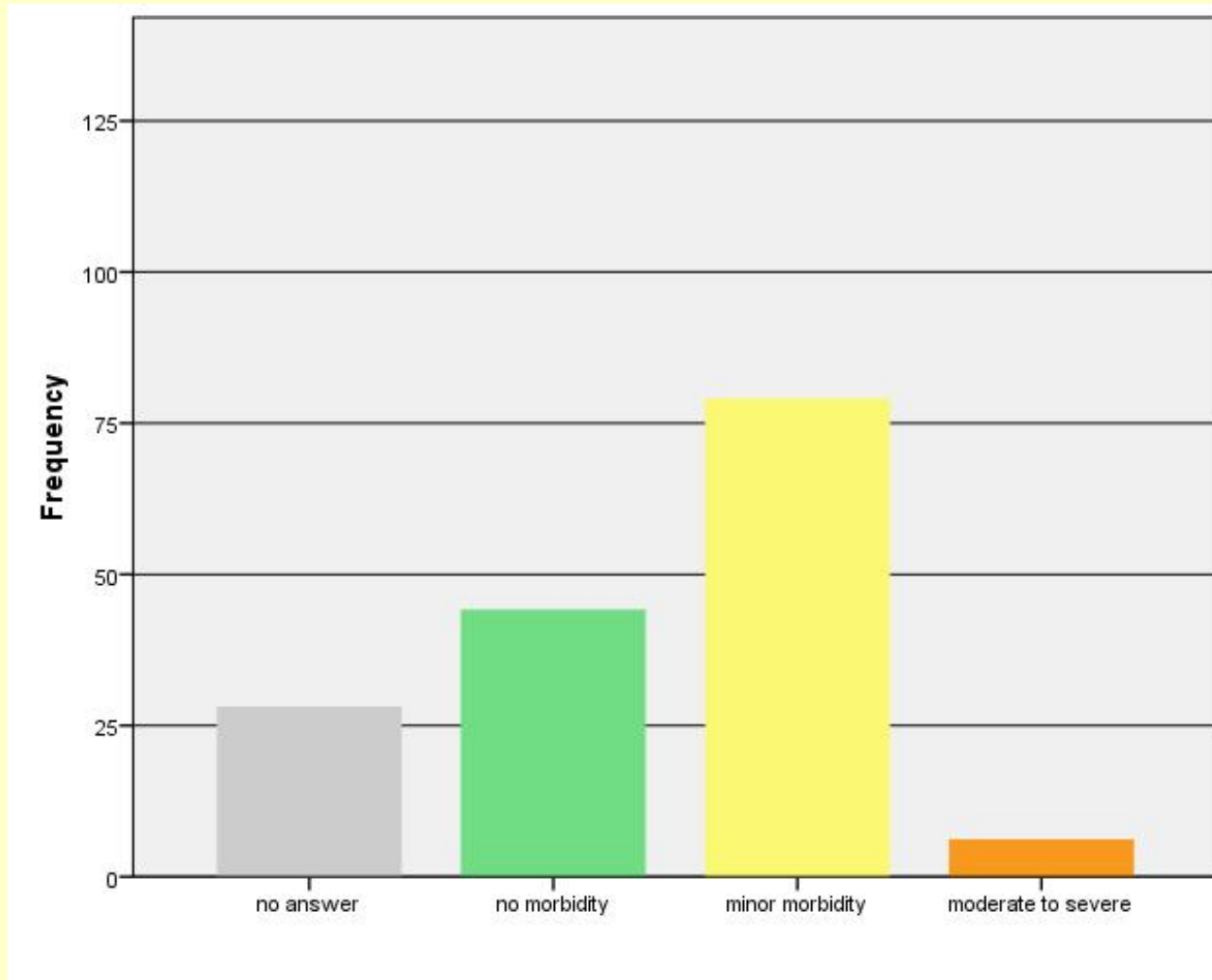
## Case 2 question C

### C. How would you assess imputability?



## Case 2 question D

D. How would you assess grade of severity of this reaction?



## Case 2 TRIP registration

- Acute hemolytic transfusion reaction
- Imputability possible
- Grade 1 minor morbidity

2006 report, with clinical symptoms, lab.results hapto and LDH  
Reporter's assessment accepted by TRIP without further questions

## Case 3

Patient A, male, 68, O pos, oncology patient (liver metastases)  
antibody screen pos: nonspecific warm auto antibodies

13:11 hrs      O pos RBC unit started. Temp 35.3 °C (95.5 °F)

16:15 uur      chills/rigors temp 37.1 °C (98.8 °F)

## Case 3 question A

Patient A, male, 68, O pos, oncology patient (liver metastases)  
antibody screen pos: nonspecific warm auto antibodies

13:11 hrs O pos RBC unit started. Temp 35.3 °C (95.5 °F)

16:15 uur chills/rigors temp 37.1 °C (98.8 °F)

A. Should this be regarded as a transfusion reaction (AR)?

- 1) Yes
- 2) No
- 3) Don't know

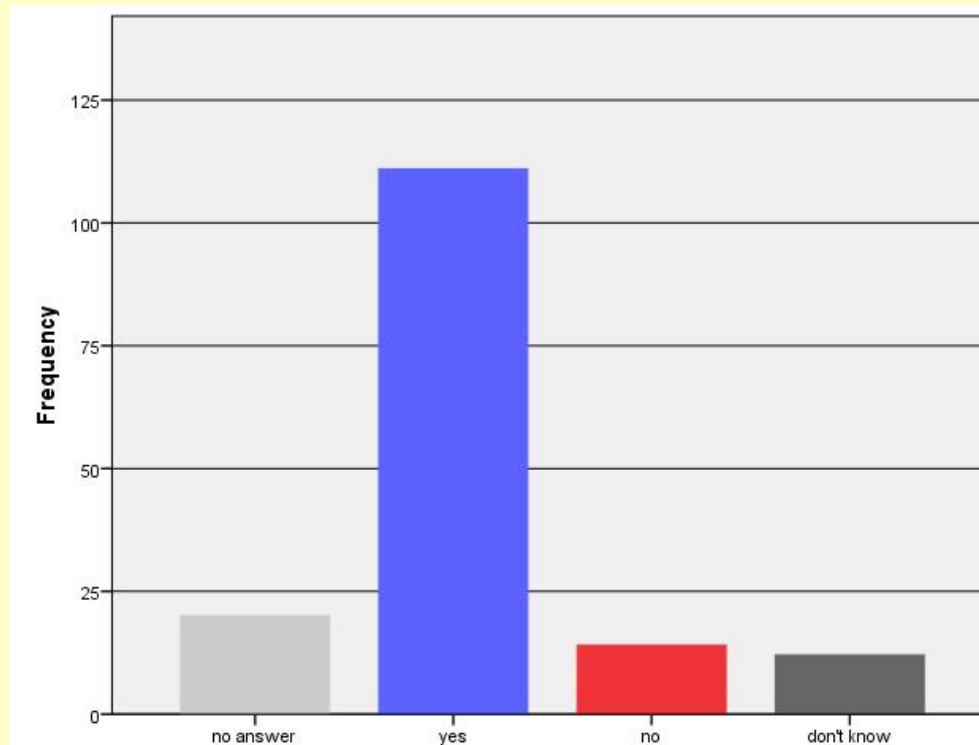
## Case 3 question A

Patient A, male, 68, O pos, oncology patient (liver metastases)  
antibody screen pos: nonspecific warm auto antibodies

13:11 hrs O pos RBC unit started. Temp 35.3 °C (95.5 °F)

16:15 uur chills/rigors temp 37.1 °C (98.8 °F)

A. Should this be regarded as a transfusion reaction (AR)?



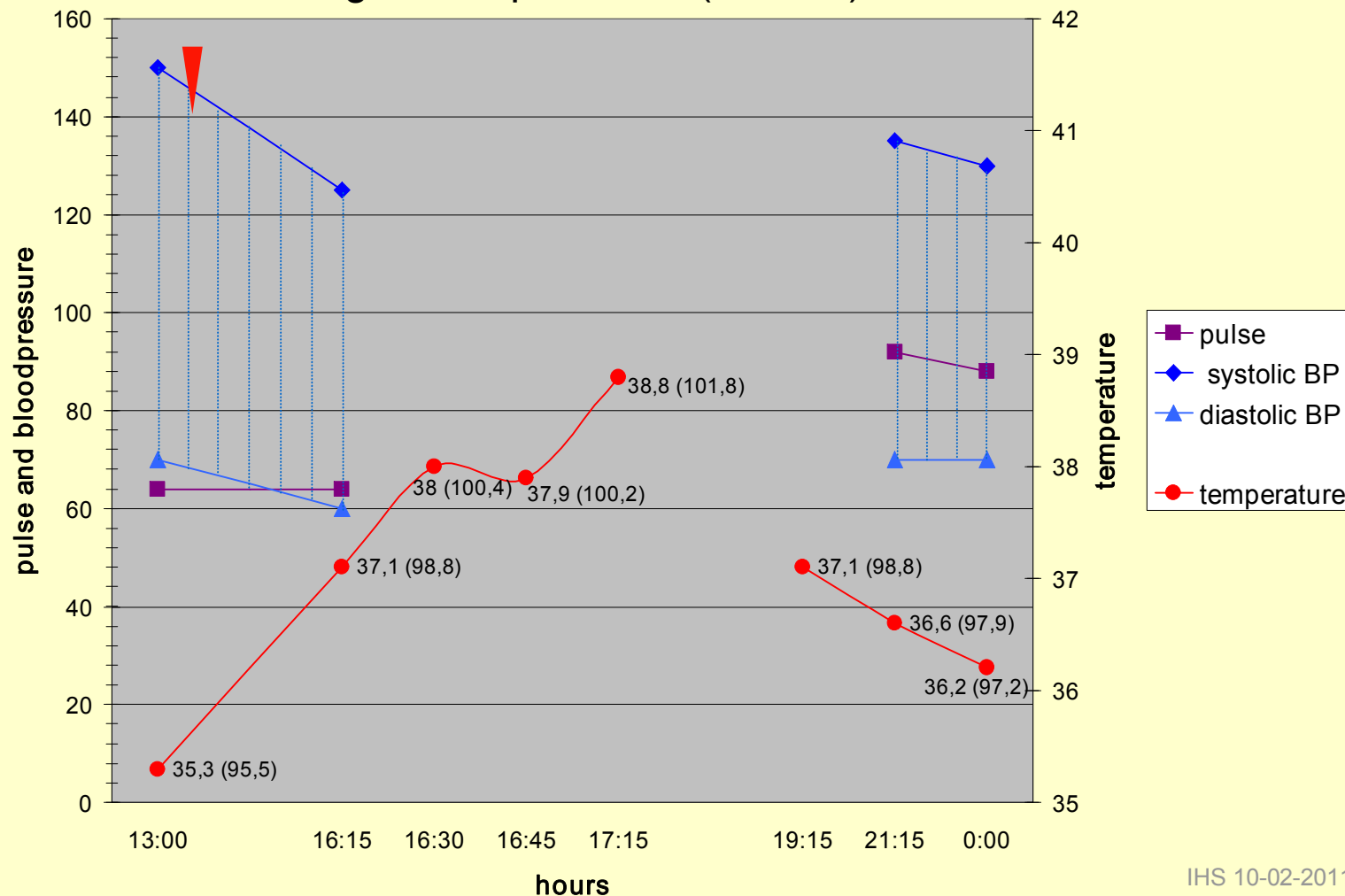


## Case 3 continued

Patient A, male, 68, O pos, oncology patient (liver metastases), known nonspec warm auto antibodies

13:11 hrs O pos RBC unit started. Temp 35.3 °C (95.5 °F)

16:15 hrs chills/rigors temp 37.1 °C (98.8 °F)



## Case 3 continued

Patient A, male, 68, O pos, oncology patient (liver metastases), known nonspec warm auto antibodies

13:11 hrs

RBC unit O pos started

16:15 uur

Chills/rigors,  $\Delta$  temp 1.8 °C (3.2 °F)

Free Hb in urine:  
negative

DAT RBC unit:  
donor positive (IgG)

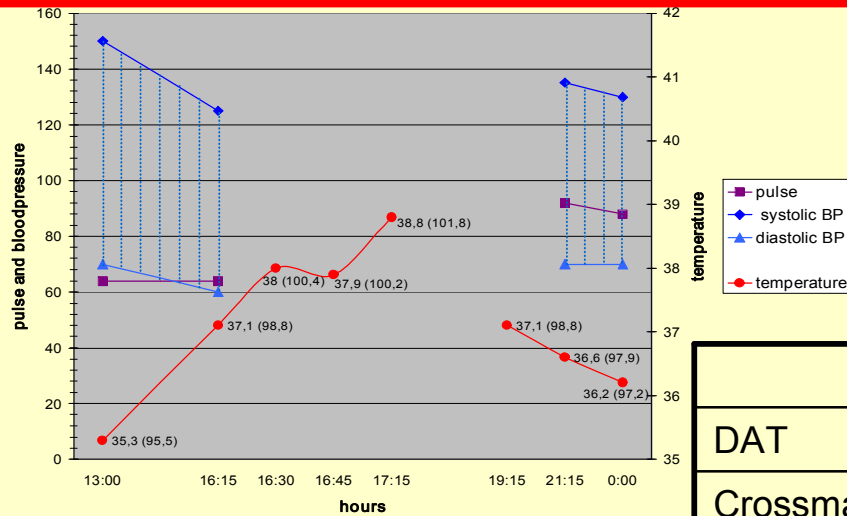
Blood cultures:  
Patient: neg  
RBC unit : neg

	before Tf	after TR	later (16 hrs → 40 hrs)
DAT	pos	pos (IgG)	
Crossmatch	neg	weakly pos	
Hb mmol/l (g/dl)	4.8 (7.7)	5.7 (9.2)	5.4 (8.7) → 5.9 (9.5)
TBIL $\mu$ mol/l (mg/dl)	22.3 (1.3)	47.9 (2.8)	37.1 (2.2) → 78 (4.6)
LDH IU/l	324	573	515 → 462
AST IU/l	34	214	87 → 127
ALT IU/l	31	69	48 → 61
Hapto g/l		3.3	2.9

± 1 week earlier (not transfused) also elevated liver function tests:

TBIL 80,6(4.7) LDH 448 AST 287 ALT 162

## Case 3 question B



Patient A, ♂ 68, O pos, oncology pat (liver metastases), known nonspec warm auto a.b.  
 13:11 hrs start RBC unit  
 16:15 uur chills/rigors,  $\Delta$  temp 1.8 °C (3.2 °F)

Blood cultures pat: neg  
 RBC unit: neg

Free Hb in urine: neg  
 DAT RBC unit: donor pos (IgG)  
 earlier (not transfused) also elevated LFTs

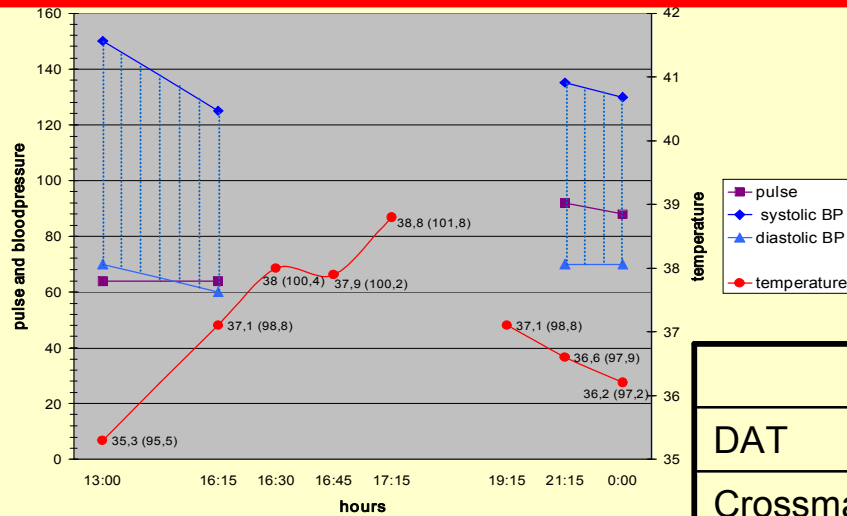
	before Tf	after TR	later (16 hrs ➔ 40 hrs)
DAT	pos	pos (IgG)	
Crossmatch	neg	weakly pos	
Hb mmol/l (g/dl)	4.8 (7.7)	5.7 (9.2)	5.4 (8.7) ➔ 5.9 (9.5)
TBIL $\mu$ mol/l (mg/dl)	22.3 (1.3)	47.9 (2.8)	37.1 (2.2) ➔ 78 (4.6)
LDH IU/l	324	573	515 ➔ 462
AST IU/l	34	214	87 ➔ 127
ALT IU/l	31	69	48 ➔ 61
Hapto g/l		3.3	2.9

B. Which reporting category would you select?

- 1) Acute hemolytic transfusion reaction = AHTR
- 2) (Febrile) non hemolytic transfusion reaction = (F)NHTR
- 3) Delayed hemolytic transfusion reaction = DHTR



# Case 3 question C



Patient A, ♂ 68, O pos, oncology pat (liver metastases), known nonspec warm auto a.b.  
 13:11 hrs start RBC unit  
 16:15 uur chills/rigors, Δ temp 1.8 °C (3.2 °F)

Blood cultures pat: neg  
 RBC unit: neg

Free Hb in urine: neg  
 DAT RBC unit: donor pos (IgG)  
 earlier (not transfused) also elevated LFTs

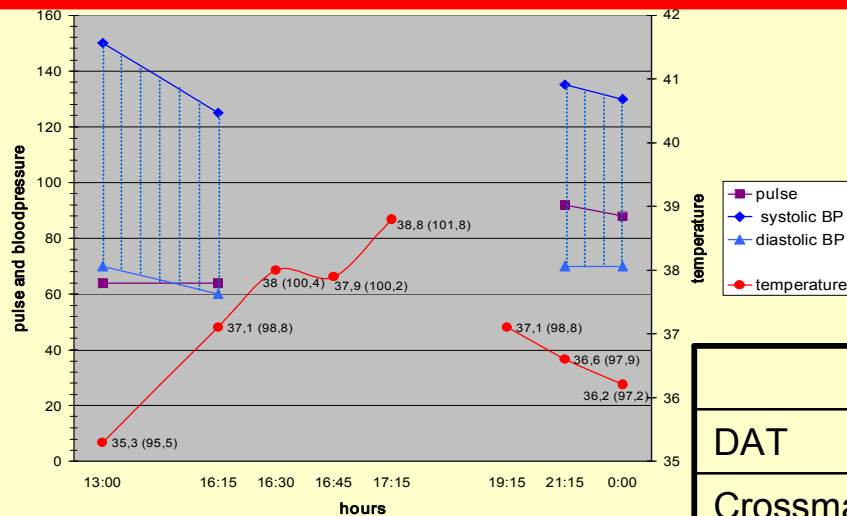
	before Tf	after TR	later (16 hrs ➔ 40 hrs)
DAT	pos	pos (IgG)	
Crossmatch	neg	weakly pos	
Hb mmol/l (g/dl)	4.8 (7.7)	5.7 (9.2)	5.4 (8.7) ➔ 5.9 (9.5)
TBIL μmol/l (mg/dl)	22.3 (1.3)	47.9 (2.8)	37.1 (2.2) ➔ 78 (4.6)
LDH IU/l	324	573	515 ➔ 462
AST IU/l	34	214	87 ➔ 127
ALT IU/l	31	69	48 ➔ 61
Hapto g/l		3.3	2.9

C. How would you assess imputability?

- 1) Unlikely    2) Possible    3) Probable    4) Certain



## Case 3 question D



Patient A, ♂ 68, O pos, oncology pat (liver metastases), known nonspec warm auto a.b.  
 13:11 hrs start RBC unit  
 16:15 uur chills/rigors,  $\Delta$  temp 1.8 °C (3.2 °F)

Blood cultures pat: neg  
 RBC unit: neg

Free Hb in urine: neg  
 DAT RBC unit: donor pos (IgG)  
 earlier (not transfused) also elevated LFTs

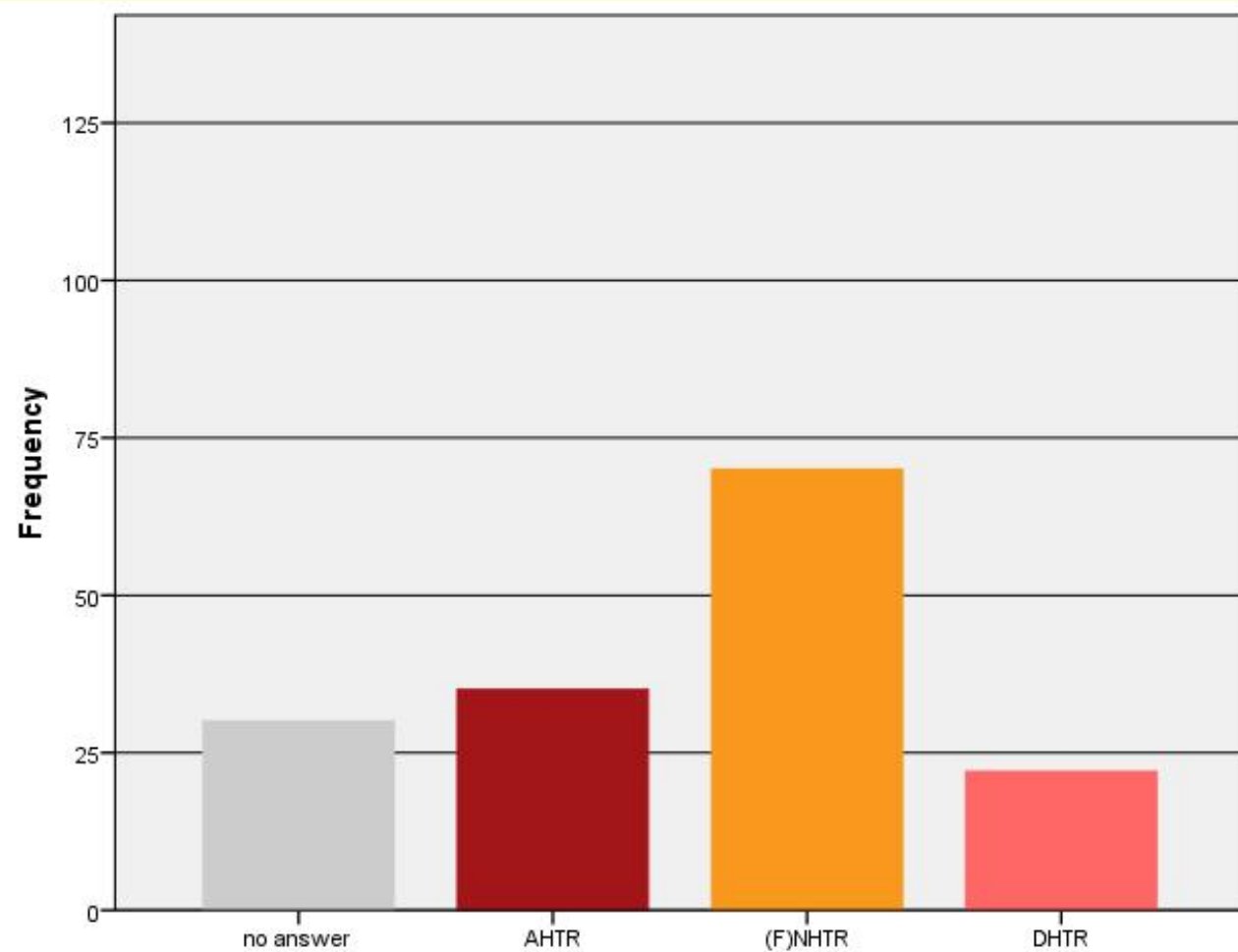
	before Tf	after TR	later (16 hrs ➔ 40 hrs)
DAT	pos	pos (IgG)	
Crossmatch	neg	weakly pos	
Hb mmol/l (g/dl)	4.8 (7.7)	5.7 (9.2)	5.4 (8.7) ➔ 5.9 (9.5)
TBIL $\mu$ mol/l (mg/dl)	22.3 (1.3)	47.9 (2.8)	37.1 (2.2) ➔ 78 (4.6)
LDH IU/l	324	573	515 ➔ 462
AST IU/l	34	214	87 ➔ 127
ALT IU/l	31	69	48 ➔ 61
Hapto g/l		3.3	2.9

D. How would you assess grade of severity of this reaction?

- 1) No morbidity      2) Minor morbidity      3) Moderate to severe      4) Life threatening

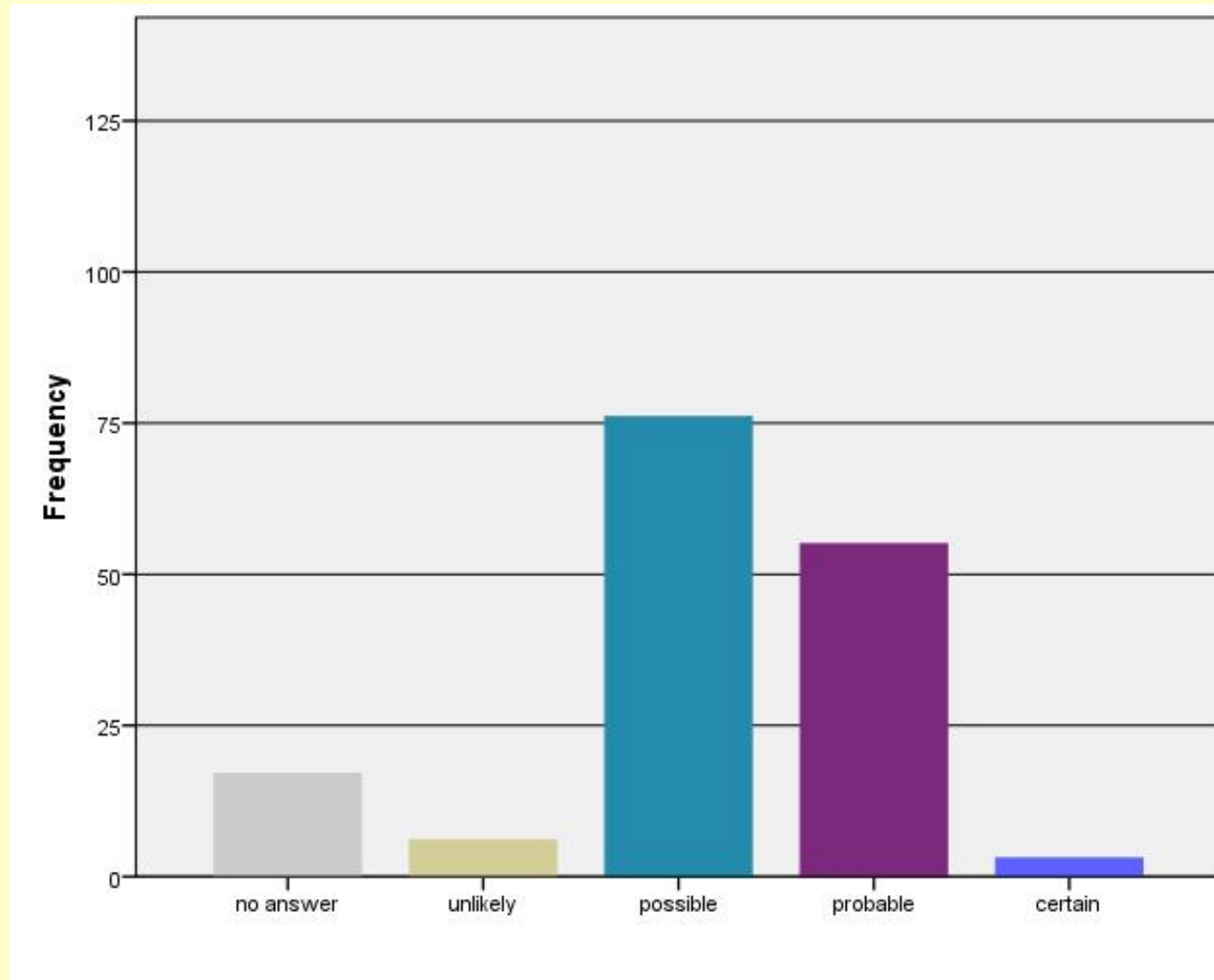
## Case 3 question B

B. How would you report this reaction?



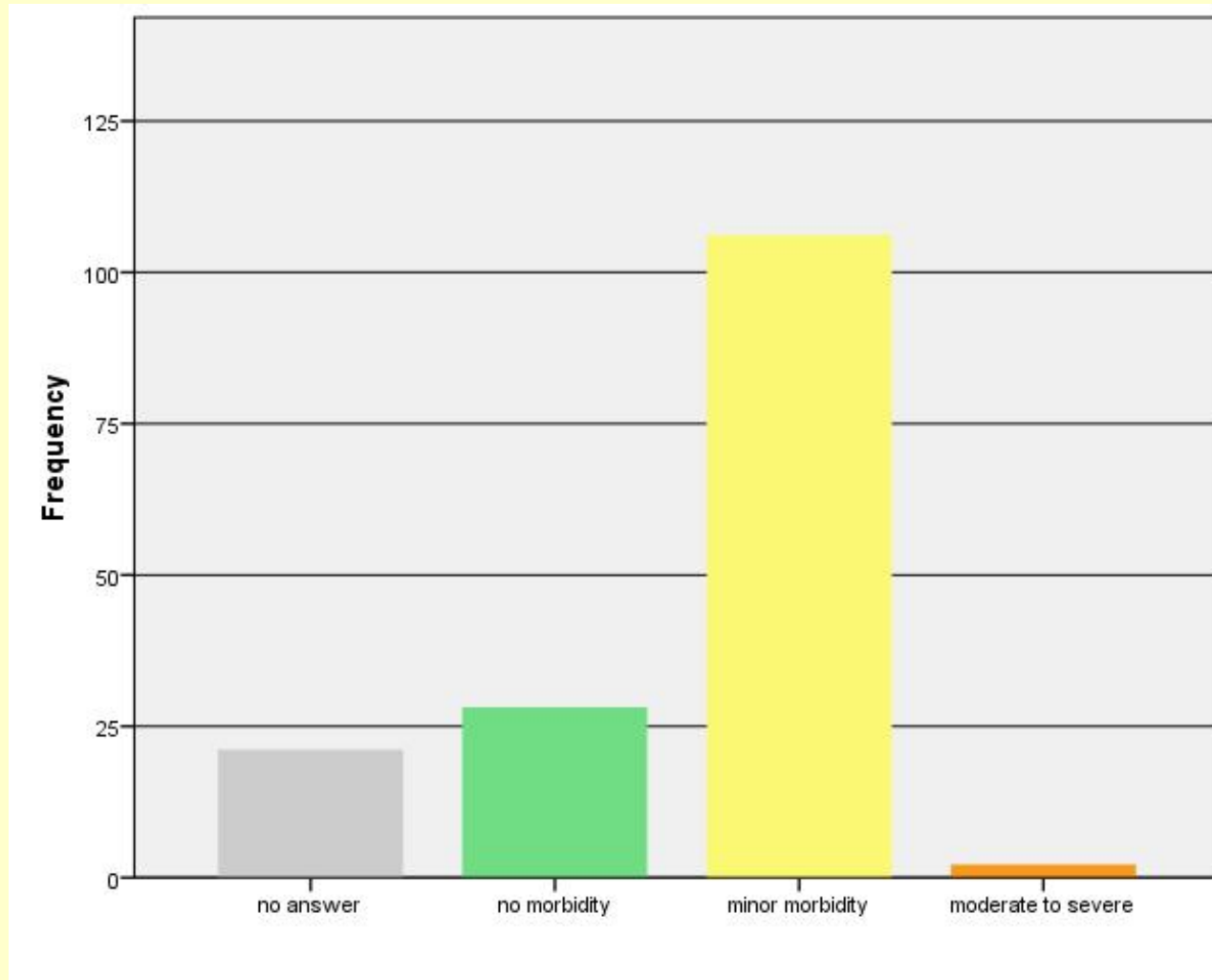
## Case 3 question C

### C. How would you assess imputability?



## Case 3 question D

D. How would you assess grade of severity of this reaction?



## Case 3 TRIP registration

- (Febrile) non hemolytic transfusion reaction
- possible
- grade 1 minor morbidity

2005 report, with lab.results and explanation

Reporter's assessment accepted by TRIP without further questions



## Case 4

Patient X, female, 76, anemia, blood group O neg

14:30 hrs	RBC unit started
14:33 hrs	unwell, nauseous



## Case 4 question A

Patient X, female, 76, anemia, blood group O neg

14:30 hrs RBC unit started

14:33 hrs unwell, nauseous

A. Should this be regarded as a transfusion reaction (AR)?

- 1) Yes
- 2) No
- 3) Don't know



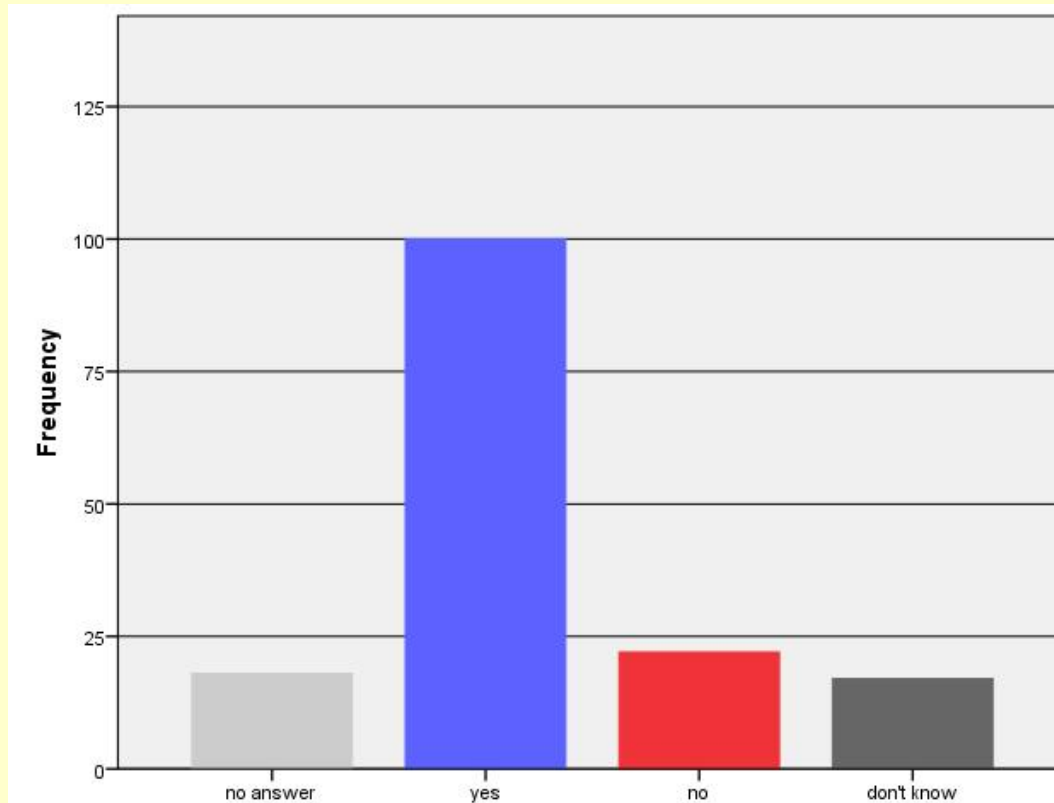
## Case 4 question A

Patient X, female, 76, anemia, blood group O neg

14:30 hrs RBC unit started

14:33 hrs unwell, nauseous

A. Should this be regarded as a transfusion reaction (AR)?





## Case 4 continued

Patient X, female, 76, anemia, blood group O neg

14:30 hrs RBC unit started

14:33 hrs unwell, nauseous

Transfusion stopped

Patient ID and RBC unit checked: RBC unit is A pos

The unit was intended for patient Q on the same ward

## Case 4 continued

Patient X, female, 76, anemia, blood group O neg

14:30 hrs RBC unit started

14:33 hrs unwell, nauseous

Transfusion stopped

Patient ID and RBC unit checked: RBC unit is A pos

The unit was intended for patient Q on the same ward

16:00 hrs chills/rigors and rise in temperature

16:30 hrs temp back to baseline, patient stable

	Before Tf	After Tf
LDH IU/l	210	362
TBIL $\mu\text{mol/l}$ (mg/dl)	6 (0.4)	18 (1.1)



## Case 4 question B

Patient X, female, 76, anemia, blood group O neg

14:30 hrs RBC unit started

14:33 hrs unwell, nauseous

Transfusion stopped, patient ID and RBC unit checked: RBC unit is A pos

The unit was intended for patient Q

16:00 hrs chills/rigors and rise in temperature

16:30 hrs temp back to baseline, patient stable

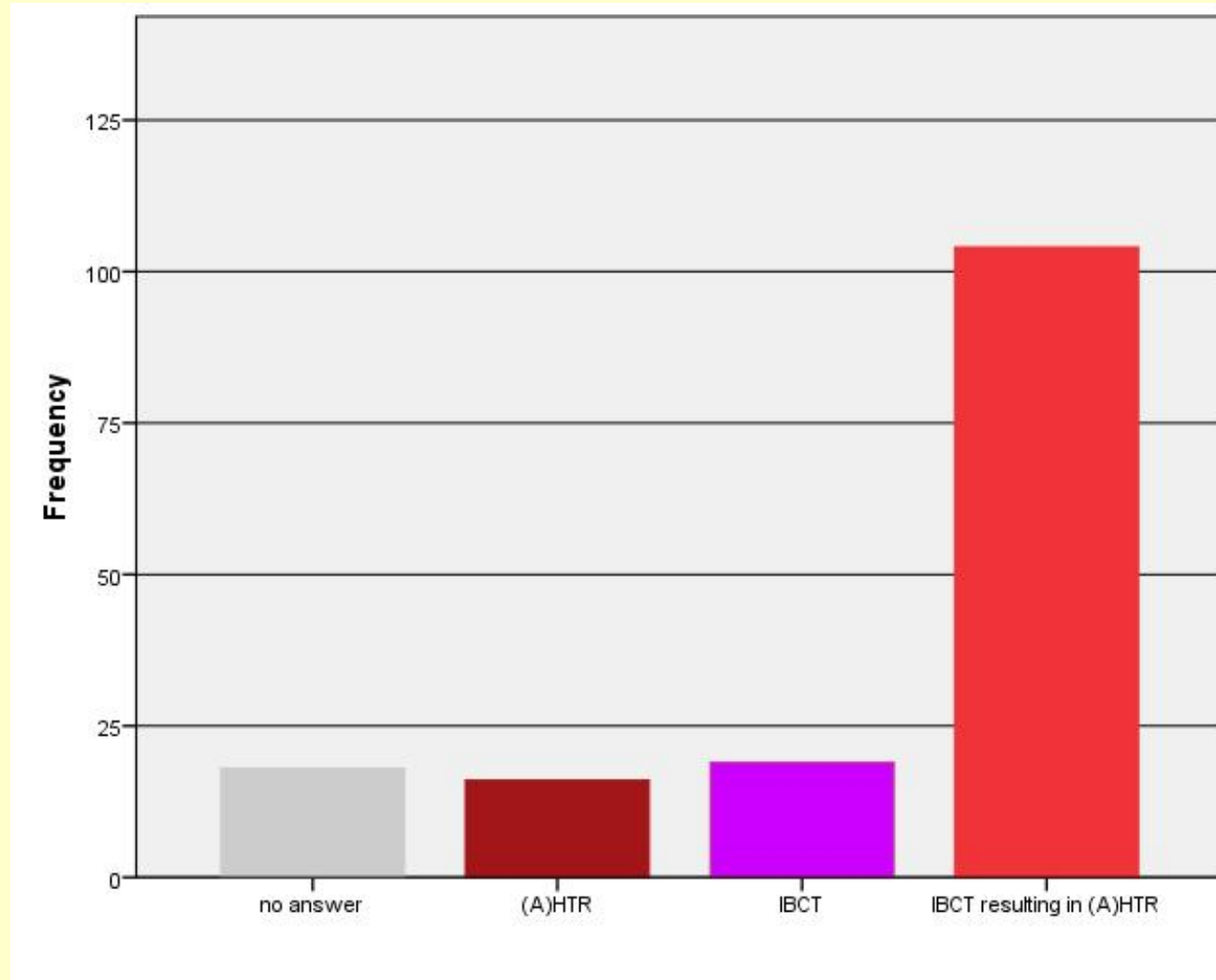
	Before Tf	After Tf
LDH IU/l	210	362
TBIL $\mu\text{mol/l}$ (mg/dl)	6 (0.4)	18 (1.1)

B. How would you report this?

- 1) (Acute) hemolytic transfusion reaction = (A)HTR
- 2) Incorrect blood component transfused = IBCT
- 3) IBCT resulting in (A)HTR
- 4) (Febrile) non hemolytic transfusion reaction = (F)NHTR

## Case 4 question B

B. How would you report this reaction?





## TRIP registration

- Incorrect blood component transfused (IBCT) resulting in
- Acute hemolytic transfusion reaction (AHTR)

2009 report, with lab.results and explanation

Reporter's assessment accepted by TRIP without further questions

## Near miss / IBCT / other incident?

7 TRIP reports in 2009:

a blood component that was intended for another patient was spiked, but **no (or almost no) blood was actually transfused**

- second error had been made (clamp or valve hadn't been opened)
- rapid discovery ("no visible blood in IV line")

Some reported as near miss, others as IBCT or other incident

Near miss:

*discovered before the start of transfusion*

IBCT:

*patient is transfused with incorrect blood component*

## Case 5 question A

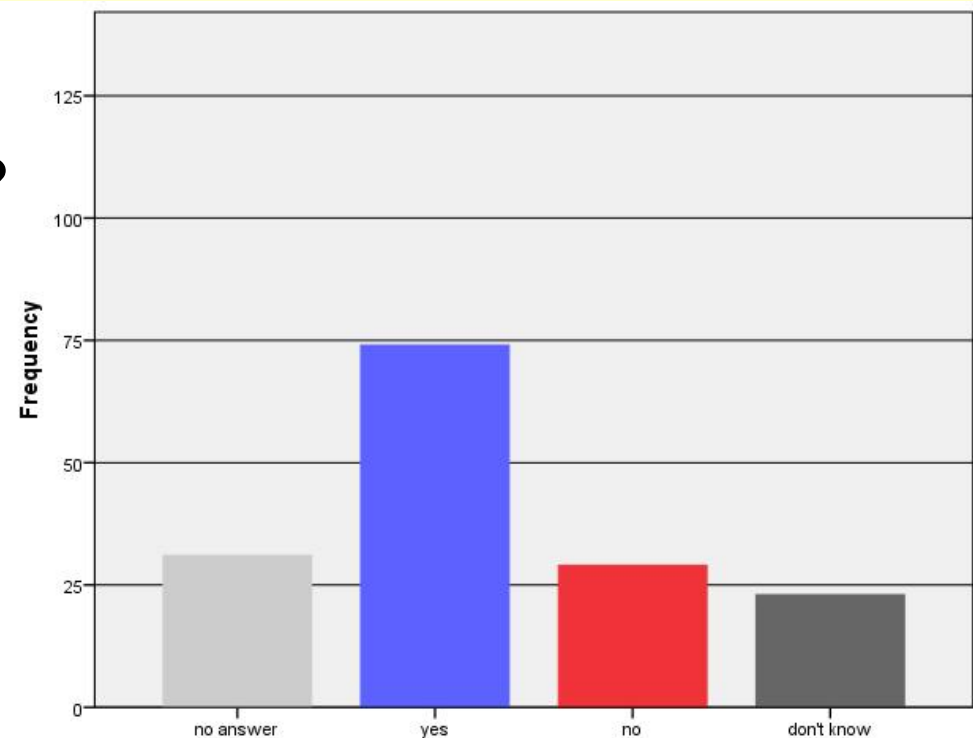
7 TRIP reports in 2009:

a blood component that was intended for another patient was spiked, but **no (or almost no) blood was actually transfused**

- second error had been made (clamp or valve hadn't been opened)
- rapid discovery ("no visible blood in IV line")

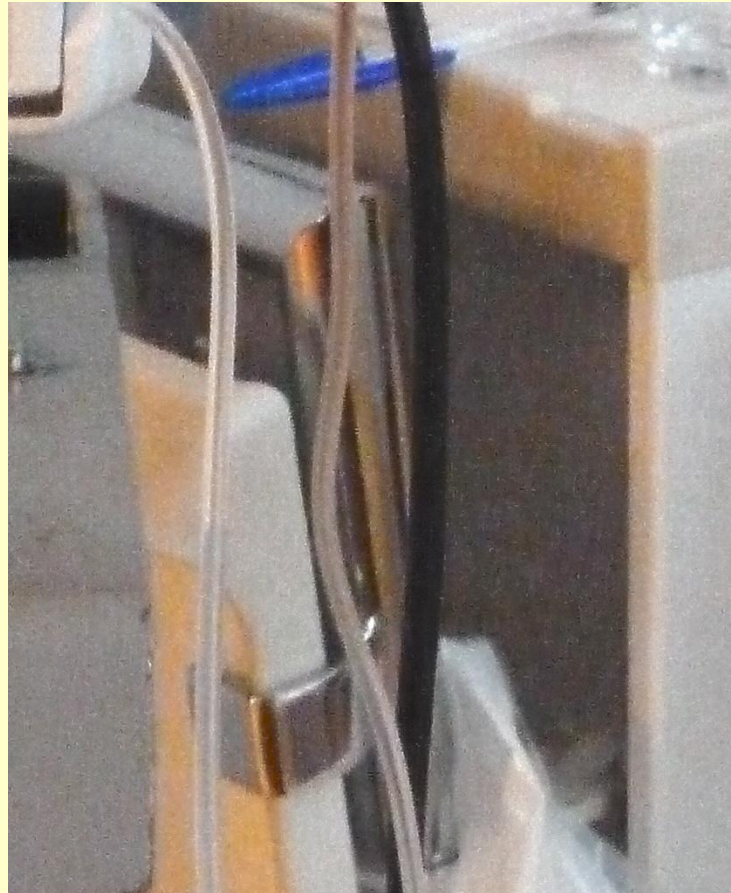
A. Do you see similar events in your hospital or in your hemovigilance registration?

- 1) Yes
- 2) No
- 3) Don't know



## Considerations

- Is visual check of the IV line and conclusion that no blood has reached the patient reliable?



## Considerations

- Is visual check of the IV line and conclusion that no blood has reached the patient reliable?
- Even a small amount of blood transfused can lead to a transfusion reaction
  - ABO incompatibility risk
  - Irregular antibody risk
  - Antibody formation (anti-D reported after needle sharing)
  - Transfusion transmitted infection
- Preventable loss of a unit
- Traceability

## Case 5 question B

Blood component intended for another patient was spiked, but **no (or almost no) blood was actually transfused**

### Examples

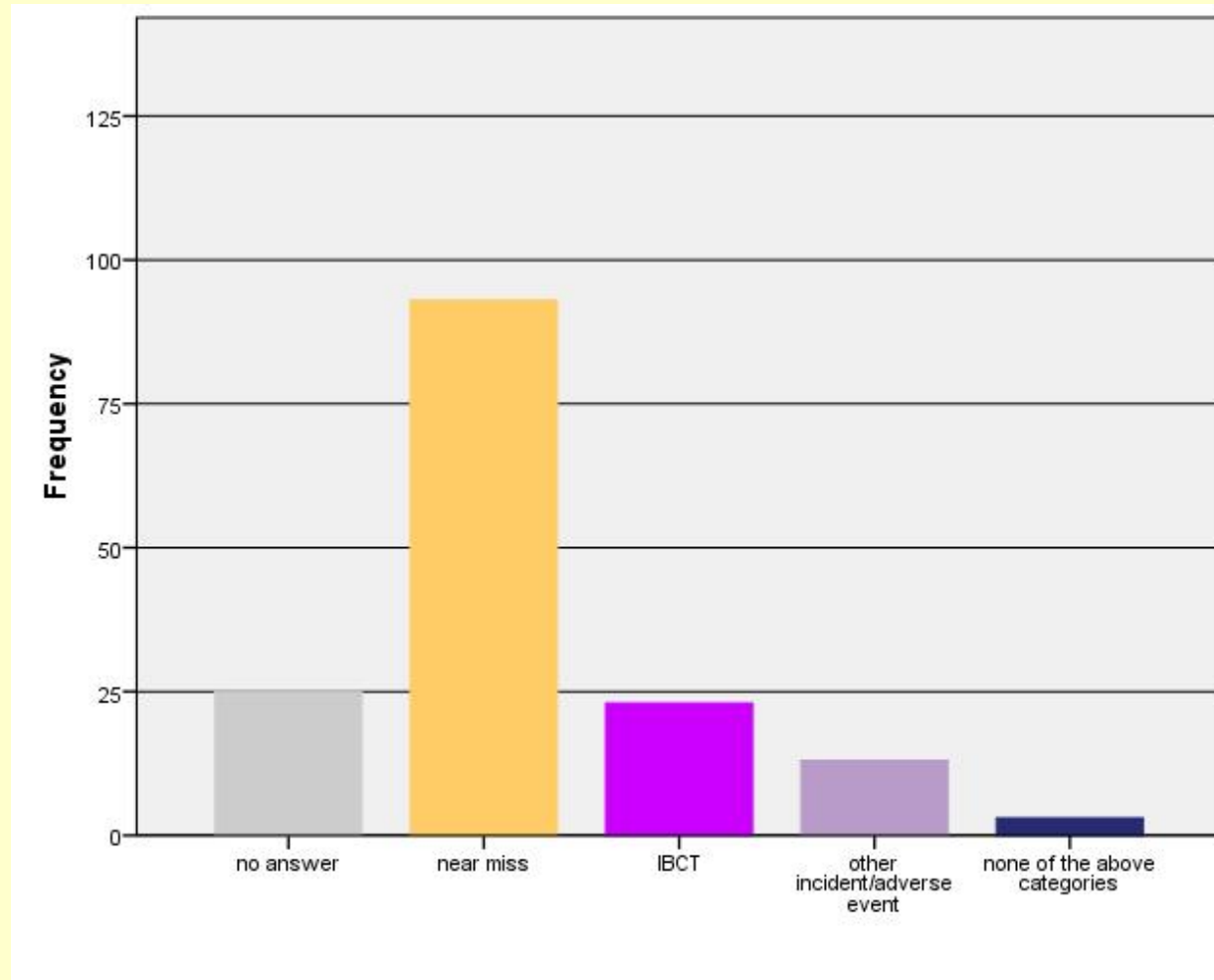
1. second error had been made (clamp or valve hadn't been opened)
2. rapid discovery ("no visible blood in IV line")

B. Which reporting category would you choose in example 1?  
(wrong unit spiked, forgotten to open valve)

- 1) Near miss
- 2) Incorrect blood component transfused (IBCT)
- 3) Other incident / other adverse event
- 4) None of the above categories

## Case 5 question B

B. Which reporting category would you choose in example 1?  
(wrong unit spiked, forgotten to open valve)



## Case 5 question C

Blood component intended for another patient was spiked, but **no (or almost no) blood was actually transfused**

### Examples

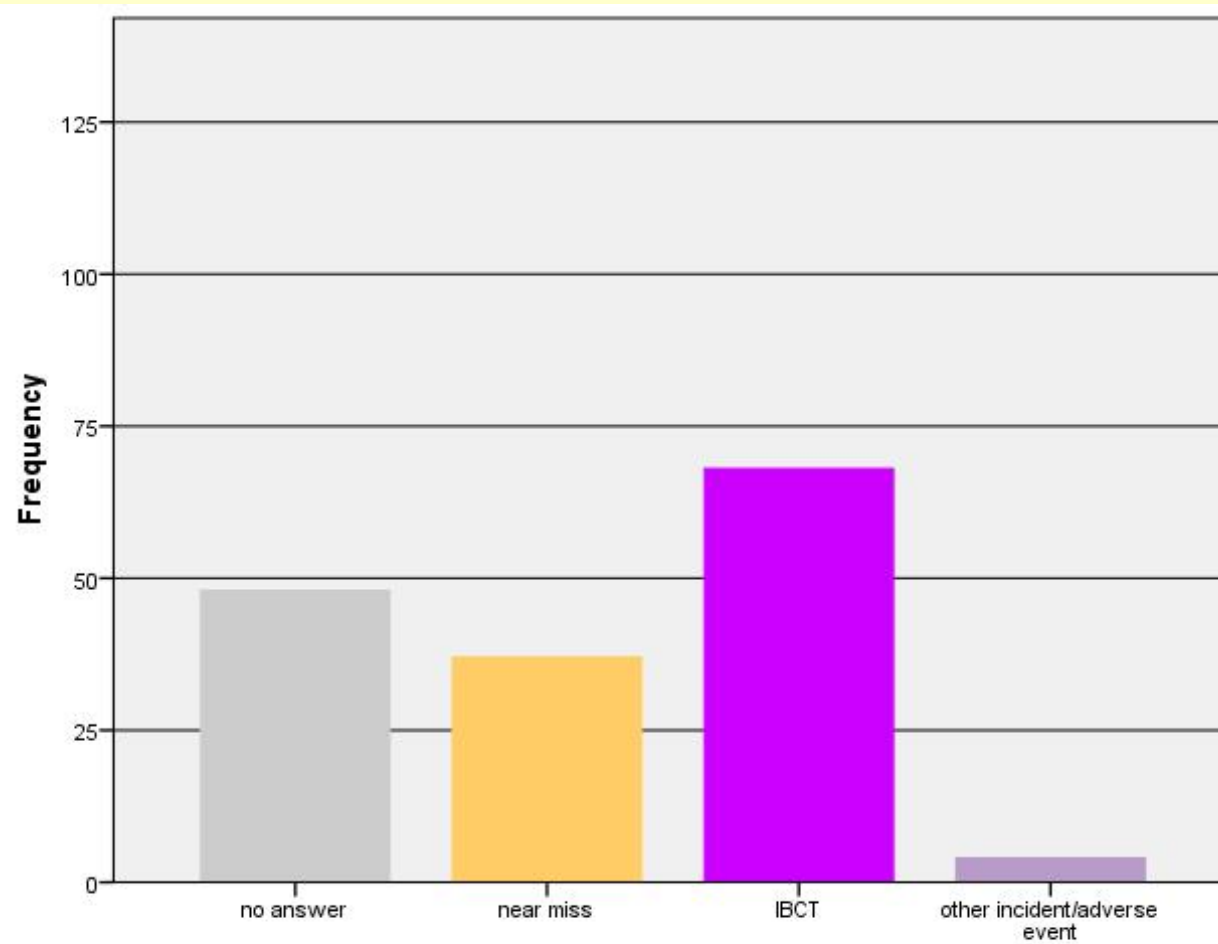
1. second error had been made (clamp or valve hadn't been opened)
2. rapid discovery ("no visible blood in IV line")

C. How would you assess example 2?  
(no visible blood in IV line)?

- 1) Near miss
- 2) Incorrect blood component transfused (IBCT)
- 3) Other incident / other adverse event
- 4) None of the above categories

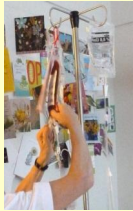
## Case 5 question C

C. How would you assess example 2?  
(no visible blood in IV line)?



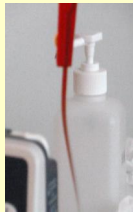
## Case 5 question E

E. What in your opinion should be proposed as point after which a transfusion is considered to have been started?



1) Unit spiked (cannot be used for another patient)

2) Unit spiked and valve opened (open connection between patient and unit)



3) Unit spiked, valve opened and donor blood has visibly entered IV line

4) Unit spiked, valve opened and IV line completely filled with blood

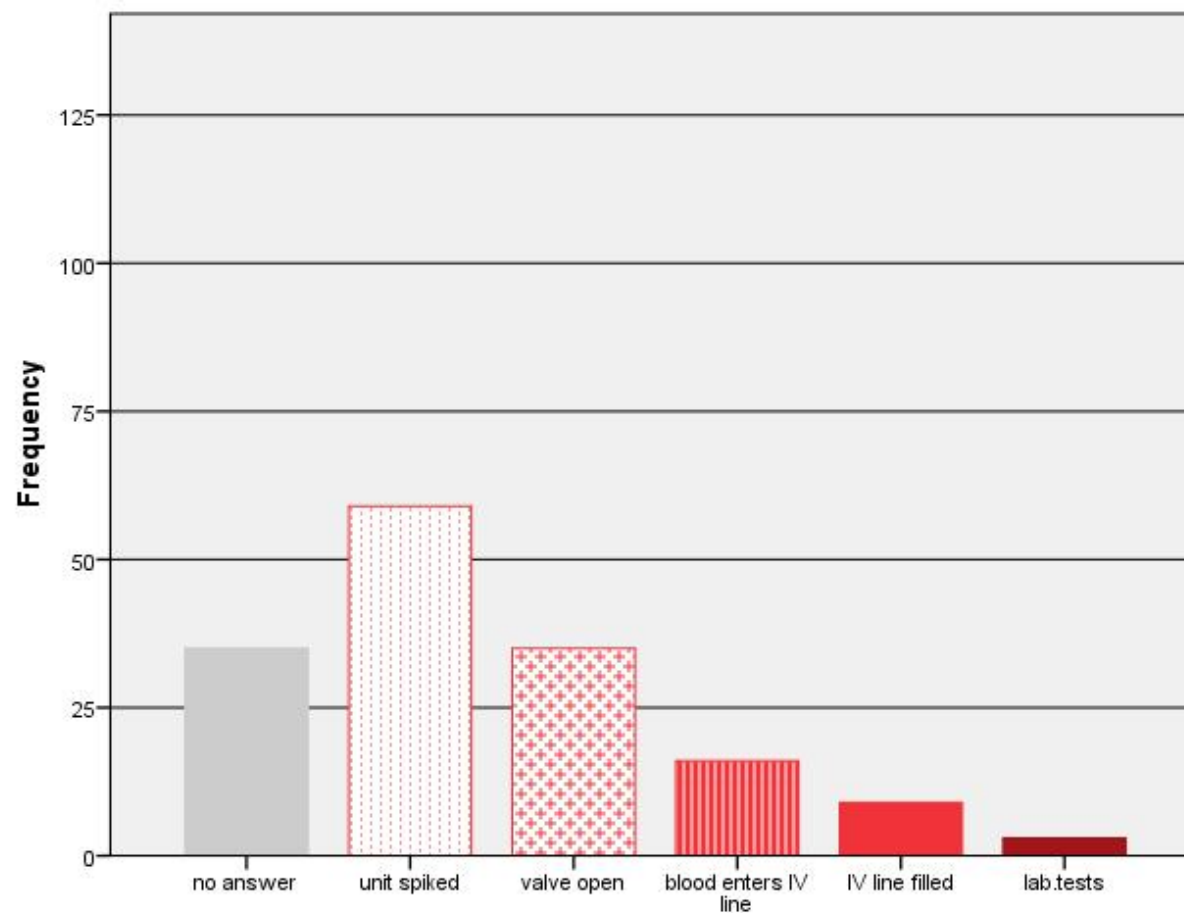


5) Unit spiked, valve opened, IV line completely filled with blood and evidence of administration of donor blood (laboratory tests)



## Case 5 question E

E. What in your opinion should be proposed as point after which a transfusion is considered to have been started?



Thank you for your cooperation