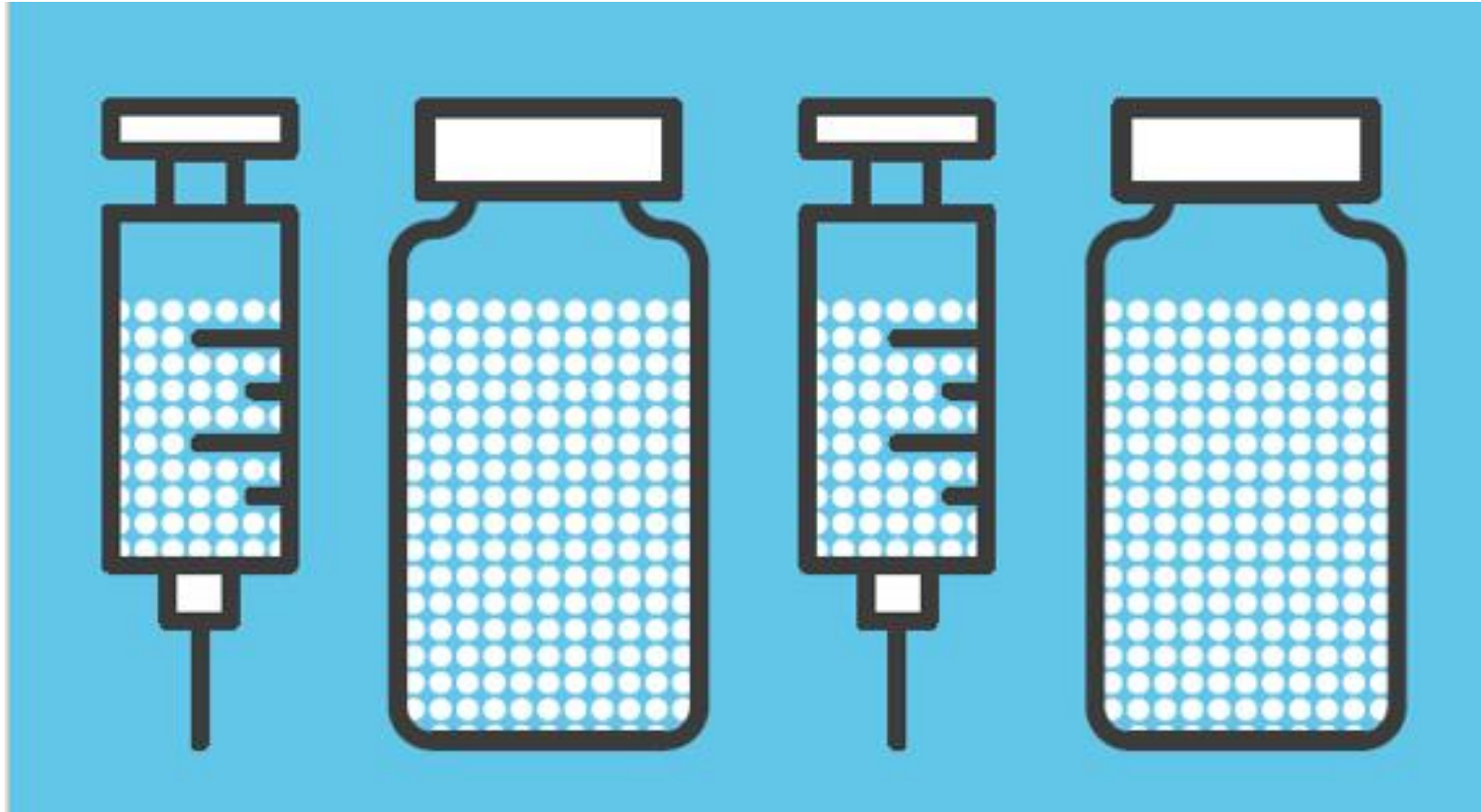


UK NEQAS

Blood Transfusion Laboratory Practice



FMH Update

Katy Veale
UK NEQAS BTL

FMH update

- Last two years
- How we choose the BVs
- Challenges and fixes @ NEQAS
- How you're doing
- What's next

Last two years

	Acid Elution			Flow Cytometry		
Exercise	P1	P2	P3	P1	P2	P3
2101F	6.5	10	6.6	5.4	8.5	5.5
2102F	14	16.3	16.6	13.4	14.5	14.5
2103F	4.7	6.8		3.3	5.4	
2104F	1.1	5.4		0	5	
2105F	24.6	24.9		25.4	25.2	
2106F	13.2	2.9		12.1	2	
2201F	14.8	15.2		12.4	12.4	
2202F	22.2	22.2		18.8	18.8	
2203F	4.2	7.2		3.3	5.1	
2204F	No exercise			No exercise		
2205F	3.5	7.2	7.2	2.1	5.9	5.9
2206F	??	??	??	??	??	??

How we choose Bleed Volumes

0mL see who is referring unnecessarily

1-2mL realistic

2-4mL trigger for referring for Flow

4-12mL referral, follow up sample, 500-1500IU

>12mL >1500IU and follow up

High BV flex your counting skills

Balance of useful / performance monitoring

Cord availability

- Our main issue during lock down
- Looked at German company
 - not yet set up
 - very expensive
- D+ mothers
 - More likely to be D positive
 - Less likely to contain Prophylactic anti-D / DAT +
- Hbopathy variant – currently reject if unusual (HbS/E etc...)
 - **It'd be fine for us**
 - **It'd be an issue for us**

2204F – no exercise

- Shortage of glass vials
- Manufacturer couldn't get sand
 - Shipping/trucking issues
- Plastic vials
 - Trialled in 2203F + posted to ourselves
 - Results not stable over time
 - Increased air:blood ratio
 - More space for cell damage during transit
- Other manufacturers
 - Validation
 - Fit our bottling machine
 - Fit our clamshells
- Skip an exercise and send more samples later
 - Covid recovery plans still in place

How are you doing?

- Acid Elution monitoring
 - Outlying results
 - Clinical Significance Error - screening
 - Clinical Significance Error - quantification
 - Accuracy
- Flow Cytometry monitoring
 - Accuracy
 - Clinical Significance Error – screening
 - if you recommend a dose

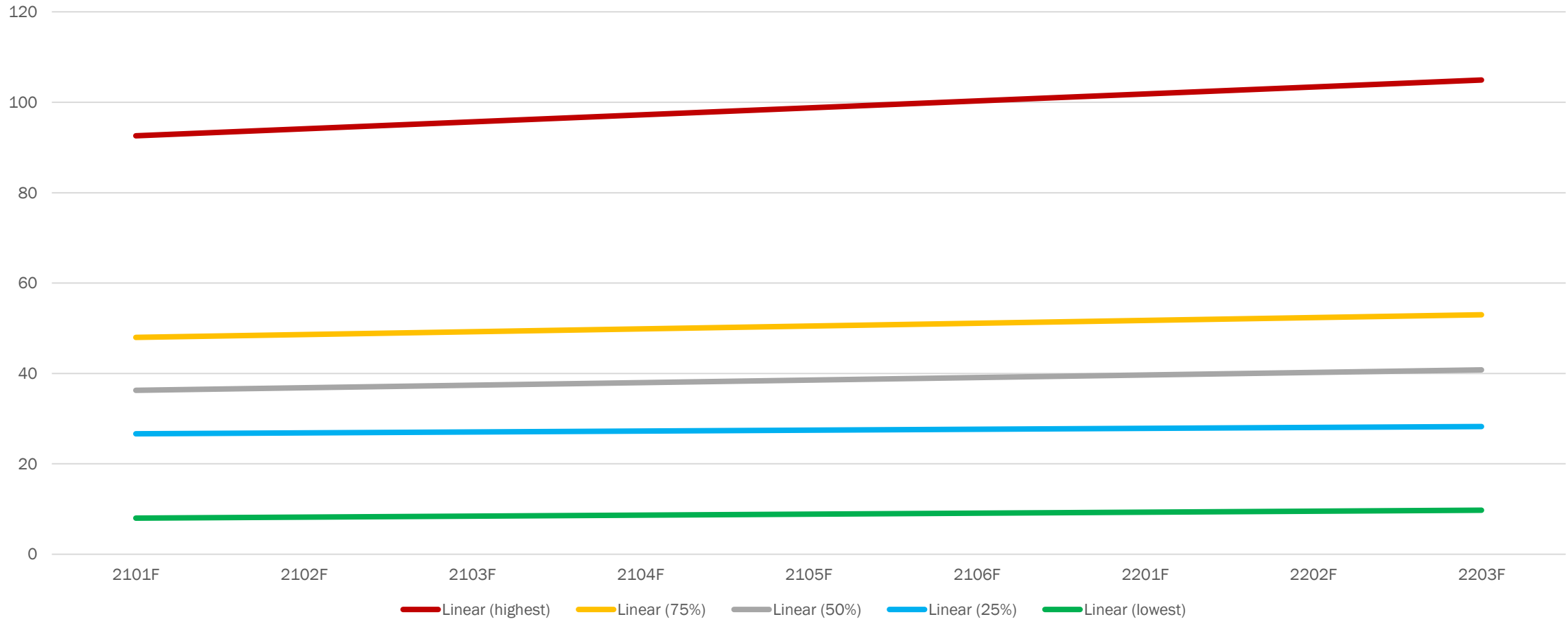
Clinical significance errors

- Insufficient anti-D Ig for the Flow median bleed volume
- AND no referral OR repeat sample
- Patient at risk of making allo-anti-D
- Higher rate in 2021 = more likely

Error	2101F	2102F	2103F	2104F	2105F	2106F	2201F	2202F	2203F	2205F	2206F
AE Screen	1	0	0	1	1	0	0	0	0	0	0
AE Quant	1	0	0	3	0	0	0	0	0	0	0
FC Screen	0	0	0	0	0	0	0	0	0	0	0
FC Quant	0	0	0	0	0	1	0	0	0	0	0
BV (mL)	5.5			5	25.2	12.1					

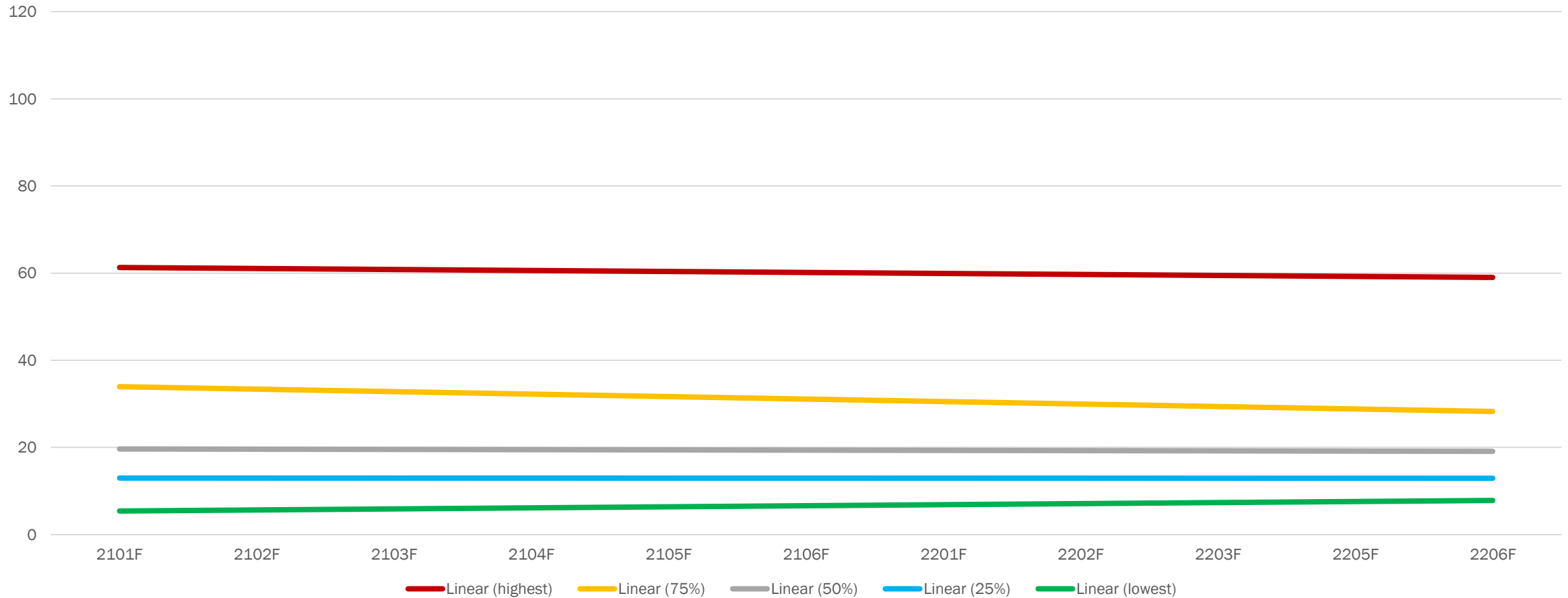
How are UK AE labs doing?

UK AE lab accuracy scores 2021-22



How are UK FC labs doing?

UK FC lab accuracy scores 2021-22



Scoring developments

- Should we be harsher?
 - Nope
- Flow Cytometry Outlying results
 - Maybe – need to find appropriate range
- Flow Cytometry Clinical significance errors
 - Probably