

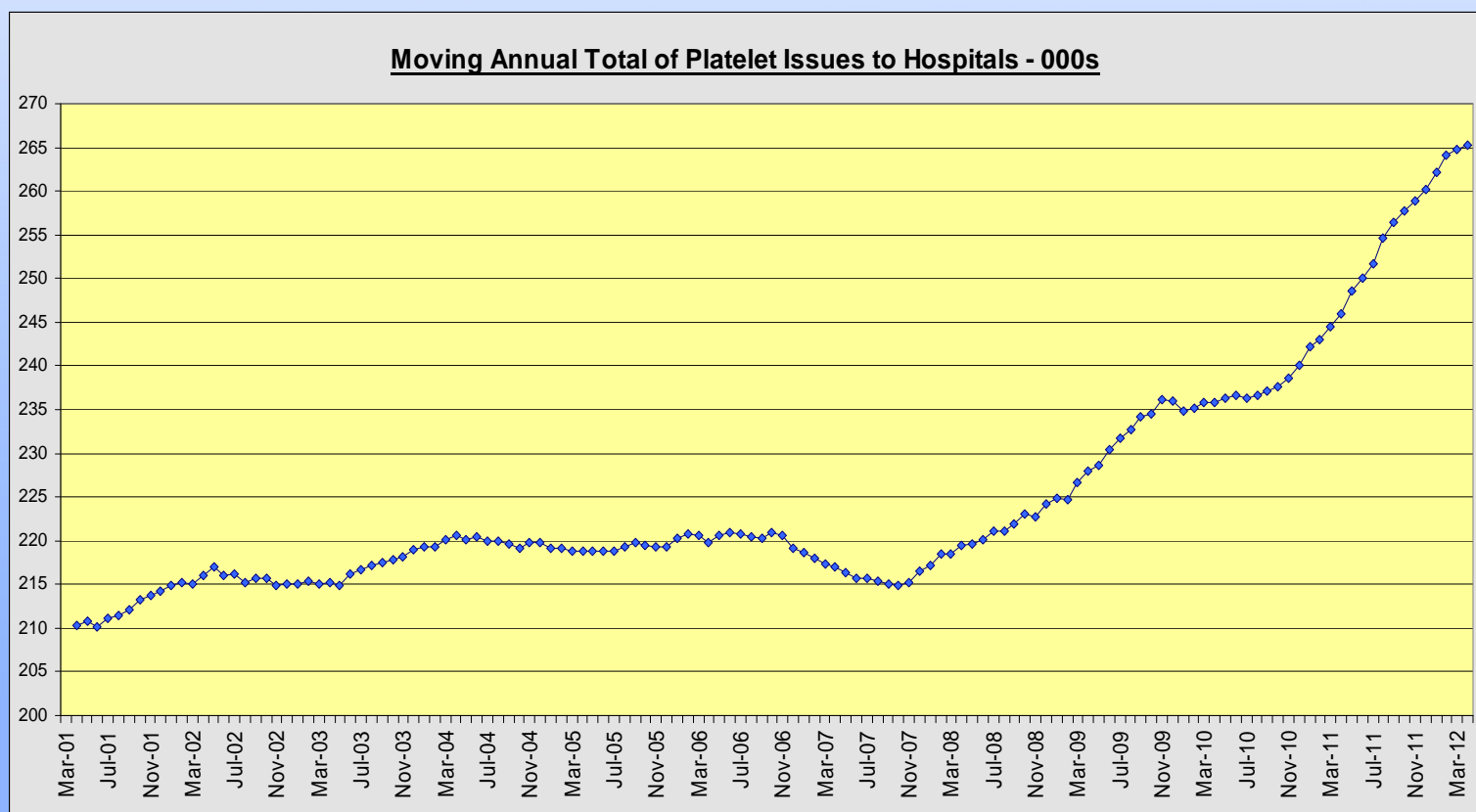
Stemming the Flow of Platelets

Adrian Ebbs

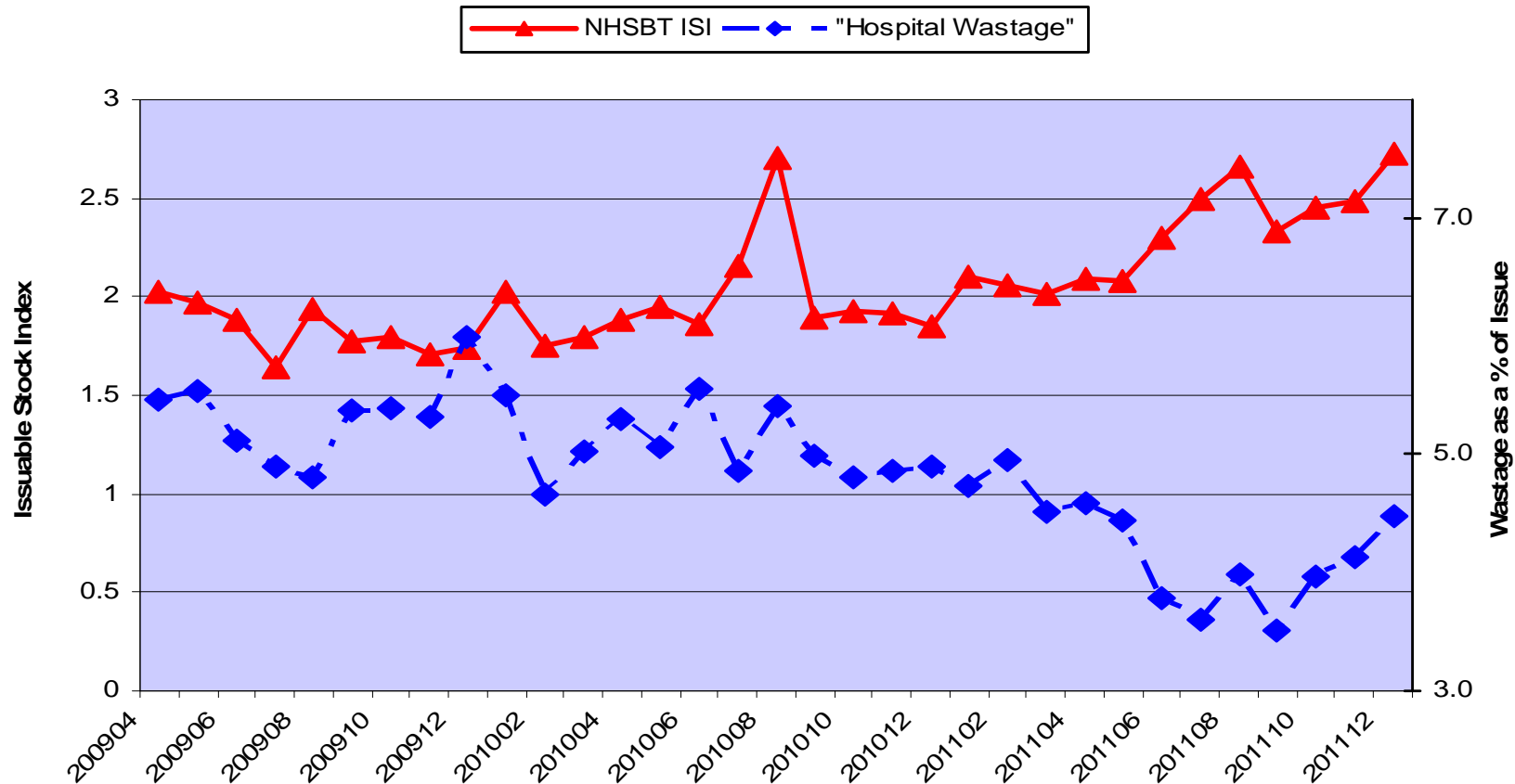
TLM

Queen Elizabeth Hospital
Kings Lynn

NHSBT Total Platelet Issues 2001-2012



Platelet Supply Chain NHSBT & Hospitals 2009-2012

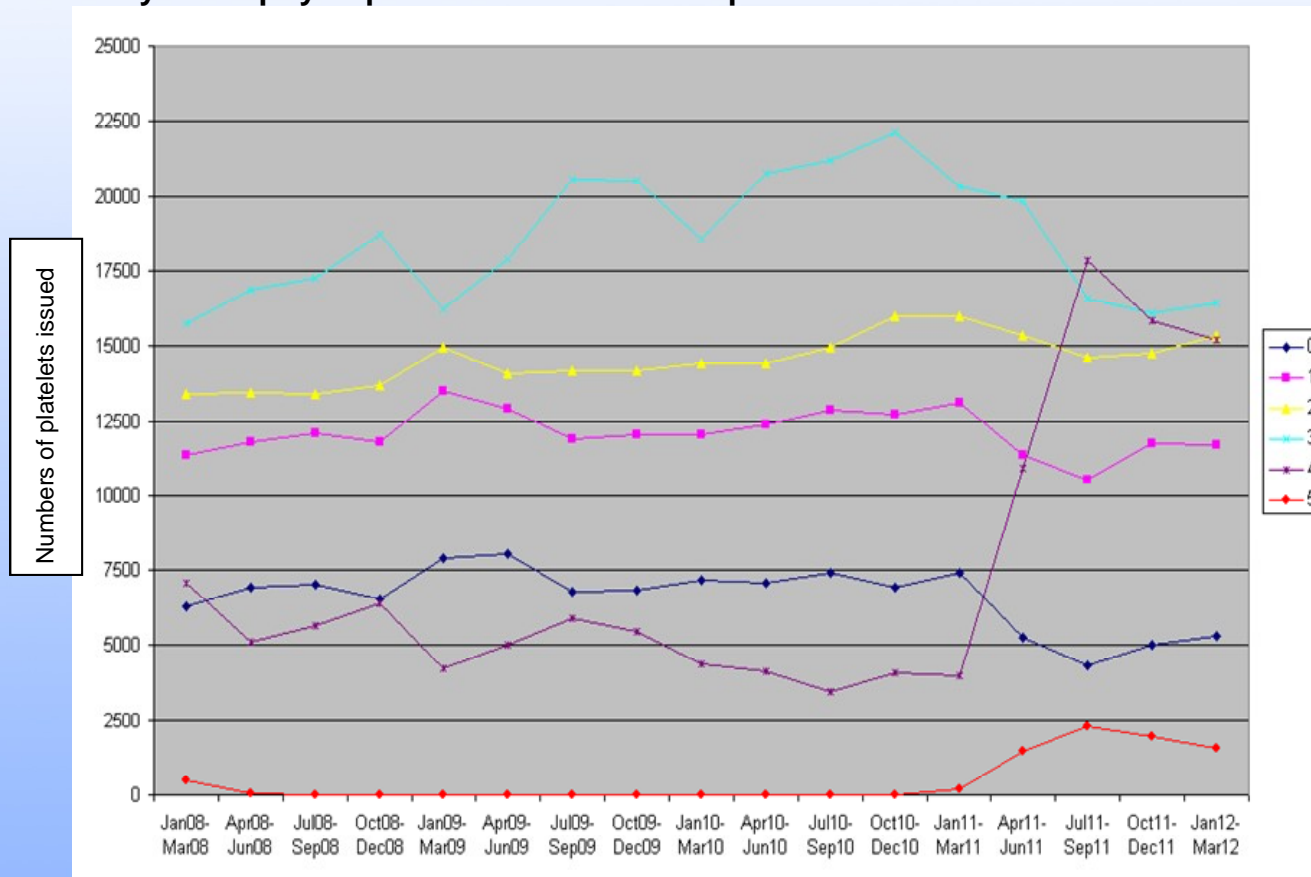


The Queen Elizabeth Hospital King's Lynn



NHS Foundation Trust

Days to expiry of platelets at issue to hospitals



0 - > 0 and <1 days to expiry (oldest platelets)

1 - > 1 and <2 days to expiry

2 - > 2 and <3 days to expiry

3 - > 3 and <4 days to expiry

4 - > 4 and <5 days to expiry

5 - > 5 and <6 days to expiry (freshest platelets – HPA/HLA matched)

Who holds stock platelets?

BSMS Platelet Inventory Survey

- 2003 10% (3% sometimes)
- 2009 23% (4% sometimes)

NHSBT Deliveries

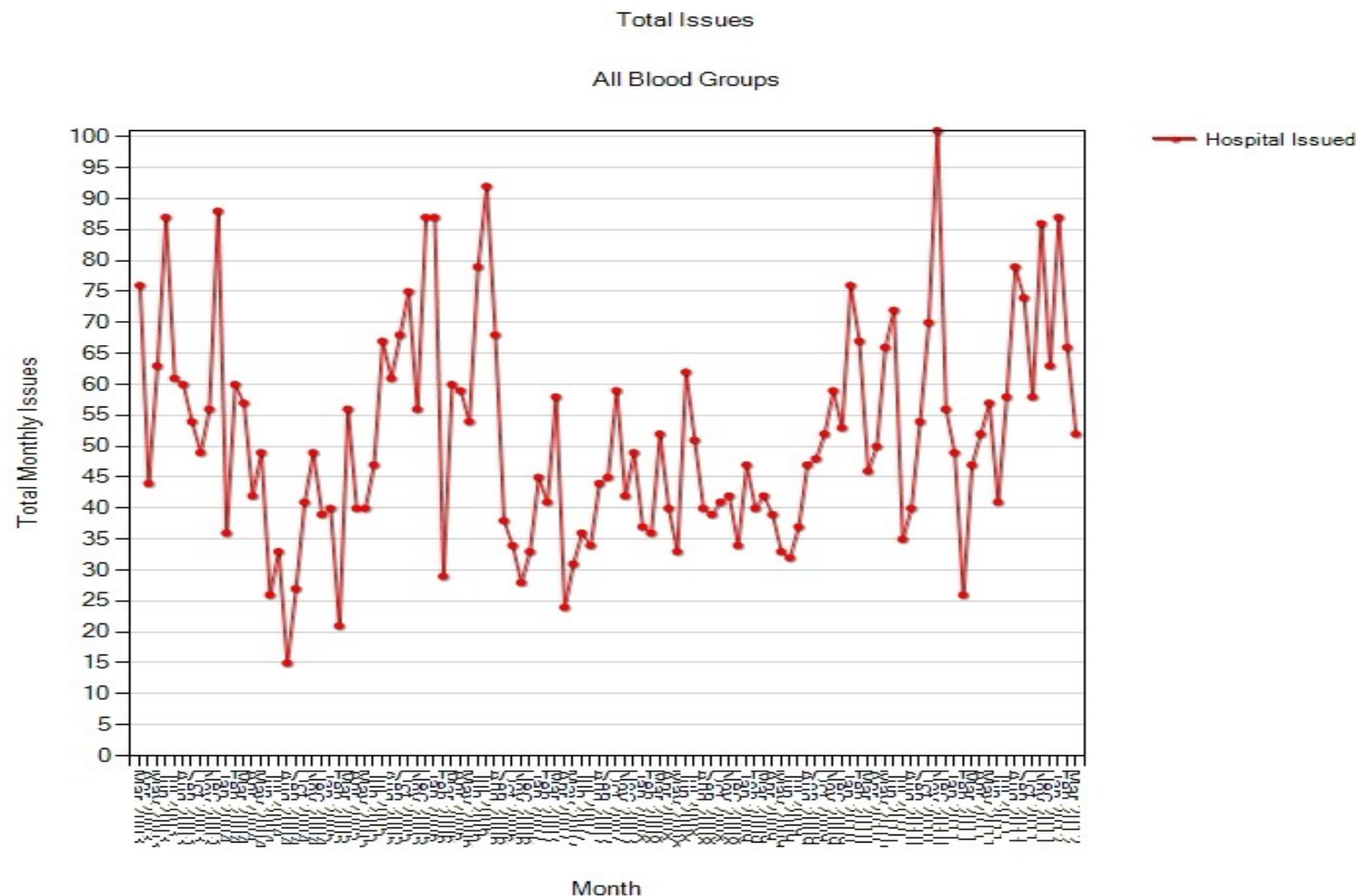
- 50 miles from NHSBT Issues (Cambridge)
- 1 routine delivery Mon –Fri
- Routine delivery time – Midday
- Adhoc deliveries – minimum 2hours
- Blue light target time – 1hr 10mins (+ 45 mins preparation time).

The Queen Elizabeth Hospital
King's Lynn

NHS Foundation Trust



QEH platelet issues 2003-12



Theoretical Exercise

The Queen Elizabeth Hospital
King's Lynn
NHS Foundation Trust



- Performed for 3 months November – January 2007
- Ideal Stock unit would be A Rh negative, Irradiated, CMV negative and HT negative
- Kept actual data of all platelets ordered by adhoc delivery and their fate
- Compared this with 'pretend' data – assuming a 48 shelf life
- Results indicated whether or not feasible to continue with a Practical Exercise

Theoretical Results

The Queen Elizabeth Hospital
King's Lynn

NHS Foundation Trust



	November – January 2007				
	No stock held		One theoretical stock unit		
	Blue light	Adhoc	Blue light	Adhoc	Routine
Number of deliveries	7	47	6	22	N/A
Total cost of deliveries	£2160.00		£1120.00		N/A
Number of units	11	67	8	28	47
Number of wasted units	5	5	4	1	8
Total cost of wastage	£2153.00		£2798.90		
Final cost of deliveries and wastage	£4313.00		£3918.90		

Note: One adult unit platelets £ 215.30, Adhoc / Blue light delivery £40.00

Actual Exercise

The Queen Elizabeth Hospital
King's Lynn
NHS Foundation Trust



- Performed for 3 months April – July 2007
- Ordered 1 unit of stock platelets to come on the round
- If used, unit replaced either on next round or hitched a ride with an adhoc delivery
- If ideal stock not available, next best was ordered

Actual Results

The Queen Elizabeth Hospital
King's Lynn



NHS Foundation Trust

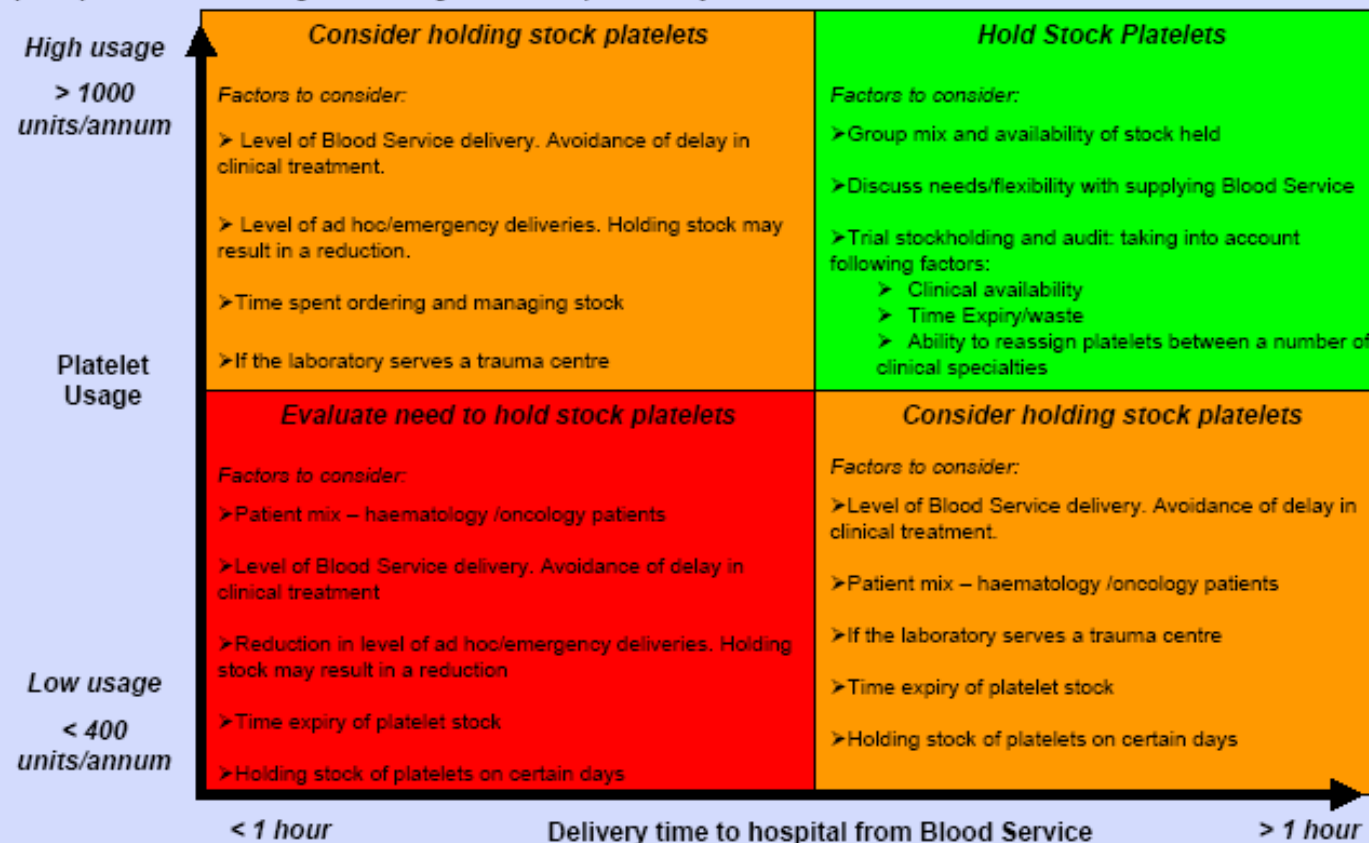
April – July 2007					
	No stock held		One stock unit held		
	Blue light	Adhoc	Blue light	Adhoc	Routine
Number of deliveries	7	47	2	22	N/A
Total cost of deliveries	£2160.00		£960.00		N/A
Number of units	11	67	2	41	32
Number of wasted units	5	5	0	8	7
Total cost of wastage	£2221.60		£3332.40		
Final cost of deliveries and wastage	£4381.60		£4292.40		

Note: 1 Adult unit platelets £222.16, Adhoc / Blue light delivery £40.00

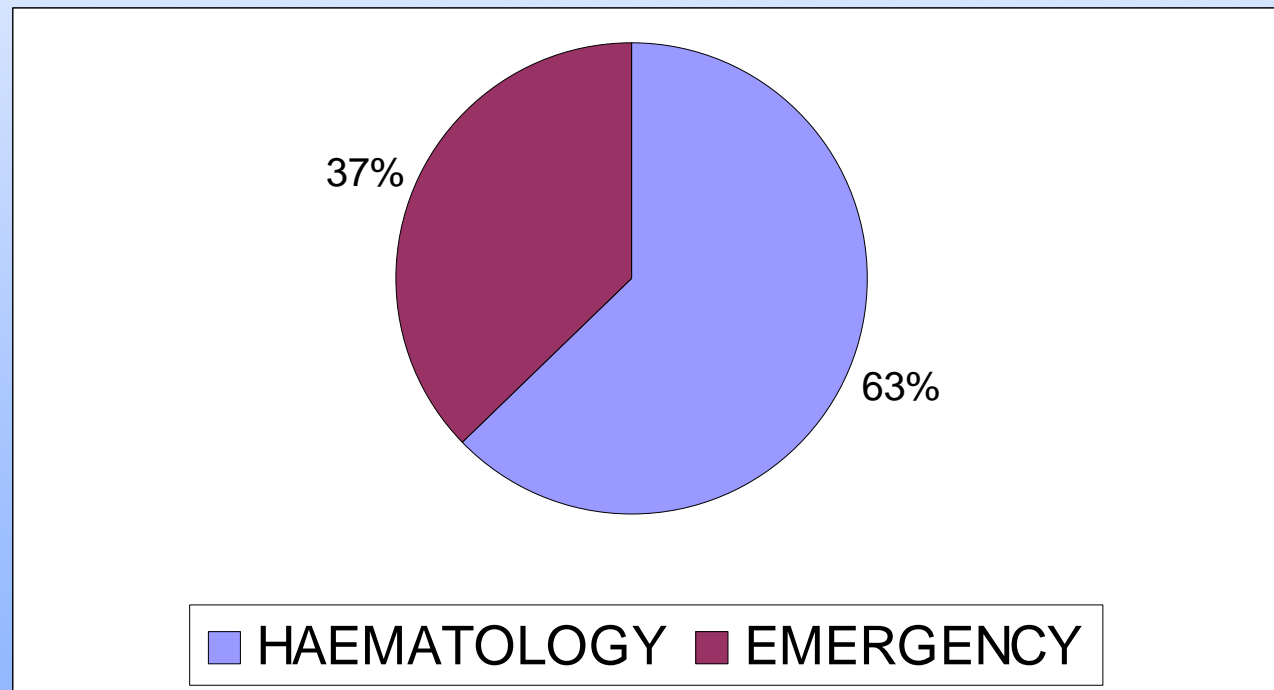
Algorithm to aid hospital decision making for holding stock platelets

The number of hospitals routinely holding a stock of platelets has increased from 10% in 2003 to 22% in 2009 (from 23 hospitals to 51 hospitals). There is anecdotal evidence that the number of hospitals holding stocks of platelets continues to increase.

The objective of the algorithm is to aid hospital decision making for holding platelet stock and has been collated using output from hospital participants at the BSMS regional meetings which took place in May 2011.



Transfused Stock Platelets



Both preliminaries and the final study have shown the transfused patient category as approximately 60% Haematology & 40% Emergency

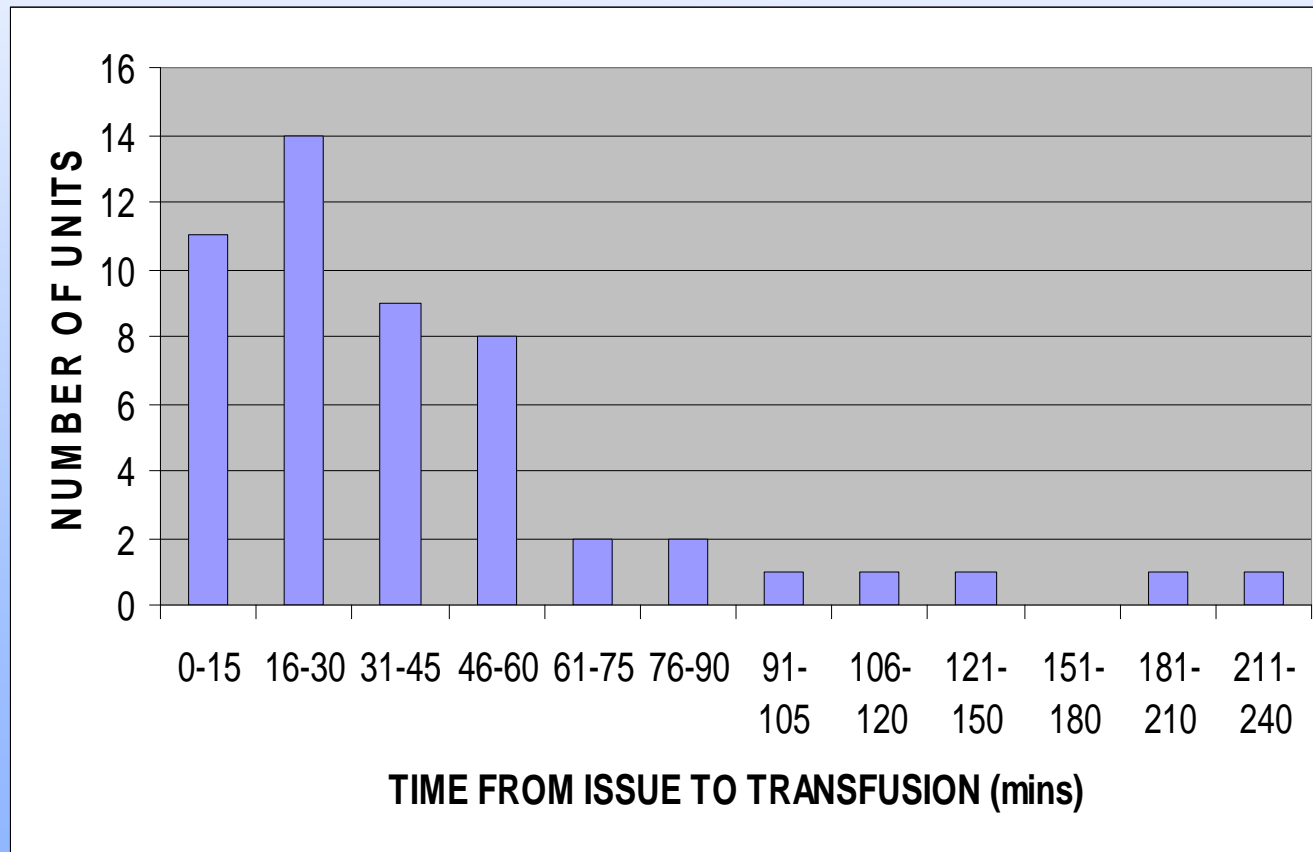
The Queen Elizabeth Hospital King's Lynn

NHS Foundation Trust



Transfusion Time

- in Emergency Cases



90% before
guaranteed
delivery time
(115 mins)

~80% before
usual delivery
time
(60+ mins)

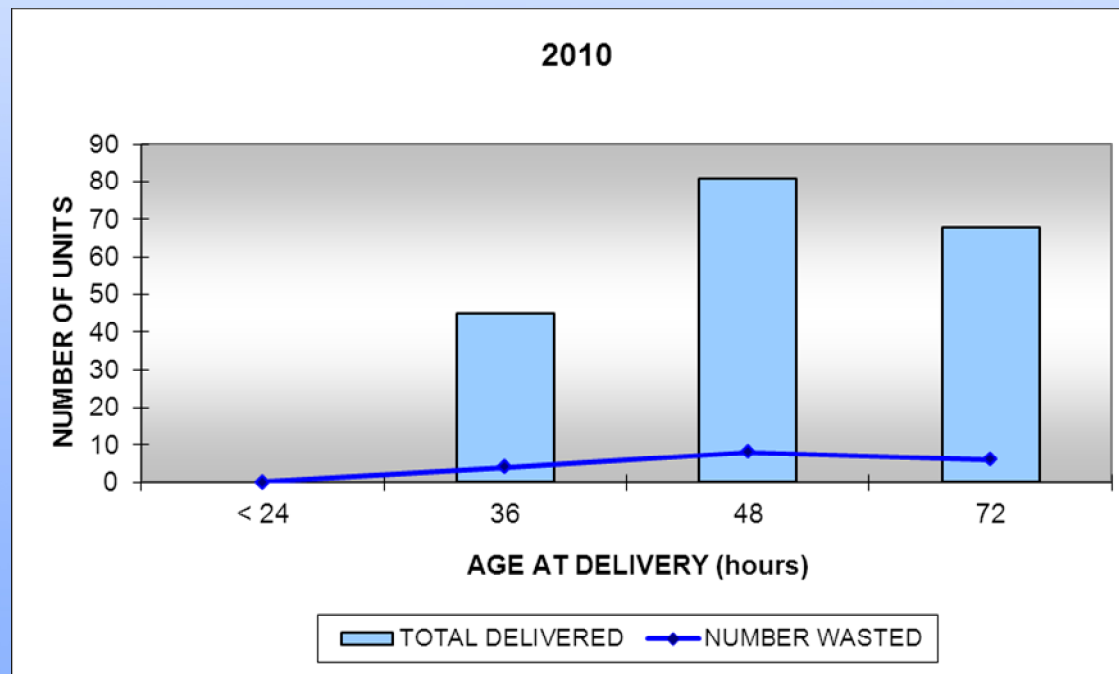
50% by 30
minutes

NOTE : Guaranteed delivery time for blue light is 115 minutes

QEH Stock Platelet Wastage 2010

2010 PLATELETS			
SHELF LIFE (HRS)	TOTAL DELIVERED	NUMBER WASTED	
< 24	0	0	0%
36	45	4	8.90%
48	81	8	9.90%
72	68	6	8.80%

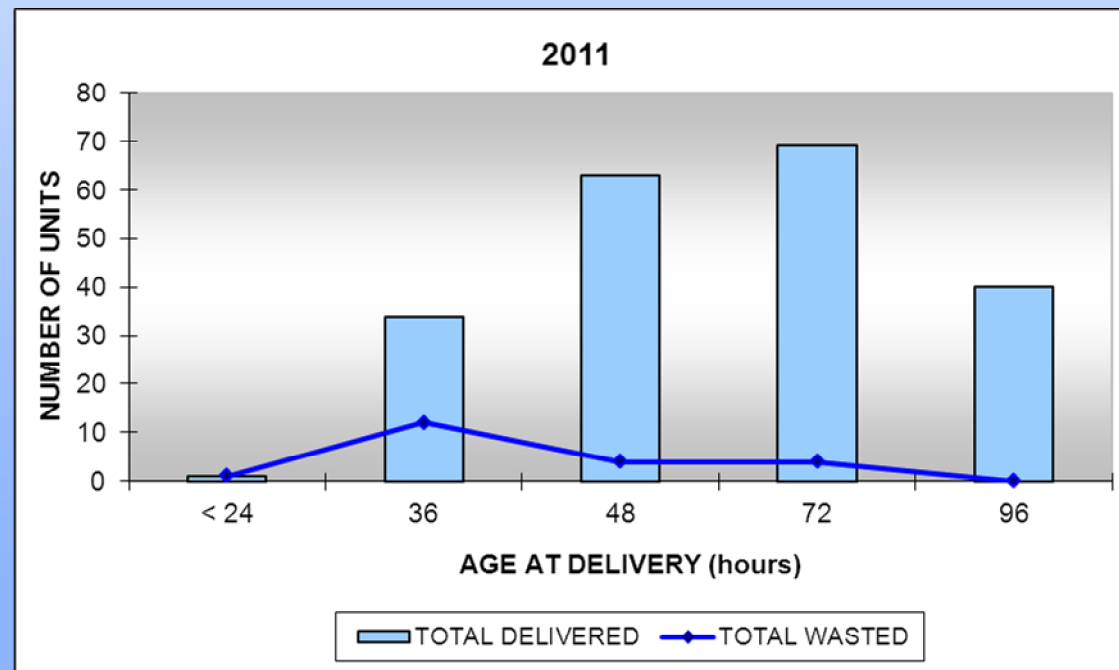
QEH Stock Platelet Wastage 2010



QEH Stock Platelet Wastage 2011

2011 PLATELETS			
SHELF LIFE (HRS)	TOTAL DELIVERED	NUMBER WASTED	
< 24	1	1	100%
36	34	12	35.20%
48	63	4	6.30%
72	69	4	5.80%
96	40	0	0%

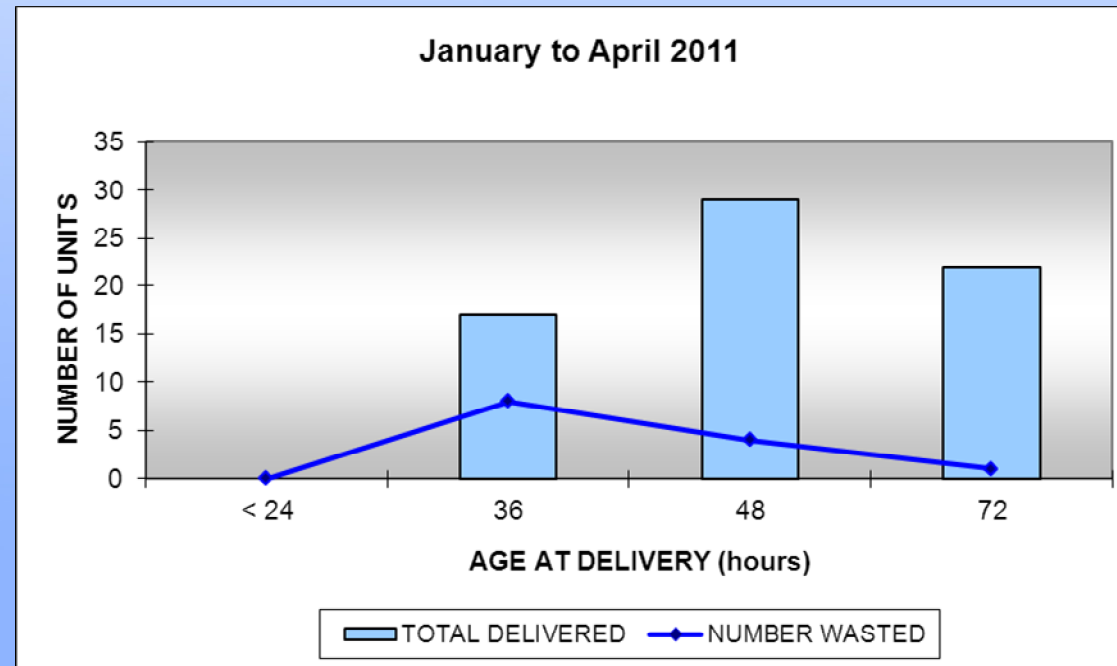
QEH Stock Platelet Wastage 2011



QEH Stock Platelet Wastage Jan - April 2011

SHELF LIFE (HRS)	TOTAL DELIVERED	NUMBER WASTED
< 24	0	0
36	17	8
48	29	4
72	22	1

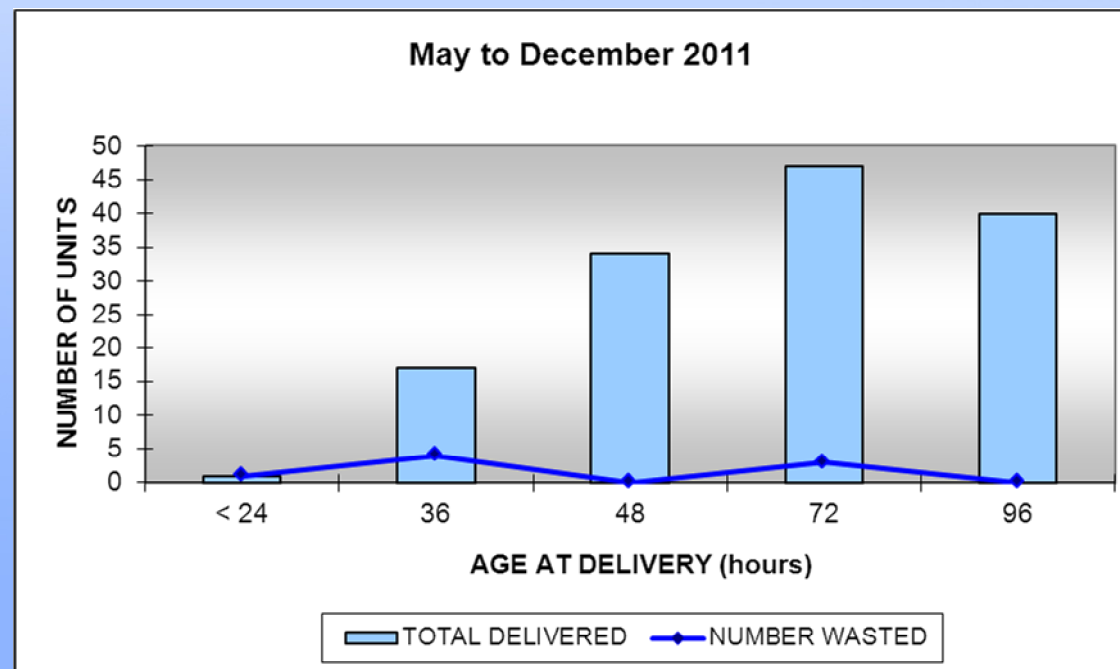
QEH Stock Platelet Wastage Jan-Apr 2011



QEH Stock Platelet Wastage May-Dec 2011

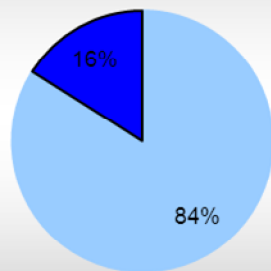
SHELF LIFE (HRS)	TOTAL DELIVERED	NUMBER WASTED
< 24	1	1
36	17	4
48	34	0
72	47	3
96	40	0

QEH Stock Platelet Wastage May-Dec 2011



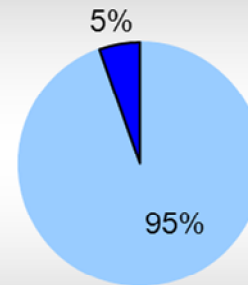
QEH Platelet Wastage 2011

January to April 2011



■ TOTAL DELIVERED - 68
■ NUMBER WASTED - 13

May to December 2011



■ TOTAL DELIVERED - 139
■ NUMBER WASTED - 8

What Else?

- MBL protocols
- Haem patients
- Filton Flood
- Pathology networks – Stock sharing
- **TEAMWORK AND COMMUNICATION!**