

# O Negative Issues from Birmingham NBS 05/06

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## What is covered in this presentation?

- What was the issue?
- What action was taken?
- What the figures showed
- What the figures did not show
- Have things changed?
- Discussion topics for workshop

## What was the issue?

- Month on month Birmingham issues were higher than national
- Benchmarked against other NBS Centres - questions were asked
- Valuable resource
- Benchmarking item

Internally it was noted that month on month our Centre was above the national average and although this was discussed at visits with Trusts no in depth work had been done.

With the group being a valuable resource and prone to shortage I decided to focus on producing data for individual hospitals and understand why in certain circumstances higher levels were needed

Although the benchmarking data has not yet been gathered at the time I started this piece of work it was expected to be part of it.

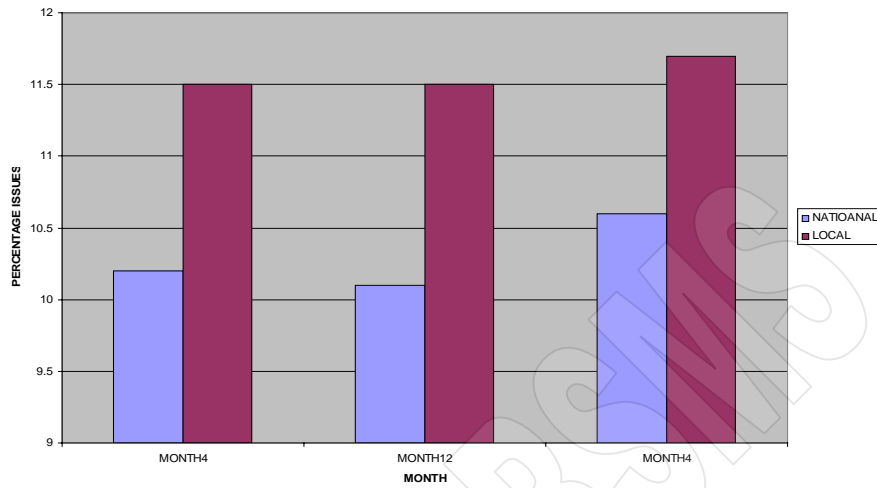
## Background information re stock levels

- Amber declared at 2 days stock
- Red declared at 1 days stock
- Current stock level as of 6/6/6
  - O Positive 4.43days
  - O Negative 4.25 days
  - B Negative 5.13 days
  - A Negative 5.80 days

As background to this presentation it is important to note that our emergency plans are activated at the following levels.

To put this into context yesterdays stock levels for pertinent groups are detailed

O NEGATIVE ISSUES BIRMINGHAM V NATIONAL APR 04 - APR05



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This graph shows that we as a Centre were above the national average.

The period of time shown is April 04 Dec 04 and April 05 Dec 05.

## What actions were taken?

- April 05 - on HLM visits hospitals were given their issue figure and discussion took place re stock holding
- November 05 - graph sent out **to all customers** with years issues and guideline relating to use of O negative
- Where possible benchmarking was done

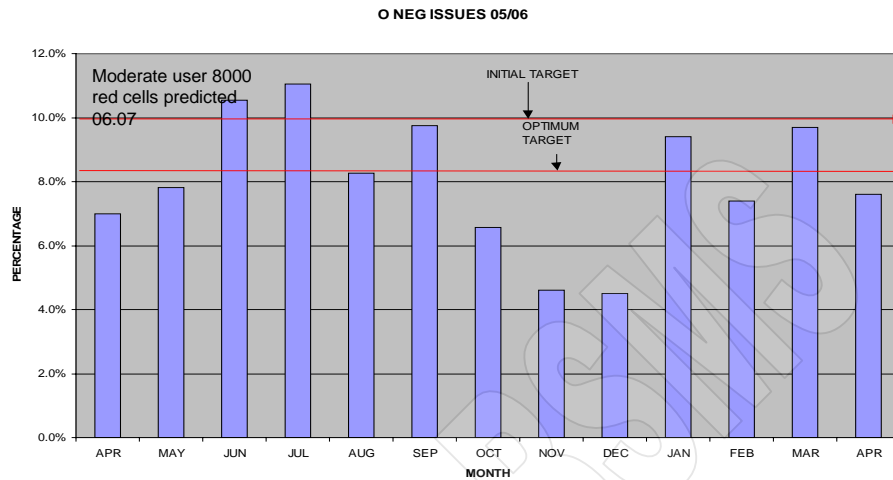
At each HLM visit in Feb/ Mar / Apr 05 O Negative issue percentages were taken out and appropriate use discussed with each hospitals

In November as we were still above national average I decided to send out graphs to each hospital with a years data and a link to the website where the policy for O Negative is.

As this is a valuable resource all customers were sent the information.

For specialist hospitals where possible I tried to provide them with data for similar disciplines

# What the figures showed



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I am just going to show a number of graphs with data anonymised.

This graph is for a moderate user 8000 red cells predicted usage this financial year meets the initial target and sometimes the optimum target.

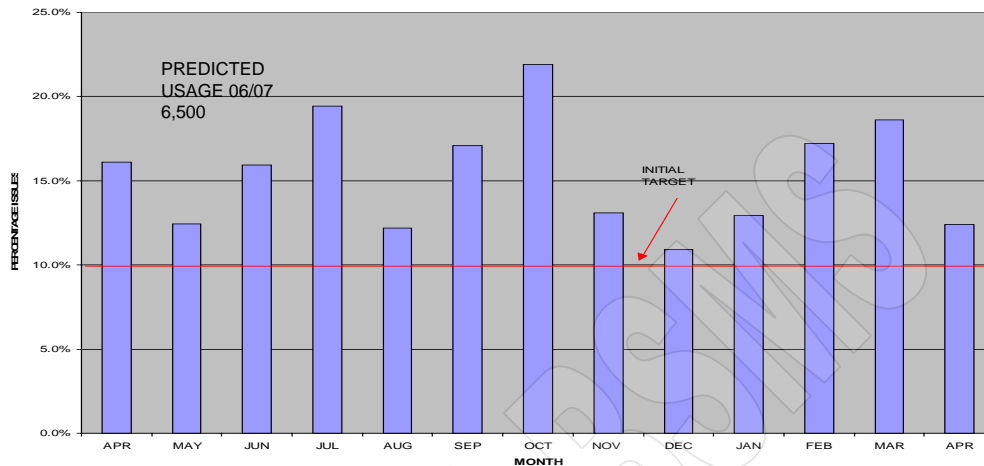
They have on call on site.

They are not a distance from the Centre. I do not want to say how close as this presentation is anonymised.

There are a few similar sized hospitals who are under the initial target.

# What the figures did not show

O NEGATIVE ISSUES APR 05-APR 06



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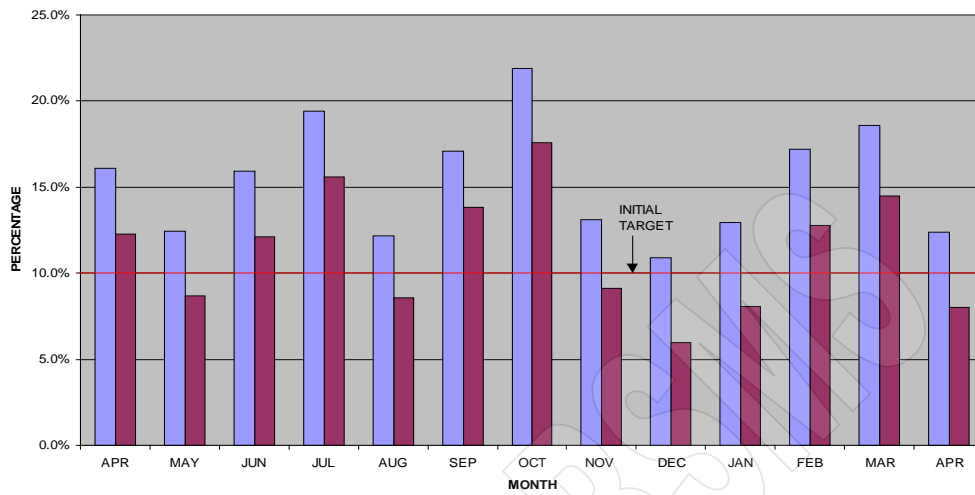
This is a moderate user similar in activity (approx. 6500 red cells predicted for this financial year) to the previous hospital but showing different issue levels.

Again there is on call on site and geographically not a great distance from the Centre

When the figures were issued the hospital alerted me to the fact that they had a transfusion dependant O Negative with multiple antibodies who required 6 units per week.

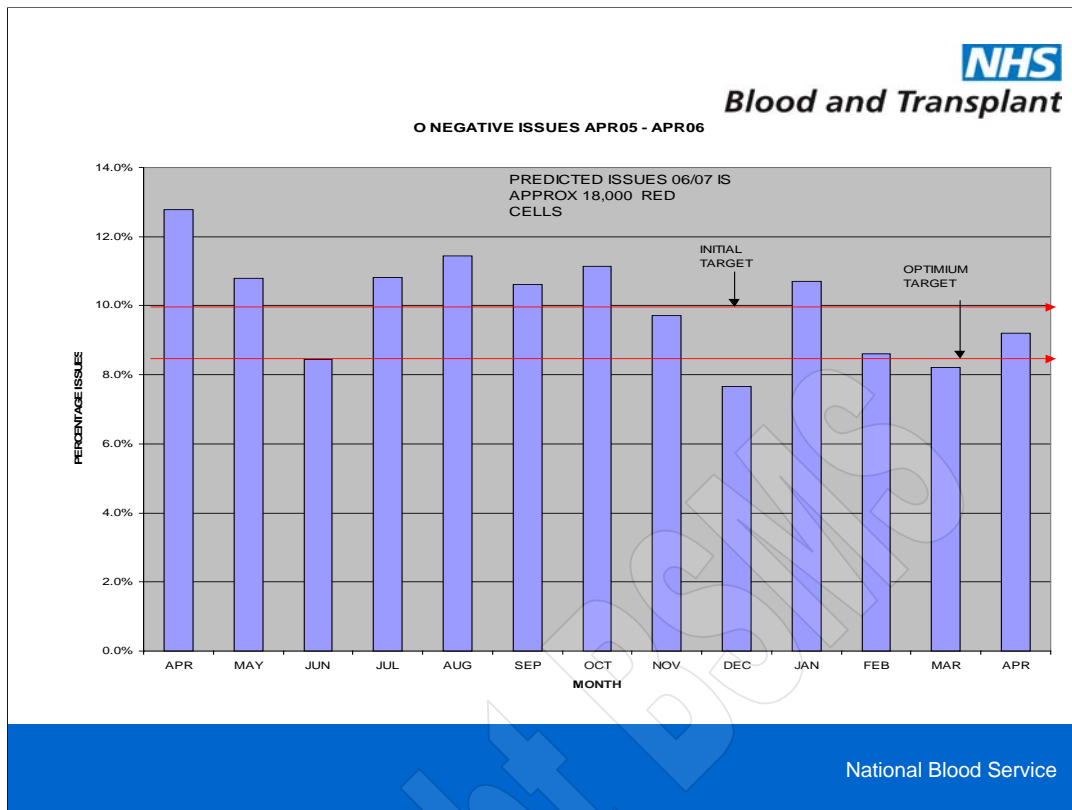
Because of this the data was adjusted and the updated information sent out.

**O NEG ISSUES WITH ADJUSTMENT FOR MULTI TRANSFUSED PATIENT 05/06**



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This shows the amended data deducting units. It was agreed that there would be a further review of stock levels and a further review in a few months time



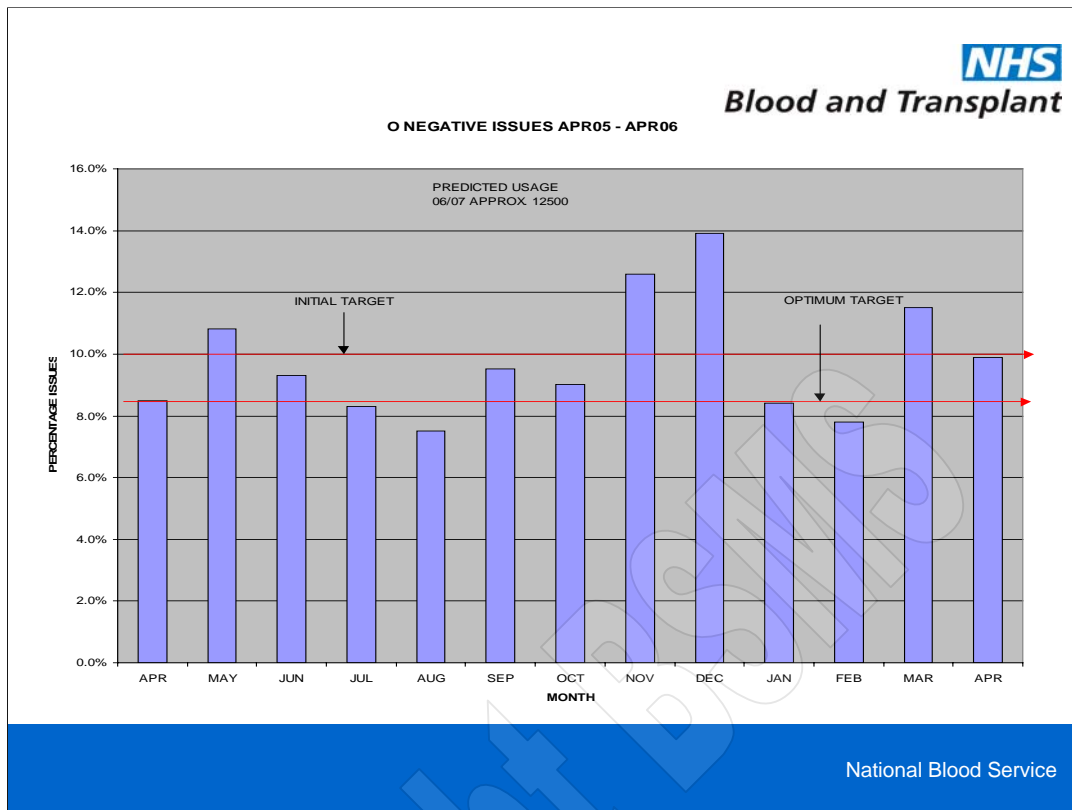
This graph depicts a larger Trust.

This Trust has no other Trust members, who are direct customers with the NBS.

The Trust are below the initial target and approaching the optimum target.

They have on call on site.

They are not a distance from the Centre.

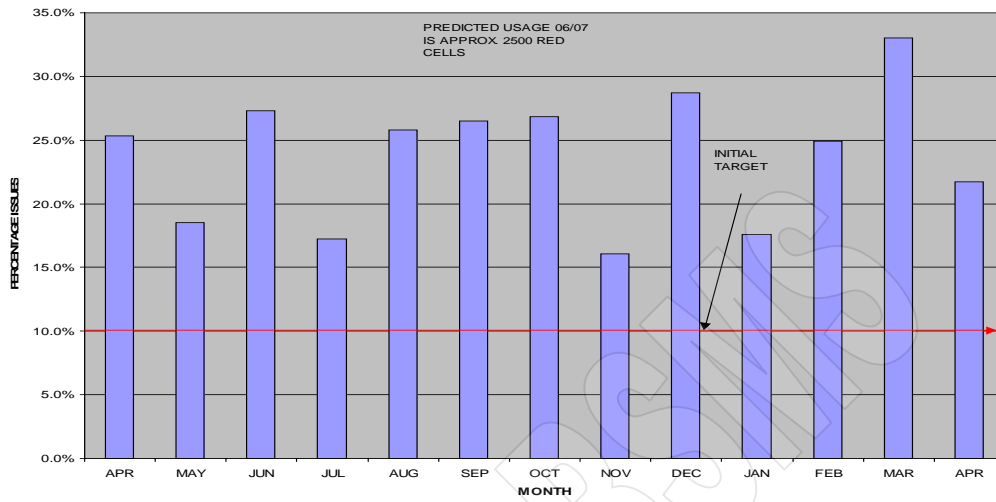


This is another example of a larger Trust, this time with another Trust member, who are also a direct customer from the NBS. The smaller hospital have no on-call on site and therefore carry higher stock.

The geography is comparable to the other site.

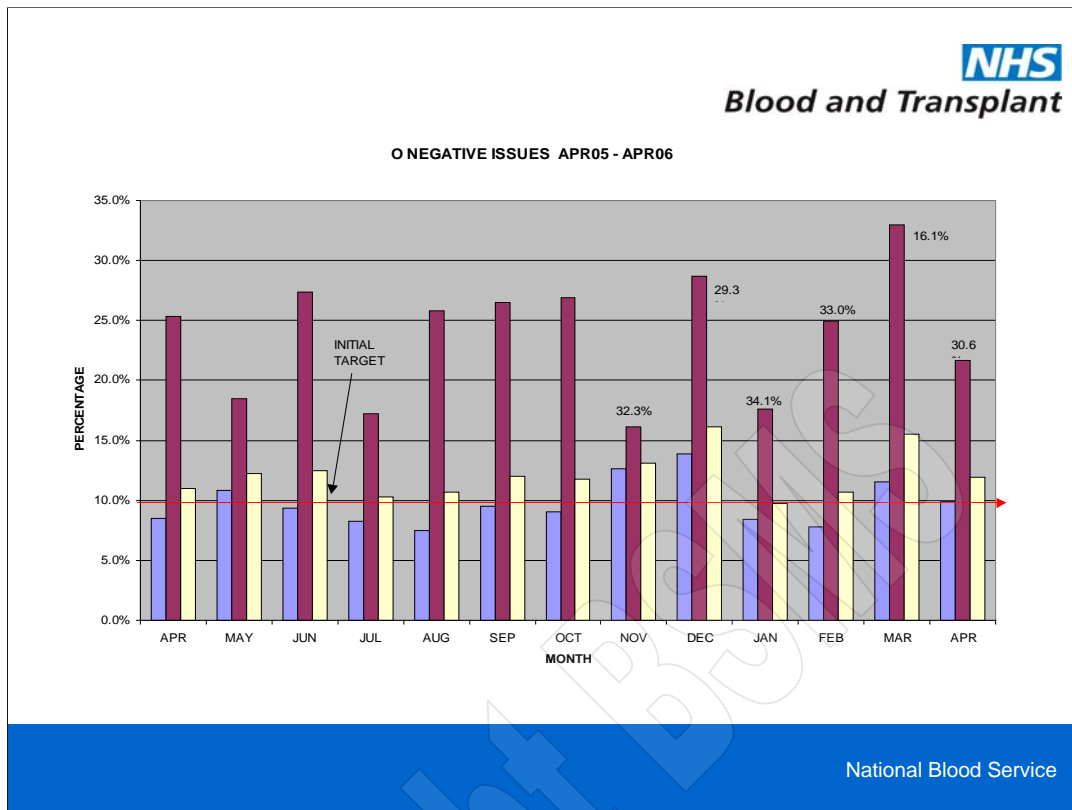
This graph shows the larger hospitals issues but it should be noted that stock is moved between sites.

O NEGATIVE ISSUES APR05 -APR06



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This shows the issues for the smaller hospital which as you can see is above the initial target level of 10%



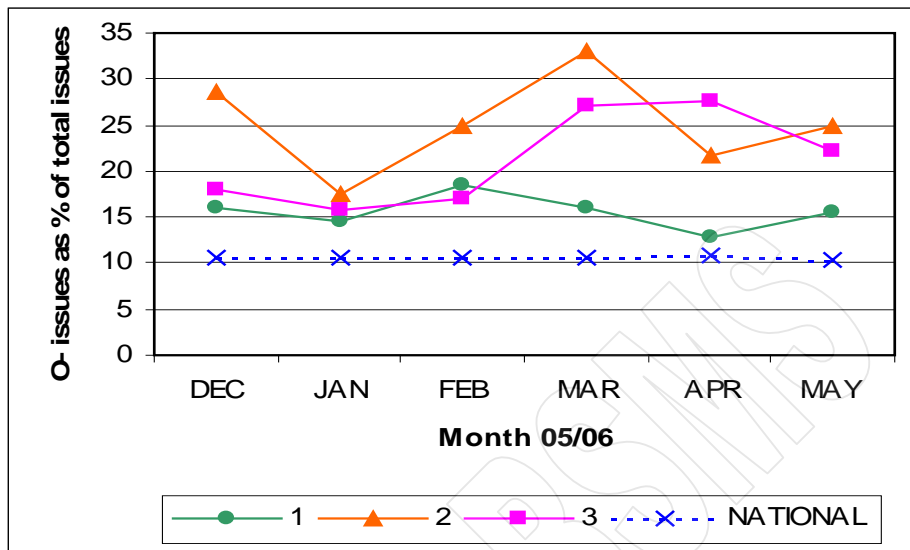
This graph has all of the previous slides data on one.

The Trust data which is the yellow now appears above the initial target.

Also on this graph is the percentage O Positive issues for the smaller hospital.

As you can see this is well below the expected population of O Positive.

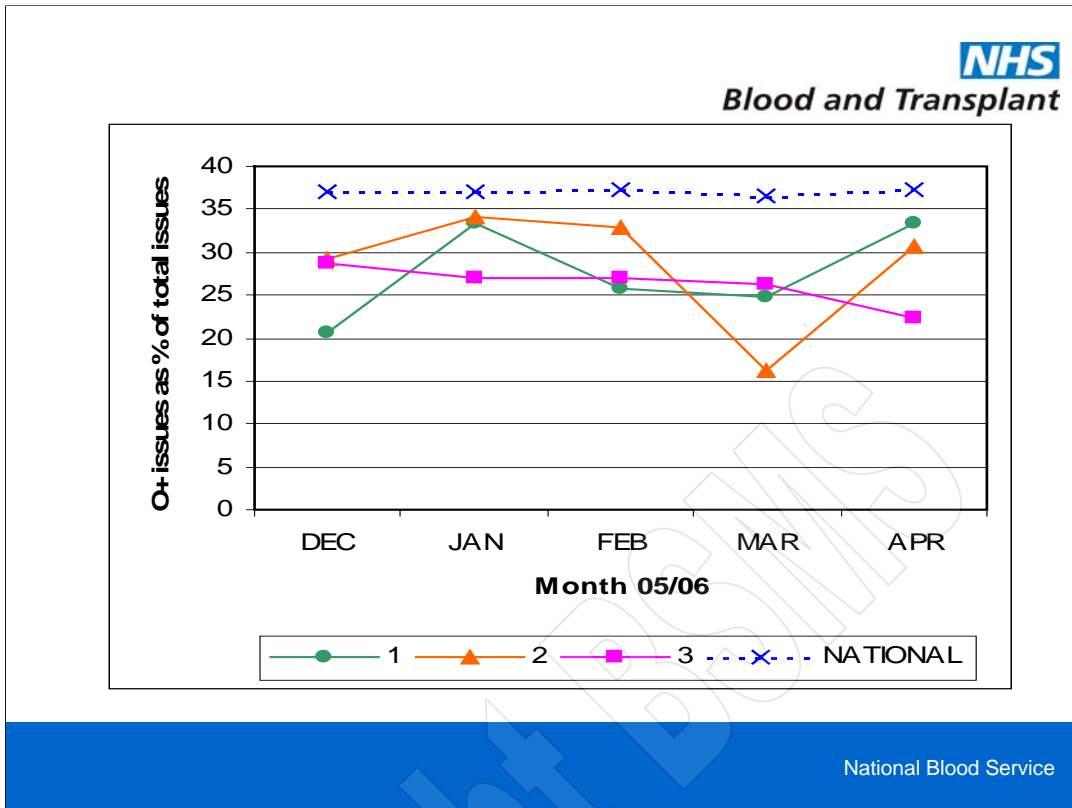
There are a few other large Trusts who have similar data in that the smaller hospital has a higher than average issue because of lack of on call on site.



This graph further illustrates the point.

Depicts the issues for three hospitals which are direct suppliers and form part of a large Trust

No on-call on site



This illustrates the same principle but for O Positive

- O Negative issues high due to no on-call on site
- O Positive issues low
- Suggests surplus of O Negative being transfused to O Positive thus reducing amount of O Positive held as stock

One possible interpretation is that O Negative units when near their expiry are transfused to O Positive, thus reducing the amount of O Positive stock held.

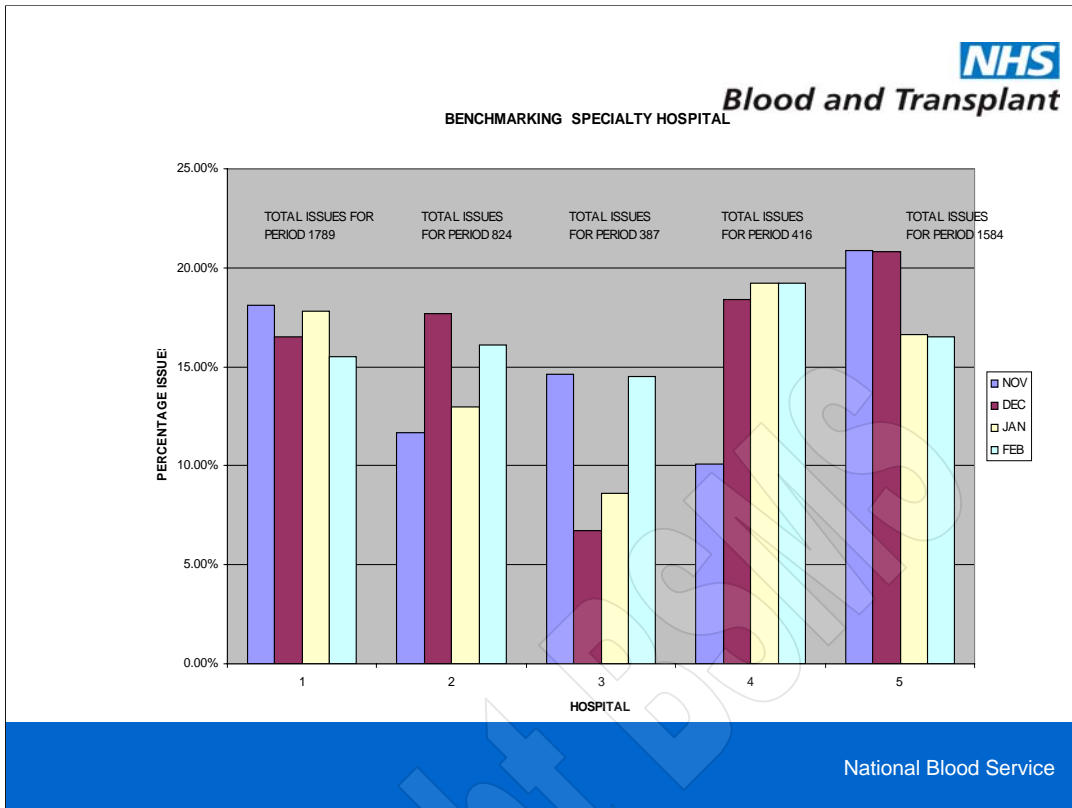
## Possible way forward

- Take correct proportion of O Positive for population
- Send surplus O Negative to bigger hospital before it expires instead of giving to other groups
- Review figures after 3 months

A suggestion would be that O Positive stock be held as proportionate to the population.

Check if O Negative is sent to larger Trust before it expires.

This in theory would reduce O Negative at the larger hospital thus reducing overall O Negative issues



I agreed to provide where possible benchmarking information for the specialist hospitals as O Negative issues are higher than multidisciplinary hospitals.

This shows five hospitals nationally. Also included was annual usage.

## What the figures do not show

- Hospitals within a Trust, who share stock
- These were worked out again as one figure
- Whether on-call is on site or provided by a nearby laboratory affects the amount of O Negative held

As mentioned previously it is important to provide Trust data where possible because stock is moved and the larger site may have a lower issue rate because it receives stock from the smaller site

## Have things changed?

- Yes
- We are currently 0.1% above the national figure and in February we went below the national issue rate for the first time
- an example at a local level of NBS and hospitals working in partnership

a number of things have contributed to this.

Review of overall stock levels

Review of Emergency O Negative stock

Review of irradiated stock

As this group is used in an emergency there will always be fluctuation in the issue rate and this needs to be appreciated when reviewing percentage issues

## Summary

- we are now very close to the percentage national issue
- we have a better understanding of individual stock levels and reasons for them
- it is important that issue figures are not taken at face value in all cases.
- There is a need for constant review of this valuable resource

This has been a useful piece of work for me as I now have a better understanding of factors that affect different customers stock holding.

I hope that customers have also found the information useful.

It is important that the figures are worked out for a Trust rather than each site.

Constant need for review of practice

## Discussion points

- Stock holding / ordering - do hospitals regularly review?
  - What affects this: possible influences
    - geography
    - Trust organisation
    - AB / B stock / irradiated stock
- Emergency O Neg. units
  - how many
  - rotation
  - policing

## Discussion points

- Does the NBS contribute to high usage?
  - Phenotyped units
  - substitutes
  - delivery schedules
- Is 8% a realistic target issue level? (see guidelines)
  - ethnic diversity