



# The 60 minute challenge

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NHS Foundation Trust

# Southampton General Hospital

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# Southampton University Hospitals NHS Foundation Trust (UHS)

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- Services 1.9 million patient
- 1100 beds
- 10,500 staff
- NHSBT classified – High user
- Teaching Hospital & Foundation Hospital (since 2011)
- Research partnership with University of Southampton
- Values: Patients First, Working Together, Always Improving



# Aim of storage guidance

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- Inhibit growth of bacteria
- Preserve red cell quality/function
- Avoid harm



## 30 minute rule

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- Historically not in UK transfusion guidelines
- BCSH guideline “If red cell units are out of temperature controlled storage for more than 30 minutes they should not be put back into storage for re-issue”.
- 1971 Pick & Fabijanic experiments



# Problems

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- ?studies valid in today's lab environment
- 30 min rule leads to ?unnecessary wastage
- 10,000 RBC OTCOL per annum
- NHSBT investigation into 30 min rule extension



## Q1

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○ Are the audience aware that there has been an official change to the guidance for removal and return to 2-6°C

A. Yes

B. No

# The “60 minute rule”

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- Change notification 33 – 15<sup>th</sup> August 2015 - **Removal from and return to 2-6°C controlled storage within hospitals**
- For occasions when red cells are removed from 2-6°C controlled storage (eg when issued to a clinical area immediately prior to transfusion) and returned then:
- If possible, time out of a controlled temperature environment should be restricted to under 30 minutes
- if 30 minutes is exceeded the unit should not be returned to the issue location in the refrigerator, but returned to the transfusion laboratory or quarantined remotely using electronic blood tracking
- up to 60 minutes out of controlled temperature is acceptable, provided the unit is then quarantined by placing in a secure refrigerator for at least 6 hours prior to reissue, to allow the unit to return to 2-6°C
- Hospitals will need to identify such units so that they are not subject to being out of controlled temperature storage for between 30 and 60 minutes on more than three occasions.
- Transfusion should be completed within 4 hours of issue out of a controlled temperature environment.



# Key area's

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- if 30 minutes is exceeded the unit should not be returned to the issue location in the refrigerator, but returned to the transfusion laboratory or quarantined remotely using electronic blood tracking
- up to 60 minutes out of controlled temperature is acceptable, provided the unit is then quarantined by placing in a secure refrigerator for at least 6 hours prior to reissue, to allow the unit to return to 2-6°C
- Hospitals will need to identify such units so that they are not subject to being out of controlled temperature storage for between 30 and 60 minutes on more than three occasions



## Q2

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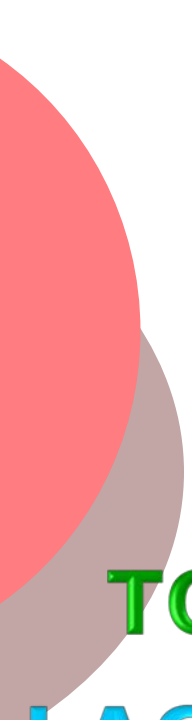
- Has the “60 minute rule” been implemented in your hospital
- A. Yes
- B. No



## Q3

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- What is the reason for not implementing (or delay to implementing)
  - A. Time to implement
  - B. Seems too complicated
  - C. Unable to use blood tracking system to implement
  - D. Too much paperwork
  - E. All of the above

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- 
- Small survey = 1/9 hospitals implemented

**OPEN TO ERROR**

**TOO COMPLICATED**

**EDUCATION**

**LACK OF EVIDENCE**

**PAPERWORK**

**Staffing**

**SUPPORT**

**TRACKING**

**TIME**

**LOW RISK/BENEFIT RATIO**

**INCREASED WASTAGE**



# Complicated

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- > 30 mins return to lab
- >30 <60 quarantine for 6 hours before reissue
- Not on more than 3 occasions

Need to know all the above for all units and be able to audit/monitor/control

?Blood bank breakdowns

# Scenario – Q4

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- Unit A
  - Out for 42 minutes
  - Quarantined at 4°C for 6 hours
  - Out again for 36 mins

Can this unit be used

- A. Yes after another 6 hours quarantine
- B. Yes straight away
- C. No

## Scenario – Q5

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- Unit A is quarantined for a further 6 hours and returned to stock
- Issued to a trauma patient who dies during intervention before the unit is hung
- This is deviation number 3

Can the unit be returned to stock for reissue?

- A. Yes after another 6 hours quarantine
- B. No
- C. Unknown

# ?NHSBT deviations

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- Has there been a deviation at NHSBT which would make this the 4<sup>th</sup> occurrence and hence require disposal??
- PCS 13 list only covers:
- Red Cells - One excursion to 10°C < 5hrs
- Are 30-60 excursions possible at NHSBT during packing etc?



# Blood Tracking

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- Systems not yet capable of handling this
- Some functions which can help
- Feedback to suppliers what customers need for future development



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Time and staff

UOM

UKAS

MI  
planning

O neg  
usage

HR stuff

Staff  
Training  
and  
competency

MHRA

Useful  
audit

60 min  
rule

Incident  
investigation  
and actions

Service  
development

Wastage  
reduction





# Time and staff to implement

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- Keep it simple
- Who should manage the process?
- One hour brainstorming session allowed us to plan and start changes
- Challenges
  - Lack of experience, problems recruiting
  - Low staff number
  - Multidisciplinary working
  - Clinical team education

# Clinical teams and education

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30  
minutes?



60  
minutes?



# Clinical teams and education

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- 30 min rule ingrained
- To make any change would need vast amount of training and support
- Informing the clinical teams that unit can be saved after 60 minutes might lead to increased wastage



## Risk/cost benefit

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- High user may be able to save many units
- Low user, with low wastage may have little benefit for huge amount of work
- Possibility to make wastage worse



## Other concerns

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- ^errors due to misunderstanding of the rules
- Possible ^risk to patients
- ^ reporting to MHRA/SHOT
- Is the evidence strong enough to make the changes



# Ideas from TLMs

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- Use only for 0 neg units
- Use a conservative approach e.g.  
Allow 1 deviation  $>30 < 60$



# UHS experience

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- Brainstorm = plan within 1 hour
- ^ paperwork but kept as simple as possible
- Paper copy stored for evidence
- Clinical teams not involved
- Managed by BT senior team
- BMS staff trained to put in quarantine
- NHSBT excursion list unclear

(>30 mins to a maximum of 60 mins. Units out of temperature control for >60 mins must be discarded).

Place this form in the senior tray once complete

[illegible]

Checked by senior staff (signature) ..... Date .....



# Success?

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- 1 Near Miss incident where senior BMS got confused and unit went back into stock after >60 mins out. Error noted before unit issued
- Average 2 units per week saved from wastage
- 104 units per year
- £12,943.84 per year!



## Q6

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○ Will you implement the '60 minute rule' in the future

A Yes

B No

C Amended version

# Thank you

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Any Questions?

