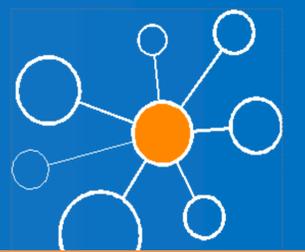


# A quality improvement project to reduce the rates of postpartum haemorrhage (PPH) and major obstetric haemorrhage (MOH) within Gloucestershire Hospitals NHS Foundation trust – the REDUCE project

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## Statement of the Problem:

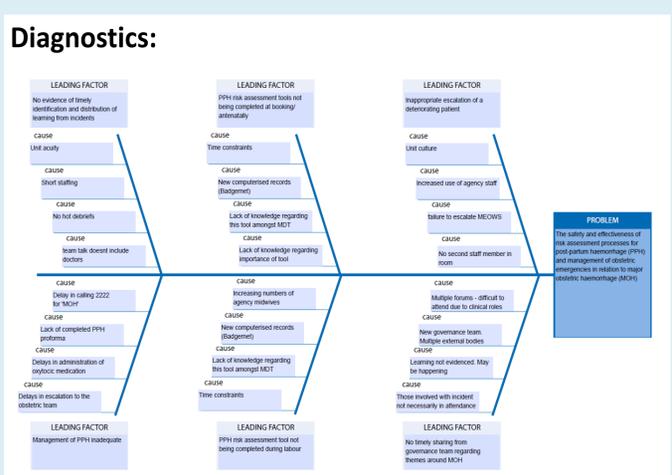
March 2024: The Care Quality Commission (CQC) served a notice of intent to our trust: Possible Urgent Enforcement Action – Section 31 of the Health and Social Care Act 2008

## Current Situation

1. Postpartum Haemorrhage (PPH) >500mls and Major Obstetric haemorrhage (MOH) rates >1500mls appear to be above national rates.
2. Delays in identifying, sharing and embedding learning from serious incidents to prevent re-occurrence of similar incidents. Including of recent PPH audit
3. There is no clear governance team oversight

## SMART Aim

To reduce the monthly rate of postpartum haemorrhage (PPH) >500mls from 41% to below the national average PPH rate of 25% of births and major obstetric haemorrhage (MOH) >1500mls in Gloucestershire Royal Hospitals NHS Foundation Trust from 5% to 3% in 6 months



## Stakeholder Analysis:

| Stakeholder has high power over project                      | Satisfy:                            | Manage:                                |
|--|-------------------------------------|--|
| Maternity Delivery Group                                     | Local Maternity and Neonatal System | Trust executives                       |
| Trust non executives   | CQC                                 | NHS England                            |
| General+ departmental management and departmental leadership | Support staff                       | Admin Staff                            |
| Stakeholder has little/ no power over project                | Maternity Voices Partnership (MVP)  | QI/ Audit lead                         |
| Project has low/ no impact on stakeholder                    |                                     |  |
|  |                                     | Project has high impact on stakeholder |

## Outcome Measure

- Reduction in the rates of PPH and MOH (%)

## Process Measures

- Compliance with completion of antenatal risk assessment at booking at 36 weeks
- Compliance with admission/ intrapartum risk assessment (REDUCE proforma)
- Compliance with emergency management proforma (stepwise tool) (%)
- Evidence of early identification of risks and distribution of learning through Comms lead and MDT team talk (PSIRF, thematic analysis, production boards, posters)
- PPH/MOH audit

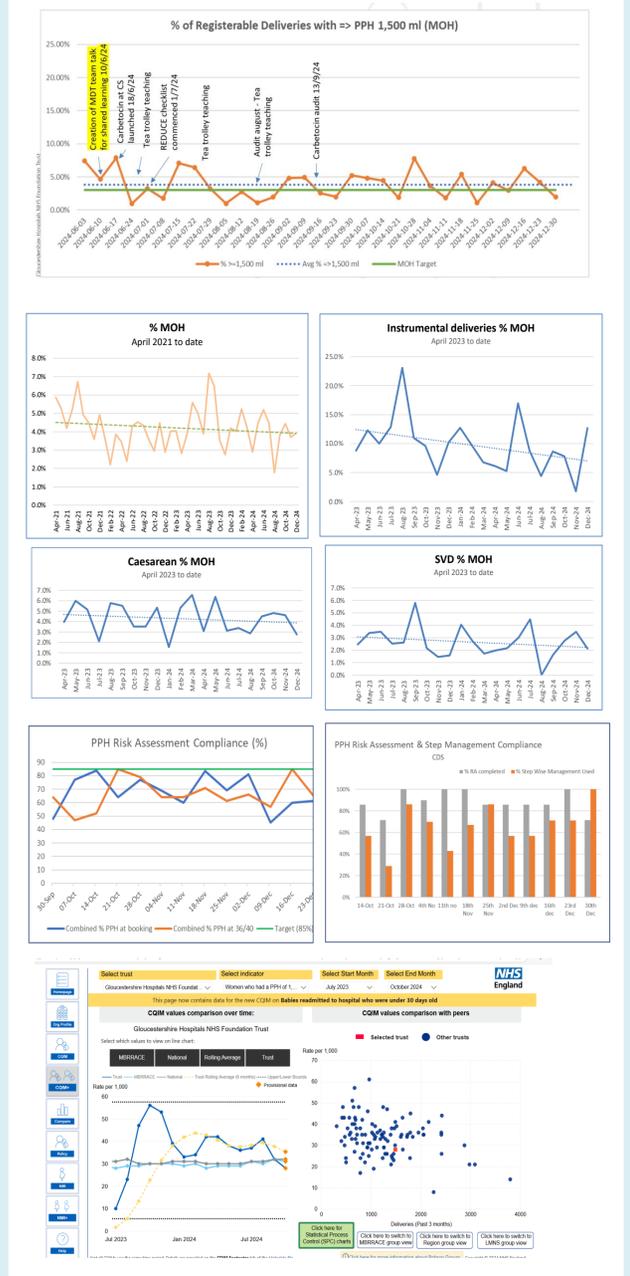
## Balancing Measures

- Staff satisfaction (staff feedback)
- Lead midwives: increased time requirement to complete daily audit for production board (negative – time, but positive as ground level identification of immediate safety concerns/ learning)
- Financial balance (carbetocin – increased cost but less use of further uterotonics)
- Environmental impact (removal of PPH bundle, less uterotonic infusions used)
- Patient satisfaction (Online survey)
- Length of stay (cost/ patient satisfaction/ improved flow through delivery suite)

## Action Plan / PDSA

| Action Ref | Date commenced | Action   | Responsible         | Due        | Progress report / Comments / Request numbers  | Status    | Progress    |
|------------|----------------|--|---------------------|------------|---|-----------|-------------|
| 1          | 10/06/2024     | Weekly meeting of intrapartum leads to create MDT team talk  | RH/VC               | ongoing    | presented twice daily at MDT ward rounds  | On Target | In progress |
| 2          | 10/06/2024     | Engagement with Badgernet digital midwives   | CS/RH/VC            | 10/06/2024 | Education around risk assessment to be shared in Tea Trolley teaching.  | Complete  | Complete    |
| 3          | 10/06/2024     | Tea Trolley teaching   | CS/RH/VC            | 10/06/2024 | Mon- Friday, 3 week period  | Complete  | Complete    |
| 4          | 13/06/2024     | Carbetocin SOP written   | JC                  | 13/06/2024 | Email ratification  | Complete  | Complete    |
| 5          | 18/06/2024     | Launch Carbetocin use at CS  | JC                  | 18/06/24   |   | Complete  | Complete    |
| 6          | 25/06/2024     | REDUCE Q&A with community midwifery team   | CS                  | 25/06/2024 |   | Complete  | Complete    |
| 7          | 26/06/2024     | Meeting with MNVP  | CS                  | 26/06/2024 | ? For facebook live. To arrange another meeting/ social media   | Complete  | Complete    |
| 8          | 28/06/2024     | Reworking of proforma  | CS                  | 28/06/2024 |   | Complete  | Complete    |
| 9          | 02/07/2024     | Review of place of birth policy in line with REDUCE risk assessment  | CS/RH/VC            | 02/07/2024 |   | Complete  | Complete    |
| 10         | 08/07/2024     | Addition of MOH onto Risk Register   |                     | ongoing    | Ongoing updates required  | On Target | In progress |
| 11         | 10/07/2024     | Use of REDUCE proforma in PROMPT emergency skills and drills training  | CS/ SAT             | ongoing    | Run 11 year. Yearly   | On Target | In progress |
| 12         | 12/07/2024     | QIG presentation of REDUCE updates fortnightly   | RH/VC/ CS           | ongoing    |   | Complete  | Complete    |
| 13         | 13/07/2024     | Allocation of PPH Champions  | RH                  | 13/07/2024 | Help support on shop floor  | Complete  | Complete    |
| 14         | 17/07/2024     | REDUCE checklist launched  | CS/RH/VC/JC         | 01/07/24   | Tea trolley teaching, comms learning  | Complete  | Complete    |
| 15         | 17/07/2024     | Risk assessment audit commenced  | RH                  | 01/07/24   | Once reassured by numbers to discuss with Lisa Stephens re. audit volume  | Complete  | Complete    |
| 16         | 17/07/2024     | MOH board amendments   | JC/DD               | Ongoing    | DD update. Final approval gained 14/1/24. To create laminate version first before final board created.  | On Target | In progress |
| 17         | 17/07/2024     | Badgernet risk assessments deleted by digital team - incorrect   |                     | 24/07/2024 | Reinstated  | Complete  | Complete    |
| 18         | 19/07/2024     | MNVP to ascertain via psychology team the suitability and feasibility of a patient focus group with patients who experienced a >1500ml PPH | RH/HVD              | ongoing    | RH to follow up with KM & work with HVD & R&D. HVD meeting 10/10 R&D Matron (Pauline Brown) for GRH will feedback findings  | Complete  | Complete    |
| 19         | 22/07/2024     | Run charts (A2)- MOH, PPH & RA compliance  | RH/CS               | ongoing    | Alex Parrett (AP) producing MOH & PPH at printers (check), awaiting weekly data for total from Nikki Keenan (NK), then need to send to AP. Delivered 11/10. Regularly updated by REDUCE team manually. Moved to monthly 17/01/25. | Complete  | In progress |
| 20         | 24/07/2024     | ROTEM business case, +/- cell salvage  | JC                  | ongoing    | IC to update  | Complete  | Blocked     |
| 21         | 01/08/2024     | Social media patient update regarding project through MNVP   |                     | 01/08/2024 |   | Complete  | Complete    |
| 22         | 01/08/2024     | Audit August   | CS/RH/VC            | 19/08/2024 | Weekly highlight on project   | Complete  | Complete    |
| 23         | 02/08/2024     | Stroud PPH skills drill  | CS                  | 19/09/2024 |   | Complete  | Complete    |
| 24         | 02/08/2024     | Community teams to audit 100% booking & 36/40 RA and add to production boards  | RB/TJ               | ongoing    | Community matrons to feed into project the RA at booking and 36/40.   | Complete  | Complete    |
| 25         | 02/08/2024     | Staff feedback of REDUCE proforma via QR code/ F2F   | CS                  | 02/08/2024 |   | Complete  | Complete    |
| 26         | 02/08/2025     | Rewrite of postpartum haemorrhage guideline and related documents  | VC/RH               | 09/09/2024 | Email ratification  | Complete  | Complete    |
| 27         | 10/08/2024     | Incident review process changed to align with PSIRF  | SA                  | ongoing    | reviews within 24-72hrs of incident   | Complete  | Complete    |
| 28         | 30/08/2024     | Staff feedback of REDUCE proforma via QR code/ F2F   | CS                  | 30/08/2024 |   | Complete  | Complete    |
| 29         | 02/09/2024     | REDUCE team meeting to review progress   | CS/RH/VC/JC         | 02/09/2024 |   | Complete  | Complete    |
| 30         | 02/09/2024     | RA data coordination   | RH                  | ongoing    | Link with NK  | Complete  | Complete    |
| 31         | 06/09/2024     | QIG slide update   | RH/VC/CS/JC         | 15/10/2024 |   | Complete  | Complete    |
| 32         | 06/09/2024     | create example of PPH proforma & display on CDS/BU/Stroud  | CS                  | 13/09/2024 |   | Complete  | Complete    |
| 33         | 06/09/2024     | Action plan to focus on weighing ongoing blood loss in theatre following MDT review 06/09  | RH/AW               | ongoing    | DD managing education campaign for HCA team who monitor blood loss  | On Target | In progress |
| 34         | 06/09/2024     | Review of patient information available to women (RCOG Leaflet/ badgernet).  | ?                   |            | Not started   |           |             |
| 35         | 19/09/2024     | Stroud PPH skills drill + staff feedback   | CS                  | 19/09/2024 |   | Complete  | Complete    |
| 36         | 10/10/2024     | WHO checklist amendments in theatres   | JC                  | 01/11/2024 | IC to amend to state "3rd stage/PPH management plan". To await whole theatre board update. Temporary solution created   | Complete  | In progress |
| 37         | 10/10/2024     | Divide the vaginal and C/section PPH & MOH data  | CS                  | ongoing    | Once reassured by numbers to discuss with Lisa Stephens re. audit volume  | Complete  | Complete    |
| 38         | 18/11/2024     | Distribution of learning on importance of considering tone. Putting pressure on wounds   | HVD                 | 18/11/2024 |   | Complete  | Complete    |
| 39         | 01/12/2024     | Microsoft forms thematic analysis for MOH/ PPH - overdue incidences  | AB                  | ongoing    | >150 overdue incidences due to contradictory external advice.   | On Target |             |
| 40         | 10/12/2024     | Addition of theatre personnel to MDT team to ensure full MDT represented   | AmW/DD/NB           | 10/12/2024 | To invite to next REDUCE meeting  | Complete  | Complete    |
| 41         | 11/12/2024     | Meeting with patient experience team to reduce patient focus groups/ online survey   | HVD                 | 11/12/2024 | agreed online survey. Being created   | On Target | In progress |
| 42         | 03/01/2025     | Focus group with delivery suite coordinators, registrars and practice facilitators to help make improvements                               | CS/RH               | 03/01/2024 |   | Complete  | Complete    |
| 43         | 10/01/2025     | QIG presentation of REDUCE updates monthly   | RH/VC               | ongoing    | agreed move to monthly  | On Target | In progress |
| 44         | 13/01/2025     | Introduction of oxytocin infusion for all vaginal/ instrumental births with loss over 1000mls  | RH/VC               | 13/01/2025 | Agreed at Intrapartum forum 10/1/25. Learning distributed via MDT team talk   | On Target | In progress |
| 45         | 14/01/2025     | REDUCE team meeting to review progress   | RH/VC/CS/HVN/ AW/AW | 14/01/2025 | new tasks allocated   | Complete  | Complete    |
| 46         | 14/01/2025     | Teaching session for registrars around improving documentation at delivery and new REDUCE changes  | AbW                 | 31/01/2025 | Already distributed on 5 different MDT team talks   | On Target |             |
| 47         | 17/01/2025     | Update REDUCE proforma   | JC                  |            | To remove 1000mls/kg to take into account unreliability of raised BMI. New graph to be used   |           |             |

## Results:



## Thematic analysis:

- Absent or inadequate obstetric documentation of instrumental delivery / complex suturing
- No IV Oxytocin infusion as bleeding thought to be from tear
- MOH call not made
- Midwife/Dr unaware of blood loss until after procedure
- Delay in quantifying Cell salvage
- No AN risk factors = most common, caesarean section = intrapartum RF
- Trauma 39%, Tone 36%, Tissue 17%
- MOH vs PPH:



## Proposed Governance Changes

- Recognition that MOH/PPH will vary. Need 12 months minimum ongoing monitoring. Run charts to move to monthly
- Continue with PSIRF but midwife to review of all incidents of PPH/MOH. MDT review if concerns raised
- Microsoft forms for each case after review of Badgernet/ REDUCE tool
- Ongoing identification of themes with the QI with distribution of learning through intrapartum forum and escalated to oversight and assurance
- Once backlog cleared, proposal of how to go forward (PSIRF recommends proportionality of reviews)
- If active QI project ?each individual Datix doesn't need to be reviewed.
- We need to make a decision going forwards whether we review:
  - Cases where there is a concern voiced by the reporter
  - Cases over a certain quantity
  - A sample of each 'band' each month, e.g. 20 PPH 500-999ml, 20 PPH 1-1.49L. 20 cases of MOH over 1.5L
  - A sample of loss over a specified percentage of circulating volume

