Supplementary information for Bromley Health Scrutiny Sub-Committee:

Maternity – Postpartum haemorrhage

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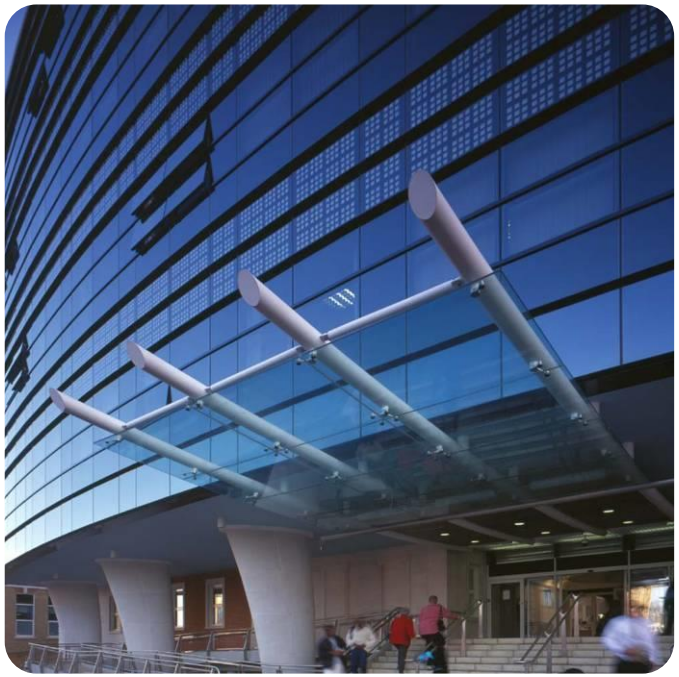
King's



Postpartum Haemorrhage: Background information (for reference)

- Postpartum haemorrhage (PPH) is the most common complication of childbirth, and it is defined as the loss of 500ml or more of blood from the genital tract within 24 hours of the birth of a baby.

- PPH classified as minor (500-1000ml) and moderate (1000-1500ml) blood loss.

- Major PPH is blood loss of more than 1500mls. It will additionally be defined as Major Obstetric haemorrhage in cases where:
    - >4 units blood transfused
    - Radiology required to control bleeding (KCH 2022)

- In the UK obstetric haemorrhage is the fourth leading cause of direct maternal deaths, behind thrombosis & thromboembolism (1st), sepsis (2nd) and psychiatric (3rd)

Risk factors for Postpartum haemorrhage (PPH)

Pre-labour

- Previous retained placenta or Previous PPH (recurrence rate 8-10%).
- Previous caesarean birth (associated with uterine rupture and abnormal placental implantation
- Placenta praevia, accreta or percreta
- Antepartum haemorrhage or Placental abruption
- Over distension of the uterus –multiple birth, large baby, excessive amniotic fluid
- Pre-eclampsia / pregnancy induced raised BP
- Raised BMI >35
- Increased maternal age >35yrs
- Uterine abnormalities – fibroids
- Asian ethnicity

Intrapartum (during labour)

- Induction of labour
- Prolonged first stage, second or third stage of labour
- Use of utertonics in labour e.g Syntocinon
- Retained placenta
- Precipitate labour
- Operative birth e.g. forceps delivery
- Caesarean section – particularly in second stage of labour
- Placental abruption
- Sepsis in labour

Other Situations which require specific approaches & guidance

- Pre-existing bleeding disorders
- Woman taking therapeutic anticoagulants
- Women who refuse blood products

Possible reasons why the PRUH was previously an outlier for PPH

The rate of major PPH at the PRUH was 5.5%(2021), which is higher in comparison to the national PPH guidance rate of 3.3%(3.1-3.5%) Bell et.al. 2020.

Actual year to date rate PPH at PRUH is 3.6%, rolling 12month 3.2% (July 23), which is comparable to DH YTD 3.5% and QEH YTD 3.4% (June 23)

Audit undertaken - two years data (2020-21) to establish causes of PPH and associations which could explain increase in rates.

Findings

- Caesarean section (CS) accounted for 40.4% (n=141) of PPH whereas the total CS rate in the year 2021 was 34.9% of which 14.4% were elective and 20.7% were emergency sections. Of all PPH in the CS group, 29.7% (n=42) cases were in patients who had elective sections and 70.1% (n=99) cases were related to emergency CS. Emergency CS rate comparable within LMNS.
- Most common causes in CS group were placenta praevia, bleeding from surgical incisions, surgical trauma and uterine atony.
- The PPH rate in the emergency CS group was double compared of the cohort of patients who had elective CS. Multiple factors at play include population characteristics, duration of labour, identification of risks and training level of attending staff (obstetrician).
- Elective CS lists have the presence of consultant obstetricians who directly oversee and scrub for operation in high-risk cases. Out of hours Emergency CS will not routinely have consultant presence
- There was monthly variation in PPH rates in all deliveries - spontaneous vaginal delivery, assisted instrumental delivery and 2 caesarean section groups. No association identified between other variables.

Recommendations and current practice

- The rate of PPH in the CS group improved by increasing the presence and direct supervision of trainees by consultants during emergency CS within their onsite on-call hours

- Identification of antenatal and intrapartum risk factors for PPH, King's guideline (Obstetric Haemorrhage, 2022) for vaginal births. PPH management risk assessment prior to PPH, identification of emerging risk factors as highlighted in slide 3, enables escalation and attendance of appropriate professionals

- Prophylactic uterotonics offered to all women for the third stage of labour to reduce the risk of PPH. First line drug management for third stage is Syntocinon (Oxytocin) but Syntometrine (Oxytocin plus Ergometrine) is considered as a safe alternative in the presence of risk factors – previously identified and those evolving during labour – change to practice.

- Early escalation of PPH. A blood loss of 1000mls could be detrimental to women and late escalation is a missed opportunity to control blood loss promptly – early escalation reduces requirement for fluid replacement and blood transfusion and prevents patient deterioration.

- Mandating that a 'Code Blue' is called at all MOH including theatre, to ensure haematology support with blood cross matching and issuing of products –existing policy.