# BLOOD PRODUCT USE IN MASSIVE OBSTETRIC HAEMORRHAGE

SHAILJA VERMA, ST5 & MS UMA VENKITARAMAN, CONSULTANT AT LEICESTER ROYAL INFIRMARY, UNIVERSITY OF LEICESTER, LEICESTER, U.K.

## DESIGN

- A Tertiary center audit
- Site - Leicester Royal Infirmary and Leicester General hospital

## METHOD

- Retrospective study
- 6 months period (Dec 2020 to May 2021)

## INCLUSION

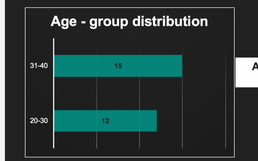
- All pregnant women fulfilling criteria for Massive Obstetric hemorrhage
- No exclusion criteria

## DATA COLLECTION

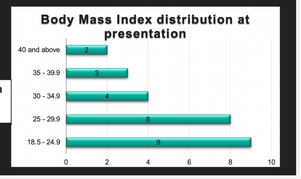
- Individual case notes reviewed independently by two reviewers
- E3 (maternity database), Datix (incident reporting) reviews, Massive obstetric haemorrhage (MOH) activation record & MOH feedback forms (from haematology department) were also used for data collection
- Excel sheet used for data collection & analysis.

## DEMOGRAPHICS

a

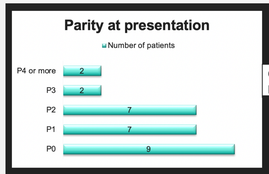



All women were in the 20 to 40 years age-group.

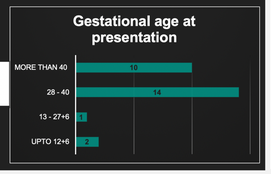



Majority had a BMI less than 30 and ten women (38%) had BMI over 30 including two women with class III obesity (BMI>40)

b

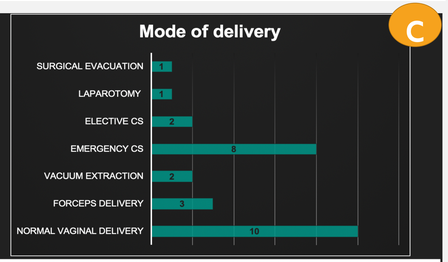



One-third were primigravida with majority being para 1 or para 2




Twenty-four women (88%) were in their late trimester, only two women were in first trimester and one in second trimester

c

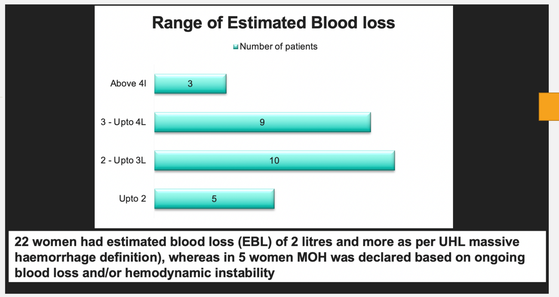



Out of twenty-seven, fifteen (55%) had vaginal delivery including two home births; ten (37%) women had delivery by cesarean section. Only five (18%) women had instrumental deliveries

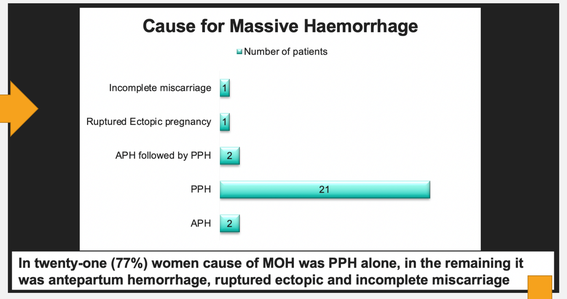
## Financial aspect

| Blood product (per unit) | Cost (in pounds) |
|---|---|
| Red cells | 146 |
| FFP | 46 |
| Cryoprecipitate | 195 |
| Platelets | 265 |
| Rh neg (O neg) uncrossmatched | 146 |

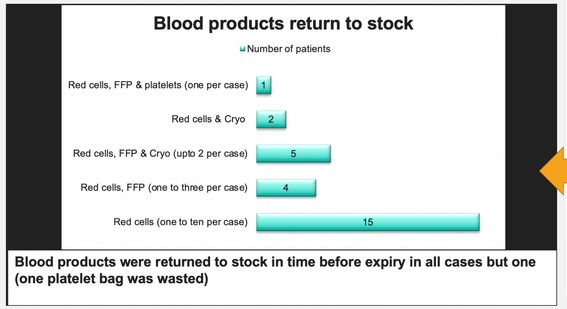
## RESULT: 27 women with massive hemorrhage in pregnancy identified



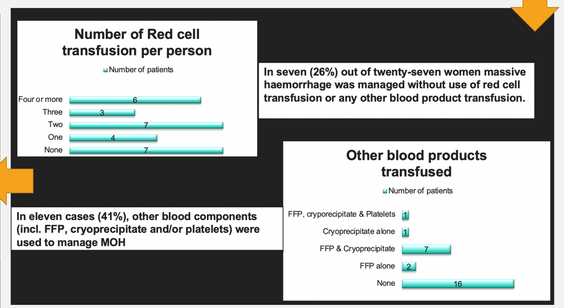

22 women had estimated blood loss (EBL) of 2 litres and more as per UHL massive haemorrhage definition), whereas in 5 women MOH was declared based on ongoing blood loss and/or hemodynamic instability




In twenty-one (77%) women cause of MOH was PPH alone, in the remaining it was antepartum hemorrhage, ruptured ectopic and incomplete miscarriage




Blood products were returned to stock in time before expiry in all cases but one (one platelet bag was wasted)




In seven (26%) out of twenty-seven women massive haemorrhage was managed without use of red cell transfusion or any other blood product transfusion.

In eleven cases (41%), other blood components (incl. FFP, cryoprecipitate and/or platelets) were used to manage MOH




## Summary

- Tranexamic acid used in twenty two cases.
- Cell salvage used in six (24%) out of twenty-five cases to manage MOH
- Transfusion was guided by Haemacue in eighteen cases & TEG (Thromboelastography) in sixteen cases of MOH
- Consultants were involved in the care of twenty one cases with MOH
- MOH was activated in a timely manner in all the women (Delay between activating MOH and receiving blood products in 2 women noted)
- Overall blood transfusion found to be appropriate in all cases where it was given.
- Datix was completed in nineteen cases.
- Duty of candour done in twenty one cases.

## CONCLUSION

The massive haemorrhage activation was done appropriately and the transfusion protocol followed as per trust guidelines with appropriate use of tranexamic acid and cell salvage where possible to reduce overall blood loss, minimize transfusion risks to patients and deliver a good outcome for the patient.