



Review of stillbirths in a District General Hospital during the Covid Pandemic

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Introduction

An increase in the total stillbirths and late fetal loss were noted within our trust during 2021. We reviewed all the stillbirths and late fetal loss over a two-year period at Doncaster & Bassetlaw Hospital during the COVID 19 pandemic and compared to national average. Statistical comparisons was made with previous years and identified trends, themes, lessons learnt and future actions required.

Method

We looked at all stillbirths and late fetal losses over 22+0 weeks gestation between 1st January 2020 and 31st December 2021. Cases were identified using our trust electronic record system K2, and those due to medical termination of pregnancy were excluded. We looked at mortality rates by gestation, pregnancy conditions and complications, ethnicity and age of the mother and uptake of post-mortem. The figures of 2020 were then compared to 2021 and to the National data.

Results

The trust still birth rate was 2.88 for 2021, but there was a significant increase in the late fetal loss above 22 weeks noted compared to 2020, accounting for 31.6% of the total cases. Covid 19 was noted to be causative in 26% of the total cases, with 23% in the still births above 24 weeks gestation and 33% in the late fetal loss 22-23+6 weeks gestation. Still birth rate in 2020 was 2.97, and there were no cases in the 22-23+6 weeks gestation. The latest MBRRACE 2019 report quoted a national stillbirth rate of 3.35 per 1000 births.

Key Themes and trends of loss in gestation:

	<23+6	24+0-27+6	28+0 – 31+6	32+0 – 36+6	>37
2020	0	27%	0	37%	36%
2021	31.6%	15.8%	15.8%	26.3%	10.5%

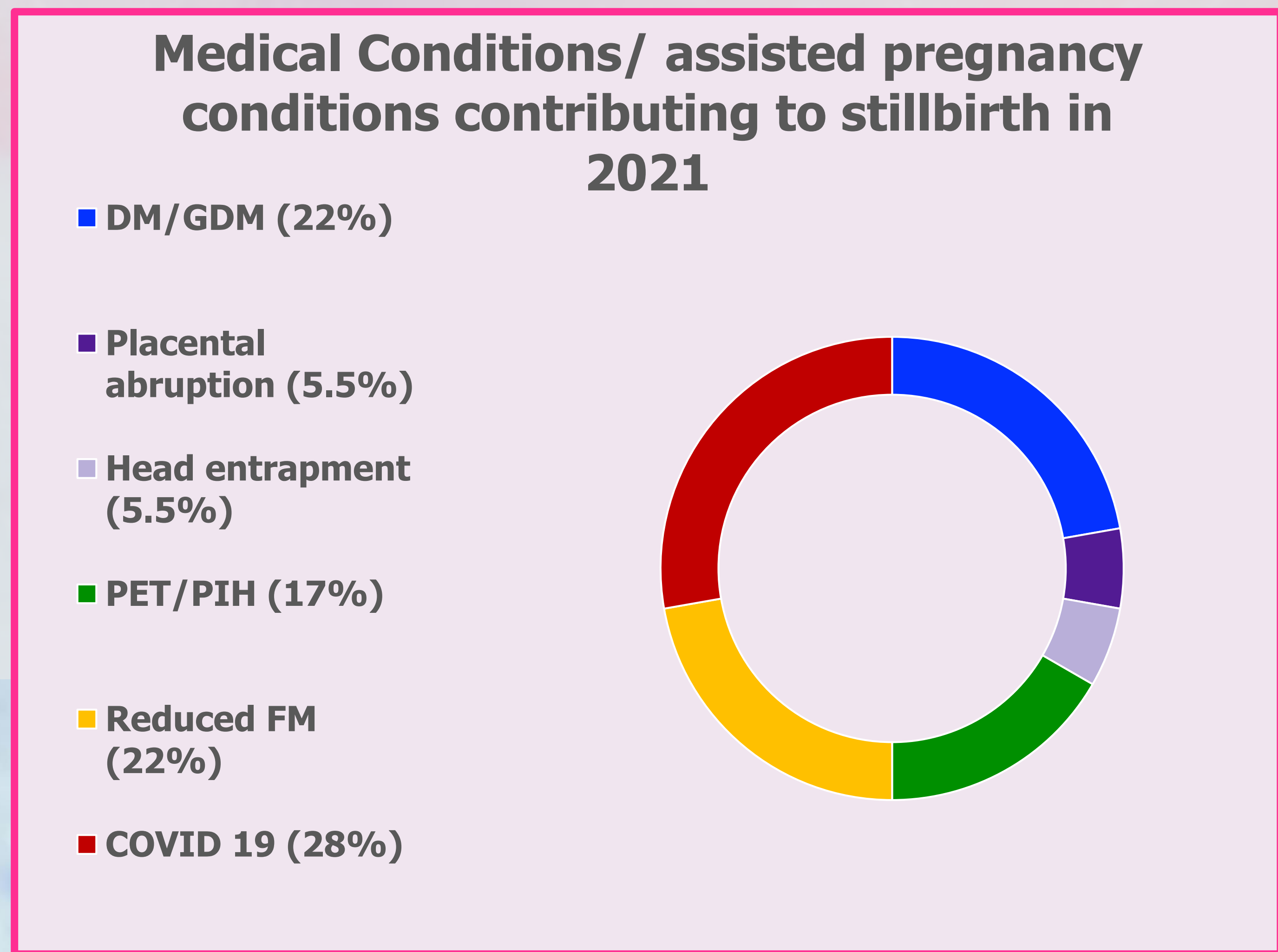
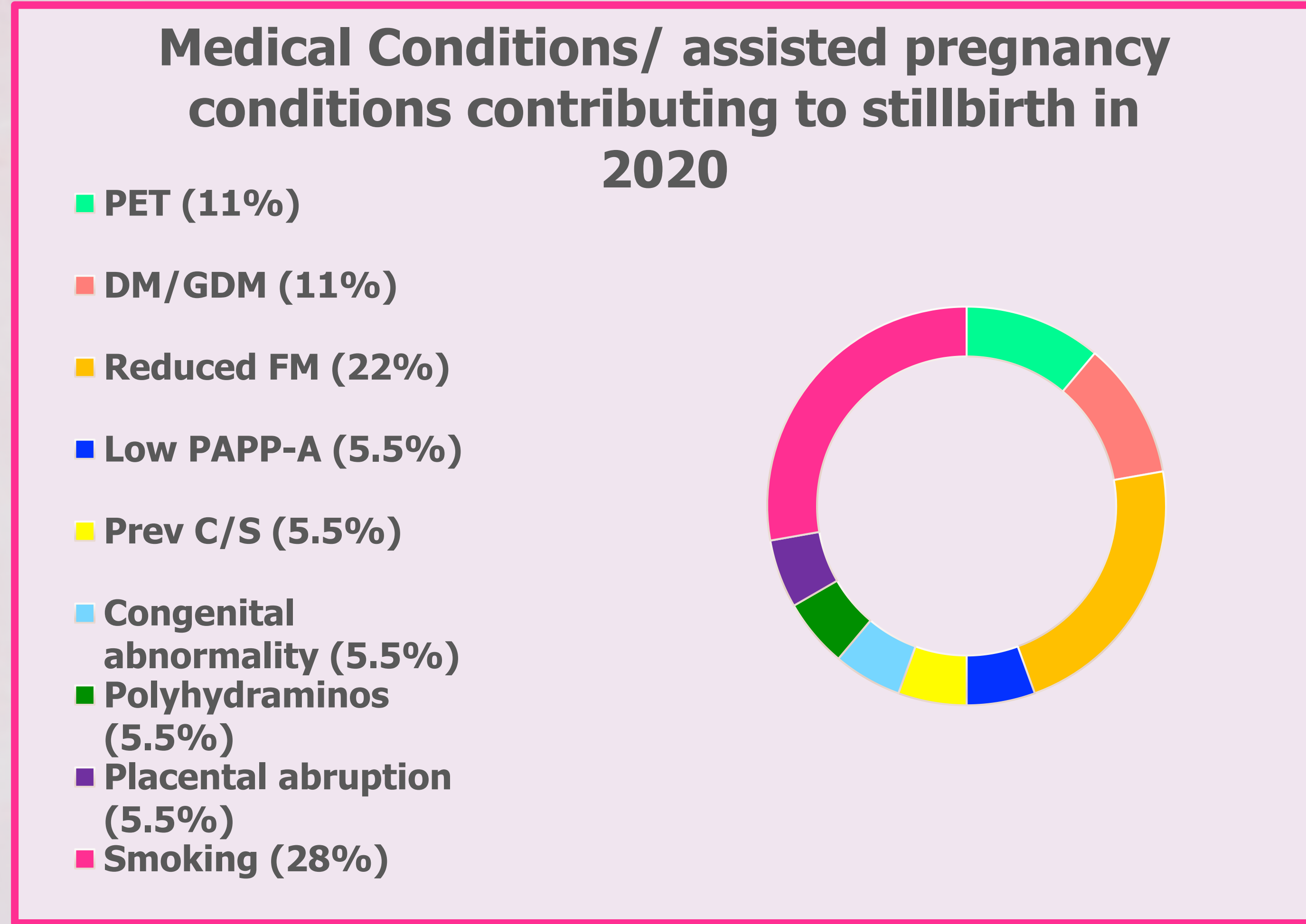
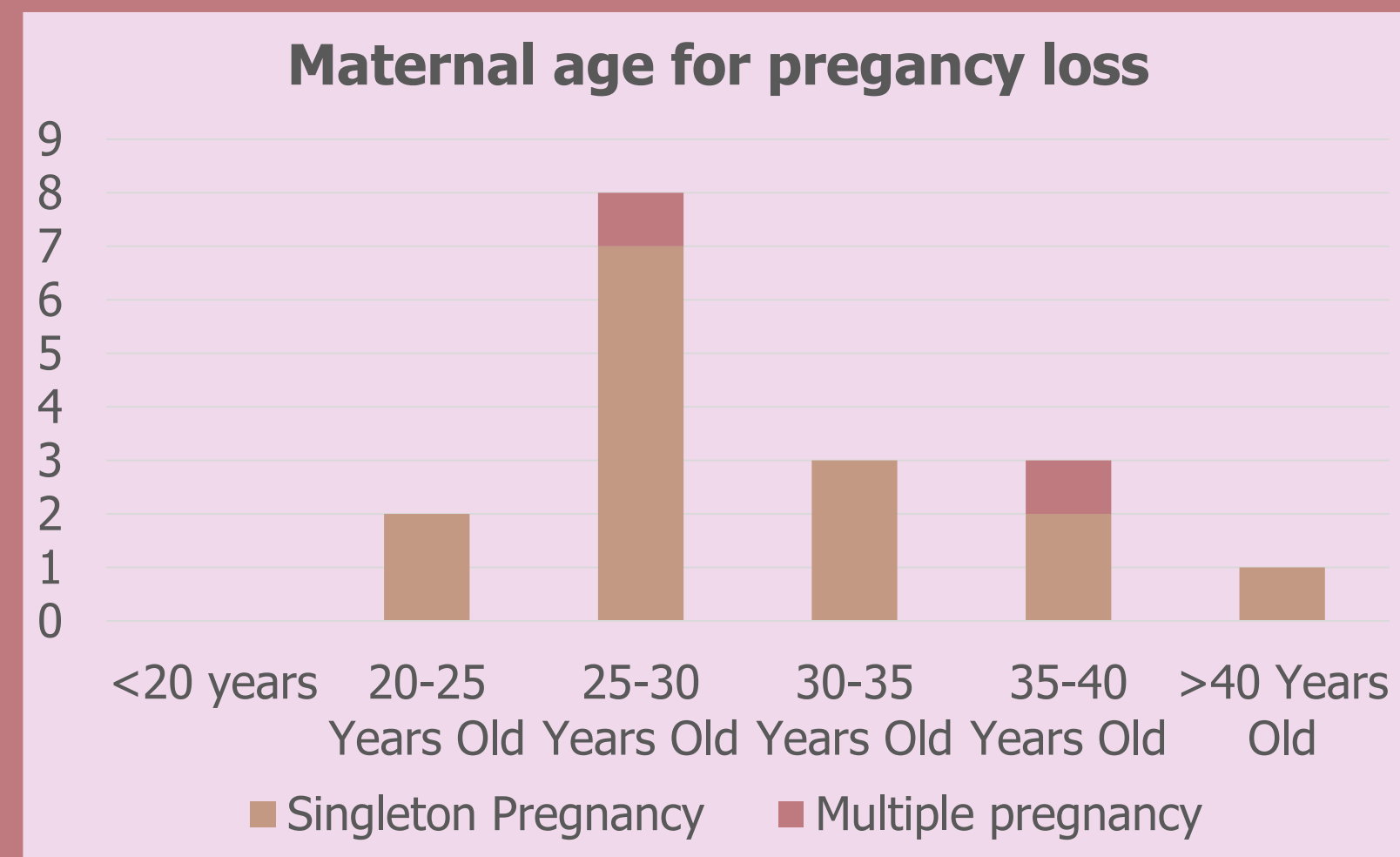
12% of the total stillbirths occurred in the minority ethnic / BAME group in 2021, and none in 2020.

Post mortem was offered in all cases. 98% of all families who have had a stillbirth undertook a post-mortem in 2020 compared to 88% in 2021. Placental histology uptake was 100% in 2020 and 2021.

The key themes in 2021 were reduced fetal movements and COVID-19 whereas in 2020 it was reduced fetal movements and smoking.

The presence of massive perivillous fibrin deposition, trophoblast necrosis and focal chronic intervillitis are features now found and being described in the setting of maternal COVID-19 infection. Massive fibrin deposition, affecting 30% or more of the placental parenchyma is associated with fetal death². Within our trust placental histological findings, evidence of massive fibrin deposition affecting as much as 85% of placental volume has been noted.

- Our trust has been proactive in the review of our standard operating procedure regarding COVID-19 in pregnancy and followed RCOG guidance closely.
- Covid 19 vaccination clinic been set up in antenatal clinic team to provide pregnant woman easy access to the COVID-19 vaccines.
- K2 electronic notes have been updated to include a more quantifiable data collection capability to monitor the number of pregnant women who had Covid 19 vaccination.
- Oxygen saturation monitors are being supplied to aid early detection of deterioration in women who have tested positive for Covid 19



Conclusion

COVID-19 has been found to be causative in 26% of the stillbirths and late fetal loss. During this period the trust utilised full-service capacity across both Doncaster and Bassetlaw hospital sites, unlike during the initial pandemic in 2020. It would be interesting to compare this data to the future MBRRACE data to see how the pandemic has affected the national stillbirth rate.

References

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