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A survey investigating the awareness of maternity staff to the environmental impact of Entonox

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Background

Inhalational anaesthetic agents use 5% of acute NHS hospital carbon footprint[1] of which nitrous use accounts for 75% of the total[2]. Our maternity department currently uses 20000L of nitrous per day. The NHS has committed to achieving net zero by 2040. Our study aims to investigate the level of awareness of maternity staff to the impact of Entonox on the environment.

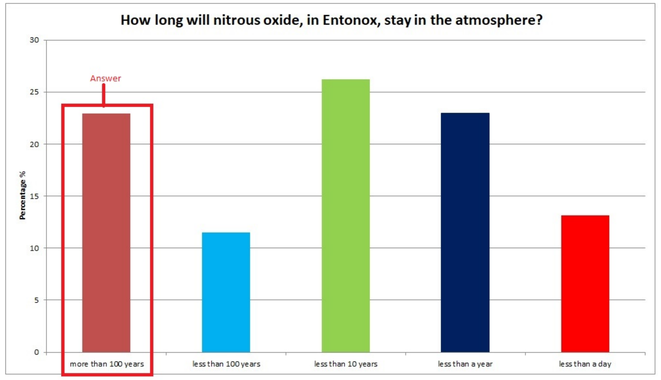
Methods

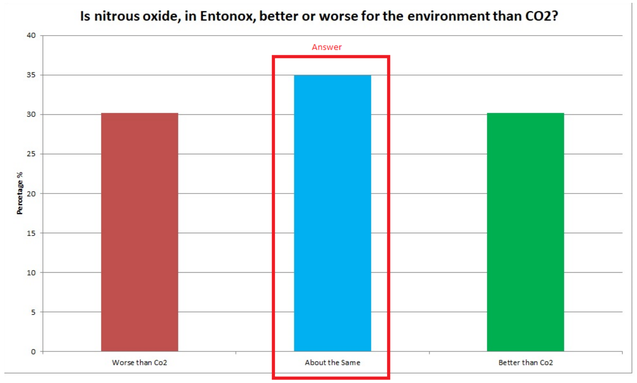
Literature reviewed and bespoke survey questionnaire created and trialled. Single site survey of all clinical staff in labour ward across 1 month. The data was quantitatively analysed on excel and qualitatively via thematic analysis.

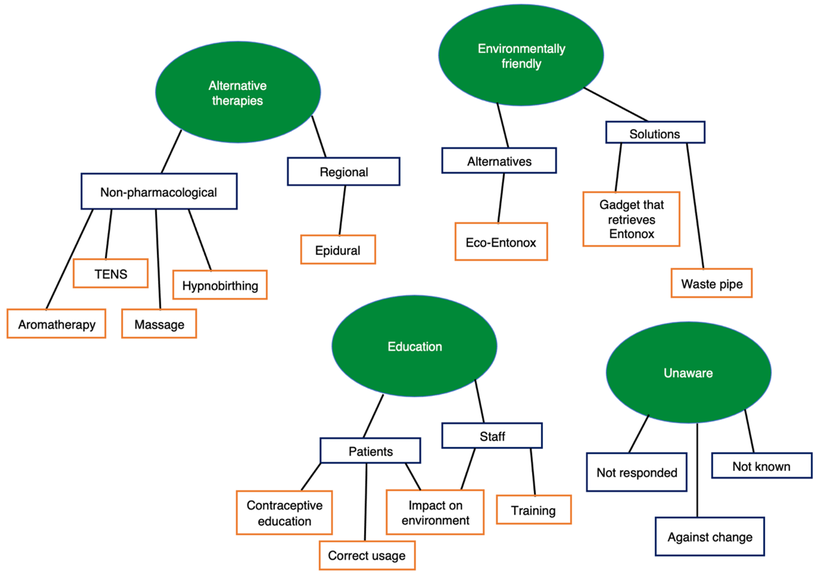
Results

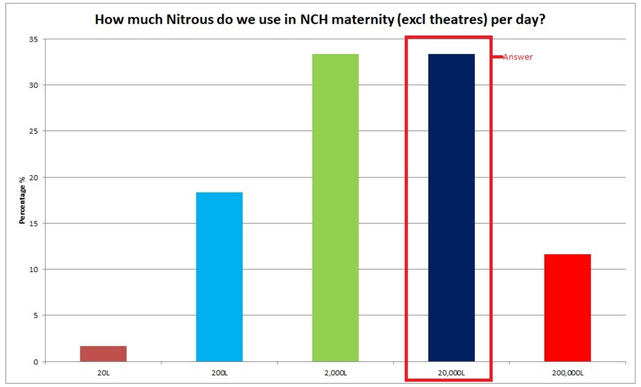
There were 63 responses, 79% (n=50) were midwives, who were trained in different regions of the UK. The majority felt average or informed about the environment, however 65% (n=38) did not know Entonox was as harmful to the environment as CO2 and underestimated the department's daily use of it by a factor of 10 (median=2000L/day).

The thematic analysis highlighted the need for improved education, for staff and patients, on Entonox's environmental impact and alternatives solutions.









Discussion

The findings are in corroboration with the literature that there is limited awareness of the environmental impact of N_2O[3]. This is important as to curb the hospitals' carbon footprint there has to be shared understanding of the environmental impact. This is commonly discussed at anaesthetic meetings but has not been translated to colleagues and allied professionals who also use anaesthetic agents. We are creating an animated video to disseminate to allied professions and colleagues to educate them about the impact of anaesthetic agents.

References

1) https://anaesthetists.org/Home/Resources-publications/Environment/Our-environmental-work/Why-it-matters-facts-figures

2) https://anaesthetists.org/Portals/0/PDFs/Environment/Nitrous%20waste%20methodology.pdf?ver=2021-04-26-115439-240

3) https://www.rcn.org.uk/news-and-events/blogs/combating-climate-change-the-view-from-maternity