must be given to privacy, and the time needed may be reduced if a smaller volume is required.

REFERENCES

1. Lachelin G, McGarrigle H, Seed P, Briley A, Shennan A, Poston L. Low saliva progesterone concentrations are associated with spontaneous early preterm labour (before 34 weeks of gestation) in women at increased risk of preterm delivery. BJOG 2009; DOI: 10.11 11/j.1471–052832009.02293.x.
2. Sy FS, Rhodes SD, Choi ST, Drociuk D, Laurent AA, Naccash RM, Kettinger LD. The acceptability of oral fluid testing for HIV antibodies. A pilot study in gay bars in a predominantly rural state. *Sex Transm Dis* 1998;25:211–5.

PL.56 | **THE CONSTRUCTION OF COMPUTATIONAL UTERINE MODELS FROM MRI DATASETS OF THE GRAVID UTERUS AND POST PARTUM UTERUS**

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Introduction Our study developed geometric structures of the full term gravid and post partum uterus from clinical MRI images to provide a computational model. These geometric models contribute to the *myometrial physiome concept*[1] and ultimately will quantitatively relate non invasive measures of uterine activity to the spaciotemporal activity of the myometrium during pregnancy. This will further develop our understanding of the physiology of labour.

Methods Uterine geometry was extracted from 94 clinical MRI images of the full term gravid uterus and 612 diffusion tensor MRI images of the post partum uterus removed by hysterectomy and treated with Syntocinon post delivery. We reconstructed the coordinates of each uterus within a computer visualisation package and produced a quantitative geometric reconstruction of the uterus in the pre and post partum state.

Results Three dimensional surface models of the *in vivo* full term gravid uterus and *ex vivo* post partum uterus were produced. Quantitative comparisons of the transverse, longitudinal and anteroposterior measurements of the uterine models with the uterine anatomy in the MRI images showed that the method of extraction was accurate and reliable. The results confirm that it is possible to produce a computational reconstruction of the geometric structure of the uterus from clinical MRI datasets which will be fully illustrated.

Conclusion Computational models provide an alternate research resource and have been integrated into patient assessment in Cardiology. The uterine equivalent must be further developed with the potential to increase our understanding of the physiological mechanisms in preterm and full term labour.

REFERENCE

1. Taggart, M. J., A. Blanks, S. Kharche, A. Holden, B. Wang and H. Zhang. 2007. Towards understanding the myometrial physiome: approaches for the construction of a virtual physiological uterus. *BMC Pregnancy Childbirth,* pS3.

PL.57 | **AUDIT OF MIDWIVES' KNOWLEDGE OF NEURAXIAL ANALGESIA IN LABOUR**

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Introduction Antenatal classes at our trust are delivered by midwives. During labour they are gatekeepers to mothers accessing different modes of analgesia. Advice to mothers should be accurate, void of misconceptions or bias. We audited midwives on their knowledge of neuraxial analgesia in labour.

Methods The Obstetric Anaesthetists' Association publication on labour analgesia was the standard for this audit.[1] Midwives were audited prospectively on a one to one basis.

Results Twenty seven midwives were audited. Only six perceived epidurals as the most effective analgesia in labour. Further results are depicted in Table 1.

Abstract PL.57 Table 1 Midwives' knowledge of side effects of epidurals compared to risk quoted in current guidance

Side Effect	Number of midwifes who knew this as a side effect (%)	Actual risk
Failure	20 (74%)	1 in 8
Long-term backache	5 (18.5%)	No increased risk
Increased risk of assisted delivery	26 (96.3%)	1 in 7
Temporary sensory loss	15 (55.5%)	1 in 1000
Increased risk of caesarean section	10 (37%)	No increased risk
Epidural abscess	9 (33.3%)	1 in 50 000
Adverse effects on baby	4 (14.8%)	No direct risk to baby

Discussion Neuraxial analgesia in labour is associated with favourable fetal acid base profiles.[2][3] This audit revealed a difference in knowledge amongst midwives compared with current evidence, potentially leading to mothers being misinformed on labour analgesia. A comprehensive education programme delivered by anaesthetists to midwives will address misconceptions and increase awareness on labour analgesia, ensuring mothers are provided with accurate evidence based information.

REFERENCES

1. Information for Mothers Subcommittee of the Obstetric Anaesthetists' Association. Pain Relief in Labour. 2012, third edition. www.oaaformothers.info
2. Jones L, Othman M, Dowswell T, et al, Pain management for women in labour: an overview of systematic reviews. Cochrane Database of Systematic Reviews 2012, Issue 3. Art. No.: CD009234. DOI: 10.1002/14651858.CD009234.pub2.
3. Reynolds F. Labour analgesia and the baby: good news is no news. International *Journal of Obstetric Anaesthesia* 2011;38–50.

PL.58 | **INCREASING THE NUMBER OF DELIVERIES AT KABUBBU HEALTH CENTRE, RURAL UGANDA, THROUGH COMMUNITY HEALTH EDUCATION. AN OBSERVATIONAL STUDY**

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Introduction Uganda has a maternal mortality ratio of 440/100,000 live births. With 60 million of the world's annual 130 million deliveries occurring at home it is imperative that we encourage women to deliver in a health facility as a means to reduce maternal mortality and achieve the millennium development goals. Research undertaken in Nepal looking at the impact of community health groups, facilitated by local women, to reduce maternal mortality has shown encouraging results. Through a series of community health education sessions we aimed to increase the number of women delivering at Kabubbu Health Centre (HC).

Methods Over the period of 3 months 6 community health education sessions were undertaken in the village of Kabubbu, rural Uganda. Women were invited to attend discussion groups on family planning, safe motherhood and obstetric complications. We compared the number of women attending the antenatal clinic and delivering at Kabubbu HC before and after the intervention.