demographic associations with increased risk of antepartum stillbirth. Adjusted hazard ratios (AHR) were:

- Low socio-economic status AHR 1.6 (95% CI: 1.2-2.1)
- Single mother AHR 2.0 (95% CI: 1.4-2.8)
- Maternal age over 40 years AHR 2.2 (95% CI: 1.4-3.7)

Women with a previous stillbirth, preterm delivery, or delivery of a low or high birthweight baby (< 2,500 g or > 4,500 g) were also at increased risk of antepartum stillbirth.

No association between antepartum stillbirth and maternal smoking, illicit drug use or BMI was found.

Risk of stillbirth was greater in:

- Multiple pregnancies AHR 3.3 (95% CI: 2.0-5.6)
- Pregnancies complicated by antepartum haemorrhage AHR 3.3 (95% CI: 2.5-4.5).

Prior essential hypertension, pregnancy-induced hypertension, preeclampsia and severe preeclampsia all increased risk too - AHR 3.98, 1.75, 3.23 and 5.53 respectively.

Those with fetal growth restriction (FGR) detected clinically, and then tracked either by ultrasound or serial abdominal measurements, had double the risk of antepartum stillbirth: AHR 2.1 (95% CI: 1.4-3.1).

Stillborn babies were more likely to be small for gestational age (SGA) at birth, 16.7% vs 3.5% for liveborn babies: AHR 4.6 (95% CI: 3.4-6.2).

In a sub-set of 4,607 women, considered at low risk for stillbirth, there were 18 antepartum stillbirths. There was no evidence of a decrease in growth velocity (measured by serial ultrasound head and abdominal circumference) in those who went on to be stillborn. They were 'almost all within the 3rd and 97th centiles'.

Antepartum stillbirth is a complex and diverse syndrome. This study showed that poor fetal growth and SGA at birth, particularly when not suspected during pregnancy are associated with antepartum stillbirth. Serial ultrasound examinations in low-risk women failed to identify pregnancies at risk.

The study authors state: 'Our findings reinforce recommendations to improve the detection and management of hypertensive disorders of pregnancy and other pregnancy conditions including the association with FGR.'

They add: 'The promotion of interventions that are targeted at only one risk factor is unlikely to make a large impact on rates of antepartum stillbirth. Combinations of risk prediction models, biomarkers and growth trajectories could help to identify women at risk of specific forms of stillbirth.'

DR CHRIS BARCLAY

Hirst JE, Villar J, Victora CG et al. The antepartum stillbirth syndrome: risk factors and pregnancy conditions identified from INTERGROWTH-21st Project. *BJOG* 2016; DOI: 10.1111/1471-0528.14463

Sexual health

GP vs clinic care for people living with HIV

Around 60% of people living with HIV would choose GP care in preference to an HIV clinic, a UK study has found.

The researchers carried out a discrete choice experiment in which people living with HIV were asked to choose between an appointment with a GP or an HIV clinic. Participants were given a scenario where they had to imagine they were on antiretroviral therapy and had been feeling well for the previous three months, but became unwell on the day of the study. They were given a set of contrasting attributes, supported by evidence, including: skills in managing many medical problems, ability to refer on to other healthcare professionals, accessibility, and continuity.

A total of 1,106 questionnaires were returned and participants completed 97.6% of responses. More than a third (38%) of respondents were aged 50 or over, 85% were men, 74% white and 69% men who have sex with men. More than 95% were registered with a GP, 87% said that they had disclosed their status to their GP, and 74% said that their GP knew their sexuality.

Participants were divided into two categories based on their responses. Those in class 1 (59%) preferred GP to HIV clinic appointments when all other factors were disregarded (OR 4.39 (95% CI: 3.82-5.10). They valued timely appointments in particular, out of hours services, and were less concerned about how many times they had previously seen an HIV specialist or if they had seen their GP twice or less in the previous year (P > 0.05 in both instances). They strongly preferred GPs whom they had seen more than twice in the past year OR 2.72 (95% CI: 1.86-3.99) and who had received specialist HIV training OR 3.22 (95% CI: 2.45-4.24).

Participants in this group also preferred HIV consultants of all the options for an HIV clinic appointment OR 2.98 (95% CI: 2.14-4.14), and appointments where the GP OR 1.96 (95% CI: 1.55-2.48) or HIV professional OR 1.96 (95% CI: 1.49-2.57) had all their clinical information available.

Participants in class 2 (41%) placed greater value on HIV clinic than GP appointments when all other factors were disregarded OR 3.63 (95% CI: 3.20-4.11). They too preferred shorter waiting times for appointments. They were indifferent as to how many times they had seen their GP over the past year, but valued having seen their HIV specialist at least once in the previous year compared with not at all. Although their preferences for GP appointments were low, they had a strong preference for appointments with GPs with training in HIV. They also valued their HIV specialist having access to all their clinical information compared with partial information OR 1.59 (95% CI: 1.30-1.95) but not their GP OR 1.07 (95% CI: 0.84-1.36).

A multivariable analysis suggested that those who were in perfect health OR 1.56 (95% CI: 1.16-2.11) and those who had disclosed their status to their GP OR 2.31 (95% CI: 1.45-3.67) were more likely to be in class 1 than class 2.

Like other patients with long-term conditions, people living with HIV value continuity of care, timely access to a GP and healthcare professionals having up to date information about their care.

DR RICHARD MA

Miners AH, Llewellyn CD, Cooper VL et al. A discrete choice experiment to assess people living with HIV's (PLWHIV's) preferences for GP or HIV clinic appointments. *Sex Transm Infect* 2017;93:105-11

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