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Background

- There has been a dramatic expansion in the congenital heart disease (CHD) population of child-bearing age.
- Pregnancy represents a period of increased risk for women with CHD.
- Planned Caesarean section may not confer any advantage over planned vaginal delivery.
- Population data of current practice are necessary to inform guidelines and patient consultations.

Methods

- Pregnant CHD patients were identified using CHD (ICD-10 “Q2”) and pregnancy (OPCS-4 “R0-9”, “O13-15”, “Q1”; ICD-10 “O0-9”) codes.
- Where possible, CHD was classified as “simple”, “moderate” or “complex”.
- Linear regression analysis was performed ($p < 0.05$).
Baseline characteristics & results

- From 1997 to 2014, 28,692 delivery episodes occurred in 16,728 CHD patients.
- The median age was 28 (range 13 – 52 years).
- When classified by CHD complexity:
  - 60.3% had a simple defect
  - 31.4% had a moderately complex defect
  - 8.3% had a greatly complex defect
- By delivery method, in patients with classifiable lesions:
  - 50.1% had spontaneous vaginal delivery
  - 11.5% had instrumental delivery (forceps, vacuum-assisted)
  - 38.3% had a Caesarian section
Delivery episodes by disease complexity 2007-14

* $p < 0.00001$ (linear regression analysis)
Method of delivery by CHD complexity
pre- and post-2007
Conclusions & further work

• While pregnancy can carry risks in CHD patients, an increasing number of patients have successful pregnancies.

• Although Caesarean section is indicated for a minority of patients, the practice appears to be more common than in the general population.

• Its use has not decreased over time.

• Further analysis of the hospital statistics database for England by our group aims to establish current outcomes in CHD patients undergoing pregnancy and non-cardiac surgery.