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## CHILDHOOD CLINICAL OUTCOMES OF CHILDREN BORN WITH GASTROSCHISIS FROM A NATIONAL-POPULATION BASED COHORT

Anna-May Long[1], Sean Marven[2], Jenny Kurinczuk[1], Marian Knight[1]
*[1]National Perinatal Epidemiology Unit, Oxford, UK, [2]Sheffield Children's Hospital, Sheffield, UK*

**Aim of the Study**: To describe the childhood clinical outcomes of children with gastroschisis born 2006-2008 from a UK national population-based cohort and to identify any outcome differences between children born with simple and complex gastroschisis and by method of early surgical management.

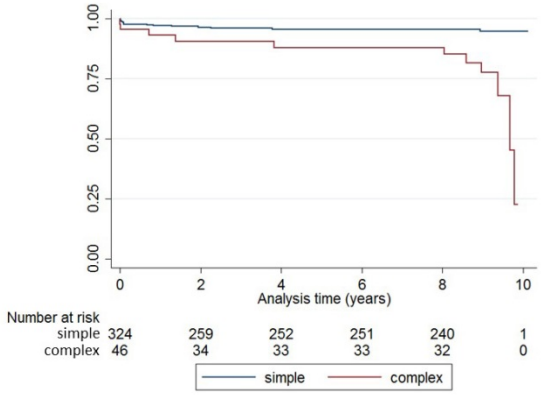
**Methods:** With research ethics approval (ref:12/SC/0416), outcome data were collected from 23 paediatric surgical centres in the UK participating in BAPS-CASS. The incidence of binary outcomes was estimated as the proportion of infants with a given outcome from the total number with complete follow-up data for that outcome. Log-rank testing was used to assess outcome differences between the groups.

**Main Results:** 276/365(76%) of eligible infants with a median age of nine years had long-term outcome data. Survival data were available for 77%(292/377). Seventeen children had died, all before their fourth birthday (17/292, 6%); 10% had adhesion-related bowel-obstruction (28/283); 15% developed acquired bowel obstruction from any cause (41/283); and 44% of children were readmitted to hospital after initial discharge (122/278).

Children with complex gastroschisis had poorer childhood outcomes than those with simple with regard to: the need for intestinal augmentation (transplant or bowel-lengthening), (7/34 vs 2/242, p<0.0001), severe sequelae of intestinal failure (IF), (IF related death, organ transplant or bowel-lengthening), (8/34 vs 2/244, p<0.0001) or any severe outcome (death from any cause or severe sequela of IF), (11/38 vs 14/266, p<0.0001), (Figure 1.). Children whose umbilical defect was not sutured were more likely to have had umbilical hernia repair compared to those in whom it was closed with stitches or a patch (5/50 vs 6/182, p=0.03).

**Conclusion:** Death after birth with gastroschisis occurs early in life and is a rare occurrence in the UK. Complications that affect the bowel in utero have important consequences for later life. Future work should focus on how to prevent and manage these.

Figure 1. Kaplan-Meier graph showing the event-free survival for the composite outcome 'any severe adverse outcome'* in children with simple and complex gastroschisis




*Death from any cause, organ transplantation or bowel-lenthening procedure