The development of laparoscopic gastrectomy has lead to a need for intracorporeal stapled oesophageojunostomy. Described techniques include overlap with a linear stapler and oral insertion of the anvil of a circular stapler. At our unit, we use a novel technique for laparoscopic oesophageojunostomy by laparoscopic insertion of anvil into the gastrointestinal tract. Here we present our outcomes from laparoscopic oesophageojunostomy performed by the anvil suture pull-through technique.

Methods
After attaching a suture to the end of the spike of the anvil of a circular stapler, the anvil is inserted into the gastrointestinal tract through a proximal gastrotomy and pushed into the distal oesophagus. The oesophagus is divided below the anvil with a linear stapler. The suture poking out of the staple line is pulled and a small incision is made to allow the spike of the anvil to be delivered. The body of the circular stapler is inserted into the jejunum and combined with the anvil before firing the stapler and completing the double-stapled anastomosis. Intracorporeal oesophageojunostomy using this technique was performed during laparoscopic proximal and total gastrectomy between 1998 and 2011.

Results
A total of 82 anastomoses were performed using the anvil suture pull-through technique as part of 35 total and 47 proximal gastric resections for gastric cancer. 69 patients (84%) had early gastric cancer. Anastomotic leakage occurred in three patients (3.7%) and stenosis occurred in seven patients (8.5%). Post-operative stasis occurred in one patient (1.2%). No anastomotic bleeding was encountered. Recurrence at the site of the anastomosis was not detected during routine follow-up endoscopy in any of the patients.

Conclusion
Intracorporeal oesophageojunostomy using our anvil suture pull-through technique is feasible, safe and associated with good outcomes in the context of early gastric cancer. It is a reliable first-line technique and a useful alternative strategy when overlap is not possible or oral anvil insertion is contraindicated.
Introduction Rotavirus is the most common cause of severe diarrhoea among infants and young children. Rotavirus is usually an easily managed disease of childhood, but worldwide nearly 500 000 children under 5 years of age still die from rotavirus infection each year and almost two million more become severely ill. Rotavirus A (responsible for about 90% of infections) is typically diagnosed by finding the virus in the child’s stool by enzyme immunoassay. This study was undertaken to expand our knowledge of VOCs from the stool of children and assess whether rotavirus causes easily measurable changes in the gut chemistry of infected young children.

Methods The volatile organic compounds (VOCs) from the stool of 53 children from Malawi (26 non-infected children with an unspecified GI problem and 27 rotavirus children diagnosed with the virus) were analysed using Headspace Trap-GC/MS. The faecal samples were placed in headspace vials and were heated from frozen to 90°C. The VOC’s were preconcentrated and focused prior to GC/MS analysis. Those VOCs were identified by comparing their mass spectra with those contained in the NIST/EPA/NIH Mass Spectral Database.

Results A total of 186 different compounds have so far been identified. Of the 53 stool samples ethanol was found in 69% and 63% samples respectively between the non and infected classes, which contrasts with previous work where ethanol was found in all healthy adult and all healthy neonate stool. This could be due to the more dilute stool due to diarrhoea. Carbon disulphide has previously been found to be ubiquitous in healthy adult stool, again the frequency was much less at 27% and 22% respectively. In contrast the majority of samples contained ethanoic acid, with more samples in the rotavirus group. There were very little differences in the frequency (ca. 92%) and abundance of ethanol in both sample classes, curiously ethanol has been previously shown to be present in all adult samples and absent in neonates. In contrast 2,3-butanedione and other aldehydes were significantly present both at greater frequency and typically at higher concentrations in rotavirus samples compared to non-rotavirus samples, see Abstract PWE-169 figure 1.

Conclusion Very little work has been published on volatile compounds from stool in particular from the stool of children, this work adds to this knowledge. Some compounds such as ethanol were found in approx. equal amounts in the diarrhoea of infected and non-infected stool, however in general there was a greater frequency and abundance of VOCs in the rota infected samples, particularly of aldehydes and 2,3-butanedione.

Competing interests None declared.