Gastroschisis

- 1 – 5 per 10,000 livebirths.
- Simple (90%) or Complex (10%).
- Complex features include intestinal atresia, perforation, bowel necrosis, volvulus, liver herniation.
- Survival rates exceed 90%, complex defects carry a poor prognosis.
- These infants can lose a large amount of fluid and heat through exposed bowel.
- Preterm delivery is associated with longer hospital stay and increased time to full enteral feeds.
- Morbidity is related to gastrointestinal, respiratory, and infectious disease complications in the neonatal period.
- Delivery by LSCS does not appear to decrease mortality.

- Defect of the anterior abdominal wall to the right of the umbilicus through which bowel herniates without a covering sac.
- Surface of the bowel rapidly becomes oedematous after 4-6 hours.
- Delivery should be planned in one of the three Dublin maternity hospitals with access to paediatric surgery and ICU. Where delivery is anticipated the surgical team in the paediatric hospital should be contacted in advance.
- Wrap abdomen in cling film immediately following delivery. Avoid hypothermia.
- Keep NPO and site NGT on continuous low pressure drainage/free drainage with frequent aspiration.
- Commence maintenance fluids at rate of 100mls/kg/day with a low threshold for bolus as increased risk of hypovolaemia.
- Monitor temperature and blood pressure closely. Nurse in incubator and consider exothermic mattress.
- Contact PICU hotline to arrange immediate transfer.
- Initial investigations include septic work up and blood gas.
- Commence broad spectrum antibiotics and consider ventilation prior to transfer.

- Incidence of gastroschisis is increasing worldwide for uncertain reasons.
- Highest prevalence in whites and births to women under age 20 years.

- Cotton wool covering or use of moist wet packs is contraindicated.
- Gentle manipulation of bowel is advised if bowel appears ischaemic (purple/black) which may include rotating bowel on its pedicle.
- Transfer to a surgical unit is recommended immediately following delivery to arrange further management.
- Controversy exists between primary closure versus use of preformed silos with subsequent repair.
References:

2. UpToDate

This care pathway has been produced by the National Paediatric and Neonatology Clinical Programme. It is aimed at medical, nursing and allied health professionals working in Irish neonatal units.