Introduction:
Anesthetizing neonates in Tamale teaching hospital in rural northern Ghana, West Africa, presents many challenges to the provider and is associated with frequent complications. Most newborns presenting for repair of gastroschisis or omphalocele have significant co-morbidities, the commonest being infection and dehydration. However, the hospital currently lacks resources to properly treat such neonates, resulting in high perioperative morbidity/mortality. Further harm results from inappropriate locally-held beliefs, superstitions and non-proven intervention by traditional healers delaying presentation.

Objectives:
To define the many challenges and complications that contribute to the observed high perioperative morbidity and mortality among gastroschisis/omphalocele neonatal patients at Tamale teaching hospital.

Methods:
Data were prospectively collected over a 6-month period for all neonates presenting for repair of gastroschisis/omphalocele under general anesthesia at Tamale teaching hospital. Details recorded included: gestational age at birth, birth weight, APGAR scores, age and weight at presentation, presence of identifiable co-morbidity including other congenital anomalies, pre-operative resuscitation, anesthetic technique, intraoperative and early post-operative complications, and overall mortality.

Results:
Seven neonates with ages between 2-7 days presented during the 6-month study period. Four were females and five preterm neonates (gestational age <37 weeks at birth). Three infants were infected at presentation (febrile, irritable and raised white cell count); four were 5-10% dehydrated and resuscitated with isotonic crystalloid fluid preoperatively. Three neonates died within 24 hours of admission without undergoing anesthesia due to presumed sepsis, circulatory collapse and hypoxia. Four infants underwent surgical repair and three survived until discharge from hospital; one died on the eighth post-operative day due to overwhelming sepsis. Resource deficiencies identified included: inadequate funding of neonatal care, inconsistencies in delivery of reliable critical care e.g oxygen, fluids and antibiotics, paucity of appropriately trained personnel and scarce laboratory facilities.

Conclusion:
Peri-operative mortality of 57% reflects the many barriers to providing optimal perioperative care of neonatal gastroschisis and omphalocele, which currently exist at Tamale teaching hospital. Local beliefs that hospitals are a place of last resort for the dying results in potentially life-threatening delay in presentation and positive reinforcement of this self-fulfilling prophecy.

References:
5) Molyneux E. Paediatric emergency care in developing countries. Lancet 2001; 357: 86-87