Background and aims Management of severe pneumonia and malnutrition relies on hospital-based treatment but practical barriers often prevent children in areas with highest disease burden from receiving hospital care. A RCT compared clinical and cost of Day Care Approach (DCA) of management with that of hospital management.

Methods Children aged 2–59 months with severe pneumonia with severe malnutrition received either DCA at outpatient clinic with antibiotics, micronutrients, diet and supportive treatment from 08:00–17:00 daily, while mothers were educated on continuation of care at home, or hospital care with similar 24-hours treatment.

Results Four hundred seventy children aged 12.2 (8.8) months were equally assigned randomly to either DCA or hospital care, 13% had hepatomegaly and 11% had hypoxemia. The durations of day care and hospital were 7.9 (5.5) and 7.1 (3.1) days, respectively. Successful management was possible for 184/235 (78.3% (95% CI 72.6–83.1%)) in DCA and 201/235 (85.5% (95% CI 80.5–89.5%)) in hospital. Thirty-six (15.3% (95% CI 11.3–20.5%)) in DCA and 22 (9.4% (95% CI 6.3–13.8%)) in hospital required referral to hospitals. There were no deaths among DCA, however, 2 [0.9% (95% CI 0.2–3.0%)] died in hospital. The average cost of treatment per episode per child was 165 US$ for DCA and 256 US$ for hospital.

Discussions Severe pneumonia with severe malnutrition can be treated successfully and safely at reduced cost by DCA, but as effectively as hospital care, which can have an enormous impact in countries where recourses are scarce and hospital beds are limited for inpatient treatment.

ESPNIC – Young Investigators Presentations

O-209 CONTINUOUS INCISIONAL LIDOCAINE INFUSION IN PAEDIATRIC PATIENTS FOLLOWING OPEN HEART SURGERY

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Study objective To evaluate the efficacy of local incisional lidocaine infusion after heart surgery.

Methods Observational prospective study including post cardiac surgery children in whom a 0.5% lidocaine elastomer was intra-operatively placed within the surgical wound. Lidocaine doses and plasma levels 48 h after administration, adverse effects, additional analgesic or sedative drugs and analgesia and sedation score were registered. All patients received intravenous metamizol and paracetamol.

Results 105 patients were analysed. Median age was 66 months, with 21% of patients under 2 years of age. The most frequent surgical interventions were: Fontan surgery (26.2%), atrial septal defects (20.4%) and ventricular septal defects (10.7%).

Median lidocaine administration duration was 58 h, 52.4% received fentanyl infusion (mean dose 1 mcg/kg/h, mean duration 24 h), 18.1% received midazolam infusion (1.5 mcg/kg/h, 8 h) and 12% received propofol (1.5 mg/kg/h, 4 h). Mean comfort score was 21.8 points and mean analgesia score was 1.9 (62% of patients required additional analgesia).

Fentanyl infusion was less often needed in patients over 2 years old than in younger patients (45.8% vs. 77.3%; p = 0.015). Midazolam infusion was also less often required in patients over 2 years old (15.3% vs 36.4%; p = 0.025).

Lidocaine plasma levels were recorded 48 h after administration in 66 patients, 46% (n = 31) were within therapeutic range (1.4–5 mcg/ml). No important side – effects attributable to lidocaine were observed.

Conclusions Incisional analgesia with lidocaine is safe and effective after cardiac surgery. Children over 2 years of age require less additional analgesia and sedation.