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EARLY VERSUS LATE CORD CLAMPING: NEONATAL OUTCOMES AND IRON STATUS AT 4 MONTHS IN SWEDISH INFANTS

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Background and aims: Delayed umbilical cord clamping is associated with improved iron status in infants, but there are conflicting results regarding the risks of neonatal jaundice. There is a lack of long-term studies evaluating effects from time to umbilical cord clamping in European countries.

Aim: Does the time for umbilical cord clamping affect iron stores in Swedish 4 month infants?

Methods: We performed a randomized controlled trial investigating effect of early (< 10 sec) versus delayed (>180 sec) umbilical cord clamping in 400 full-term normal deliveries. Blood sampling was performed at 2-3 days of age and at 4 months of age.

Results: Infants subjected to delayed (as compared to early) clamping had higher neonatal hemoglobin. There were no differences in need for phototherapy.

At four months of age, the early clamped group had lower ferritin, and a increased prevalence of iron deficiency (defined as at least 2 abnormal iron status indicators).

	Early clamping N=189	Delayed clamping N=193	p value
Neonatal data: Birth weight, g	3533 (±486)	3629 (±460)	0.049
Hb, g/L	175(±19)	189(±17)	<0.001
Bilirubin, > 275 µmol/L, N (%)	3 (2.3)	2 (1.5)	NS
4 month data: Ferritin < 20 µg/L, N (%)	13 (7.4)	0 (0)	<0.001
Iron deficiency, N (%)	10 (5.8)	1 (0.6)	0.01

[Table 1]

There were no differences in hemoglobin levels or in the prevalence of anemia.

Conclusions: Delayed cord clamping is not associated with increased risk for

hyperbilirubinemia at term, and improves indicators of iron stores at 4 months of age.

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DAY-CARE AND HOSPITAL MANAGEMENT OF SEVERE CHILDHOOD PNEUMONIA IN DHAKA, BANGLADESH: A RANDOMIZED CONTROLLED CLINICAL TRIAL

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Background and aims: Hospital-based management is recommended for severe childhood pneumonia, which is often not possible due to practical barriers in countries with highest disease burden. After success of non-randomized day-care management at ambulatory treatment facility as an effective alternative to hospitalization, a randomized-controlled trial compared day-care management of severe pneumonia with hospital-care.

Methods: Children aged 2-59 months with severe pneumonia were randomized to receive either day-care with antibiotics, feeding and supportive cares from 08:00-17:00 daily, or hospital-care with similar

treatment for 24-hours daily from admission until discharge.

Results: From 2006-2008, 360 children were randomized to receive either day-care or hospital-care, 189 (53%) of whom were hypoxaemic with mean (SD) oxygen saturation of 93 (4)%, which increased to 99 (1)% after oxygen therapy. The mean (SD) duration of day-care and hospital-care were 7.1 (2.3) and 6.5 (2.8) days. Successful management was possible in 156/180 day-care children [87.7% (95% CI 80.9% to 90.9%)] and 173/180 hospital-care children [96.1% (95% CI 92.2% to 98.1%)] ($p=0.001$). Twenty-three day-care children [12.8% (95% CI 8.7% to 18.4%)] and four hospital-care children [2.2% (95% CI 0.9% to 5.6%)] required referral to hospitals ($p<0.001$). During follow-up, 22 day-care [14.1% (95% CI 9.5% to 20.4%)] and 11 hospital-care children [6.4% (95% CI 3.6% to 11%)] required re-admission to hospitals ($p=0.01$). The estimated cost per child treated successfully at clinic and hospital were US\$ 114 and 178.

Conclusion: Severe childhood pneumonia without severe malnutrition can be successfully managed at day-care clinics, less expensively but as effectively as hospital-care.

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A RANDOMIZED CONTROLLED TRIAL OF RSV PROPHYLAXIS WITH MOTAVIZUMAB VS PALIVIZUMAB IN YOUNG CHILDREN WITH HEMODYNAMICALLY SIGNIFICANT CONGENITAL HEART DISEASE

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Aims: To describe the safety and tolerability of motavizumab vs palivizumab for prophylaxis of serious respiratory syncytial virus (RSV) disease in children with hemodynamically significant congenital heart disease (hs-CHD).

Methods: This randomized, double-blind, palivizumab-controlled multinational study was designed as a safety study (primary endpoint) and was not powered for efficacy. Secondary endpoints included the incidence of RSV hospitalization (2

seasons) and RSV outpatient medically attended lower respiratory infection (MALRI, 1 season). Patients aged ≤ 24 months with hs-CHD ($N=1236$) were enrolled and stratified by study site and cyanotic status. Five monthly doses of palivizumab or motavizumab were administered during RSV season. Nasal secretions obtained following cardiac/respiratory hospitalizations and outpatient LRIs were tested for RSV by real-time RT-PCR.

Results: Mortality was low ($< 2\%$) and similar between groups. Motavizumab-treated cyanotic patients showed no tendency for increased mortality/morbidity compared with palivizumab. Adverse events (AEs) and serious AEs were similar with the exception of ~ 3 percentage point increase in skin and subcutaneous tissue AEs in motavizumab recipients compared with palivizumab. Generally, skin AEs were transient and did not recur after subsequent doses. Rates of RSV hospitalization and RSV outpatient MALRI were similar between treatment groups (relative risk [RR]: 0.746; 95% CI=0.344-1.586 and RR: 0.495; 95% CI=0.101-1.989, respectively, $P=NS$ for both).

Conclusions: Motavizumab and palivizumab had similar safety profiles in children ≤ 24 months with hemodynamically significant CHD; however, skin events were increased in motavizumab recipients. Safety and efficacy were consistent with another study comparing motavizumab with palivizumab in premature infants without CHD.

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FACTORS INFLUENCING THE RATE OF H1N1 VACCINE UPTAKE BY FRONTLINE HEALTHCARE STAFF IN A UK CHILDREN'S HOSPITAL

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Background: During the recent H1N1 pandemic all front-line healthcare staff in the UK were offered vaccination as part of a nationwide programme.

Aims: To assess factors influencing uptake of the H1N1 vaccine in a large Children's Hospital.

Setting: Acute medical wards, Accident and Emergency Department (A&E), Neonatal (NICU),