PS-144   PERFORMANCE OF CLINICAL PREDICTION RULES IN YOUNG FEBRILE INFANTS AT THE EMERGENCY DEPARTMENT

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Background Clinical prediction rules (CPRs) are developed to aid the identification of serious infections (SI), but their value in young febrile infants remains unclear.

Aim To systematically review existing CPRs and subsequently validate these CPRs in two external cohorts of young febrile infants at risk for SI in the Netherlands[1] (N = 925; ≤1 year) and Spain[2] (N = 2148; ≤3 months).

Methods We included seven multivariable developed CPRs for febrile children to predict SI, including clinical predictors and/or diagnostic tests results. CPR performance was assessed by sensitivity, specificity, calibration analyses and area under the receiver operating characteristic curve (AUC).

Results All CPRs (including 19 different predictors) originally performed moderate-good (AUC0.60–0.93). The original cohorts, with SI prevalence variation of 0.8–27%, varied between 381 and 5279 febrile children. Almost all CPRs were derived in emergency care populations including wide age ranges of 0–16 years.

Validation of CPRs missing ≥2/3 of the required variables was not performed, resulting in limited evaluation of two CPRs including eg capillary refill time and vital signs (heart/respiratory rate) in the Spanish cohort.

Four out of 7 CPRs showed acceptable ROC-areas (0.76–0.89) in both cohorts. Sensitivities of CPRs predicting high/low risks ranged from 0.60–0.93 and specificities from 0.71–0.97. Three CPRs were non-informative (AUC 0.49–0.53). Calibration slopes were mostly <1, which could indicate overestimation of predictor effects in young febrile infants.

Discussion and Conclusion Four (out of 7) CPRs showed comparable performance in the identification of SI in infants ≤1 year, although with more emphasise on their rule-in value (specificity). However, predictor effects were generally overestimated.

PS-145   PRETERM INFANTS TRANSPORTATION BETWEEN TERTIARY CARE CENTRES (TCC) WITHIN FIRST HOURS OF LIFE: RESTROSPECTIVE COHORT STUDY

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Introduction Regionalization in perinatal care improved neonatal survival for 2 decades. Perinatal transport is known to be a bad prognostic factor for preterm neonates born in second level centres. No data exist for babies born in TCC who had to be transferred to other TTC. We evaluate short term clinical outcomes of preterm infants transferred between TCC.

Abstract PS-145 Table 1

Clinical features	Cases	Controls	OR for transfer	P value
RDS	35 (56.5%)	33 (53.2%)	1.1 (0.5-2.3)	0.718
IRRF	4 (6.5%)	5 (8.1%)	0.8 (0.2-3.1)	0.730
Air leaks	2 (3.2%)	1 (1.6%)	2.0 (0.1-23.0)	0.567
Hypotension	1 (1.6%)	1 (1.6%)	1.0 (0.1-16.0)	0.999
Outcomes	Cases	Controls	OR for transfer	P value
IVH > 2	3 (4.5%)	2 (3.2%)	1.5 (0.2-9.4)	0.650
PVL	5 (8.1%)	4 (6.5%)	1.3 (0.3-5.0)	0.730
NEC	1 (1.6%)	1 (1.6%)	1.0 (0.1-16.0)	0.999
BPD	6 (9.7%)	5 (8.1%)	1.2 (0.3-4.2)	0.752
	Cases	Controls	β for transfer	P value
NICU Stay (days)	8 [4-34]	9 [5.8-16]	6.4 (-1.3 - 14)	0.103

Methods We retrospectively analysed all neonates aged ≤32 weeks gestation transferred before 6 h of life from the South Paris University Hospitals to another TCC. Transfer was due to organisational problems. Control group consisted of neonates born the month before or after the cases and matched for gestational age, birth weight and CRIB-II. Simple linear and logistic regressions were used for analysis.

Results We included 60 cases and 60 controls. The two groups were similar for basic clinical characteristics. No difference in clinical features (RDS, infection related respiratory failure, air leaks, hypotension) were present between the groups (Table 1). Early outcomes (IVH, periventricular leucomalacy, NEC, BPD and NICU stay) rates were not influenced by the transfer transport ((Table 1)

Conclusions Perinatal transfer for preterm babies born in a TCC is not a negative prognostic factor. It is conceivable that optimal care in delivery room is a keystone for better outcome.

PS-146   THE LOW RISK ANKLE RULE CAN SAFELY BE APPLIED TO A UK PAEDIATRIC POPULATION

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Background and aims Ankle injuries (AI) are a common presentation to Paediatric Emergency Departments (PED). The Low Risk Ankle Rule (LRAR) is a validated clinical decision to determine grounds for radiography. It identifies swelling and tenderness isolated to the distal fibula and adjacent lateral ligaments distal to the anterior tibial joint line as low-risk; where ankle radiography (aXR) is not necessary to further exclude injury. The primary outcome is to evaluate LRAR in PED; with secondary aim to determine potential cost-savings.

Method LRAR was applied retrospectively to all paediatric aXR performed over 6-months (1/04/13–1/10/13) following presentation to PED with an AI. Data was accessed using Electronic Patient Records.

Results 311 aXR were performed of which 175 had sufficient data to be included in the study. Applying LRAR, 110 children fit the low-risk group (LRG.) Thus 110 unnecessary aXR were performed (62.86% reduction,) producing savings of £1,650. Within the LRG 8 fractures were confirmed but required no treatment beyond short-term below knee Plaster-Of-Paris, Aircast® boot or equivalent. 3 received no treatment or follow-up. There were 26 fracture clinic referrals from the LRG. All 21 non-fractures were discharged at initial follow-up. The confirmed fractures were all discharged by second follow-up.