

C L I P P I N G S

Serum sodium concentration and mental status in children with diabetic ketoacidosis (Pediatrics. 2021;148:e2021050243)

This prospective study conducted across 13 centres in USA, used data from the Paediatric Emergency Care Applied Research Network (PECARN) Fluid Therapies Under Investigation in Diabetic Ketoacidosis Trial (FLUID) and compared children who had declines in glucose corrected sodium concentrations with those who has stable or rising concentrations. Children (2-18 years) with DKA, were randomly assigned to 1 of 4 intravenous fluid protocol which differed in infusion rates and sodium concentrations. Data from the first 4, 8, and 12 hours of treatment were analyzed for 1251, 1086, and 877 episodes, respectively. On multivariate analysis, children who had higher sodium and chloride concentrations at presentation and who were previously diagnosed with diabetes had significant declines in glucose corrected sodium concentrations. rates of fluid infusion and 0.45% normal saline was also associated with declines in glucose corrected sodium levels however, higher rates of fluid infusion were associated with declines in sodium concentration only at 12 hours. The risk of cerebral injury was similar in patients with and without declines in glucose corrected sodium concentrations. Therefore, this study highlights that patient who have high sodium concentrations at presentation should be carefully monitored for sodium levels so that timely intervention can be initiated.

Breaking bad news: what parents would like you to know (Arch Dis Child 2021;106:276-281)

This is a qualitative study conducted in Netherlands consisting of a constant comparative analysis of in-depth interviews conducted with parents to analyse parents' experiences (barriers and facilitators) of communication of bad news. The study was conducted on bereaved and nonbereaved parents of children (1-12 years) with life threatening conditions. The parents were interviewed face to face at their place of choice (residence). The interviews were recorded on audio media and the transcribed verbatim. Sixty-four parents of 44 children with life threatening condition were interviewed, 24 of them were bereaved. Both facilitators and barriers of communication of bad news were part of interview. Parents were very explicit about barriers to good communication of good news. Ten barriers to good communication like lack of (timely) communication, physicians' failure to ask parents for input, parents feel unprepared during and after the conversation, a lack of clarity about future treatment, physicians' failure to voice uncertainties, physicians failure to schedule follow-up conversations, presence of too many or unknown healthcare professionals, parental concerns in breaking bad news to children, managing indications of bad news in non-conversational contexts, and parents' misunderstanding of medical

terminology were identified and analysed. The authors concluded that health care professionals should timely communicate the bad news in a language that is understandable to parents. An appropriate place should be chosen for communication and accompanying professionals should be introduced to parents. The results provide practical pointers on how the communication of bad news can be improved to better suit the needs of parent.

Anti-cardiolipin antibody/D dimer/C-reactive protein and coronary artery lesions/multiple-organ damage in children with Kawasaki disease (Front Pediatr. 2021; 9:704929)

This retrospective study was conducted with the objective to study the correlation of anti-cardiolipin antibody (ACA), D dimer, C reactive protein (CRP), coronary artery lesions (CAL) and multiple-organ lesions in children with Kawasaki disease (KD). Two hundred and eighty-four children with KD and incomplete KD (iKD) were analysed from May 2015 to April 2016. Patients were divided into six groups namely ACA+ group and ACA-group, elevated D dimer group (DDE) and normal D dimer group (DDN), coronary artery injury (CAL) group and non-coronary artery injury (NCAL) group. ACA was most likely tested positive in younger KD children ($P < 0.05$). ACA+ and hypoproteinaemia were correlated with CAL, thrombocytosis, and granulocytopenia ($p < 0.05-0.01$). There were no significant differences in myocardial and liver damages between CAL and No-CAL groups ($P > 0.05$). CAL occurred frequently in patients who were younger, with prolonged fever, later IVIG treatment, CRP elevated over 100 mg/L. However, there were no significant difference ($P > 0.05$). In the KD with DDE group, the incidence of granulopenia, thrombocytosis, myocardial damage, cholestasis, hypoprotein-aemia, and aseptic urethritis was significantly higher than that in the KD with DDN group ($P < 0.05-0.01$). However, elevated D dimer was not associated with CAL, whereas CRP elevation was highly correlated with D dimer, but not with CAL. Therefore, this study concluded a higher incidence of CAL and myocardial damage occurred in KD patients with positive ACA and hypoproteinaemia. An elevated D dimer was associated with increased multi organ dysfunction. CRP was closely correlated with D dimer, but were not associated with CAL and ACA.

National, regional, and state-level pneumonia and severe pneumonia morbidity in children in India: modelled estimates for 2000 and 2015 (Lancet Child Adolesc Health. 2020;4: 678-87)

This is a modelling study which estimates the burden of pneumonia and severe pneumonia in under five children using a risk factor-based model. Systematic literature view was done in the study to find out estimates of community acquired pneumonia. State-specific incidence rates for WHO-defined clinical pneumonia between 2000 and 2015 using Poisson regression and the prevalence of risk factors in each state was obtained from National Family Health Surveys. As per findings of study, between 2000 and 2015,

the estimated number of pneumonia cases in Indian HIV-uninfected children younger than 5 years decreased from 83.8 million cases (95% uncertainty interval [UI] 14.0-300.8) to 49.8 million cases (9.1-174.2), representing a 41% reduction in pneumonia cases. The incidence of pneumonia in children younger than 5 years in India was 657 cases per 1000 children (95% CI 110-2357) in 2000 and 403 cases per 1000 children (74-1408) in 2015. The estimated number of pneumonia and severe pneumonia cases among children less than five years old decreased from 2000 to 2015. Improvement in socioeconomic status and government directed initiatives might have contributed to decline in the

number of cases. However, number of cases remain high in few states like Uttar Pradesh (565 cases per 1000 children) and Madhya Pradesh (563 cases per 1000 children). India has the largest cohort of under five years children who will grow up to be economically productive population. In order to prevent and protect this population from pneumonia, interventions like exclusive breast feeding upto 6 months, adequate nutrition, immunisation with pertussis, measles, Hib, pneumococcal vaccines, and reduction of indoor air pollution should be strengthened.

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