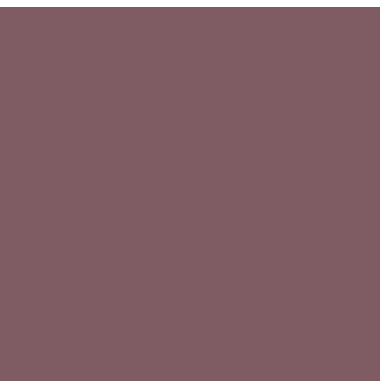


## PEDIATRICS AND PEDIATRIC GASTROENTEROLOGY 2018



Joint Event

16<sup>th</sup> Annual World Congress on

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PEDIATRIC NUTRITION,

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March 21-22, 2018 | New York, USA

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# Poster Presentations/Abstracts

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# PEDIATRIC NUTRITION, GASTROENTEROLOGY & CHILD DEVELOPMENT

March 21-22, 2018 | New York, USA

## The effects of resistance exercise on insulin sensitivity in adolescents

**Sarah Critch**

Memorial University of Newfoundland, Canada

An escalating incidence of type 2 diabetes among adolescents is thought to be sparked by rising population-wide prevalence of insulin resistance. Resistance exercise has been shown to reduce insulin resistance, however only immediate, post-intervention effects have been demonstrated. The purpose of this study was to assess the effects, up to six months, of resistance exercise on insulin sensitivity, cardiorespiratory fitness, muscle strength, activity levels, and anthropometric measures among adolescents with insulin resistance. Participants, recruited from a chronic disease prevention program, completed a physiotherapist-supervised 10-week resistance exercise program, 60-minutes, three times per week. A body positive approach was used focusing on health behaviours. Using a repeated-measures design, participants were assessed during a control period then at pre, post, and 6-month follow-up assessments. The primary outcome was insulin sensitivity, measured by the oral glucose tolerance test. Secondary outcomes included cardiorespiratory fitness, muscle strength, activity level, and anthropometric measures. Thirteen participants ( $14.16 \pm 1.19$  years old; 8 males, 5 females) completed the intervention. Improvements in insulin sensitivity were found, observed as reduced fasting insulin [ $F(2,22)=7.54$ ,  $p=0.003$ ,  $\eta^2=0.41$ ], fasting glucose [ $F(2,22)=3.58$ ,  $p=0.045$ ,  $\eta^2=0.25$ ], and HOMA-IR [ $F(2,22)=7.60$ ,  $p=0.003$ ,  $\eta^2=0.41$ ], which were maintained at follow-up. Cardiorespiratory fitness, waist circumference, and waist-to-hip ratio significantly improved at post and follow-up. The findings suggest that a supervised 10-week resistance exercise program improves insulin sensitivity, cardiorespiratory fitness, waist circumference, and waist-to-hip ratio in adolescents who are at high risk of developing type 2 diabetes. Importantly, these benefits are maintained up to six months. Supervised, resistance exercise adds significant long-term benefit in the management of insulin resistance in adolescents.

### Biography

Sarah Critch is the Physiotherapist with the Janeway Lifestyle Program at the Janeway Children's Health and Rehabilitation Centre, Eastern Health. She obtained a Master's of Science in Medicine (Clinical Epidemiology) from Memorial University, a Bachelor's degree in Kinesiology (Honours) from Memorial University, and a Bachelor's degree in Science (Physiotherapy) from Dalhousie University.

sarah.critch@easternhealth.ca

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# PEDIATRIC NUTRITION, GASTROENTEROLOGY & CHILD DEVELOPMENT

March 21-22, 2018 | New York, USA

## Furthering the integration of palliative care in the community

**Natasha Piracha, James Oleske and Onajovwe Fofah**  
Rutgers New Jersey Medical School, USA

Circle of Life Children's Center, Inc., (COLCC) is a non-profit 501c foundation founded in 2004, providing comprehensive pediatric palliative and end of life care for families at University Hospital, Newark and throughout NJ. Pediatric age patients frequently do not receive adequate pain and/or symptom management nor do their families receive supportive services, both of which compromise quality of life. Current models of care for seriously ill children are neither sufficiently funded nor physically available to adequately address the needs of the many infants, children and adolescents with life-threatening conditions and their families. At University Hospital, COLCC has been actively involved in the care of more than 200 families and fifty infants annually, who experience premature death or are born with life-threatening and life-limiting conditions, many of whom have limited resources. By partnering with New Community Corporation, one of the largest community developments not-for-profit corporations in the US, we are able to continue with our mission: providing integrative services and programs to the underserved community of Newark. This includes inpatient and home-based pediatric palliative and end of life care, professional consultation and education services, family support services, bereavement counseling, community and family education, and volunteer programs. The unique advantage of this partnership allows a full-bodied approach to pain and palliative care, where physicians are able to provide the medical care needed, while community organizations can provide the emotional and social support lacking in physician focused models of palliative care.

### Biography

Natasha Piracha has graduated with her Bachelor's degree from Rutgers University in New Brunswick, NJ and then subsequently with her MD from Rutgers New Jersey Medical School (NJMS). She is currently the Chief Resident for the combined Internal Medicine and Pediatrics Residency Program at Rutgers NJMS. She has focused her recent efforts on furthering the efforts of pediatric palliative and end of life care with Dr James Oleske, Professor of Pediatrics and Founder of Circle of Life Children's Center, Inc and with Dr Onajovwe Fofah, Assistant Professor and the Director of Neonatology at Rutgers NJMS.

pirachnz@njms.rutgers.edu

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# PEDIATRIC NUTRITION, GASTROENTEROLOGY & CHILD DEVELOPMENT

March 21-22, 2018 | New York, USA

## Effective method of CVVH treated acute crisis of organic acidemias

Nam Huu Dao, Ta Anh Tuan, Tran Minh Dien, Vu Chi Dung, Pham Ngoc Toan and Nguyen Phu Dat  
Vietnam National Children's Hospital, Vietnam

**Background:** Organic acidemia is one of two kinds of inborn errors of metabolism has often acute crisis in neonate or infection. They will die if we do not diagnose exactly and treat immediately. Continuous venovenous hemofiltration (CVVH) is a rescue therapy to remove quickly ammoniac plasma or other toxics of metabolic.

**Objective:** The objective of this study is about the common effective of method of CVVH treated acute crisis of organic acidemia.

**Materials & Methods:** Describes prospective six severe patients, deep coma, metabolic acidosis, hyperammonemia, was treated acute crisis of organic acidemias by CVVH, from 1/2014 to 3/2015.

**Results:** Plasma ammonia levels  $822\mu\text{mol/l}$  ( $151\text{-}3000\mu\text{mol/l}$ ) before CVVH, were significantly reduced by  $171\pm 54\mu\text{mol/l}$  after 12h with CVVH, pH ( $7.1\pm 0.2$ ) increased  $7.32\pm 0.05$  after 48h with CVVH and time medium CVVH is  $4.1\pm 4.3$  days, Time treatment in ICU is  $6.4\pm 5.4$  days. Three patients alive, clinical normal, one patient withdrawal treatment due to deep coma., two patients died due to MODS, one patient had nosocomial infection, one patient had Filter clotted.

**Conclusion:** CVVH effectively and quickly eliminates plasma ammonia and correct metabolic acidosis to treat acute crisis of organic acidemias.

## Biography

Nam Huu Dao is graduated from Medical University in 2005 and finished resident doctor of pediatric in 2009. After that he worked in pediatric intensive care unit. He works as a Senior Consultant in PICU at the Vietnam National Children's Hospital in Hanoi, Vietnam. He has shown himself to be a very hard-working, reliable and enthusiastic member of staff. In the professional work he indicates his very good background knowledge and skill of clinical doctor in pediatric field. He has been studying the PhD course at Hanoi Medical University for 3 years. He has published more than seven papers in national journals and two international journals with Professor Noriko Nakajima, Japanese Red Cross Medical Center, and Tokyo, Japan.

namdhnt30@gmail.com

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# PEDIATRIC NUTRITION, GASTROENTEROLOGY & CHILD DEVELOPMENT

March 21-22, 2018 | New York, USA

## Assessment of diffusion tensor MRI tractography of the pyramidal tracts injury correlates with gross motor function levels in children with spastic cerebral palsy

Tung Van Nguyen<sup>1</sup>, Khanh Lam<sup>1</sup>, Chau Minh Cao<sup>2</sup>, Hong Thi Mai Truong<sup>3</sup> and Dung Trinh Quang<sup>3</sup>

<sup>1</sup>108 Military Central Hospital, Vietnam

<sup>2</sup>Ha Noi Medical University, Vietnam

<sup>3</sup>Vietnam National Children's Hospital, Vietnam

**Background:** Cerebral palsy (CP) affects movement and posture is caused by brain damage before, during, or after birth. Accurate assessment of neurological damage and their relationship to motor dysfunction levels are important for the diagnosis, treatment and prognosis of cerebral palsy.

**Objectives:** The objective of this study was to evaluate the correlation between DTI parameters of each pyramidal tract with the GMFCS level in children with spastic cerebral palsy.

**Materials & Methods:** Descriptive study of 44 children with spastic cerebral palsy from two to 12 years was recruited at Rehabilitation Department from 10/2015 to 8/2017. We evaluated clinical characteristics and the distribution of Gross Motor Function Classification System (GMFCS) levels. All participants were studied with brain conventional MRI findings and the following three diffusion tensor imaging (DTI) parameters including tractography for each pyramidal tract: fibre number (FN), fractional anisotropy (FA) and Apparent diffusion coefficient (ADC).

**Results:** In 44 children with spastic CP mean age:  $4.5 \pm 2.1$  y; mean gestational age:  $35.34 \pm 4.6$  wks. Clinically, 22 (50.0%) had quadriplegia, 15 (34.1%) had diplegia and 7 (15.9%) hemiplegia. The distribution of GMFCS levels: 25 (56.8%) level II, 13 (29.8%) level III and 6 (13.6%) level IV. Brain conventional MRI scans showed that 33 (75%) abnormal findings, within periventricular white-matter damage was the highest finding 27 (61.4%) and only 11 (25%) normal MRI findings the FA values of both tracts  $< 0.05$ .

**Conclusions:** The DTI (FN, FA and ADC) parameters of each pyramidal tract were significantly correlated with GMFCS levels in children with spastic cerebral palsy ( $p < 0.001$ ).

### Biography

Tung Van Nguyen is a Senior Consultant in the Pediatric Department at the 108 Military Central Hospitals in Hanoi, Vietnam. Since graduating, he has shown himself to be a very hard-working, reliable and enthusiastic member of staff. In the professional work, he indicates his very good background knowledge and skill of Clinical Doctor in Pediatric field. He has been studying the PhD course at Hanoi Medical University for three years. He has studied clinical features, brain MRI findings, treatment efficacy of Botulinum toxin type an injection and combination with rehabilitation in children with spastic cerebral palsy at Rehabilitation Department-National Hospital of Pediatrics. He has published more than five papers in national journals.

drtung79@gmail.com

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# PEDIATRIC NUTRITION, GASTROENTEROLOGY & CHILD DEVELOPMENT

March 21-22, 2018 | New York, USA

## Recombinant soluble human thrombomodulin (thrombomodulin alfa) in the treatment of neonatal disseminated intravascular coagulation

Satoshi Ibara<sup>1</sup>, Akira Shirahata<sup>2</sup>, Jun Mimuro<sup>3,10</sup>, Hoya Takahashi<sup>4,10</sup>, Isao Kitajima<sup>5,10</sup>, Hajime Tsuji<sup>6,10</sup>, Yutaka Eguchi<sup>7,10</sup>, Tadashi Matsushita<sup>8,10</sup>, Masahiro Kajiki<sup>9</sup>, Goichi Honda<sup>9</sup> and Yoichi Sakata<sup>3,10</sup>

<sup>1</sup>Kagoshima City Hospital, Japan

<sup>2</sup>University of Occupational and Environmental Health, Japan

<sup>3</sup>Jichi Medical University, Japan

<sup>4</sup>Niigata Prefectural Kamo Hospital, Japan

<sup>5</sup>University of Toyama, Japan

<sup>6</sup>Kyoto Prefectural University of Medicine, Japan

<sup>7</sup>Shiga University of Medical Science, Japan

<sup>8</sup>Nagoya University Hospital, Japan

<sup>9</sup>Asahi Kasei Pharma Corporation, Japan

<sup>10</sup>Japanese Society on Thrombosis and Hemostasis, Japan

**Background:** Recombinant soluble human thrombomodulin (TM-α) has been shown to be useful in the treatment of disseminated intravascular coagulation (DIC) in a heparin controlled study and has been available for clinical use in Japan since 2008. However, data on its use for neonatal DIC have not been reported from any clinical studies, so efficacy and safety were analyzed in 60 neonatal DIC patients identified in post-marketing surveillance.

**Methods:** The standard dose of TM-α was 380U/kg/day and dose adjustment was based on their renal function levels. Therapeutic effects of TM-α on DIC and on the survival of DIC patients were evaluated with the DIC diagnostic criteria of the Japanese Ministry of Health, Labor and Welfare established, and with the survival rate on day 28 after the completion of TM-α administration, respectively. Adverse events as well as adverse side effects associated with TM-α administration also were analyzed.

**Results:** The DIC resolution rate as of the day after last administration of TM-α was 47.1%, and the survival rate at 28 days after last administration was 76.7%. Hemostatic test result profiles revealed decreased levels of fibrin/fibrinogen degradation products and increased platelet counts and antithrombin activity. Incidences of adverse drug reactions, bleeding-related adverse drug reactions, and bleeding-related adverse events were 6.7, 6.7, and 16.7%, respectively, with no significant differences between neonatal, pediatric (excluding neonates), and adult DIC patients.

**Conclusion:** This surveillance provided real-world data on the safety and effectiveness of TM-α in the treatment of neonatal DIC in general practice settings.

### Biography

Satoshi Ibara has completed his PhD from Nihon University and postdoctoral studies from University California Irvine. He is the Director of Perinatal Medical center, Kagoshima City Hospital, Japan. He has published more than 30 papers in reputed journals.

ibara-s40@kch.kagoshima.jp

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# PEDIATRIC NUTRITION, GASTROENTEROLOGY & CHILD DEVELOPMENT

March 21-22, 2018 | New York, USA

## Evidence of intra- familial of *Helicobacter pylori* by PCR- based RAPD fingerprinting in Vietnam

Thi-Ut Nguyen<sup>1</sup>, Thanh-Hai LE<sup>1</sup> and Thi-Thu -Ha Hoang<sup>2</sup>

<sup>1</sup>National Pediatric Hospital, Vietnam

<sup>2</sup>National Institute of Hygiene and Epidemiology, Vietnam

**Statement of the problem:** *Helicobacter pylorus* (*H. pylori*) is the major cause of gastritis and peptic ulcer disease in children. Transmission between family members could be increasing risks of reinfection in children. The objective of this study is to assess transmission by DNA fingerprinting analysis of *H. pylori* culture from pediatric patients and their family members.

**Methodology & Theoretical Orientation:** We selected 17 households with *H. pylori* patients. 50 *H. pylori* strains were isolated from patients and family members, of whom 17 were from pediatric patients, 33 from family members including fathers, mothers and brothers/sisters. All 50 *H. pylori* strains were analyzed by RAPD technique from January, 2012 through September, 2013 in National hospital of pediatrics, Hanoi, Vietnam.

**Findings:** Results show that 46.1% (6/13) mothers had genotypes similar to the ones of their children. In contrast, only 8.3% (1/12) fathers had genotypes similar to the ones of their children. 11.8% (2/17) *H. pylori* strains of pediatric patients were similar to the ones of their brothers/sisters. However, only one strain of fathers and mothers have similar genes but are not identical to their offspring.

**Conclusion & Significance:** The results show that there is a link between the mother-to-child isolate, which may be evidence of mother-to-child transmission, especially in young children. The results of our study provide further proof of the molecular level of *H. pylori* transmission between family members in Vietnam. Further studies on *H. pylori* transmission among family members with larger sample sizes are needed.

### Biography

Thi-Ut Nguyen is a Pediatrician who has been working as Gastroenterologist at Gastroenterology Department of the National Pediatric Hospital. She has conducted several studies on *Helicobacter pylori* antibiotics resistance and virulence of gastritis and peptic ulcer among children.

nguyenvuthuyduong2003@gmail.com

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# PEDIATRIC NUTRITION, GASTROENTEROLOGY & CHILD DEVELOPMENT

March 21-22, 2018 | New York, USA

## When/how to manage meconium related ileus? -Always it needs enterostomy?

So Hyun Nam and Eun jeong Jang  
Dong-A University Hospital, Korea

**Introduction:** Meconium related ileus (MRI) is one of cause for neonatal intestinal obstruction, especially in premature baby. It is associated with cystic fibrosis, but it is very rare in East Asia. MRI can present not only bowel perforation but also persistent abdominal distension with feeding intolerance. We introduced the surgical options of MRI and reviewed the surgical outcome.

**Material & Method:** We retrospectively reviewed the medical records for 45 infants who underwent the operation for MRI from March, 2010 to August 2017 in Haeundae Paik hospital and Dong-A university medical center by single surgeon. We excluded the congenital anomalies and NEC in this study.

**Results:** 45 infants (M:F=23:22) underwent the operation at  $20.9 \pm 20.6$  days after birth. All except 3 were premature baby. Mean gestational age was 28.7 weeks  $\pm 3.9$  days and birth weight was  $1,235 \pm 777.1$  g. 13 patients showed the free air on the X-ray and 27 patients showed severe abdominal distension despite of aggressive gastrograffin enema. Four patients showed fixed bowel loop on the X-ray. The weight at operation was mean  $1482.1 \pm 779.8$  g and bedside operation was done for 31 babies, and the operating time was  $71.42 \pm 27.2$  minutes. Enterostomy was performed in 35 patients. We extracted thick meconium fully via appendix orifice, and then only did appendectomy for seven patients. Two patients underwent side to side anastomosis. We could extract meconium via enterotomy and repaired the enterotomy immediately. Two patients (4.4%) had underlying Hirschsprung's Disease. 12 patients (26.6%) died from sepsis, respiratory failure, and liver failure. They could start feeding around seven days regardless of operation method, and the time to full enteral feeding was mean  $36.34 \pm 34.24$  days.

**Conclusion:** Still mortality is high in extremely low birth weight infants. Decompression via appendectomy and primary anastomosis could be another surgical option.

### Biography

So Hyun Nam is Pediatric Surgeon in South Korea. He has been working a member of Korean Pediatric Surgeons Society for 11 years. He is an associate professor in Dong-A University College of Medicine. He is interested in intestinal rehabilitation program and neonatal surgery especially for premature baby. Long term parenteral nutritional support for motility disorder and short bowel syndrome is always his concern.

namsh@dau.ac.kr

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# PEDIATRIC NUTRITION, GASTROENTEROLOGY & CHILD DEVELOPMENT

March 21-22, 2018 | New York, USA

## Addressing stigma on the child and adolescent psychiatry consultation service through use of video

Rachel Talbot and Nasuh Malas  
University of Michigan, USA

Stigma in child and adolescent psychiatry continues to be a significant barrier for youth to receive much needed psychiatric care. Parents' misperceptions regarding mental health may interfere with their child's care and negatively influence their child's view of mental health. For some children, their first experience with psychiatry may occur during medical hospitalization when they are seen by the Psychiatry Consultation-Liaison (C/L) Service. Despite this unique role, there is limited data on how to address mental health stigma with patients and families within the context of child and adolescent C/L psychiatry. This study explores the use of a brief introductory video with messages from the psychiatry C/L team, families who have accessed mental health consultation in the hospital, as well as clips of family and C/L team interactions to address parental stigma about psychiatry. Common stigmatized concerns shared by parents include concerns about confidentiality, later ramifications of mental healthcare, outsider status, and parental self-blame. There are also stigmatized concerns about psychiatric medication use including overmedication, sedation, long-term effects, medicating "real problems" and personality blunting. Each of these are addressed during the video parents will see with the intent of reducing negative parental perceptions relating to mental healthcare. For this study, families are given a survey highlighting these concerns, prior to and after watching the video. Pre- and post-video responses are compared with the hypothesis that watching the video will effectively reduce parental stigma about psychiatric care. Data collection is currently underway and will be completed by the end of November 2017 with data analysis completed by January 2018. This study will also give vital information about the demographic differences in perceptions of stigma so future interventions can be targeted towards those with higher perceived stigma. This study posits that use of an introductory video is an effective strategy to combat stigma and help educate and empower families. In this way, we will be reducing further barriers for patients and families to seek out mental health resources and supports that are often desperately needed for these youths.

### Biography

Rachel Talbot has graduated from Ross University School of Medicine in 2013. She has completed her Psychiatry Internship and Residency at Wright State University in Dayton, Ohio. She is currently a second year Child and Adolescent Psychiatry Fellow, PGY-5, at Michigan Medicine at the University of Michigan in Ann Arbor, MI.

rbokelma@med.umich.edu

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# PEDIATRIC NUTRITION, GASTROENTEROLOGY & CHILD DEVELOPMENT

March 21-22, 2018 | New York, USA

## The relationship between the parents' knowledge, attitude and practices on immunization and the immunization status of their adolescent children in the out patient department of a tertiary hospital

**Margaux N Yap** and **Celia C Carlos**  
St. Luke's Medical Center, Philippines

**Objective:** The objective of this study was to determine the relationship between the knowledge, attitude and practices of parents and the immunization status of their children aged 11 to 18 years old.

**Design:** Prospective cross-sectional study.

**Subjects:** 70 guardians of patients aged 11 to 18 years for follow up at the St. Luke's Medical Center QC (SLMC) Pediatric Out-Patient Department (OPD). Purposive sampling was done.

**Methodology:** Interviewer-administered questionnaire/face to face interview and review of immunization records was conducted from December 2016 to February 2017 among parents of Adolescent patients who followed up at the Pediatric OPD of SLMC QC.

**Results:** Patients were most often partially or non-adherent to their recommended adolescent vaccination schedules. About 93% received at least one dose of the Hepatitis B vaccine, but none received any booster or catch-up dose. Hepatitis A and Td/Tdap vaccines were given to 17% and 10% of adolescents, respectively. The coverage rates for annual influenza (5.7%) and HPV (2.9%) were the lowest among all vaccines recorded. More than 90% of respondents correctly replied to items on seriousness of the diseases targeted by MMR, varicella, and hepatitis A and B. In contrast, only half recognized the possibility of a serious sequelae of HPV infection. The cost of getting immunized was the leading barrier (87%) to availment of this service.

**Conclusion:** No significant associations were found between parents' range of knowledge scores and the actual immunization status of their adolescent children. However, score of  $\geq 75\%$  appeared to be associated with increased MMR and lower hepatitis A and influenza vaccination rates. In these findings, we can conclude that availability of the vaccines in the health center can increase the adherence to adolescent immunization. The top three identified barriers in availing immunization were: Financial problems, Lack of knowledge and Lack of vaccines in the health center.

### Biography

Margaux N Yap has completed her MD from University of Santo Tomas and had Pediatric Residency Training from St. Luke's Medical Center Quezon City.

minkieyap@gmail.com

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# PEDIATRIC NUTRITION, GASTROENTEROLOGY & CHILD DEVELOPMENT

March 21-22, 2018 | New York, USA

## Aberrant expression of histone homocysteinylation: Implications for neural tube defects

Qin Zhang and Baoling Bai  
Capital Institute of Pediatrics, China

Neural tube defects (NTDs) are serious congenital malformations. Excessive maternal homocysteine (Hcy) increases the risk of NTDs, while its mechanism remains elusive. In this study, we evaluated the role of histone homocysteinylation in neural tube closure (NTC). A total of 39 histone homocysteinylation sites were identified in samples from human embryonic brain tissue using mass spectrometry. Elevated levels of histone KHcy and H3K79Hcy were detected at increased cellular Hcy levels in human fetal brains. Using ChIP-seq and RNA-seq assays, we demonstrated that an increase in H3K79Hcy level down-regulated the expression of selected NTC-related genes including *Cecr2*, *Smarca4*, and *Dnmt3b*. In human NTD brain tissues, decrease in expression of *Cecr2*, *Smarca4*, and *Dnmt3b* was also detected along with high levels of Hcy and H3K79Hcy. Our results suggest that higher levels of Hcy contribute to the onset of NTDs through up-regulation of histone H3K79Hcy, leading to abnormal expression of selected NTC-related genes

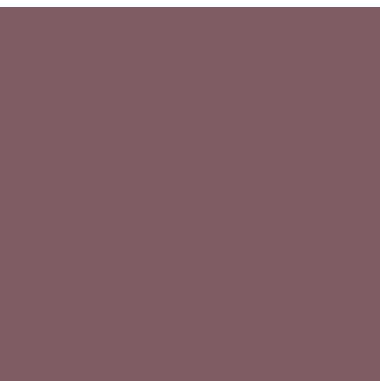
### Biography

QinZhang worked in capital institution of pediatrics. Her work focus on the role of histone modifications in neural tube defects, especially the application of mass spectrometry in histone modification identification and validation. Her current work is concerned with the role of histone homocysteinylation in neural tube defects.

maureenq@hotmail.com

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# PEDIATRIC NUTRITION, GASTROENTEROLOGY & CHILD DEVELOPMENT

March 21-22, 2018 | New York, USA

## Suggestive effect of sportive recreational program units on the level of glycosylated HbA1c, LDL and HDL in children with type 1 diabetes mellitus

Amna M M Ibrahim<sup>1</sup>, Saad K Taha<sup>2</sup>, Ahmed S Abdel Hakim<sup>3</sup> and Inas E M Ahmed kamel<sup>4</sup>

<sup>1</sup>Helwan University, Egypt

<sup>2</sup>Elazhar Universities, Egypt

<sup>3</sup>Ministry of Youth and Sports, Egypt

<sup>4</sup>National Research Centre, Egypt

Diabetes has spread all over the world while the numbers of the patients with this disease have been increased. Diabetes (type I) which afflicting the human being during an early stage of his age due to a defect of the Pancreatic function for providing the body with any quantity from the Insulin as a result for damaging the  $\beta$ -cells of the Islands of Langer Hanz completely which are producing the Insulin, and because of the Insulin is expensive so we shed the light on our aim of this study to find a positive means for dealing with the diabetes, whether throughout the culturing which helps to limit its spread.

**Methods:** study carried out on 40 child at the center of the Gazira Youths Syllabus study was applied on age stage (13-15) years from among the diabetics (type I), which had chosen them according to the intended method participated (10) child in the pilot study and (30) child in the major experiment and they have been divided into two groups, each group of them contains (15) child as follows: The first group, which is the control's group and which didn't share in the sports recreational program is suggested and took only insulin The second group is the experimental one, which participated in the sports recreational program is suggested, in addition to taking insulin doses with measuring blood glucose level, glycosylated HbA1C, LDL and HDL. The approval of guardians on participation of their children within this program.

**Results :** Through application of the sports recreational program is the suggested, for the children who are diabetics (The Type I) from the participants within the National Camps for pioneers and observation to some of the physiological variables (The glucose level in the blood ( Hemoglobin Glycated Hb A1C) and according to it of the doses of the Insulin which is has given - the low density lipoprotein LDL - the high density lipoprotein HDL) then discussion the statistical denotations between the measurements before and after application of the program for each from the two research groups (The experimental group- The control's group), maybe abstracting of the results as follows : Application the sports recreational program is the suggested has performed to decreasing has statistical significant in decreasing the glucose level in the blood in the study group than control group ( $p=0.001$ ). Also there were a statistically significance lowering in LDL level ( $p<0.001$ ) also there is statistically significance increasing in the HDL level in the study group than control group.

**Conclusion:** recreational program application beside conventional medical treatment is of good value in improving of the Type 1 DM.

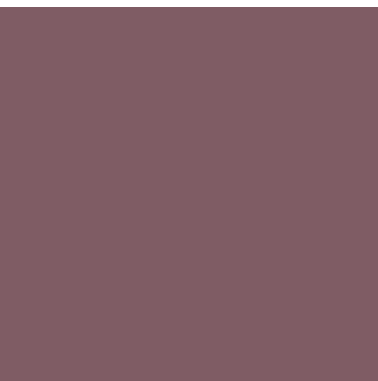
### Biography

Amna M M Ibrahim has completed her PhD from Helwan University. She was the Head of Recreation Department in Faculty of Physical Education for boys Helwan University, one of the quality team in the college at Helwan University, she was the female Member of Weight Lifting Federation of Egypt. She has published more than 20 papers in pediatrics and sports journal.

md@ccg-eg.org

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# PEDIATRIC NUTRITION, GASTROENTEROLOGY & CHILD DEVELOPMENT

March 21-22, 2018 | New York, USA

## Improving the use of fluoride varnish applications among children

Cecele Rogers

University of South Florida, USA

**Objective:** The objective of this study was to evaluate if adding a prompt to well-child visits will increase provider adherence of apply fluoride varnish to children over a three-month period?

**Methods:** At baseline, 1508 children aged 12-36 months of age at pre-intervention were evaluated at Community Health Center, Inc. in Central Florida and 1290 children post-intervention. Fluoride varnish can be applied every three months. Providers were given an in-service regarding benefits and application of fluoride varnish with ten question pre- and post-questionnaires. Questionnaire means were evaluated for any changes post in-service compared to pre-in-service. Pre- and post-fluoride intervention was evaluated using Chi-square test.

**Results:** Fluoride application rates improved after EHR prompt implementation with 44.8 percent of children receiving fluoride varnish compared to 30.8 percent at baseline, an increase of 14 percent in three months (Chi-square=59.239, p-value=0.00, p<0.05). Pre- and post-questionnaires reflected that provider education increased knowledge regarding fluoride placement and prevention of dental caries.

**Conclusion:** Dental caries in children is a chronic disease that can have long-term negative health outcomes with greatest effect on uninsured and minority children. Fluoride varnish application can assist in reducing the rate of dental caries in children. Provider education and addition of an EHR prompt can be beneficial in increasing the use of fluoride treatment and potentially decreasing the incidence of dental caries in children.

cecele.rogers@aol.com



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# PEDIATRIC NUTRITION, GASTROENTEROLOGY & CHILD DEVELOPMENT

March 21-22, 2018 | New York, USA

## Meta-analysis of risk factors of suicidal phenomena in adolescents

Chan Ma Jesusa, Buhat Kristine Mae Biene, Ruckenbrod Jenneyfer Rezza and Ong Kim Elizabeth  
University of the East Ramon Magsaysay Memorial Medical Center Inc., Philippines

Suicidal phenomena (suicide attempts, deliberate self-harm and suicidal plans, threats and thoughts) are common in adolescents. Identification of factors associated with these phenomena could play an important role in the development of school or community-based prevention and intervention programs. Self-harm and suicide are major public health problems in adolescents, with rates of self-harm being high in the teenage years and suicide being the third (for females) and fourth (for males) most common cause of death in young people worldwide. This study is to provide a summary of current knowledge about suicidal phenomena risk factors in adolescent, a meta-analysis of published prospective studies longitudinally predicting suicidal phenomena in adolescents. This included 13 published reports. Results from a random-effects model demonstrated significant, albeit weak, overall prediction of suicidal phenomena in adolescent 2.45 (95% CI: 1.60 to 3.4). Among specific suicidal phenomena risk factors, alcohol abuse, family suicidal behavior, and friends' suicidal behavior yielded the strongest effects (ORs>3.0); all remaining risk factor categories produced ORs near or below 2.0. Additionally, results highlighted several limitations of the existing literature, including idiosyncratic suicidal phenomena measurement. These findings indicate that few strong suicidal phenomena risk factors have been identified, and suggest a need for standardized suicidal phenomena measurement and to create more longitudinal prospective studies of risk factors of suicidal phenomena in adolescent.

jeichanmd@gmail.com

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March 21-22, 2018 | New York, USA

## A “sick” rhythm alerts onset of serious vascular disease

**Guillermo Torres Viera**

University of Puerto Rico, USA

Early detection of cardiac allograft vasculopathy (CAV) presents a challenge to pediatricians since symptoms of myocardial ischemia (eg, classic angina pectoris symptoms) are typically absent or atypical. Although rhythm disturbances are related to CAV, sick sinus syndrome (SSS) remains an elusive sign of vasculopathy. The case study begins with an 18 year old male with history of heart transplant on 2011 secondary to myocarditis and associated dilated cardiomyopathy, presented to our pediatric emergency room due to chest tightness and shoulder pain on exertion without associated fevers, cough, leg swelling, or increased abdominal girth. Cardiac enzymes and electrocardiography (ECG) performed at that time were found within normal limits and patient was discharged home. Three days later, patient awoke from sleep with shortness of breath and dizziness, stating episodes of “slow beats” and near-syncope during the previous days precipitated during hot showers. He returned to ER where cardiac monitoring placed and noted with tachycardia/bradycardia paroxysms without ST segment changes on ECG. BNP and Panel Reactive Antibodies were sent and found elevated, therefore patient was transferred to Cardiovascular Center for suspected transplant rejection, allograft vasculopathy, and associated sick sinus syndrome. He was taken to cardiac angiography which revealed severe (>90%) stenosis of multiple segments of right coronary artery requiring bare-metal stent placement with immediate evidence of appropriate revascularization. SSS is defined by ECG abnormalities (eg, bradycardia, sinus pauses, sinus arrest) that occur in association with clinical signs and symptoms. It should be widely recognized and alarm primary physicians of serious underlying vasculopathies, particularly in the pediatric population.

guillermo.torres@upr.edu

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March 21-22, 2018 | New York, USA

## Maternal risk factors associated with retinopathy of prematurity among patients in east avenue medical center from 2010 to 2015

Ida Fidelis Denosta and Carina Cruz-Quimbo  
East Avenue Medical Center, Philippines

**Aim:** The aim of this study is to determine the maternal risk factors associated with the development of retinopathy of prematurity (ROP).

**Design:** A retrospective cohort study.

**Setting:** The study was done in a tertiary government hospital.

**Patients:** This study included admitted premature neonates in neonatal intensive care unit (NICU) who underwent ROP screening. All patients with congenital abnormality of the eyes were excluded in the study.

**Methodology:** List of admitted premature patients who underwent ROP screening was collected within the study period. Demographic data was collected from the patient's medical records.

**Statistical Analysis:** Descriptive statistics were presented for categorical outcome measures. Wilcoxon rank sum test was used to compare two averages. Chi-square test, Yates' Chi-square test and Fisher's exact test were used to compare proportions. Univariate and multivariate regression analyses were used to estimate crude and adjusted odds-ratios, corresponding 95% CI and based on p-value  $\leq 0.05$  statistical significance.

**Result:** This study showed 57% cases of ROP, majority with Stage 1 (66%), mostly female infants (53.4%;  $p < 0.001$ ), mildly asphyxiated (51.2%,  $p = 0.290$ ; 77.2%,  $p = 0.117$ ) and were small for gestational age (57.3%;  $p < 0.001$ ). On the average, these infants underwent one day of either invasive or non-invasive mechanical ventilation, two days with FiO<sub>2</sub> of  $> 0.5$  liters per minute, had two blood transfusions, and with shorter hospital stay (17 vs 26 days;  $p < 0.001$ ). The average age of mothers who delivered infants with ROP was 26 years old, multipara (59.2%), and underwent normal spontaneous delivery (67%). About half reported adequate prenatal check-ups (53.8%), and diagnosed with urinary tract infection (40.1%).

**Conclusion:** Data showed that mothers with urinary tract infection and preeclampsia are more likely to deliver infants with retinopathy of prematurity thus a significant maternal risk factors of ROP.

idadenosta@yahoo.com.ph

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## Does microalbuminuria level correlate with PRISM and PELOD scores in critically ill children and prediction of mortality

Karan Raheja, Anil Sachdev, Dhiren Gupta, Suresh Gupta and Neeraj Gupta  
Sir Ganga Ram Hospital, India

**Introduction:** Microalbuminuria (MA), a sub-clinical increase in urinary albumin, is a recognized marker of systemic inflammation, and is thought to reflect the glomerular component of a systemic capillary leak. Previous research has shown that sustained MA is associated with the development of organ dysfunction later on and poor outcome in adults. To date, the relationship of MA and organ system dysfunction (OSD) in critically ill children have not been systematically evaluated. The purpose of this study was to examine the relationship between MA and OSD in critically ill children.

**Methods:** Eligible subjects were patients <16 years and more one month of age, who were admitted to the PICU, and with anticipated to stay >24 hrs. Patients with primary nephropathies or gross hematuria were excluded. Microalbuminuria (ACR) were obtained from each patient at admission (ACR1), at 12hrs (ACR2) and at 24hrs (ACR3) and expressed in mcg/mg of creatinine. Cut off for significant microalbuminuria was taken as 180mcg/mg. Daily PELOD scores were calculated for each patient and PRISM score at 12 and 24 hours. Correlations between PRISM and PELOD with microalbuminuria were calculated. Also we tried to find out survivor and non-survivor correlation with microalbuminuria.

**Results:** The sample included 138 patients, with sepsis with a median age of 38 months (range 1 to 192), median weight 13kgs (range 2.4 to 69), median PRISM score in patient with microalbuminuria levels >180mcg/mg was high 8 (range 6 to 12) in comparison to others in which levels was <180mcg/mg 4 (range 2 to 8) and median PELOD scores was high 21 (range 12 to 23) in group with microalbuminuria levels >180mcg/mg to others with levels <180mcg/mg 9 (range 1 to 20). There is also statistically significant difference between types of sepsis in case of microalbuminuria at admission, 12hrs and 24hrs  $P=0.01$  ( $P<0.05$ ). Using Mann-Whitney test used for comparison between 2 groups (survivors vs. non-survivors) showed that there is no statistically significant difference between outcome in case of microalbuminuria on admission  $P=0.256$  ( $P>0.05$ ). But, there is statistically significant difference between outcome in case of microalbuminuria at 12hrs  $P=0.037$  ( $P<0.05$ ) and 24hrs  $P=0.016$  ( $P<0.05$ ).

**Conclusions:** This study demonstrates a significant correlation between microalbuminuria and the degree of organ system dysfunction in critically ill children. It also suggests that rising microalbuminuria is predictive of worsening organ dysfunction and increased risk of mortality if the trends were gradually increasing. Microalbuminuria can be rapidly determined, is inexpensive, blood sparing, and it may have a role in the clinical assessment of the critically ill child.

aquariankaran76@gmail.com

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March 21-22, 2018 | New York, USA

## Zinc status of under-five children of kanam local government area, plateau state, North-central Nigeria

Kiri H Jaryum<sup>1,2</sup>, Z S C Okoye<sup>1</sup> and Barbara J Stoecker<sup>2</sup>

<sup>1</sup>University of Jos, Nigeria

<sup>2</sup>Oklahoma State University, USA

Nutritional deficiencies of trace elements are among the top ten causes of death in Sub Saharan Africa. In Kanam Local Government Area of Nigeria, the problem is compounded by high poverty levels and a high level of illiteracy. This study determined the zinc status of children less than five years of age in Kanam LGA by determining the levels of zinc in serum and in the staple foodstuffs consumed by these children. The area was broadly divided into two halves for the purpose of this research. Questionnaire on zinc-rich foods and foods rich in zinc inhibitors consumed by the children during the previous month was administered in a period of six months. Thereafter, samples of blood were taken from 66 children aged five years and below. Samples of foodstuffs making up the diet of the subjects were also collected at the same period. Food samples were wet-ashed according to the protocol of Hill et al. (1986). All samples were then analyzed, for their zinc content, on inductively coupled plasma -mass spectrometry, ICP-MS, (Perkin Elmer, Norwalk, CT, USA) using internal standardization with gallium in 2% HNO<sub>3</sub>. Data were analyzed using the student's t-test on SPSS Version 17.0. The results of the analysis showed that the average serum zinc levels were  $57.59 \pm 30.40 \mu\text{g/dl}$ . These were below the normal range of  $65-117 \mu\text{g/dl}$  for children less than 10 years. Based on the results, 59.09% of the children have serum zinc level below the cut-off point of  $61 \mu\text{g/dl}$ . Data from the questionnaire showed that 96.7% of the population studied relied on cereal-based diets. The results of this research showed that the studied population is at risk of zinc deficiency, and the risk is higher among male gender (63.33%) than in female (55.56%). The prevalence of low serum zinc, in this study (59.09%) is a first research and warrants a national level programme to consider further assessment to identify groups at elevated risk

jaryumkh@unijos.edu.ng

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# PEDIATRIC NUTRITION, GASTROENTEROLOGY & CHILD DEVELOPMENT

March 21-22, 2018 | New York, USA

## The effect of nutrition education on food choices of sixth grade children in a primary school

**Maha Abdelrahman Mowafy and Shaimaa B Abdelaziz**  
Cairo University, Egypt

The impact of behavior on health, with a special emphasis on children and adolescents, is a central focus for current health policy and for the prevention agenda. This is an interventional study with pre/post assessment. The objectives of which are to test KAP of children in sixth grade primary school as regards healthy eating habits and conduct health educational intervention. A pretest (questionnaire) was taken before the program to assess the KAP among school children as regards healthy eating habits. According to KAP analysis outcome the health education material was tailored. All cases included in this study were subjected to Health education intervention. Posttest was taken after two weeks to determine the impact of the program. A total number of 100 student of children aged 11-12 years in the sixth grade primary were included. The results showed that 41% of studied group were boys in comparison to 59% of girls. The majority of students had a normal BMI 64%, overweight were 29% (23% boys and 33% girls), and only 14% were obese (12% boys and 16% girls). There was a great improvement in knowledge in relation to the number of meals per day from 6.7 to 50. For attitude the highest percentage of improvement was related to milk and yogurt snacks from 11.5 to 85.6 after intervention and for breakfast as a practice. Nutrition education should be introduced to school children as it highly affects their food choices and preferences.

mmowafy2@yahoo.com

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March 21-22, 2018 | New York, USA

## Cultural influences on public school nutrition along the US-Mexico border

Mills B W, Mootz A A and Anchondo

Texas Tech University Health Sciences Center El Paso, USA

**Statement of the Problem:** Childhood obesity is a rampant and ever-present concern within the Hispanic community. Environmental, lifestyle, and cultural factors contribute to this concerning issue amongst adolescents. The long-term effects on children and adolescents contribute to increased risk of future cardiovascular, metabolic, and orthopedic disorders. The purpose of this study is to analyze the nutritional options and content provided to students amongst the largest high-, middle-, and elementary-school cafeterias along the Texas-Mexico border. In addition, this study aims to identify the discrepancy between healthy options offered by school cafeterias and students' preferences.

**Methodology & Theoretical Orientation:** The most popular meals were identified within the five largest high, middle, and elementary schools in El Paso county. The nutritional content was broken down into macro- and micro-nutrients and compared to the USDA daily nutritional requirements for children and adolescents. The discrepancy between students' choice and national nutritional guidelines was evaluated and analyzed.

**Findings:** The macronutrient profiles of the most common lunches in El Paso county public schools are largely consistent with USDA guidelines, but many academic institutions are lacking in micronutrient requirements. Furthermore, the most purchased meals among students were not the most nutritious options demonstrating the gap between students' choice and necessary nutritional needs.

**Conclusion & Significance:** Although the macronutrient profiles of El Paso public school lunch menus are largely congruent with accepted guidelines, most lunch menus lack acceptable micronutrients. Moreover, the study found that the most popular lunch items tended to be the unhealthiest. These findings are significant considering the child obesity epidemic, with Hispanic children being disproportionately affected. It is imperative to consider the effect of cultural and environmental influences on students' meal choices, and being a large border town with 79.5% of the population self-identifying as Hispanic, El Paso offers unique insight into such influences. Equipping students to make healthy choices and have healthy options available to them will prevent the development of future health concerns and disorders.

brandy.w.mills@ttuhsc.edu



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# PEDIATRIC NUTRITION, GASTROENTEROLOGY & CHILD DEVELOPMENT

March 21-22, 2018 | New York, USA

## Effect of neonatal position during phototherapy in reducing bilirubin serum: An evidence-based case report

Muhamad Shafiq Advani<sup>1</sup> and Adhi Teguh<sup>2,3</sup>

<sup>1</sup>Newcastle University, Indonesia

<sup>2</sup>Universitas Indonesia, Indonesia

<sup>3</sup>Cipto Mangunkusumo Hospital, Indonesia

**Background:** Neonatal jaundice is one of the most common problems in neonates, but most cases are physiologic. However, if left untreated several complications may appear from malaise to ultimately kernicterus that can permanently damage central nervous system due to toxic feature of excess bilirubin. Currently, phototherapy is the chosen prophylaxis treatment to prevent complications. Several studies have been conducted to increase its efficacy by modifying certain factors including the neonate's position during phototherapy. In addition, American Academy of Pediatrics Subcommittee on Hyperbilirubinemia guidelines (AAP, 2004) and National Collaborating Centre for Women's and Children's Health guidelines on Neonatal Jaundice (NICE, 2010) do not have any consensus regarding the neonate's position. Thus, the optimal position of the neonates during phototherapy remains vague.

**Objective:** The objective of this study was to compare the effect of supine position versus periodic change of position during phototherapy in late preterm and term neonates.

**Method:** PubMed and Cochrane were used for literature browsing. Articles were then selected based on inclusion and exclusion criteria. Selected articles were assessed with Oxford CEBM critical appraisal tools.

**Results:** Two randomized controlled trial and one systematic review were obtained. 2 RCT shows RR 1.10 and 1.12 with NNT 30 and 100 respectively. All three studies can be applied to our patient.

**Conclusion:** Changing the position of the neonates during phototherapy will not increase the efficacy of the treatment to lower total bilirubin serum.

shafiq.advani@yahoo.com

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# PEDIATRIC NUTRITION, GASTROENTEROLOGY & CHILD DEVELOPMENT

March 21-22, 2018 | New York, USA

## Haptoglobin in cord blood- a biomarker to predict neonatal jaundice

Prathipa Santhanam

Brookdale University Hospital and Medical Center, USA

**Background:** Jaundice is the most common condition that requires medical attention in newborns. It is observed during the 1st week of life ~60% term and 80% of pre-term infants. In some infants, serum bilirubin levels may excessively rise. Unconjugated bilirubin is neurotoxic and can cause permanent neurological sequelae. Hence, the presence of neonatal jaundice frequently needs diagnostic evaluation and monitoring. The main source of bilirubin comes from breakdown of Hemoglobin in Red Blood Cells. When hemolysis takes place, a fall in Haptoglobin (Hp) levels occur, due to binding of free hemoglobin. Our study is aimed to assess whether Hp level in Umbilical Cord Blood (UCB) can serve as an early indicator to predict future occurrence of jaundice.

**Objective:** To assess Hp level in cord blood of babies born at term. To correlate with UCB Hp level and bilirubin concentration of newborns who develop jaundice and assess whether Hp can be an early predictor of jaundice.

**Design/Methods:** Full term, normal babies born to mothers with gestational age  $\geq 37$  weeks in a one month period was included in the prospective cohort study. Exclusion criteria: Sepsis, Liver disease, Birth trauma (Cephalhematoma), Congenital anomalies. In our institution, in all healthy term newborns, the standard practice is to perform serum bilirubin testing on clinically jaundiced babies before discharge, on Day three of life. Anicteric newborns do not get bilirubin testing done. IRB approval obtained. Cord blood collected in EDTA container in consecutively consenting mothers and assayed for Hp using Roche kits in Roche Integra Analyser. Correlational analysis performed using bilirubin and Hp values.

**Results:** Out of 54 babies, 27 were clinically anicteric, with a mean Hp level of  $3.66 \pm 2.51$  mg/dl. The remaining 27 clinically jaundiced babies' mean Hp level was  $2.78 \pm 1.10$  mg/dl. The mean Hp value of anicteric babies was higher than the icteric babies, however it was not statistically significant. A significant negative correlation was found between the Hp level from the Umbilical Cord taken during delivery and the bilirubin value on the third day ( $r = -0.341$ ;  $P = 0.04$ ). Our study has shown that as the cord blood Hp value decreases, there is a corresponding increase in bilirubin value.

**Conclusion(s):** Hp from UCB maybe a useful marker to identify the risk of developing jaundice in newborns in the near future. Further studies with greater sample size are required to study this relationship. This may enable babies with higher risk for significant jaundice to be detected earlier.

psanthan@bhmcny.org

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March 21-22, 2018 | New York, USA

## Effectiveness of zinc supplementation as prophylaxis for stunting in children: An evidence-based case report

Rahmah Amran

University of Indonesia, Indonesia

Stunting is one of many health issues in children that has been a great burden for so many years. Stunting is highly associated with malnutrition. It can lead to a number of disorders, including defect of immune system, infections, and impairment of cognitive development which increase the rate of morbidity and mortality in patients with stunting and malnutrition. It has been postulated that zinc supplementation has a potential use for prevention of stunting in children. Unfortunately, the results were inconsistent over studies. Thus, this study was conducted to evaluate the effectiveness of zinc supplementation in preventing the incidence of stunting in children under two years old. The literature search was done through several scientific databases, including PubMed, Cochrane, EBSCO, and Science Direct. A total of two randomized controlled trial (RCT) were selected based on inclusion and exclusion criteria. Further assessment was done to evaluate its validity, importance and applicability using worksheet that is suitable for therapeutic studies. According to the articles assessed, it was found that there was no significant effect of zinc supplementation in preventing the occurrence of stunting in children. The increase of height in both control and experiment group were comparable. The conclusion is zinc supplementation given for children under two years old is considered to be clinically ineffective for the prevention of stunting.

amranrahmah@gmail.com

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March 21-22, 2018 | New York, USA

## The effect of bladder and lumbar stimulation technique for collection of urine in newborns

Rajbanshi M, Karn B K, Yadav U, Shah S and Yadav S  
B P Koirala Institute of Health Sciences, Nepal

**Background & Objectives:** Sign and symptoms of urinary tract infections (UTI) are not specific in infants and young children, fever being the commonest sign. Therefore, collecting urine samples for culture is required to diagnose or exclude UTI. Obtaining a clean catch urine sample in neonates and infants is a great challenge as it is unpredictable, time consuming and requires lot of patience. The objective of the study was to determine the effect of Bladder and Lumbar Stimulation Technique (BLST) for collection of midstream urine in newborns and to evaluate contamination rates of urine samples collected.

**Methods:** An experimental research was conducted in BPKIHS, Dharan, Nepal including total of 54 term newborns. Urine culture was indicated for different reasons to the admitted newborns. They were randomly assigned either to the experimental group (n=27) or the control group (n=27). Twenty-five minutes after feeding, the genitals and perineal area of the babies were cleaned. The newborns were held under the armpits with legs dangling. Bladder and Lumbar stimulation technique was only applied to the newborns in the experimental group. Success was defined as collection of urine sample within 5 minutes (<300s) of starting the stimulation maneuver in the experimental group and of holding under the armpits in the control group.

**Results:** The success rate of urine collection was significantly higher in the experimental group (88.88%) than in the control group (25.92%)  $p < 0.001$ . The median time for sample collection was 1.07minutes (64.2s) [IQR=1.52minutes (91.2s)] in experimental group and 1.52minutes (91.2s) [IQR= 2.78 minutes (166.8s) for control group ( $p=0.069$ ). Contamination was not found in urine samples collected in both the groups.

**Conclusion:** The study suggests that the bladder and lumbar stimulation technique is safe, quick and effective way of collecting midstream clean catch urine in newborns.

mamta\_sristi@yahoo.com

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# PEDIATRIC NUTRITION, GASTROENTEROLOGY & CHILD DEVELOPMENT

March 21-22, 2018 | New York, USA

## Overview of the developments in child and adolescent psychiatry and pediatric integrated care in Lithuania

Sigita Lesinskiene

Lithuanian Ministry of Health, Lithuania

**Introduction:** Stemming from pediatrics the specialty of child and adolescent psychiatry keeps strong cooperation with pediatric services in the country. These both fields of child/adolescent psychiatry and pediatrics are actively growing and strengthening, keeping traditions and constantly changing them according the time.

**Objective:** of the presentation is to analyze pathways of the development of child mental health services and the process of building pediatric integrated care in Lithuania.

**Method:** An historical overview from the beginning of the specialties to later stages, through various socioeconomical periods, will be presented highlighting strengths, weaknesses and challenges for further development. Ways on how to achieve the best balance between public health interventions and individual integrated medical care will also be discussed. System of service delivery, funding and training of specialists in Lithuania will be presented.

**Results:** Pathways of mutual cooperation of pediatrics and child/adolescent psychiatry were built as a network throughout the country for both outpatient and inpatient services. Good examples of these developments will be presented. Child and adolescent psychiatry, one of the most socially and multidisciplinary-oriented medical specialties, has been stressing intersectorial collaboration for many years. In recent years awareness of the urgent need for integrated services, to solve complex problems related to the somatic and mental health of children and adolescent, has been recognized and programs have begun to be implemented in society. Good practices, successful examples, and innovative programs along with the need to build comprehensive, continuous services will be discussed as a means to achieve a better quality of care.

**Conclusions:** In the countries where financial resources are quite limited it is very important to cooperate with politicians and decide priorities for funding when talking about the improvement of child and youth somatic and mental health. Cooperation with sectors of education and social affairs is constantly growing and very important. Intersectorial collaboration is essential for building a healthy society. Intersectorial action remains a complex and challenging area of policy development and practice.

sigita.lesinskiene@mf.vu.lt

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# PEDIATRIC NUTRITION, GASTROENTEROLOGY & CHILD DEVELOPMENT

March 21-22, 2018 | New York, USA

## Prevalence of pneumonia and factors associated among children 2-59 months old in Wondo Genet district, Sidama zone, SNNPR, Ethiopia

Teshome Abuka Abebo  
Hawassa University, Ethiopia

**Background:** Acute respiratory tract infection is among the leading causes of child morbidity and mortality in Ethiopia and throughout the world. The main aim of this study was to determine the prevalence and factors associated with pneumonia among children 2-59 months old in Wondo Genet District, South Ethiopia.

**Methods:** Institutional based cross-sectional study was employed on 206 children- mother/caregiver pairs. Data were collected using structured and pre-tested questionnaire. Statistical Package for Social Sciences version 20 computer software was used for data analysis. Odds Ratio along with 95% confidence interval was estimated to identify factors associated with pneumonia.

**Result:** Prevalence of pneumonia among under-five children was 33.5%. Absence of separate kitchen [AOR=6.8, 95% CI= (2.76, 16.86)], absence of window in the kitchen [AOR=3.4 95%CI= (1.52, 7.8)], breast feeding less than one year [AOR=4.2 95% CI= (1.07, 16.6)], and children of 2-12 months old [AOR=4.04 95% CI= (1.85, 8.80)] were identified determinates.

**Conclusion:** Prevalence of pneumonia in under-five children is high. Identified determinates can be prevented and controlled through community mobilization on health benefits of ventilated and improved housing conditions, importance of separate kitchen which has windows and/or chimneys or hoods and importance of breast feeding to prevent under-five pneumonia.

teshabuka@gmail.com

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March 21-22, 2018 | New York, USA

## A pre-operative clinical scoring system to distinguish perforation risk with pediatric appendicitis

William Bonadio

Maimonides Medical Center, USA

**Introduction:** Appendicitis is a common, potentially serious pediatric disease. An important factor in determining management strategy (whether/when to perform appendectomy, duration of antibiotic therapy/hospitalization, etc.) and predicting outcome is distinguishing whether perforation is present.

**Objective:** The objective of this study was to determine efficacy of commonly assessed pre-operative variables in stratifying perforation risk in children with appendicitis.

**Design & Setting:** A retrospective analysis of consecutive cases was performed. A large urban hospital pediatric emergency department participants includes 448 consecutive cases of CT (computerized tomography) confirmed pediatric appendicitis during a six years period in an urban pediatric ED (emergency department): 162 with perforation and 286 non-perforated.

**Main Outcome(s) & Measure(s):** To determine efficacy of clinical and laboratory variables with distinguishing perforation outcome in children with appendicitis.

**Results:** Regression analysis identified three independently significant variables associated with perforation outcome and determined their ideal threshold values: duration of symptoms >1 day; ED-measured fever [body temperature >38.0 degrees C]; CBC WBC absolute neutrophil count >13,000/mm<sup>3</sup>. The resulting multivariate ROC [receiver operating characteristic] curve after applying these threshold values gave an AUC [area under curve] of 89% for perforation outcome [p<0.001]. Risk for perforation was additive with each additional predictive variable exceeding its threshold value, linearly increasing from 7% with no variable present to 85% when all three variables are present.

**Conclusions:** A pre-operative scoring system comprised of three commonly assessed clinical/laboratory variables is useful in stratifying perforation risk in children with appendicitis. Physicians can utilize these factors to gauge pre-operative risk for perforation in children with appendicitis, which can potentially aid in planning subsequent management strategy.

william.bonadio@mountsinai.org