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THE FOCUS OF THE NATIONAL FOOD SUPPLEMENTARY PROGRAM. F.Cerruti, M.I.Bove. Institute of Nutrition, Nutrition Planning Division, Montevideo, Uruguay.

The Institute of Nutrition develops since 1987 a National Food Supplementary Program (NFSP). The target population are children and pregnant women controlled by the Public Health Care Services (PHCS). Most of the Institution's resources are invested in this program, which reaches 77000 children and 13000 pregnant mothers. The focus of the actions, the concentration of activities and the impact of the program are measured every year. In 1990, information on a sample of 3738 children, beneficiaries of PHCS was obtained by a cross sectional study done in the 19 departamental capitals. 80% of the children controlled by PHCS are beneficiaries of the NFSP. Mean birth weight and the median of height/age, weight/age and weight/height in the beneficiaries of this program, were significantly lower than in the not beneficiaries, while nutritional risk was significantly greater. Among beneficiaries, the percentage who holds a Pediatric Health Appointment card and attend PHCS is also greater. In the cronologic series evaluated (1987-1989-1990), extreme malnutrition diminished significantly. The percentage of height/age and weight/age below -2DS diminished from 15.9 to 11.8% ( $t=2.5$ ,  $p<0.05$ ), and from 7.4 to 5.9% ( $t=2.5$ ,  $p<0.05$ ), respectively. The analysis of birth weight shows a significant increase of those with insufficient birth weight ( $<3000$ ) between 1983 and 1984 (from 28.8% to 36.4%,  $t=2.5$ ,  $p<0.05$ ), it remains unchanged up to 1987, and thereafter (1987, 1988) shows significant improvement (from 32.7 to 29.3%,  $t=2.45$ ,  $p<0.05$ ), NFSP is correctly focused on the more vulnerable population and improvement of the nutritional status is evinced among children covered by PHCS.

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EVALUATION OF MENTAL HEALTH OF MOTHERS OF HIGH RISK INFANTS. PRELIMINARY RESULTS. D.Humphreys, M.Araya, J.Espinoza, A.Roizblatt, O Brunser, I.Pacheco. INTA, Universidad de Chile, Santiago, Chile.

Previous studies showed that mothers of infants selected by a validated predictive model (PM) of morbidity, have features suggestive of psychiatric disorders. During the survey of 49 infants who had a "positive" PM (January to July 1991, who lived in the South-eastern area of Santiago, 28 mothers (age 16-40 years) agreed to be evaluated. Goldberg's General Health Questionnaire in its 30-question version modified and validated in Chile was applied by an experienced interviewer. The cut-off point was set at 11/12, as described by M.Truccho in his validation study. In 15/28 (53.6%) of the mothers the score exceeded 12 points and were defined as "cases". Mean, median and range were 10.3, 12, 0-26, respectively. Highest frequencies of response were related to irritability and bad mood, feeling of depression and sadness and headaches (anxiety, depression and somatization). At the beginning of the follow up, 34.6% of infants had Weight/Age  $\leq 90\%$  (NCHS), of whom 78% were offspring of "cases". Of the children who had a total of 20 days or more of diarrhea during the observation period, 36% and 18% corresponded to mothers who were "cases" and "no-cases", respectively (relative risk = 1.73). Results suggest that a high percentage of these mothers suffer from psychological disturbances that justify further psychiatric evaluation.

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A NEW CONCEPT: SELF ASSISTED VOIDING (SAV), AN ALTERNATIVE TO INTERMITTENT CATHETERIZATION (IC) IN GIRLS. PRELIMINARY STUDY. E.Bottini, Ceseni. Diagnóstico Médico. Junin 1023 Buenos Aires, Argentina.

Clean IC was introduced 20 ys ago to empty the bladder without residual volume. The mayor drawbacks of IC are that it is a passive act performed after failure to empty the bladder and to eliminate voiding. It introduces a contaminated foreign body into the bladder and has negative psychological effects. The rationale of this Urthral Device (SAVUD) is based in the mechanical opening of the external sphincter and the continent portion of the urethra with an adequate caliber allowing the urine to flow against atmospheric pressure. 5 patients with voiding alterations are described before (B) and after (A) the use of SAVUD.

PAT	FLOW		BLADDER PRESSURE		RES. VOLUME		VOIDING TIME	
	ml	seg	cm of water		ml		sec	
	B	A	B	A	B	A	B	A
1	8	15	70	10	200	0	300	26
2	7	16	100	10	180	0	240	30
3	6	14	110	5	340	0	360	26
4	3	15	90	10	270	0	300	21
5	6	15	80	12	130	0	120	15

Patients are reassured because they void normally like healthy people. SAVUD as IC is used "clean". SAVUD should be used after 10 ys. of age. As emptying is facilitated bladder/reservoir hypertrophy improves.

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MUSCULAR FUNCTION IN RECOVERED MALNOURISHED INFANTS. J. Alvear, S. Ruiz. Instituto de Nutrition and Food Technology, University of Chile, P.O.Box 138-11, Santiago, Chile.

Muscle tissue provides the largest store of potentially available protein in the body; it is considerable reduced in children with severe protein energy malnutrition (PEM). After nutritional recovery there is a significant increase in muscle mass. It has also been described that skeletal muscle function is related to nutritional status. We studied 20 children aged  $12 \pm 4m$  who suffered PEM early in life (G1) and were compared with another group of children who had never had PEM (G2) matched by sex and age. Their nutritional status was compared with the WHO standards. Skeletal muscle function was determined by stimulating the ulnar nerve at the left wrist and measuring the force of isometric contractions of the abductor pollicis muscle using a stimulus-isolation unit (Grass model SI USA) with electrical stimulation at 10, 20, 30, 50 and 100 Hg. Weight and height were significantly higher in G2 ( $p<0.001$ ). No differences in W/H were found. The contraction of the abductor pollicis was higher in G2 ( $p<0.01$ ). In the malnourished group this muscle generated less force, fatigued more rapidly and recovered less rapidly than in G2. The maximal relaxation rate was  $6.9 \pm 0.4\%$  and  $8.6 \pm 0.2\%$  (mean  $\pm$  SEM) for Group 1 and 2, respectively ( $p<0.01$ ). These results show that the response of the abductor pollicis muscle may be an indicator of the recovery of nutritional status.

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EPIDEMIOLOGY OF CHRONIC RENAL FAILURE (CRF). PERIOD 1987-89. Collaboratory study of ALANEPE (ASOCIACION LATINOAMERICANA NEFROLOGICA PEDIATRICA) Report on Argentina. F.Mendilaharsu, M.G.Caletti, E.M.Gómez, Nephrology Unit, Hosp Juan P.Garrahan, Buenos Aires, Argentina.

A regional survey about incidence, etiology and treatment of CRF was carried out by ALANEPE. Seventeen Pediatric Nephrology Centers of different complexity were involved. Children aged 0-15 years, grouped by age and sex, with creatinine clearance  $\leq 40ml/m^2$  were included. 551 children (52% males, 48% females) with CRF were detected. The incidence was 6.4, 5.8 and 4.5 inhabitants per million in 1987, 88 and 89, respectively. 43.4% were due to uropathies, 22% to primary glomerular diseases, 17% of a systemic disease, 8.3% to hereditary nephropathies and 8.2% to other pathologies. During this period 3275 nephrologic ambulatory consultations were performed. 79 patients initiated hemodialysis, 9 continued ambulatory peritoneal dialysis, 9 had intermittent peritoneal dialysis and 69 patients received renal transplant, per year. The incidence of CRF is higher than in developed countries. The reasons could be that in Argentina Vesicoureteral Reflux and the Hemolytic Uremic Syndrome are the first and second cause of CRF, respectively. Early diagnosis and adequate treatment of the uropathies could modify positively the incidence of CRF.

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THE OCULO-CARDIAC REFLEX (OCR): INFLUENCE OF THE AUTONOMIC NERVOUS SYSTEM (ANS) TONE AND ALERTNESS STAGES IN NORMAL NEONATES. P.Peirano, B.Cauchemez. Robert Debré Hospital, Paris, France and INTA, University of Chile, Santiago, Chile.

In order to evaluate whether the response of a reflex vagal stimulation (oculo-cardiac reflex:OCR) is influenced by the ANS tone (sympathetic or parasympathetic dominance) and stages of alertness (wakefulness; W, active sleep; AS, quiet sleep; QS), eighteen normal full-term (39-41 weeks of gestation) neonates, were studied at 3±1 days. Eye polygraphy and heart rate recordings were performed between 8am and 1pm. Alertness stage was defined in real time by combining common behavioral and electrophysiological data. The standardized OCR (bi-ocular compression at 100 mm Hg during 10 sec) was done after 5 min of a well established alertness stage. The following heart rate patterns variables were evaluated: a) longest RR interval (LRR) within the 20 sec following onset of the OCR (i.e. the reflex vagal stimulation response); b) mean RR interval and respiratory sinus arrhythmia (RSA) in the 2 min that preceded the OCR onset (i.e. estimation of the ANS tone preceding the stimulation). The OCR response differed significantly according to the stage of alertness: it was longer in AS, shorter in QS and intermediate in W. This could reflect different modulations of the afferent pathway of reflex vagal stimulation. The mean RR interval just preceding the OCR influenced its response ( $p<0.001$ ); however, a significant correlation existed only during W ( $r=0.85$ ;  $p<0.001$ ). During sleep states the OCR response (or ANS reflexivity) is dissociated from ANS tone, whereas during W tone and reflexivity of ANS show a strong correlation.