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THE SUCCESS & FAILURE OF HANDWASHING AS A METHOD OF INFECTION CONTROL ON A PEDIATRIC SERVICE: A RETROSPECTIVE STUDY. M. Dianne Murphy, Melinda Lucas, Eva Harris, Carol Stout & Mary Gunther. Univ. of Tenn. Hosp., Dept. of Pediatrics, Knox., Tenn. Sponsored by: Jim Todd, M.D.

Respiratory Syncytial Virus (RSV) & rotavirus (RO) cause significant illness in infants & toddlers & account for many pediatric winter admissions. Since both viruses are nosocomially spread via personnel, early diagnosis & infection control measures, particularly handwashing, should be effective for control of both diseases. An educational program on RSV disease & epidemiology directed at pediatric personnel, instituted prior to the RSV peak season, appeared to control nosocomial RSV infections. During RSV season 14% of 846 general pediatric admissions were cultured for RSV & 35% of these (N=43) were proven RSV infections. Only 1 was a nosocomially acquired RSV infection. During peak RO season (February-April) which overlapped with the RSV season, 15% of 414 general pediatric admissions were cultured for RO & 61% of these were positive for RO (N=38). In 1 month, 4 of the 7 documented nosocomial RO infections occurred on the general pediatric service. A diaper weighing & disposal problem was identified. After an educational program on RO infections & a new policy for diaper disposal were instituted, the nosocomial infection (NI) rate decreased from 5 NI/17 RO cases to 1 NI/12 RO cases the following month. A pediatric infection control program should include season-specific educational programs, a feedback review system & a policy allowing nursing initiated early isolation of suspected viral illness.

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HEPATITIS B VIRUS (HBV) AND AMERICAN ADOPTION OF KOREAN CHILDREN: RESULTS OF SCREENING. Dennis L. Murray, Martha A. Lynch, and Byung K. Cho. (Sponsored by Marshall Klaus) Department of Pediatrics and Human Development, Michigan State University, East Lansing, Michigan and Holt Children's Services Inc., Seoul, Korea.

Each year about 5000 Korean children are adopted by American families. We began screening for Hepatitis B surface antigen (HBsAg) following HBV infections in two families in which recently adopted Korean children were found to be HBsAg carriers. We evaluated, using a radioimmunoassay, 884 abandoned or released children  $\geq 3$  months of age from an adoption agency in Seoul, Korea, 2 weeks prior to U.S. arrival. Rescreening of all children was recommended within 6 months of their arrival. A questionnaire was sent to determine whether rescreening had been performed and if test results differed from Korean findings. HBsAg positive tests (+) were found in 4.53% (40/884). Sex was not a factor, but a greater percentage (%) of HBsAg(+) children were > 1 year of age compared with the total % tested (37.5% vs 21.9%,  $p < .04$ ). A weak positive correlation [.211,  $p > .05$ ] existed between month of arrival and number of HBsAg(+) children. Of children > 1 year of age with HBsAg (+), 12/15 had been abandoned compared with 4/23 children  $\leq 1$  year of age ( $p < .001$ ). Families of the first 645 children were sent questionnaires; 375 (58%) responded. Of those HBsAg(+), 15/17 were retested; 13 remained HBsAg(+). Of those HBsAg(-), 160 were retested; 3/160 were HBsAg(+)[1.9%]. Testing of all adopted Korean children for HBV should be done to diminish risk of potential virus transmission.

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PRACTICE AWARENESS OF CONTRAINDICATIONS TO PERTUSSIS VACCINE (V): A SURVEY OF 403 PEDIATRICIANS (P). Mahesh G. Naik, Bernadette Fiscina, Aditya Kaul, Donald S. Gromisch, Ram Kairam and M. Douglas Cunningham. Dept. of Pediatrics, Univ. of Kentucky, Albert B. Chandler Med. Ctr., Lexington, KY and New York Medical College, NY, NY.

The debate over the liability for pertussis-related neurologic complications prompted the following survey. The survey was undertaken to evaluate the awareness of contraindications and examine recent physician attitudes towards the use of the V. A questionnaire (Q) was mailed to 924 P. In the Q the P were asked whether they would/or would not administer the V in each of 27 clinical situations. The situations included contraindications given by the Red Book (RB) of the Committee on Infectious Diseases (American Academy of Pediatrics) and other clinical situations. The Q was completed by 403 P (44%) of whom 192 were child neurologists. Results:

"Red Book" contraindications	% would not give	% would give
severe neurologic reaction to previous V	87	3
convulsion within 48 hours after previous V	96	4
allergic reaction to the first V	96	4
collapse or shock-like state after previous V	95	5
temp. of 105°F or greater after previous V	87	13
persistent inconsolable crying after previous V	81	19
progressive neurologic disease	76	24
Fractional dose of vaccine	43	57

All of the responders differed with the recommendations of the RB. Unexpectedly, the results show that some P would have given the V even when contraindicated by the RB, and a number of clinical situations (prematurity 14%, allergies 17%, cystic fibrosis 18%, family history of seizures 21%, cerebral palsy 26% and sibling with adverse reaction to V 51%) were erroneously interpreted as contraindications. If P non-compliance with established guidelines is as prevalent as our survey suggests, lower immunization rates, increased incidence of pertussis, increased V related complications and increased number of vaccine related litigations will not be unexpected.

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EVALUATION OF PERINATAL CARE IN SAUDI ARABIA.

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An evaluation of perinatal care in Saudi Arabia is submitted by presenting the perinatal mortality rate (P.M.R.), Early neonatal mortality rate (E.N.M.R.) and fetal mortality rate (F.M.R.) for year 1982-1985 of a hospital. The following formulas were used:

$$P.M.R. = \frac{\text{Stillbirths} \geq 1000\text{gm} + \text{Early Neonatal Death} \geq 1000}{\text{Total Birth } 1000 \text{ gm}} \times 1000$$

$$E.N.M.R. = \frac{\text{Early Neonatal Death} \geq 1000 \text{ gm}}{\text{Live Birth } \geq 1000 \text{ gm}} \times 1000$$

$$F.M.R. = \frac{\text{Still Births } \geq 1000 \text{ gm}}{\text{Total Births } \geq 1000 \text{ gm}} \times 1000$$

	82	83	84	85	*P Value
P.M.R./1000 Births	12.2*	7.2	7.5	7.3	P = 0.18
E.N.M.R./1000 Live Births	5.4*	2.7	3.0	3.2	P = 0.18
F.M.R./1000 Births	6.7*	4.9	4.5	4.1	P = 0.18

These represent the trend towards improving antenatal, perinatal and neonatal care in Saudi Arabia, although it is not statistically significant.

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CAUSES OF NEONATAL DEATH IN SAUDI ARABIA:

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Mortality data for individuals dying within 28 days of birth is analyzed from Jan. 1, 1983 to June 30, 1986. Forty-seven out of 7030 babies born at the hospital died during the neonatal period. The neonatal mortality was 6.6/1000 live births. 76.5% of deaths occurred during first 48hrs. of life. The death was attributed to congenital malformations in 36%, Immaturity (IMM) with Hyaline Membrane Disease (HMD) in 32%, Respiratory Distress Syndrome (RDS) in 17%, Sepsis in 8.5% and Asphyxia in 6.5%.

Birthweight	Immaturity				
	H.M.D.	RDS	Cong. Mal.	Sepsis	Asphyxia
< 1000 Gm	15	-	1	2	-
1001-1500 Gm	-	6	2	1	-
1501-2000 Gm	-	2	3	1	-
2001-2500 Gm	-	-	7	-	1
> 2501 Gm	-	-	4	-	2
Total	15	8	17	4	3

In babies under 1000gm the cause of death was immaturity with HMD. While in babies over 1000gm the major cause was congenital malformation. Higher incidence of deaths due to congenital malformation is not known but it may be related to number of factors including high consanguinity rate. Other causes need further evaluation.

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ECZEMA HERPETICUM (EH) : CLINICAL AND EPIDEMIOLOGIC FEATURES. Valerio M. Novelli, David J Atterton (sponsored by Philip A. Brunell). The Hospital for Sick Children, Great Ormond St. London, U.K.

EH is a vesicular eruption due to herpes simplex virus (HSV) occurring in children with atopic dermatitis. Mortality rates of 1-9 % have been reported. We studied clinical and epidemiologic features of the disease in 14 consecutive patients over a three year period. The mean age was 34 months (range 9 mo - 10½ yrs), 12 patients were < 3 yrs, 7 were male. Nine of 14 patients were febrile ( $\geq 38.5^{\circ}\text{C}$ ), 3 were hypoalbuminemic, 3 had elevated liver enzymes, 2 hyponatremic dehydration, 2 thrombocytopenia, 1 acidosis. HSV was cultured from all patients; a rapid viral diagnosis was made in 8 patients (72%) following examination of vesicle fluid with electron microscopy; a significant rise in complement fixation titers to HSV in 7/7 patients. Staph. Aureus was cultured from skin lesions in 11/14 (77%), B-hemolytic strep. group A in 4 (28%), pseudomonas in 2 (four patients had more than 1 pathogen isolated). There was a family history of "cold sores" occurring in one or other parent in the previous week in 5 of 14 children (35%); autoinoculation may have been the mode of spread in 2 children (1 had herpes labialis initially, the other a herpetic whitlow). In four children (28%), parents had been increasing the amount and frequency of steroid cream application due to what was thought to be a flare-up of the eczema. These children all had widespread lesions on admission. Patients were treated with Acyclovir (I.V or oral), a penicillinase-resistant antibiotic, antipruritics and fresh frozen plasma when indicated. Parents need to be warned of the potential hazards that herpes super-infection may pose to their children with eczema.