thrombocytopenia and leukopenia), vasculitis, hepatitis and aseptic meningitis. There were no deaths in our cohort.

	Children (*n* = 52)	Adults (*n* = 160)	*P*-value
Age, years	8.8 ± 4.1	39 ± 10.7	
Male sex	31 (59.6%)	26 (12.3%)	0.0001
Clinical presentation			
Biphasic presentation	8 (15.4%)	48 (30.0 %)	0.0460
Fever	26 (50.0%)	110 (68.7%)	0.0194
Rash	51 (98.1%)	127 (79.4%)	0.0008
Myalgia	5 (9.6%)	50 (31.2%)	0.0017
Arthralgia	9 (17.3%)	100 (62.5%)	0.0001
Headache	3 (5.8%)	34 (21.2%)	0.0107
"Slapped cheeks"	29 (55,8%)	24 (15.0%)	0.0001
Peripheral edema	6 (11.5%)	63 (39.4%)	0.0001
Anemia	4 (7.7%)	19 (11.8%)	0.6076
Leukopenia	1 (1.9%)	23 (14.5%)	0.0111
Thrombocytopenia	4 (7.7%)	35 (21.8%)	0.0231
Hepatitis	1 (1.9%)	11 (6.87%)	0.3011
Vasculitis	1 (1.9%)	2 (1.25%)	0.5721
Other	2 (3.8%)	3 (1.9%)	0.5982

Conclusion. Parvovirus B19 infection has different clinical presentation, laboratory findings and complications in children and adults. Since the diversity of the clinical manifestations in adults may be misleading, the infection in adults should be suspected when disease is prevalent in children.

Disclosures. `**All authors:** No reported disclosures.

1055. Haemophilus Influenzae Type B Invasive Disease in a Pediatric Hospital of Argentina

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Background. Since The vaccination strategy is a three-dose primary series (at two, Active surveillance is important to opportunely detect variations on these trends.

Methods. Cross-sectional study, including all hospitalized patients with Hib infection since 2012 to May 2017 at Hospital de Niños "Ricardo Gutiérrez" in Buenos Aires, Argentina.

Results. Twenty previously healthy children were admitted. Male/female ratio 1.8:1. Median age: 12 (range 45 days-114) months; 85% younger than 2 years and 35% younger than 6 months. Nine patients (45%) had complete vaccination schedule, with three or more doses of DTP-Hib-HBV vaccine. Hospitalization Hib infections by year in Table 1.

Year	Hib admissions (n)	Total hospital admissions (n)	Hospitalization rates (per 100.000 admissions/year)
2012	1	9,764	1,02
2013	2	9,304	2,15(IC 95% 0.26–7.76)
2014	3	9,066	3,31(IC95% 0.68–13.81)
2015	6	9,450	6,35 (IC 95% 2.33–13.81)
2016	8	9,780	8,18 (IC 95% 3.5– 6.11)

Clinical presentation: meningitis (14/20), pneumonia (6/20) and arthritis (5/20), osteomyelitis (1/20). All patients with meningitis, 25% of pneumonias and 50% of arthritis had positive blood cultures. Hib was isolated from blood in 17/20 cases, cerebrospinal fluid in 7/14, joint fluid in 3/5 and pleural fluid in 2/6. Median WBC: 12,400/mm^3 (1,600–42,900) and median C-reactive protein level 111 mg/L (7–358). Median days of hospitalization was 13 (8–40). Nine patients required intensive care, four of them required mechanical ventilation. None patients died. Immunological studies ruled out immunodeficiency in 10 patients, although four continues under study.

Conclusion. (i) Burden of invasive Hib infections have increased over the last few years in our setting. (ii) Most of patient had adequate immunization schedule for age; (iii) Surveillance studies should be continued to confirm these preliminary results as well as to evaluate possible causes.

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1056. Single-Dose Universal Hepatitis A Immunization in 1-Year-Old Infants in Argentina: High Prevalence of Protective Antibodies up to 11 Years Following Vaccination

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Background. Single-dose Hepatitis A Virus (HAV) vaccination was implemented for all Argentinean children aged 12 months in 2005, instead of the standard two-dose schedule. Previous studies demonstrated a dramatic decline in HAV infection rates, fulminant hepatitis, and liver transplantation along with low viral circulation and high prevalence of protective antibody response 8 years following the intervention. This study assessed long-term seroprotection against HAV after vaccination with this novel scheme.

Methods. Children who received one dose of HAV vaccine at 1 year of age, at least nine years before enrollment, were included at three centers in Argentina between May 2015 and April 2016. Demographic and socio-economic characteristics of the child, mother and house were collected through a questionnaire after informed consent signature. Blood samples were tested for anti-HAV antibodies. Antibody titers ≥10 mIU/mL were considered seroprotective. Logistic regression analysis was done to evaluate associations between different variables and seroprotection.

Results. Of 1119 children included, 97.0% lived in urban areas, 92.7% had safe water access and 57.8% had sewers at home. Mean age was 10.7 years, and the mean post-vaccination interval was 9.7 years (Range: 9.0–11.3 years). Of the total, 87.6% had protective antibodies against HAV. Higher seroprotection rates were observed in Santa Fe compared with the global rate (91.9% vs. 87.6%; OR 1.94 (95% CI: 1.27–2.95); P = 0.002). In contrast, lowest rates resulted in San Justo, Buenos Aires (81.4% vs. 87.6% OR 0.45 (95% CI: 0.32–0.65); P <0.001). No association between socio-economic variables and seroprotection was found. Geometric mean concentration (GMC) of HAV Ab titers was 28.0 mIU/mL (95% CI: 26.8–29.3 mIU/mL).

Conclusion. Single-dose universal hepatitis A immunization in infants resulted in sustained immunologic protection up to 11 years in Argentina. Lower seroprevalence rates in San Justo have no clear reason and were not associated with an increase in HAV cases in that area. These findings, along with the low current disease burden confirm the success of the intervention.

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1057. No Viral Spreading After Rotavirus Vaccination in NICU

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Background. Preterm and low birth weight infants are considered to be high risk for severe rotavirus gastroenteritis. However, it has been demonstrated that many infants are ineligible for receiving rotavirus vaccine due to over the age limitation within the neonatal intensive care unit (NICU). We sought to elucidate the safety of rotavirus (RV) vaccination in NICU by assessing vaccine virus transmission from vaccine recipients in NICU.

Methods. This study was designed as the prospective study conducted at the NICU of Fujita Health University hospital and Konan Kosei Hospital. This study was approved by the ethical committee in our university. Premature age-eligible infants were recruited to administer rotavirus vaccine. Stool samples were serially collected from unvaccinated infants (UVI) and vaccinated infants (VI) who received either the pentavalent rotavirus vaccine (RV5) or monovalent rotavirus vaccine (RV1). During October 10, 2014 and December 25, 2015, 19 VIs and 49 UVIs were enrolled in this study. Contact precaution was carried out in NICU. All stool samples were analyzed by real-time RT-PCR for detection of RV5, RV1, and wild-type strain's genomes.

Results. Total of 676 stool samples (89 samples collected from the 9 RV5 vaccinated infants, 110 samples collected from the 10 RV1 vaccinated infants, and 477 samples collected from the 49 UVIs) were analyzed in this study. Nineteen VIs received with first dose of vaccine demonstrated persistent shedding of rotavirus vaccine genome during 1–8 days after the first dose of the vaccine. Meanwhile, in comparison to VIs received with first dose of vaccine, the detection of viral genome in stool samples decreased gradually in there VIs after second dose of vaccine. In contrast to the VI, no vaccine genome was detected in any of the stool samples collected from the UVIs.

Conclusion. This study suggests that RV vaccine may be safe for administration of preterm and low birth weight infants in NICU. Accordingly, the contact precaution measures may play an important role in prevention of vaccine virus transmission between VIs and UVIs.

Disclosures. **All authors:** No reported disclosures.

1058. M Protein-Deficient Respiratory Syncytial Virus (RSV) Vaccine Protects Infant Baboons Against RSV Challenge

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Background. RSV bronchiolitis is the most common cause of hospitalization of infants in the US, and may lead to the development of long-term airway disease. Inactivated vaccines may lead to enhanced disease, while replicating vaccines have caused unacceptable degrees of illness, and may revert back to wild type. We developed an RSV vaccine lacking the gene for the M protein (Mnull RSV). The M protein is responsible for reassembly of the virus after it infects cells and expresses its proteins. Infant baboons vaccinated intranasally (IN) with Mnull RSV develop serum neutralizing antibody (NA) responses, but the virus does not replicate.

Methods. 2-week-old baboons (n = 12) were primed IN with 10^7 vaccine units of Mnull RSV or a control preparation, and a similar booster dose was given 4 weeks later. Mnull RSV vaccination did not cause tachypnea, airway inflammation or other signs of illness when compared with sham-vaccinated controls. Two weeks after boosting, all infants were challenged intratracheally with human RSV A2. We continuously monitored respiratory rates and levels of overall activity. On various days following challenge, we obtained BAL fluids for leukocyte counts and degree of virus replication, and evaluated alveolar-arterial oxygen gradients (A-a O2).

Results. Vaccinated animals (vs. unvaccinated controls) had lower respiratory rates (P = 0.0014), improved A-a O2 (P = 0.0063) and reduced viral replication (P = 0.0014). Activity scores were higher in vaccine recipients than in unvaccinated animals. Vaccine recipients also were primed for earlier serum and secretory neutralizing antibody responses, and greater airway lymphocyte responses. Airway lymphocyte numbers (but not antibody responses) were associated with lower respiratory rates and reduced viral replication (P < 0.01).

Conclusion. Vaccination intranasally with Mnull RSV protected infant baboons against an RSV challenge without causing respiratory disease or enhanced illness, and is a promising candidate for use in human infants. Lymphocyte responses to vaccination may play an equal or greater role in protection against RSV infection than antibody responses.

Disclosures. **All authors:** No reported disclosures.

1059. Measles, Mumps, and Rubella Antibody: Patterns of Persistence and Rate of Decline Following the Second Dose of the MMR Vaccine

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Background. Antibodies to measles, mumps, and rubella decline an estimated average of 3% per year, and have a high degree of variation among individuals. Yet, this variation and differences in individual-level response to the 3 antigens are not well understood. To better understand potential implications on individual and population-level susceptibility, we reanalyzed existing longitudinal data to identify patterns of seropositivity and antibody persistence.

Methods. Wisconsin children given the second dose of measles, mumps, and rubella vaccine (MMR2) at age 4–6 years were followed up to 12 years postvaccination. The rate of antibody decline and factors associated with the rate of decline were assessed using regression models that accounted for differences between and among subjects.

Results. Most of the 302 participants were seropositive throughout follow-up (96% measles, 88% mumps, 79% rubella). The rate of antibody decline was associated with MMR2 response and baseline titer for measles and age at first dose of MMR (MMR1) for rubella. None of the demographic or clinical factors examined were associated with rate of decline for mumps. One month after MMR2, geometric mean titer (GMT) to measles was high (3892 mIU/mL), but declined on average 9.7% per year among subjects with the same baseline titer and <2-fold increase in antibody titer after MMR2. Subjects with ≥2-fold increase experienced a slower decline (≤7.4%). GMT to rubella was 149 IU/mL one month after MMR2 and declined 2.6% and 5.9% per year among those who received MMR1 at 12–15 months and >15 months, respectively. GMT to mumps one month after MMR2 was 151 and declined 9.2% per year. Only 14% of participants had the same trends in antibody persistence for all 3 antigens.

Conclusion. The rate of antibody decay varied substantially among individuals and among the 3 antigens. Despite waning titers, measles and rubella antibody levels remained high 12 years post MMR2. However, a fast rate of decline and high degree of variation was observed for mumps, yet no predictors of the decline were identified. Future research should focus on better understanding waning antibody titers to mumps and its impact on community protection and individual susceptibility, in light of recent mumps outbreaks in vaccinated populations.

Figure 1. Measles

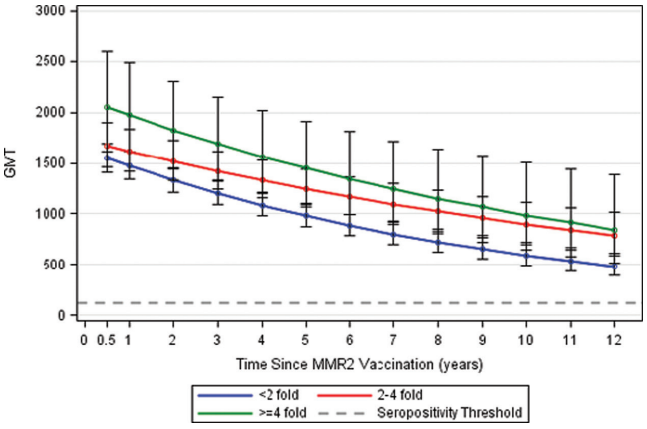


Figure 2. Mumps

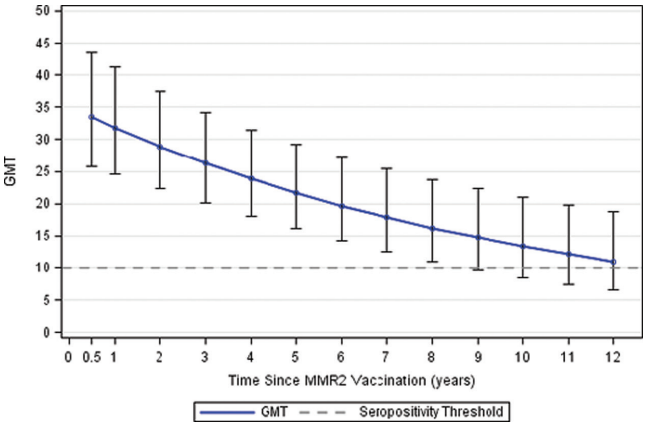
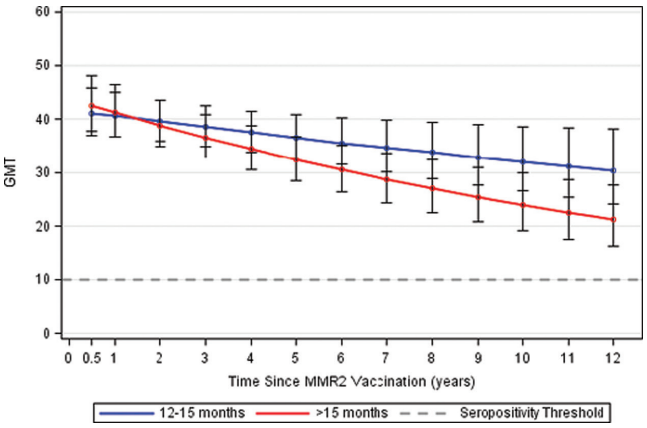


Figure 3. Rubella



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