SUMMARY FOR BASIS OF APPROVAL

Reference Number: 93-0395
Merck and Co.
Varicella Virus Vaccine Live
VARIVAX®

Varicella Virus Vaccine Live (Oka/Merck) is a preparation of the Oka/Merck strain of live, attenuated varicella zoster virus (VZV). The virus was obtained from a child in Japan with natural varicella and was attenuated by several passages in human embryonic lung cell cultures, followed by propagation in embryonic guinea pig cell cultures, and finally propagated in human diploid cell cultures.

I. Indications and Usage

VARIVAX® is indicated for vaccination against varicella zoster virus in individuals 12 months of age and older.

Revaccination

The duration of protection of VARIVAX® is unknown at present and the need for booster doses is not defined. However, a boost in antibody levels has been observed in vaccinees following exposure to natural varicella as well as following a booster dose of VARIVAX® administered four to six years post vaccination.

In a highly vaccinated population, immunity for some individuals may wane due to lack of exposure to natural varicella as a result of shifting epidemiology. Post-marketing surveillance studies are ongoing to evaluate the need and timing for booster vaccination.

Vaccination with VARIVAX® does not result in protection of all healthy susceptible children, adolescents, and adults.

II. Dosage and Administration

VARIVAX®, when reconstituted as directed, is a sterile preparation for subcutaneous administration. Each 0.5 ml dose contains the following: not less than 1500 PFU (plaque forming units) of Oka/Merck varicella virus at expiry; not less than 1350 PFU 30 minutes after reconstitution, sucrose, hydrolyzed gelatin, sodium chloride, monosodium-L-glutamate, sodium phosphate dibasic, potassium phosphate monobasic, potassium chloride, residual components of MRC-5 cells including DNA and protein, and trace quantities of sodium phosphate monobasic, EDTA, neomycin, and fetal bovine serum. The vaccine contains no preservative.

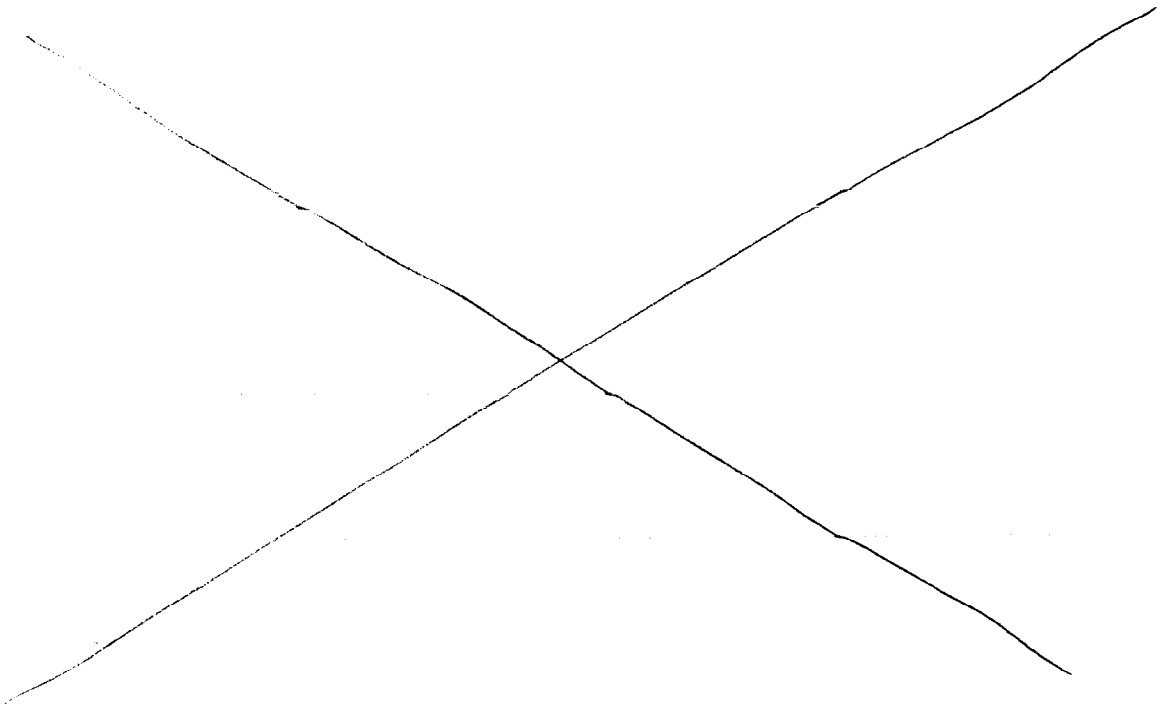
Vaccination in children 12 months to 12 years of age consists of one dose (0.5 ml) of VARIVAX® administered subcutaneously. Vaccination in adolescents and adults 13 years of age and older consists of two doses (0.5 ml, each) of VARIVAX® administered subcutaneously 4-8 weeks apart. Although VARIVAX® is recommended for subcutaneous administration (anterolateral thigh or upper arm), in clinical trials some children were given VARIVAX® intramuscularly. The seroconversion rates were similar to those observed in children who received the vaccine by the subcutaneous route. The vaccine should not be administered intravenously.

Reported adverse reactions were generally mild and included rash, soreness, and induration at the injection site, and generalized varicella-like rashes. Other reported complaints after immunization are summarized in Table 5.

III. Manufacturing Control

A. Manufacturing and Controls

The varicella-zoster virus was originally isolated from a three year old boy with typical chickenpox, by Dr. Michiaki Takahashi, et al. at the Research Institute for Microbial Diseases, Osaka University, Japan. This isolate was serially passaged through primary human embryonic lung culture, followed by guinea pig fibroblasts, and WI-38 cells. Subsequent passage of the virus is in MRC-5 cells.



Sterility of the pooled bulk vaccine is ensured by controlled aseptic processing

throughout the manufacturing process. Varicella Virus Vaccine Live (Oka/Merck) is manufactured using a robotic system which performs of manipulations and provides a high degree of aseptic processing and sterility assurance.

Control of viral adventitious agents is based on testing of the Master Seed, Stock Seeds, and Manufacturer's Working Cell Banks to ensure absence of other viral agents (including adenovirus-associated virus and retroviruses) as well as other microbial agents.

In addition, each batch of vaccine is tested to verify absence of viral adventitious agents using a testing approach appropriate for the varicella-zoster virus and MRC-5 host cell culture system used in the manufacture of this vaccine. Other than vaccine virus, no viral agents have been detected in any of the batches tested.

Karyological testing of the MRC-5 cell substrate used to produce Varicella Virus Vaccine Live revealed the presence of a clonal 7;12 translocation in cells derived from some manufacturer's working cell banks. In some flasks, at passages comparable to that used for vaccine manufacture, cells with this translocation comprised more than 5% of the cells. Additional experiments were performed to address the possibility that this anomalous DNA (or other cellular DNA in the vaccine) might integrate into and transform host cells. This translocation is not associated with any known genetic disease in humans. Further testing of these cells indicated no evidence for tumorigenicity in nude mice, and showed normal senescence in tissue culture. The approximately 2 µg of cellular DNA per dose of vaccine was determined to be unlikely to integrate into host cells and cause harm under the conditions of vaccination. The Vaccines and Related Biological Products Advisory Committee, with supplemental expert testimony, concluded on August 23, 1994 that this anomaly did not pose a safety risk which exceeded the known benefit of the vaccine.

Prior to filling into the final container, the clarified bulk is thawed and diluted to the target potency level. The final formulated bulk is tested for sterility. The filled vials are frozen and lyophilized to minimize potency loss. The vials are removed from the lyophilizer cabinet and stored at -20°C, or colder prior to labeling and packaging. Filled containers are tested for sterility, potency, identity, moisture, restoration, pH, and general safety. These tests have been determined to be appropriate for controlling the safety, freedom from contamination, and immunogenicity of the vaccine.

Varicella Virus Vaccine Live is a live virus vaccine which, due to the labile nature of the virus, does not undergo purification. Each 0.5 ml dose of the vaccine contains not less than 1500 PFU of Oka/Merck varicella-zoster virus (not less than 1350 PFU 30 minutes after reconstitution, sucrose, hydrolyzed gelatin, sodium chloride, monosodium-L-glutamate, sodium phosphate dibasic, potassium phosphate monobasic, potassium chloride, residual components of MRC-5 cells, and trace quantities of sodium phosphate monobasic, EDTA, neomycin, and fetal bovine

serum. The vaccine contains no preservative.

Lot release testing is performed on each lot of vaccine. In addition, new Master Seeds are evaluated for neurovirulence in monkeys.

B. Stability

The recommended storage temperature of the vaccine is -15°C or colder in a frost free freezer. Stability of the vaccine was monitored by the demonstration of potency in a plaque assay. Four lots of the vaccine were studied for 18-21 months. There was no statistically significant difference between the slopes of the five lots tested at any of the long term storage temperatures. The estimated loss in potency with storage at -15°C for 18 months is 18%. No loss in potency was observed at storage temperatures of -20°C or colder.

Stability testing of the reconstituted vaccine at 2-8°C shows potency losses of up to one half hour after reconstitution. Testing of the reconstituted vaccine at room temperature (20-25°C) showed similar losses. These data support holding the vaccine for up to 30 minutes at room temperature prior to administration. The package insert states that reconstituted product is to be used immediately and discarded if not used within 30 minutes.

The expiration dating for Varicella Virus Vaccine Live is 18 months at -15°C starting at the date of removal from -20°C for packaging. The package insert recommends storage at -15°C in a frost-free freezer. Prior to packaging, the product may be stored by the manufacturer for up to 24 months at -20°C or colder.

Varicella Virus Vaccine Live retains a potency level of 1500 PFU or higher per dose for at least 18 months in a frost-free freezer with an average temperature of -15°C or colder. The vaccine has a potency level of approximately 1350 PFU 30 minutes after reconstitution at room temperature (20°-25°C).

C. Validation

The major equipment systems and processes used in the manufacture and filling of the vaccine have been validated at the Merck & Co., Inc., West Point, PA, facilities. In addition, appropriate specifications have been established for monitoring environmental conditions and utilities for critical work areas in the manufacturing facility. Validation analyses for product potency and purity are performed at Merck & Co., Inc. The test methods were found to be suitable for control and regulatory purposes.

D. Labeling

The primary label used on the vials of Varicella Virus Vaccine Live states: the proper name and the trade name, VARIVAX®; vial size and volume; the caution

"STORE FROZEN"; the Durham-Humphrey statement; a space for adding the lot number and expiration date at the time of packaging; a space for the component number; the manufacturer's name and address "Dist. by: Merck & Co., Inc., West Point, PA 19486, USA; "and U.S. Govt. Lic. No 2.

The primary label used on the vials of Sterile Diluent for Merck & Co., Inc., Live Virus Vaccines (Sterile Water) states: the proper name, the vial size and volume; the product number; the statement "Contains No Preservatives"; the Durham-Humphrey statement; a space for adding the lot number and expiration at the time of packaging; and the manufacturer's name and address "Dist. by: Merck & Co., Inc., West Point, PA 19486, USA.

The carton containing 10 vials of diluent states: the proper name Sterile Diluent for Merck & Co., Inc., Live Virus Vaccines (Sterile Water) states: the proper name, the quantity of diluent vials and the volume of each, the product number, an ingredients and preservatives statement; directions for use; the letter code "B" identifying it as the diluent carton; the Durham-Humphrey statement; a warning to use only this diluent for reconstitution of the vaccine and to see the package circular for administration instructions; a storage statement; a space for the component number; a space for adding the lot number and expiration at the time of packaging; and the manufacturer's name and address "Dist. by: Merck & Co., Inc., West Point, PA 19486, USA."

The package insert (copy attached) is in compliance with the appropriate sections of 21 CFR, and contains statements regarding description, clinical pharmacology, indications and usage, contraindications, precautions, adverse reactions, dosage and administration, how supplied, and information on the stability and storage of the vaccine.

The trade name is not in conflict with the name of any other drug.

E. Establishment inspection

A pre-license inspection of the Merck biological production facilities in West Point, PA, was conducted by the Food and Drug Administration from February 28 through March 4, 1994. Compliance relative to all inspectional observations was demonstrated prior to licensure.

F. Environmental Impact Analysis Report

An environmental assessment for the manufacture and use of Varicella Virus Vaccine Live (Oka/Merck) was completed to address the environmental impact considerations of 21 CFR, Part 25. The information provided for this environmental assessment supports the finding of no significant environmental impact.

IV. Pharmacology

The safety and efficacy of VARIVAX® was evaluated in clinical trials which used lots of vaccine manufactured in 1982, 1984, 1987, and 1991. Over that period, the vaccine manufacturing process changed to increase the yield, viability and stability of live attenuated virus in the final product. Efforts to optimize vaccine dose coupled with changes in vaccine manufacture led to variability among clinical trials in the amount of live virus (PFU; plaque forming units) and the ratio of live:dead viral antigen administered to vaccine recipients. The decision to license VARIVAX® therefore required the review of information from studies conducted on vaccine manufactured in 1982, 1984, 1987 and 1991.

Preclinical testing also addressed the question of whether the vaccine lots produced in different years represented the same product. Virus strains from these campaigns produced similar quantities of glycoproteins, induced similar titers of antibodies, and retained restriction endonuclease cleavage sites and sequences in regions which are potentially variable among different strains of varicella-zoster virus.

An animal model does not exist to test the efficacy of varicella-zoster virus vaccines. The vaccine was tested for oncogenicity in newborn hamsters. There was no evidence for oncogenicity in these tests. In addition, cells used to manufacture the vaccine were tested for oncogenicity in nude mice and by observation of senescence in tissue culture, as described above. Thus, animal studies did not suggest any specific risks in humans.

The labeling is adequate from the standpoint of pharmacology.

V. Medical

A. General Information

Varicella is a common childhood infection in the United States. The disease has a seasonal occurrence with the peak incidence generally occurring between March and May. The estimated number of cases of varicella in the United States per annum is approximately 3,500,000. Over 90% of cases occur in children 1 to 14 years of age; 60% of these cases occur among children 5 to 9 years of age. The CDC estimates that between 8.3% and 9.1% of children ages 1-10 contract varicella each year (depending on age, Wharton et al., ICAAC 1991). Varicella is uncommon in infants less than 1 year of age and in adults over 20 years of age. Each of these latter two groups account for only 2 to 3% of all cases of varicella. However, the morbidity and mortality of the disease in these groups are much greater than in children 1-14 years of age.

Primary varicella infection is a generalized illness that has an incubation period of approximately 11 to 20 days, is highly contagious, and is characterized by a papulovesicular rash that usually resolves in 5 to 20 days with or without residual scarring. Although immunity following VZV infection is generally long-lasting,

the virus persists in latent form in the peripheral nerve tissue (ganglia). While chickenpox is generally a mild disease, it may be complicated by bacterial superinfection of skin lesions, pneumonia, encephalitis, Reye's syndrome, and congenital varicella syndrome. Over 9,000 hospitalizations and 50 - 100 deaths in the U.S. each year are attributed to chickenpox. Infection is more severe among adolescents, adults and the immunocompromised than normal children. Herpes zoster, the clinical disease characterized by a localized vesicular rash involving from one to three dermatomes, is due to the reactivation of latent VZV.

Preparations of immune globulin (varicella-zoster immune globulin-VZIG) given post-exposure to natural varicella have been shown to protect from clinical disease. A vaccine which induces both neutralizing antibody and cellular immunity would be expected to prevent natural disease. Clinical studies with VARIVAX® have shown production of varicella virus antibodies, cellular immunity, and protection from disease.

B. Adequately controlled studies supporting licensure

From 1981 to 1993, VARIVAX® was administered to 9454 healthy children (12 months to 12 years of age) and 1648 adolescents and adults (13 years of age and older) enrolled in clinical studies to assess immunogenicity, efficacy, and safety. The demographics of individuals included in the studies are summarized in table 1. The vaccine was usually administered as one dose in children 1-12 years of age and 2 doses (given 4-8 weeks apart) in adolescents and adults 13 years of age and older.

2. Efficacy

Table 2 provides clinical efficacy data from all vaccine studies submitted to support VARIVAX® licensure.

Over 2,000 children participated in clinical trials of the vaccine produced in 1982. Approximately half were enrolled in a placebo-controlled double-blind study designed to compare the effect of 17,430 PFU of Varicella Virus Vaccine Live to a placebo. No infections occurred among vaccine recipients during the first year of that trial while 0.6% of vaccinees developed breakthrough disease during the second year (Table 2). This compares with the 8.5% rate of chickenpox in the control group during the first year of study. These impressive levels of protection were obtained using a dose of attenuated varicella that was substantially higher than present in the current vaccine (0.5 ml of the licensed product contains an average of 3,500 PFU/dose at the time of manufacture and a minimum of 1,350 PFU 30 minutes after reconstitution at product expiry).

Additional studies of the 1982 vaccine were performed using a dose of 950 PFU. As shown in Table 2, the calculated efficacy of the vaccine at this lower dose ranged from 75% - 87% (1.2% and 2.1% of vaccinees developed breakthrough infections

during the first and second year following immunization, respectively, versus 8.3% - 9.1% wild-type infections among unvaccinated American children of the same age). Considering data from the subset of children who were actively followed in this study, the calculated efficacy two years after vaccination was 72%. It therefore appears that the amount of live virus per dose and the quality of clinical follow-up influenced the protective efficacy calculated for this vaccine.

The 1984 vaccine campaign included approximately 1,300 healthy vaccinees who received doses ranging from 2,460 - 14,000 PFU of attenuated virus. This and subsequent studies were not placebo controlled. In addition, only a subset of participants were actively followed so that the frequency of breakthrough chickenpox among vaccinees relied heavily on passive reporting of illness by parents. In the 1984 study, a protective efficacy of 93% during the first two years following immunization was calculated by i) assuming that all cases of breakthrough chickenpox were reported and ii) comparing this rate with the frequency of wild-type chickenpox in unvaccinated American children.

The 1987 campaign had an enrollment of 4,142 children and the best long-term follow-up of the clinical studies submitted to support vaccine licensure. Using the method described above, 1,000 - 1,625 PFU of vaccine was calculated to provide protective efficacy of 66% - 77% per year over the first two years of follow-up in these children. Among the subset of children on whom active follow-up was performed, protective efficacy over the first two years ranged from 61% - 67% (Table 2).

The 1991 immunization campaign involved 1,164 subjects who received 2,900 - 9,000 PFU of vaccine. The lots of vaccine used in that campaign and those currently manufactured by Merck are nearly identical. Three years of follow-up indicate that the vaccine is approximately 93% effective in preventing breakthrough infection when compared to chickenpox rates in historic controls (Table 2).

An additional method used to estimate vaccine efficacy involved vaccinees exposed to varicella in their home. Previous studies showed that 87% of unvaccinated children with household exposure to wild-type varicella contract disease (Ross et al, NEJM 1962). Combining data from the non-placebo controlled 1982, 1987 and 1991 campaigns, 20% of actively followed vaccinated children exposed to natural varicella in their homes developed breakthrough chickenpox. This represents a 77% decrease from the 87% rate of transmission reported in the literature for unvaccinated individuals. In adolescents and adults who received two doses of vaccine, 17 of 64 (or 27%) reported breakthrough chickenpox following household exposure.

Vaccinated children who contracted varicella usually developed a milder form of breakthrough chickenpox than did unvaccinated controls. In a blinded trial, breakthrough chickenpox was characterized by a 3-fold lower incidence of fever, a 6-fold decrease in the number of chickenpox lesions, and a one day shorter illness than disease in unimmunized controls. Milder illness was also observed in vaccinated adolescents and adults - a population otherwise at high risk for severe

disease.

There have been too few cases of breakthrough chickenpox reported to determine the absolute rate at which the serious but rare complications of varicella infection (such as pneumonitis, encephalitis, hepatitis and congenital varicella syndrome) might occur. However, there is no evidence to suggest that vaccination is associated with an increase in the frequency of the serious complications of chickenpox.

C. Additional data supportive of licensure

1. Immunogenicity

Studies designed to monitor the serum anti-varicella antibody response induced by VARIVAX® immunization were conducted on a subset of vaccinees participating in the efficacy trials. Serological studies to detect and quantify specific antibodies to VZV (anti-VZV) have been performed on vaccinees by several methods. Antisera from vaccinees recognize a spectrum of VZV proteins, especially glycoproteins. The majority of serological data have been generated using a highly sensitive and specific ELISA based on reactivity with an enriched mixture of glycoproteins (gp) isolated from VZV-infected cells (gpELISA). Data from this gpELISA show good concordance with the other serological assays, consistent with the finding that viral glycoproteins are targets of neutralizing antibodies. In vaccinated children, neutralizing antibody titers rise concomitant with gpELISA titer. Children with no history of varicella infection generally had titers below 0.3 "units" by this assay whereas wild-type varicella infection induced titers >1,000.

Seroconversion was not always associated with protection from breakthrough disease. Rather, the higher the gpELISA titer, the greater the likelihood of protection from breakthrough chickenpox. In general, children with gpELISA titers below 2.5 were no better protected from infection than those with no detectable serum antibody. Statistically significant protection from disease ($p < .05$) correlated with gpELISA titers >5. Table 3 provides data on the distribution of gpELISA titers in children immunized with lots of VARIVAX® produced in 1982, 1987 and 1991. As the dose of virus administered rose from 950 to 17,430 PFU, the fraction of children with protective gpELISA titers rose from 60% to 97% (Table 3).

Clinical studies have demonstrated that VARIVAX® induces detectable varicella antibody in 97% of children as measured by gpELISA 6 weeks after one dose. Using a cutoff of ≥ 0.3 units, anti-varicella antibodies were induced in >99% of children vaccinated with 17,430 PFU of virus in 1982, >95% of children vaccinated with 950 - 1,600 PFU of virus in 1982 and 1987 and >99% vaccinated with >2,900 PFU of virus 1991 (Table 3). Studies of seroconversion kinetics in children show that 36%, 100%, and 99% had seroconverted by 2, 4, and 6 weeks post-vaccination, respectively. Seventy-four percent (74%) of children who received between 905 to 9000 PFUs of varicella virus in the vaccine developed titers ≥5 U by gpELISA (Table 3), a titer

which correlates with more complete protection from disease. Limited studies of the cellular immune response in vaccinees indicate that VARIVAX® induces a proliferative T-cell response in children, adolescents and adults when measured 4-6 weeks post-vaccination.

In adolescents and adults, 75-94% developed detectable antibody as measured by the gpELISA 4-6 weeks post-vaccination. Seroconversion by the gpELISA was 99% 4-6 weeks after a second dose of vaccine in adolescents and adults. After one dose, only 32% of these subjects developed titers ≥ 5 U by gpELISA (Table 3). More vaccinees developed antibody levels ≥5 U when the two doses of VARIVAX® were administered 8 rather than 4 weeks apart.

In clinical studies involving healthy children who had received 1 dose of vaccine, anti-VZV was present in 98.89% at 1 year, 98.9% at 2 years, 97.5% at 3 years, and 99.5% at 4 years post-vaccination. In addition, limited follow-up data on vaccinees showed that 100% of vaccinees were seropositive at least 7 years post-vaccination. Antibody levels were present at least 1 year in 97.2% of healthy adolescents and adults who had received 2 doses of Varicella Virus Vaccine Live separated by 4-8 weeks.

D. Additional data on clinical issues.

1. Safety & Communicability

VARIVAX® has been generally well tolerated. The type and incidence of complaints which were reported within 42 days post-vaccination in ~8900 children are summarized in Table 3. Injection site complaints and non-injection site rashes (varicella-like, generalized were reported in 19.3% and 3.8% of children, respectively). Oral temperatures ≥102°F (39°C) were reported in 14.7% of children over the 42 day follow-up period. The most common systemic complaint in children was upper respiratory illness (62.4%). In a placebo-controlled efficacy trial with VARIVAX®, 16% of children who received placebo reported an oral temperature ≥102°F during 56 days of follow-up. Comparable rates of other systemic reactions were observed in the vaccine and placebo groups.

The types and incidence of complaints which were reported within 28 or 42 days post-dose 1 and dose 2 in ~1600 adolescents and adults are summarized in Table 4. Injection site complaints were reported in 24.4% and 32.5% of vaccinees post-dose 1 and dose 2, respectively, Non-injection site rashes (varicella-like, generalized) were reported in 5.5% and 9.5% of vaccinees post-dose 1 and dose 2, respectively. The most common systemic complaint in adolescents and adults was upper respiratory illness (43.4% post-dose 1 and 39.7% post-dose 2).

Reye's syndrome has occurred in children and adolescents following natural varicella infection, the majority of whom had received salicylates. In clinical studies in healthy children and adolescents in the United States, physicians advised

varicella vaccine recipients not to use salicylates for six weeks after vaccination. There were no reports of Reye's syndrome in varicella vaccine recipients during these studies.

The potential exists for vaccinees to transmit the Oka strain of varicella to household contacts. Six of 446 unvaccinated children seroconverted while three additional children developed chickenpox after household exposure to siblings immunized with VARIVAX (Weibel, et al. NEJM 1984). Nine unvaccinated controls developed 'chickenpox-like rashes' but did not seroconvert, although the IAHA assay used to detect serum anti-varicella antibodies in that study was less sensitive than the gpELISA. These data suggest that vaccine recipients may transmit the attenuated strain of varicella virus to close contacts. The labeling appropriately suggests that vaccinees should avoid contact with susceptible high-risk individuals or non-immune pregnant women for several weeks after receiving VARIVAX® (package insert). The relative risk of a vaccinee transmitting the attenuated strain of varicella to an immunocompromised family member must be weighed against the risk of wild-type infection in the absence of vaccination.

2. Herpes zoster

Eight cases of herpes zoster have been reported in children during 44, 994 person years of follow-up in clinical trials resulting in a calculated incidence of 18 cases per 100,000 person-years. These were, for the most part, milder than typical cases of zoster caused by wild-type virus. One case of herpes zoster has been reported in the adolescent and adult age group during 7826 person-years of follow-up, resulting in a calculated incidence of 12.8 cases per 100,000 person years. All nine cases were mild and without sequelae. Two of the cultures (one child and one adult) obtained from vesicles were positive for wild-type VZV as confirmed by restriction endonuclease analysis. The long-term effect of VARIVAX® and the influence of exposure to wild-type varicella among vaccinees studied so far on the incidence of herpes zoster is unknown at present.

There is an additional concern that universal vaccination might result in increased rates of zoster in vaccinated and unvaccinated individuals. Evidence suggests that re-exposure to natural chickenpox boosts cellular immunity and potentially reduces an individual's likelihood of developing zoster. Since vaccine-induced herd immunity will reduce exposure to wild-type varicella, mathematical modelling indicates that the frequency of zoster in adults could increase. Careful monitoring of zoster rates over time will facilitate the detection of such an effect.

3. Simultaneous administration with other childhood vaccines

VARIVAX® can be administered concomitantly with M-M-R-II® using separate syringes at separate injection sites. Limited data in studies using an investigational vaccine, a formulation combining live attenuated measles, mumps, rubella, and varicella vaccines in one syringe, suggest that the varicella vaccine can be

administered concomitantly with booster doses of DTaP (diphtheria, tetanus, acellular pertussis) and PedvaxHIB [Haemophilus b Conjugate Vaccine (Meningococcal Protein Conjugate)] using separate sites and syringes. However, anti-varicella levels were decreased when the investigational vaccine containing varicella was administered concomitantly with DTaP or PedvaxHIB. Additional studies are ongoing to assess concomitant use of VARIVAX® with other pediatric vaccines.

4. Duration of efficacy

The duration of the immune response induced following vaccination with VARIVAX® is an issue of considerable importance. It is unknown whether children who are immunized with varicella vaccine develop lifelong immunity. If the protective effect of immunization wanes, a program of universal immunization may create a population of adults who are at risk of serious illness.

Several factors complicated the assessment of long-term varicella vaccine efficacy. First, most of the clinical trials conducted by Merck were designed to monitor short-term rather than long-term efficacy. Second, many patients in these trials were followed passively and their participation in the trial waned as time following vaccination increased. Table 2 documents this effect and shows that the calculated frequency of breakthrough disease varied among actively versus passively followed children. Third, subjects vaccinated during the 1987 campaign who did not produce serum antibodies against varicella were generally re-immunized with vaccine one year later. Thus, the effect of a single vaccination in this trial was obscured.

The 1987 study contained the largest number of children actively followed for more than three years. Results from that study indicate that the highest level of protection was obtained during the first two years post immunization (Table 2). There was an approximate 32% decrease in protective efficacy from the first to fifth year post immunization ($p. <.01$). However, breakthrough rates were relatively stable from 3 - 5 years post vaccination, suggesting that immunity was maintained over that period (Table 2). Only three years of follow-up data were available from the 1991 campaign, but protective efficacy exceeded 90% throughout that trial (Table 2). While there was little active long-term follow-up of subjects participating in the 1982 and 1984 trials, passive follow-up suggests that immunity persisted during those trials as well.

Serologic studies of children immunized with VARIVAX® showed that anti-varicella titers not only persisted but actually increased with time post immunization (Fig 1). This seemingly paradoxical finding highlights an important limitation to the long-term analysis of vaccine efficacy. Wild-type varicella is endemic in the U.S, so some children participating in efficacy trials were undoubtedly re-exposed to chickenpox when their friends or siblings became infected. Such inadvertent exposure could have boosted the vaccinee's immune response, resulting in increased serum antibody titers and potentially extending the

subject's immunity to varicella. Only after most children are immunized with VARIVAX® will this booster effect diminish and an unequivocal analysis of the vaccine's long-term efficacy become possible.

To monitor the effect of vaccine use, Merck has agreed to conduct phase IV (post-licensure) studies. These include trials in which a cohort of i) 25,000 immunized children will be followed over the short term to detect rare adverse events, ii) 7,000 children will be actively followed for at least 15 years to monitor changes in varicella rates and iii) five sets of 8,000 children will be studied over 15 years to determine whether varicella incidence changes following wide-spread vaccine use. In addition, Merck will conduct case-control studies of vaccine effectiveness over a 15 year period, monitor varicella epidemiology among children enrolled in certain day care centers, monitor the persistence of antibody in children and adults immunized with VARIVAX®, and examine whether the anamnestic response induced by re-vaccination varies over time. These studies will be supplemented by epidemiological surveys conducted by the CDC designed to assess the frequency of varicella infection following widespread use of VARIVAX®.

5. Immunotoxicology

As noted above, human MRC-5 cells are the substrate upon which the Oka strain of varicella is grown. In the process of isolating virus from these cells, MRC-5 derived proteins and DNA are also obtained. The nearly 2 μg of unmodified mammalian DNA present in each dose of VARIVAX® exceeds that present in any other approved childhood vaccine.

To assess whether these impurities could induce a harmful anti-DNA autoimmune response, serum IgG anti-DNA antibody levels were monitored in a cohort of 293 subjects who were immunized and boosted with VARIVAX®. A comparison of anti-DNA titers before immunization and at 6 weeks and 1 year after boost showed no significant change in either the average anti-DNA antibody titer or the frequency of elevated anti-DNA titers in immunized subjects.

E. Labeling

The labeling is adequate from the perspective of the clinical studies.

VI. Advisory Panel Consideration

Data concerning the safety and efficacy of VARIVAX® for the prevention of varicella disease (chickenpox) were discussed in open public hearings at the Vaccines and Related Biological Products Advisory Committee meetings on the following dates: January 14, 1985, January 24, 1986, July 22, 1986, June 17, 1987, January 25, 1990, January 28, 1994, and January 27, 1995. Data concerning manufacturing issues of VARIVAX® were discussed in closed session at the

Vaccines and Related Biological Products Advisory Committee meetings on June 7, 1994, and August 23, 1994.

Philip R. Krause, M.D., Chairman

Dennis Klinman, M.D., Ph.D.

Norman Baylor, Ph.D.

Dale Horne, Dr. P.H.

Herbert Smith, Ph.D.

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TABLE 1
Demographics of persons included in clinical studies of VARIVAX®

	Healthy children (Ages 1-12 years)	Healthy Adolescents & Adults (≥13 years)
Male	4895 (51.8%)	636 (38.6%)
Mean age (years)	3.94	25.88
Female	4559 (48.2%)	1012 (61.4%)
Mean age (years)	4.03	27.39
Total	9454 (100%)	1648 (100%)
Mean age (years)	3.98	26.81

Table 2. Long-term clinical follow-up of VARIVAX® Recipients

A. Active and passive follow-up combined

Annual Breakthrough Incidence and (Number of Vaccinees Studied)

Interval after immunization	Vaccine Manufacturing Campaign 1982#	1982±	1984	1987	1991
1	0.2% (487)	0.4% (908)	0.3% (1154)	2.1% (3537)	0.2% (1011)
2	0.0% (543)	1.2% (1021)	0.9% (1294)	2.9% (3842)	0.8% (1134)
3	0.6% (534)	2.1% (1004)	0.6% (1279)	3.3% (3713)	1.0% (682)
4	1.3% (528)	1.2% (989)	0.7% (1271)	3.6% (3563)	
5	1.9% (518)	2.1% (971)	0.8% (1261)	3.3% (3371)	
6	1.0% (513)	0.9% (956)	0.9% (1247)	3.0% (2831)	
7	0.6% (508)	0.3% (951)	0.3% (1076)		
8	0.0% (506)	0.4% (943)			
9	0.2% (505)	0.5% (938)			
10	0.0% (504)	0.0% (917)			
PFU	17,430	950	2,460 - 14,000	1000 - 1625	2900 - 9000

B. Active follow-up alone

Breakthrough Incidence and (Number of Vaccinees Studied) per Year

Interval after immunization	Vaccine Manufacturing Campaign 1982#	1982±	1984	1987	1991
1	0.2% (401)	0.8% (615)		3.0% (2994)	0.6% (955)
2	*	1.2% (417)		3.3% (2415)	0.8% (717)
3	*	2.4% (123)		4.4% (911)	*
4	*	1.8% (111)		4.3% (538)	
5	*	1.9% (108)		4.5% (376)	
6	*	*			
7	*	*			
8	*	*			
9	*	*			
10	*	*			

*Fewer than 100 subjects actively followed during preceding 12 month interval.
+Trial participants in 1982 received either 17,430 PFU (#) or 950 PFU (+) of virus.
For each follow-up interval, the annual incidence of breakthrough varicella (%) and the number of children included in the study population are shown. In part A, calculations assume that all breakthrough cases that occurred in vaccinated individuals were reported. The 12 month follow-up intervals started 6 weeks after initial vaccination in this population. In part B, only those subjects contacted for information on breakthrough disease within the previous interval were included. Individuals re-immunized with vaccine were excluded from further analysis. The 12 month follow-up intervals for these individuals started 6 months after initial vaccination. See Table II for information on vaccine dose. The FDA was not provided with data concerning subjects actively followed in the 1984 trial.

Table 3. Distribution of gpELISA titers among subjects vaccinated with different lots of VARIVAX®

gpELISA Titer (OD)	Percent of trial participants			
	1982#	1982+	1987	1991
≤ 0.3	0.2	4.6	4.6	0.5
>0.3 - 5	2.8	35.4	23.1	9.3
5 - 10*	10.7	28.6	18.8	16.6
>10*	86.2	31.4	53.6	73.6
N	457	714	3603	2625
PFU	17,430	950	1000 - 1625	2900 - 9000

Serum anti-varicella antibody titers were measured 6 weeks following vaccination by gpELISA.

* gpELISA titers correlating with significantly increased protection against subsequent varicella infection.

\+ Trial participants in 1982 received either 17,430 PFU (#) or 950 PFU (+) of live virus.

Table 4

Antibody responses among healthy individuals+ who received VARIVAX®

Population	Seroconversion*	%≥5 gpELISA Titer
Healthy Children 1-12 years		
Dose 1**	97%	74%
Healthy Adolescents & Adults ≥13 years		
Dose 1 ***	79%	32%
Dose 2	99%	82%

+ Includes only subjects who received between 905-9000 PFUs

* Seroconversion= detectable antibody levels by gpELISA (assay not commercially available)

**6 weeks post-vaccination

***4-6 weeks post-vaccination

Table 4

Frequency of clinical complaints (without regard to causality), occurring at a frequency >1% within 42 days following administration of VARIVAX® in healthy children (N=9230*).

Clinical Complaints	Frequency (%)
Injection Site	
Injection site complaints (pain/soreness, swelling and/or erythema, varicella-like rash, pruritus)	19.3
Body as a whole	
Fatigue	27.4
Fever (≥102°F)	14.7
Headache	11.1
Malaise	9.2
Chills	4.8
Digestive System	
Diarrhea	22.8
Loss of appetite	19.8
Vomiting	15.7
Abdominal pain	8.2
Teething	9.7
Nausea	7.1
Constipation	1.1
Respiratory system	
Upper respiratory illness	62.4
Cough	40.4
Lower respiratory illness	3.0
Psychiatric/Behavioral	
Irritability, nervousness	31.4
Disturbed sleep	24.1

Table 4 (continued)

Special Senses	
Otitis	14.9
Eye complaints	6.2
Integumentary System	
Diaper rash/contact rash	11.9
Other rash	8.0
Varicella-like rash	3.8
Allergy/allergic rash/hives	2.1
Heat rash/prickly heat	1.6
Insect bites	1.6
Eczema/dry skin/dermatitis	1.2
Itching	1.1
Hematologic/Lymphatic system	
Lymphadenopathy	3.1
Musculoskeletal system	
Myalgia	3.1
Stiff Neck	1.7
Arthralgia	1.5

*No data on 314 subjects

Table 5
Frequency of clinical complaints (without regard to causality) occurring at a frequency >1% within either 28 or 42 days following administration of VARIVAX® in healthy adolescents and adults.

Clinical Complaint	Frequency (%) Dose 1* N=1639	Dose 2** N=984
Injection Site		
Injection site complaints (pain/soreness, swelling and/or erythema, varicella-like rash, pruritus, hematoma, induration, stiffness)	24.4	32.5
Body as a whole		
Headache	35.4	27.9
Fatigue	29.0	24.4
Malaise	12.0	10.4
Fever (≥100°F)	10.2	9.5
Chills	8.7	7.7
Digestive System		
Diarrhea	11.3	10.7
Abdominal pain	7.7	7.4
Loss of appetite	7.4	6.2
Vomiting	4.4	3.0
Constipation	2.3	1.9
Nausea	13.4	11.3
Respiratory system		
Upper respiratory illness	43.4	39.7
Cough	17.6	19.9
Lower respiratory illness	1.7	2.4
Psychiatric/Behavioral		
Disturbed sleep	15.6	12.4
Irritability/Nervousness	11.1	6.4

Table 5 (continued)

Clinical Complaint	Frequency (%)	
	Dose 1*	Dose 2**
Special Senses		
Eye complaints	8.5	5.9
Otitis	5.2	3.8
Integumentary system		
Varicella-like rash	5.5	0.9
Itching	4.5	0.8
Other rash	3.3	1.9
Allergy/allergic rash/hives	1.4	1.7
Contact rash	1.2	0.6
Cold/canker sores	1.1	1.2
Hemic/Lympthatic system		
Lymphadenopathy	8.8	7.0
Musculoskeletal System		
Myalgia	16.9	13.7
Stiff neck	11.3	7.9
Arthralgia	6.1	4.4

* No data on 33 subjects
** No data on 29 subjects

Appendix I
Black/Shinefield Report

Final Report

Post Marketing Evaluation of Short Term Safety of Varicella (Varivax®, MSD) Vaccine

Steven Black, Henry Shinefield, Paula Ray, Edwin Lewis, John Hansen, Todd Glasser
Kaiser Permanente Vaccine Study Center, Oakland

June 13, 1997

Introduction

Varicella is a common childhood disease which infects more than 90% of children before ten years of age. In the vast majority of children, this infection is mild and self limited. Varicella infection in healthy children is, however, responsible for an estimated 100 deaths each year as well as sequelae due to encephalitis, cerebellar ataxia, pneumonia, hepatitis and secondary infection.

The Oka strain of live attenuated varicella vaccine was developed by Takahashi in Japan and was licensed for use in healthy children in the United States in March, 1995. The varicella vaccine has also been recommended for routine use in children by the Advisory Committee on Immunization Practices (ACIP) and the American Academy of Pediatrics. Since licensure, more than 90,000 doses of this vaccine have been given to children and adults within the Northern California Kaiser Permanente Medical Care Program as part of routine preventive care.

We report here on an evaluation of the short term safety of this vaccine as assessed by rates of medical events resulting in hospitalization, emergency room visits, and outpatient utilization within Kaiser Permanente from May 1, 1995 through February 5, 1997.

Methods

Beginning in April, 1995, varicella vaccination was introduced into the preventive care program of the Northern California Kaiser Permanente Medical Care Program (KPMCP) which provides pre-paid medical care for 2.5 million people at 31 medical centers in Northern California. The vaccine was recommended for routine use in children between the ages of one and two years old as well as for older children and adults without a history or serological evidence of prior varicella infection.

Within KPMCP, all immunizations are routinely entered into the Kaiser Immunization Tracking System (KITS) and are available for reporting and analysis. In addition, diagnoses and procedure codes for all visits are available from clinical databases for hospitalizations, emergency room visits, clinic visits as well as visits to specialists. Since KPMCP is self-insured, data on emergency visits to outside providers are also available from a claims database.

For the purposes of the analyses performed in this study, the rates of medical events occurring within 0 - 60 days of vaccination for hospitalization, 0 - 30 days for emergency room, and 1 - 30 days for clinic (outpatient) visits were compared to the rates of the same events in three different control periods. One control period was a historical comparison with the rates of the same events in historical age and sex matched controls during the one year prior to the onset of this study. The two other control periods were two distinct follow-up time periods in the vaccinees: the before control periods and the post-vaccine or after control periods. The before control periods were defined as 31 - 60 days prior to receipt of the varicella vaccine for clinic and emergency visits and 31 - 90 prior to vaccine for hospitalization. The after control periods were 91 - 120 days following vaccine for emergency and clinic visits and 91 - 150 days following vaccine for hospitalization. All events were reviewed by one of the

two principal investigators for possible vaccine association and classification of severity. Any events felt to be possibly associated with vaccination and all allergic reactions, deaths and neurologic events within the exposed follow-up period were reported to the Vaccine Adverse Events Reporting System (VAERS) through the manufacturer. In addition, in all cases, the diagnosis specific rates of events within exposed follow-up time period were compared to the control rates. P values and confidence intervals for the relative risk were calculated using the mid-p exact binomial method. Separate analyses were performed for the one year old, 2-12 year old, 13-17 year old and over 18 year old age groups. In reviewing the results of these multiple comparisons, any diagnostic categories with an elevated risk following vaccination and for which there was biologic plausibility were identified for further evaluation.

Results

The results of the analyses described above are shown in the attached tables. Descriptive summary statistics are followed by a series of tables presenting the results of the comparisons between the defined risk period and the various control periods: self-control 91 - 120 days after vaccination; self-control 31 - 60 days before; and, for hospitalizations and emergency room utilization, historical controls 1 year prior. This first group of tables is organized by age group and control period within type of service (hospitalization, ER, or outpatient). For each elevated risk significant at the .05 level we performed an additional analysis controlling for receipt of concomitant MMR vaccine. The second set of tables report these results and are organized as above by type of service, age group, and control period. Third, for all diagnostic categories with apparent increased risk, the number of events on the same day as immunization is shown compared with the total number of events within 30 and 60 days for emergency room visits and hospitalizations respectively. Finally, the number, interval since vaccination, and cause of death by age group is reported for subjects who died at any time following vaccination.

Interpretation

The analysis identified several outcome categories with elevated relative risks which were statistically significant at the α=0.05 level. It is important to note that the statistics employed in these tables are not adjusted for the multiple comparisons that are being made.

To comment specifically on a few of these outcomes:

1. Among the 1 year of age and 2-12 years of age comparison groups, higher rates of elective procedures in the hospital within 60 days following vaccination are observed. Most elective procedures are scheduled during routine care visits, where there is the opportunity for vaccination. Therefore, we would expect a higher rate of routine care visits and immunizations to precede hospital visits for elective procedures. The same line of reasoning applies to the comparison of hospitalization rates with historical controls.

2. As in our prior report, the rate of acute gastroenteritis among one year olds is lower in the age-matched historical controls for both hospitalizations and emergency room visits. We believe this result is due to year to year variation in the seasonality of acute gastroenteritis.

3. Among one year olds, there is also a reported increased risk of emergency room visits for acute gastroenteritis when compared with the 91-120 period after vaccination, but this does not appear in the 31-60 day before vaccination control interval. This may be due to seasonal variation within the study time period.

4. Among one year olds we observed a significantly elevated risk of emergency room utilization for epilepsy in the comparison with 31-60 days before vaccine, while the relative risk estimate in the 90-120 days after comparison was not statistically significant. We believe this is the result of children with active epilepsy not being vaccinated.

5. There is a consistent finding of increased febrile illness and 'R/O sepsis' within the 30 day interval following vaccination. We have observed similar findings following MMR alone in other studies where we observed an increased risk of febrile illness and "rule out sepsis" evaluations. We therefore conducted separate analyses of children with and without concomitant MMR vaccine. One year olds who received concomitant MMR vaccine had a significantly elevated risk of febrile illness in the emergency room setting, whereas the risk was not statistically significant in those not given MMR concurrently. In the outpatient setting, among the 1 and 2-12 year age groups, there was a significant risk of febrile illness in the 91-120 day after comparison but not in the 31-60 days before comparison. This risk could be due to seasonality of febrile illness within the study period. In the 2-12 year old group, MMR vaccine is not given commonly, and we believe some increased risk may be due to concomitant DTP administration. Analyses of risk of febrile illness among children 2-12 years of age with and without concomitant DTP vaccine is planned.

6. Increased risk of febrile seizure was observed in the 1 year age group for comparisons in the hospital and outpatient settings. Of 21 hospitalizations for febrile seizure, 19 followed varicella vaccine with concomitant MMR and 2 followed varicella vaccine given without MMR. Without MMR, the relative risk estimate for hospitalization with febrile seizure was 0.58 among one year olds. Similarly, in the outpatient setting, with a control period of 91 -120 days after vaccination, the relative risk following concomitant varicella and MMR vaccine was 2.23 while the relative risk following varicella alone was 0.84.

7. Among one year olds, significantly increased risk of emergency room visits for viral syndrome and rash occurred only among vaccine recipients with concomitant MMR. In the outpatient setting, risk of viral syndrome was significantly elevated among those with concurrent MMR, but not for varicella vaccine without MMR.

8. Similarly, an increased risk of outpatient visits for allergic reactions (including hives) was observed among one year olds in the after comparison. This risk was present only in the group that received concomitant MMR. Among 2-12 year olds there was a marginally significant increased risk of emergency room visits for hives in the after comparison only. Analysis of this group with and without concomitant DTP vaccine is planned.

9. Among the 2-12 years of age group, a possible increased risk of alopecia remains unexplained pending analysis of concurrent immunogens, particularly Hepatitis B vaccine and DTP.

Conclusion

In this study population of 90,000 children and adults, the varicella vaccine (Oka strain, Merck) appeared to be free of serious side effects. Overall we are impressed by the apparent safety of Varivax in this study.

Appendix II-1
Line Summaries - 1 Year

Varicella Vaccine Safety Analysis: Hospitalizations
1 Year of Age -- Immunizations through 12/31/96, Admissions through 02/05/97
0-60 Day Risk Period and 31-90 Days BEFORE Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	0-60 days N	0-60 days Rate	31-90 days before N	31-90 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
Abscess	0	0.00	1	0.18	0.00	0.00	19.10	0.501
Acute Gastroenteritis	33	5.83	33	5.80	1.01	0.62	1.64	0.983
Adenitis	2	0.35	0	0.00	.	0.29	.	0.249
Agranulocytosis	0	0.00	1	0.18	0.00	0.00	19.10	0.501
Allergic incl Angioedema	0	0.00	1	0.18	0.00	0.00	19.10	0.501
Anemia	2	0.35	0	0.00	.	0.29	.	0.249
Appendicitis	1	0.18	1	0.18	1.01	0.03	39.21	0.997
Arhythmia	0	0.00	1	0.18	0.00	0.00	19.10	0.501
Aspiration	2	0.35	1	0.18	2.01	0.15	59.31	0.622
Asthma	40	7.06	40	7.02	1.01	0.65	1.56	0.981
Ataxia	0	0.00	1	0.18	0.00	0.00	19.10	0.501
Bronchiolitis	7	1.24	9	1.58	0.78	0.28	2.14	0.637
Cardiac disease	1	0.18	0	0.00	.	0.05	.	0.499
Cellulitis	3	0.53	2	0.35	1.51	0.22	12.68	0.683
Cerebral Palsy	0	0.00	2	0.35	0.00	0.00	3.49	0.251
Chronic sinusitis	1	0.18	0	0.00	.	0.05	.	0.499
Congenital Anomaly	33	5.83	61	10.71	0.54	0.35	0.83	0.004
Congenital heart disease	0	0.00	4	0.70	0.00	0.00	1.12	0.063
Constipation	0	0.00	1	0.18	0.00	0.00	19.10	0.501
Croup	9	1.59	11	1.93	0.82	0.33	2.02	0.672
Developmental Delay	1	0.18	0	0.00	.	0.05	.	0.499
Diabetes	1	0.18	1	0.18	1.01	0.03	39.21	0.997
Drug Reaction	2	0.35	0	0.00	.	0.29	.	0.249
E Coli Septicemia	1	0.18	0	0.00	.	0.05	.	0.499
Elective Procedure	131	23.13	119	20.90	1.11	0.86	1.42	0.424
Epiglottis	1	0.18	0	0.00	.	0.05	.	0.499
Epilepsy	11	1.94	6	1.05	1.84	0.68	5.39	0.234
Erythema multiforme	0	0.00	1	0.18	0.00	0.00	19.10	0.501
FUO	2	0.35	0	0.00	.	0.29	.	0.249
Failure to thrive	1	0.18	3	0.53	0.34	0.01	3.14	0.378
Febrile illness	5	0.88	6	1.05	0.84	0.24	2.87	0.781
GE Reflux	2	0.35	4	0.70	0.50	0.06	2.83	0.457
GI Bleed	2	0.35	0	0.00	.	0.29	.	0.249
Hemophilia	0	0.00	1	0.18	0.00	0.00	19.10	0.501
Hydrocephalus	1	0.18	1	0.18	1.01	0.03	39.21	0.997
Hypovolemia	1	0.18	8	1.40	0.13	0.01	0.79	0.022
Infection	1	0.18	0	0.00	.	0.05	.	0.499
Kawasaki's Disease	1	0.18	2	0.35	0.50	0.02	6.61	0.628
Mastoiditis	1	0.18	0	0.00	.	0.05	.	0.499
Near Drowning	0	0.00	2	0.35	0.00	0.00	3.49	0.251
Otitis Media	90	15.89	116	20.37	0.78	0.59	1.03	0.077
Pharyngitis	0	0.00	1	0.18	0.00	0.00	19.10	0.501
Pneumonia	27	4.77	22	3.86	1.23	0.70	2.19	0.468
Poisoning/Ingestion	7	1.24	8	1.40	0.88	0.30	2.50	0.812
Post-surgical complication	0	0.00	1	0.18	0.00	0.00	19.10	0.501
Rash	0	0.00	1	0.18	0.00	0.00	19.10	0.501
Respiratory failure (chronic)	1	0.18	0	0.00	.	0.05	.	0.499
Seizure, Febrile	21	3.71	12	2.11	1.76	0.87	3.69	0.118
Seizure, Type Unk.	1	0.18	0	0.00	.	0.05	.	0.499
Sickle Cell Disease	1	0.18	3	0.53	0.34	0.01	3.14	0.378
Sinusitis	1	0.18	0	0.00	.	0.05	.	0.499
Sleep apnea	0	0.00	2	0.35	0.00	0.00	3.49	0.251
Small bowel obstruction	1	0.18	2	0.35	0.50	0.02	6.61	0.628
Trauma	20	3.53	28	4.92	0.72	0.40	1.27	0.261
URI	5	0.88	5	0.88	1.01	0.27	3.74	0.993
UTI	3	0.53	5	0.88	0.60	0.12	2.61	0.513
Viral Syndrome	8	1.41	7	1.23	1.15	0.40	3.33	0.796
Wheezing/SOB	0	0.00	5	0.88	0.00	0.00	0.83	0.032
r/o Sepsis	2	0.35	0	0.00	.	0.29	.	0.249
*Total	448	79.10	479	84.12	0.94	0.83	1.07	0.350

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Hospitalizations
1 Year of Age -- Immunizations through 12/31/96, Admissions through 02/05/97
0-60 Day Risk Period and 91-150 Days AFTER Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	0-60 days N	0-60 days Rate	91-150 days N	91-150 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
Abscess	0	0.00	1	0.20	0.00	0.00	16.44	0.464
Acute Gastroenteritis	33	5.83	25	5.10	1.14	0.68	1.94	0.620
Adenitis	2	0.35	1	0.20	1.73	0.13	51.06	0.708
Allergic incl Angioedema	0	0.00	3	0.61	0.00	0.00	1.48	0.100
Allergic not incl Angioedema	0	0.00	1	0.20	0.00	0.00	16.44	0.464
Anemia	2	0.35	2	0.41	0.87	0.09	8.31	0.892
Appendicitis	1	0.18	1	0.20	0.87	0.02	33.75	0.928
Aspiration	2	0.35	0	0.00	.	0.25	.	0.287
Asthma	40	7.06	29	5.92	1.19	0.74	1.94	0.472
Bronchiolitis	7	1.24	1	0.20	6.06	0.94	137.57	0.061
Cancer, R/O Cancer	0	0.00	2	0.41	0.00	0.00	3.00	0.215
Cardiac disease	1	0.18	0	0.00	.	0.05	.	0.536
Cellulitis	3	0.53	4	0.82	0.65	0.12	3.14	0.593
Cerebral Palsy	0	0.00	1	0.20	0.00	0.00	16.44	0.464
Chronic sinusitis	1	0.18	0	0.00	.	0.05	.	0.536
Congenital Adrenal Insufficien	0	0.00	1	0.20	0.00	0.00	16.44	0.464
Congenital Anomaly	33	5.83	34	6.94	0.84	0.52	1.36	0.478
Congenital heart disease	0	0.00	3	0.61	0.00	0.00	1.48	0.100
Croup	9	1.59	5	1.02	1.56	0.52	5.13	0.442
Developmental Delay	1	0.18	0	0.00	.	0.05	.	0.536
Diabetes	1	0.18	0	0.00	.	0.05	.	0.536
Drug Reaction	2	0.35	0	0.00	.	0.25	.	0.287
E Coli Septicemia	1	0.18	1	0.20	0.87	0.02	33.75	0.928
Elective Procedure	131	23.13	79	16.12	1.44	1.09	1.90	0.011
Epiglottis	1	0.18	0	0.00	.	0.05	.	0.536
Epilepsy	11	1.94	11	2.24	0.87	0.37	2.04	0.738
FUO	2	0.35	0	0.00	.	0.25	.	0.287
Failure to thrive	1	0.18	0	0.00	.	0.05	.	0.536
Febrile illness	5	0.88	2	0.41	2.16	0.43	16.10	0.380
GE Reflux	2	0.35	0	0.00	.	0.25	.	0.287
GI Bleed	2	0.35	0	0.00	.	0.25	.	0.287
Hematemesis	0	0.00	2	0.41	0.00	0.00	3.00	0.215
Hematuria	0	0.00	1	0.20	0.00	0.00	16.44	0.464
Hydrocephalus	1	0.18	0	0.00	.	0.05	.	0.536
Hypoglycemia	0	0.00	1	0.20	0.00	0.00	16.44	0.464
Hypovolemia	1	0.18	7	1.43	0.12	0.01	0.80	0.021
ITP	0	0.00	1	0.20	0.00	0.00	16.44	0.464
Infection	1	0.18	0	0.00	.	0.05	.	0.536
Kawasaki's Disease	1	0.18	1	0.20	0.87	0.02	33.75	0.928
Mastoiditis	1	0.18	0	0.00	.	0.05	.	0.536
Near Drowning	0	0.00	1	0.20	0.00	0.00	16.44	0.464
Otitis Media	90	15.89	99	20.20	0.79	0.59	1.05	0.100
Pneumonia	27	4.77	24	4.90	0.97	0.56	1.70	0.922
Poisoning/Ingestion	7	1.24	11	2.24	0.55	0.20	1.43	0.223
Respiratory failure (chronic)	1	0.18	0	0.00	.	0.05	.	0.536
Seizure, Afebrile	0	0.00	1	0.20	0.00	0.00	16.44	0.464
Seizure, Febrile	21	3.71	8	1.63	2.27	1.03	5.45	0.043
Seizure, Type Unk.	1	0.18	1	0.20	0.87	0.02	33.75	0.928
Sickle Cell Disease	1	0.18	0	0.00	.	0.05	.	0.536
Sinusitis	1	0.18	2	0.41	0.43	0.01	5.69	0.546
Small bowel obstruction	1	0.18	0	0.00	.	0.05	.	0.536
Syncope/LOC	0	0.00	1	0.20	0.00	0.00	16.44	0.464
Tonsillitis	0	0.00	1	0.20	0.00	0.00	16.44	0.464
Trauma	20	3.53	25	5.10	0.69	0.38	1.25	0.223
URI	5	0.88	4	0.82	1.08	0.27	4.53	0.918
UTI	3	0.53	3	0.61	0.87	0.15	5.04	0.865
Viral Syndrome	8	1.41	4	0.82	1.73	0.52	6.59	0.385
Wheezing/SOB	0	0.00	1	0.20	0.00	0.00	16.44	0.464
r/o Sepsis	2	0.35	0	0.00	.	0.25	.	0.287
*Total	448	79.10	357	72.83	1.09	0.95	1.25	0.245

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Historical Controls - Hospitalizations
1 Year of Age -- Immunizations through 01/23/96, Admissions through 02/05/97
Risk Period: 0-60 days, Control Period: Same Calendar Days Year 1 or 2 Prior to Study

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	0-60 days N	0-60 days Rate	Historical Control N	Historical Control Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
Abscess	0	0.00	4	0.70	0.00	0.00	1.12	0.063
Acute Gastroenteritis	33	5.83	18	3.16	1.84	1.04	3.34	0.035
Adenitis	2	0.35	4	0.70	0.50	0.06	2.83	0.457
Anemia	2	0.35	2	0.35	1.01	0.10	9.66	0.996
Apnea	0	0.00	4	0.70	0.00	0.00	1.12	0.063
Appendicitis	1	0.18	0	0.00	.	0.05	.	0.499
Aseptic meningitis	0	0.00	1	0.18	0.00	0.00	19.10	0.501
Aspiration	2	0.35	2	0.35	1.01	0.10	9.66	0.996
Asthma	40	7.06	26	4.57	1.55	0.95	2.56	0.083
Bronchiolitis	7	1.24	5	0.88	1.41	0.44	4.85	0.575
Cancer, R/O Cancer	0	0.00	4	0.70	0.00	0.00	1.12	0.063
Cardiac disease	1	0.18	0	0.00	.	0.05	.	0.499
Cellulitis	3	0.53	8	1.40	0.38	0.08	1.38	0.148
Chronic sinusitis	1	0.18	0	0.00	.	0.05	.	0.499
Congenital Anomaly	33	5.83	44	7.73	0.75	0.48	1.18	0.221
Congestive Heart Failure	0	0.00	1	0.18	0.00	0.00	19.10	0.501
Croup	9	1.59	12	2.11	0.75	0.31	1.81	0.531
Cystic Fibrosis	0	0.00	1	0.18	0.00	0.00	19.10	0.501
Developmental Delay	1	0.18	0	0.00	.	0.05	.	0.499
Diabetes	1	0.18	0	0.00	.	0.05	.	0.499
Drug Reaction	2	0.35	0	0.00	.	0.29	.	0.249
E Coli Septicemia	1	0.18	0	0.00	.	0.05	.	0.499
Elective Procedure	131	23.13	85	14.93	1.55	1.18	2.04	0.002
Epiglottis	1	0.18	0	0.00	.	0.05	.	0.499
Epilepsy	11	1.94	4	0.70	2.76	0.91	10.04	0.075
FUO	2	0.35	1	0.18	2.01	0.15	59.31	0.622
Failure to thrive	1	0.18	0	0.00	.	0.05	.	0.499
Febrile illness	5	0.88	0	0.00	*	1.29	.	0.031
GE Reflux	2	0.35	1	0.18	2.01	0.15	59.31	0.622
GI Bleed	2	0.35	1	0.18	2.01	0.15	59.31	0.622
Histiocytosis	0	0.00	1	0.18	0.00	0.00	19.10	0.501
Hydrocephalus	1	0.18	1	0.18	1.01	0.03	39.21	0.997
Hypovolemia	1	0.18	1	0.18	1.01	0.03	39.21	0.997
Infection	1	0.18	0	0.00	.	0.05	.	0.499
Inguinal Hernia/Repair	0	0.00	1	0.18	0.00	0.00	19.10	0.501
Kawasaki's Disease	1	0.18	2	0.35	0.50	0.02	6.61	0.628
Mastoiditis	1	0.18	0	0.00	.	0.05	.	0.499
Meningitis	0	0.00	1	0.18	0.00	0.00	19.10	0.501
Mononucleosis	0	0.00	2	0.35	0.00	0.00	3.49	0.251
Near Drowning	0	0.00	1	0.18	0.00	0.00	19.10	0.501
Osteomyelitis	0	0.00	1	0.18	0.00	0.00	19.10	0.501
Otitis Media	90	15.89	109	19.14	0.83	0.63	1.10	0.192
Pneumonia	27	4.77	28	4.92	0.97	0.57	1.65	0.910
Poisoning/Ingestion	7	1.24	6	1.05	1.17	0.38	3.72	0.783
Rash	0	0.00	1	0.18	0.00	0.00	19.10	0.501
Respiratory failure (chronic)	1	0.18	0	0.00	.	0.05	.	0.499
Reye's Syndrome	0	0.00	1	0.18	0.00	0.00	19.10	0.501
Seizure, Febrile	21	3.71	7	1.23	3.02	1.32	7.63	0.008
Seizure, Type Unk.	1	0.18	0	0.00	.	0.05	.	0.499
Sepsis	0	0.00	5	0.88	0.00	0.00	0.83	0.032
Sickle Cell Disease	1	0.18	0	0.00	.	0.05	.	0.499
Sinusitis	1	0.18	1	0.18	1.01	0.03	39.21	0.997
Small bowel obstruction	1	0.18	0	0.00	.	0.05	.	0.499
Stomatitis	0	0.00	1	0.18	0.00	0.00	19.10	0.501
Synostosis	0	0.00	1	0.18	0.00	0.00	19.10	0.501
Tonsillitis	0	0.00	2	0.35	0.00	0.00	3.49	0.251
Trauma	20	3.53	11	1.93	1.83	0.88	3.95	0.107
URI	5	0.88	1	0.18	5.03	0.70	119.62	0.123
UTI	3	0.53	5	0.88	0.60	0.12	2.61	0.513
Varicella	0	0.00	2	0.35	0.00	0.00	3.49	0.251
Varicella w & w/o Cellulitis	0	0.00	2	0.35	0.00	0.00	3.49	0.251
Viral Syndrome	8	1.41	2	0.35	4.02	0.93	27.72	0.064
r/o Sepsis	2	0.35	3	0.53	0.67	0.08	4.51	0.692
*Total	448	79.10	398	69.89	1.13	0.99	1.30	0.072

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Emergency Room Visits
1 Year of Age -- Immunizations through 12/31/96, Visits through 02/05/97
0-30 Day Risk Period and 31-60 Days BEFORE Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	0-30 days N	0-30 days Rate	31-60 days before N	31-60 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
Abscess	1	0.35	4	1.40	0.25	0.01	1.99	0.219
Acute Gastroenteritis	92	32.31	96	33.72	0.96	0.72	1.28	0.771
Allergic incl Angioedema	3	1.05	6	2.11	0.50	0.10	2.01	0.344
Allergic not incl Angioedema	2	0.70	5	1.76	0.40	0.05	2.03	0.289
Apnea	0	0.00	1	0.35	0.00	0.00	19.00	0.500
Aspiration	0	0.00	1	0.35	0.00	0.00	19.00	0.500
Asthma	46	16.16	34	11.94	1.35	0.87	2.12	0.182
Ataxia	0	0.00	1	0.35	0.00	0.00	19.00	0.500
Breath holding	1	0.35	0	0.00	.	0.05	.	0.500
Bronchiolitis	14	4.92	17	5.97	0.82	0.40	1.68	0.597
Cellulitis	1	0.35	4	1.40	0.25	0.01	1.99	0.219
Congenital Anomaly	0	0.00	3	1.05	0.00	0.00	1.71	0.125
Conjunctivitis	5	1.76	10	3.51	0.50	0.15	1.45	0.210
Constipation	4	1.40	4	1.40	1.00	0.23	4.43	0.999
Croup	28	9.83	18	6.32	1.56	0.86	2.86	0.144
Diabetes	1	0.35	0	0.00	.	0.05	.	0.500
Drug Reaction	0	0.00	1	0.35	0.00	0.00	19.00	0.500
Elective Procedure	14	4.92	12	4.21	1.17	0.53	2.58	0.701
Epilepsy	6	2.11	0	0.00	.	1.54	.	0.016
Epistaxis	1	0.35	0	0.00	.	0.05	.	0.500
Febrile illness	52	18.26	26	9.13	2.00	1.26	3.25	0.003
Hematuria	1	0.35	0	0.00	.	0.05	.	0.500
Hives	6	2.11	2	0.70	3.00	0.63	21.60	0.180
Infection	3	1.05	0	0.00	.	0.58	.	0.125
Ingrown toenail	1	0.35	0	0.00	.	0.05	.	0.500
Irritable child	4	1.40	4	1.40	1.00	0.23	4.43	0.999
Local swelling	1	0.35	0	0.00	.	0.05	.	0.500
Musculoskeletal pain	0	0.00	1	0.35	0.00	0.00	19.00	0.500
Near Drowning	0	0.00	1	0.35	0.00	0.00	19.00	0.500
Otitis Media	177	62.17	207	72.70	0.86	0.70	1.04	0.126
Partial Bowel Obstruction	1	0.35	0	0.00	.	0.05	.	0.500
Pharyngitis	10	3.51	12	4.21	0.83	0.35	1.96	0.678
Pneumonia	20	7.02	25	8.78	0.80	0.44	1.44	0.461
Poisoning/Ingestion	25	8.78	24	8.43	1.04	0.59	1.84	0.888
Rash	20	7.02	10	3.51	2.00	0.94	4.45	0.071
Scabies	3	1.05	0	0.00	.	0.58	.	0.125
Seizure, Afebrile	1	0.35	0	0.00	.	0.05	.	0.500
Seizure, Febrile	43	15.10	34	11.94	1.26	0.81	2.00	0.308
Sinusitis	1	0.35	0	0.00	.	0.05	.	0.500
Small bowel obstruction	1	0.35	0	0.00	.	0.05	.	0.500
Stomatitis	0	0.00	2	0.70	0.00	0.00	3.47	0.250
Synovitis	0	0.00	1	0.35	0.00	0.00	19.00	0.500
Thrush	1	0.35	1	0.35	1.00	0.03	39.00	0.999
Tonsillitis	4	1.40	2	0.70	2.00	0.35	15.61	0.453
Trauma	333	116.96	315	110.63	1.06	0.91	1.23	0.480
URI	63	22.13	64	22.48	0.98	0.69	1.40	0.930
UTI	5	1.76	4	1.40	1.25	0.32	5.23	0.754
Varicella	3	1.05	0	0.00	.	0.58	.	0.125
Varicella w & w/o Cellulitis	3	1.05	0	0.00	.	0.58	.	0.125
Varicella with Cellulitis	1	0.35	0	0.00	.	0.05	.	0.500
Viral Syndrome	105	36.88	96	33.72	1.09	0.83	1.44	0.527
Well Child/Reassurance/FU	17	5.97	19	6.67	0.89	0.46	1.73	0.743
Wheezing/SOB	0	0.00	12	4.21	0.00	0.00	0.29	<0.001
r/o Sepsis	0	0.00	2	0.70	0.00	0.00	3.47	0.250
*Total	1038	364.57	993	348.76	1.05	0.96	1.14	0.318

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Emergency Room Visits
1 Year of Age -- Immunizations through 12/31/96, Visits through 02/05/97
0-30 Day Risk Period and 91-120 Days AFTER Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	0-30 days N	0-30 days Rate	91-120 days N	91-120 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
Abscess	1	0.35	1	0.40	0.89	0.02	34.63	0.941
Acute Gastroenteritis	92	32.31	48	18.98	1.70	1.20	2.43	0.002
Allergic incl Angioedema	3	1.05	7	2.77	0.38	0.08	1.45	0.164
Allergic not incl Angioedema	2	0.70	5	1.98	0.36	0.05	1.80	0.226
Anorexia	0	0.00	1	0.40	0.00	0.00	16.87	0.470
Aspiration	0	0.00	2	0.79	0.00	0.00	3.08	0.221
Asthma	46	16.16	29	11.47	1.41	0.89	2.26	0.148
Breath holding	1	0.35	0	0.00	.	0.05	.	0.530
Bronchiolitis	14	4.92	7	2.77	1.78	0.72	4.70	0.217
Cellulitis	1	0.35	2	0.79	0.44	0.02	5.84	0.560
Child Abuse	0	0.00	1	0.40	0.00	0.00	16.87	0.470
Congenital Adrenal Insufficien	0	0.00	1	0.40	0.00	0.00	16.87	0.470
Congenital Anomaly	0	0.00	2	0.79	0.00	0.00	3.08	0.221
Conjunctivitis	5	1.76	4	1.58	1.11	0.28	4.65	0.888
Constipation	4	1.40	0	0.00	.	0.80	.	0.079
Croup	28	9.83	27	10.68	0.92	0.54	1.57	0.761
Diabetes	1	0.35	0	0.00	.	0.05	.	0.530
Elective Procedure	14	4.92	17	6.72	0.73	0.35	1.49	0.391
Epilepsy	6	2.11	2	0.79	2.66	0.56	19.18	0.237
Epistaxis	1	0.35	1	0.40	0.89	0.02	34.63	0.941
Febrile illness	52	18.26	18	7.12	2.57	1.52	4.49	<0.001
Hematuria	1	0.35	1	0.40	0.89	0.02	34.63	0.941
Hives	6	2.11	4	1.58	1.33	0.36	5.35	0.677
Hydrocephalus	0	0.00	1	0.40	0.00	0.00	16.87	0.470
Infection	3	1.05	1	0.40	2.66	0.28	70.14	0.437
Ingrown toenail	1	0.35	0	0.00	.	0.05	.	0.530
Irritable child	4	1.40	1	0.40	3.55	0.45	87.90	0.268
Local swelling	1	0.35	0	0.00	.	0.05	.	0.530
Musculoskeletal pain	0	0.00	1	0.40	0.00	0.00	16.87	0.470
Otitis Media	177	62.17	156	61.70	1.01	0.81	1.25	0.946
Partial Bowel Obstruction	1	0.35	0	0.00	.	0.05	.	0.530
Pharyngitis	10	3.51	9	3.56	0.99	0.39	2.51	0.974
Pneumonia	20	7.02	19	7.51	0.93	0.49	1.77	0.833
Poisoning/Ingestion	25	8.78	22	8.70	1.01	0.57	1.81	0.978
Rash	20	7.02	7	2.77	2.54	1.10	6.45	0.026
Scabies	3	1.05	0	0.00	.	0.52	.	0.149
Seizure, Afebrile	1	0.35	0	0.00	.	0.05	.	0.530
Seizure, Febrile	43	15.10	41	16.22	0.93	0.61	1.43	0.745
Sinusitis	1	0.35	2	0.79	0.44	0.02	5.84	0.560
Small bowel obstruction	1	0.35	0	0.00	.	0.05	.	0.530
Stomatitis	0	0.00	3	1.19	0.00	0.00	1.52	0.104
Thrush	1	0.35	1	0.40	0.89	0.02	34.63	0.941
Tonsillitis	4	1.40	1	0.40	3.55	0.45	87.90	0.268
Trauma	333	116.96	294	116.28	1.01	0.86	1.18	0.943
URI	63	22.13	48	18.98	1.17	0.80	1.70	0.426
UTI	5	1.76	2	0.79	2.22	0.44	16.52	0.362
Varicella	3	1.05	1	0.40	2.66	0.28	70.14	0.437
Varicella w & w/o Cellulitis	3	1.05	1	0.40	2.66	0.28	70.14	0.437
Varicella with Cellulitis	1	0.35	0	0.00	.	0.05	.	0.530
Viral Syndrome	105	36.88	54	21.36	1.73	1.25	2.41	0.001
Well Child/Reassurance/FU	17	5.97	14	5.54	1.08	0.53	2.23	0.840
Wheezing/SOB	0	0.00	6	2.37	0.00	0.00	0.58	0.011
*Total	1038	364.57	790	312.45	1.17	1.06	1.28	0.001

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Historical Controls - Emergency Room Visits
1 Year of Age -- Immunizations through 12/31/96
Risk Period: 0-30 days, Control Period: Same Calendar Days, 1 or 2 Years Prior to Study

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	0-30 days N	0-30 days Rate	Historical Control N	Historical Control Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
Abscess	1	0.35	2	0.70	0.50	0.02	6.57	0.625
Acute Gastroenteritis	92	32.31	62	21.78	1.48	1.08	2.06	0.016
Allergic incl Angioedema	3	1.05	7	2.46	0.43	0.09	1.63	0.227
Allergic not incl Angioedema	2	0.70	3	1.05	0.67	0.08	4.48	0.687
Anal fissure	0	0.00	1	0.35	0.00	0.00	19.00	0.500
Apnea	0	0.00	2	0.70	0.00	0.00	3.47	0.250
Asthma	46	16.16	36	12.64	1.28	0.83	1.99	0.272
Breath holding	1	0.35	2	0.70	0.50	0.02	6.57	0.625
Bronchiolitis	14	4.92	18	6.32	0.78	0.38	1.57	0.487
Cellulitis	1	0.35	1	0.35	1.00	0.03	39.00	0.999
Child Abuse	0	0.00	1	0.35	0.00	0.00	19.00	0.500
Conjunctivitis	5	1.76	6	2.11	0.83	0.23	2.86	0.774
Constipation	4	1.40	1	0.35	4.00	0.50	98.98	0.219
Croup	28	9.83	30	10.54	0.93	0.55	1.57	0.795
Diabetes	1	0.35	0	0.00	.	0.05	.	0.500
Elective Procedure	14	4.92	9	3.16	1.56	0.67	3.75	0.307
Epilepsy	6	2.11	0	0.00	.	1.54	.	0.016
Epistaxis	1	0.35	0	0.00	.	0.05	.	0.500
Erythema multiforme	0	0.00	1	0.35	0.00	0.00	19.00	0.500
FUO	0	0.00	3	1.05	0.00	0.00	1.71	0.125
Febrile illness	52	18.26	34	11.94	1.53	0.99	2.38	0.053
GI Bleed	0	0.00	1	0.35	0.00	0.00	19.00	0.500
Hematuria	1	0.35	0	0.00	.	0.05	.	0.500
Hives	6	2.11	4	1.40	1.50	0.41	6.03	0.549
Infection	3	1.05	2	0.70	1.50	0.22	12.61	0.688
Ingrown toenail	1	0.35	1	0.35	1.00	0.03	39.00	0.999
Inguinal Hernia/Repair	0	0.00	1	0.35	0.00	0.00	19.00	0.500
Irritable child	4	1.40	7	2.46	0.57	0.15	1.97	0.388
Local swelling	1	0.35	0	0.00	.	0.05	.	0.500
Muscle pain	0	0.00	1	0.35	0.00	0.00	19.00	0.500
Otitis Media	177	62.17	229	80.45	0.77	0.63	0.94	0.010
Partial Bowel Obstruction	1	0.35	0	0.00	.	0.05	.	0.500
Pertussis	0	0.00	1	0.35	0.00	0.00	19.00	0.500
Pharyngitis	10	3.51	18	6.32	0.56	0.25	1.20	0.136
Pneumonia	20	7.02	17	5.97	1.18	0.61	2.28	0.627
Poisoning/Ingestion	25	8.78	31	10.89	0.81	0.47	1.37	0.427
Rash	20	7.02	22	7.73	0.91	0.49	1.68	0.761
Scabies	3	1.05	0	0.00	.	0.58	.	0.125
Seizure, Afebrile	1	0.35	2	0.70	0.50	0.02	6.57	0.625
Seizure, Febrile	43	15.10	31	10.89	1.39	0.87	2.22	0.165
Seizure, Type Unk.	0	0.00	2	0.70	0.00	0.00	3.47	0.250
Sepsis	0	0.00	1	0.35	0.00	0.00	19.00	0.500
Sinusitis	1	0.35	3	1.05	0.33	0.01	3.13	0.375
Small bowel obstruction	1	0.35	0	0.00	.	0.05	.	0.500
Stomatitis	0	0.00	1	0.35	0.00	0.00	19.00	0.500
Thrush	1	0.35	0	0.00	.	0.05	.	0.500
Tonsillitis	4	1.40	3	1.05	1.33	0.28	7.15	0.727
Transverse Myelitis	0	0.00	1	0.35	0.00	0.00	19.00	0.500
Trauma	333	116.96	343	120.47	0.97	0.83	1.13	0.701
URI	63	22.13	59	20.72	1.07	0.75	1.53	0.719
UTI	5	1.76	2	0.70	2.50	0.49	18.61	0.289
Varicella	3	1.05	3	1.05	1.00	0.17	5.82	0.999
Varicella w & w/o Cellulitis	3	1.05	3	1.05	1.00	0.17	5.82	0.999
Varicella with Cellulitis	1	0.35	0	0.00	.	0.05	.	0.500
Viral Syndrome	105	36.88	83	29.15	1.27	0.95	1.69	0.109
Well Child/Reassurance/FU	17	5.97	33	11.59	0.52	0.28	0.92	0.024
Wheezing/SOB	0	0.00	9	3.16	0.00	0.00	0.39	0.002
*Total	1038	364.57	1032	362.46	1.01	0.92	1.10	0.895

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Outpatient Visits
1 Year of Age -- Immunizations through 12/31/96, Events through 02/05/97
1-30 Day Risk Period and 31-60 Days BEFORE Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	1-30 days N	1-30 days Rate	31-60 days before N	31-60 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
ABDOMINAL PAIN	10	3.63	18	6.32	0.57	0.25	1.24	0.161
ABSCESS	78	28.34	55	19.32	1.47	1.04	2.08	0.029
ACNE	1	0.36	0	0.00	.	0.05	.	0.492
ADENITIS	21	7.63	13	4.57	1.67	0.84	3.43	0.146
AGE	983	357.15	1154	405.31	0.88	0.81	0.96	0.004
ALLERGIC ENTEROPATHY	0	0.00	1	0.35	0.00	0.00	19.66	0.508
ALLERGIC REACT W OR W/O HIVES	180	65.40	189	66.38	0.99	0.80	1.21	0.887
ALLERGIC REACTION (EX. HIVES)	0	0.00	8	2.81	0.00	0.00	0.47	0.004
ALLERGIC REACTION (INC. HIVES)	180	65.40	181	63.57	1.03	0.84	1.26	0.788
ALLERGIC RHINITIS	18	6.54	5	1.76	3.72	1.44	11.24	0.005
ALOPECIA	1	0.36	1	0.35	1.03	0.03	40.34	0.983
ANEMIA	1	0.36	2	0.70	0.52	0.02	6.80	0.644
APNEA	4	1.45	6	2.11	0.69	0.17	2.52	0.584
ARTHRALGIA / ARTHRITIS	2	0.73	1	0.35	2.07	0.16	61.03	0.606
ASTHMA	482	175.12	634	222.87	0.79	0.70	0.89	<0.001
BACK PAIN	7	2.54	3	1.05	2.41	0.63	11.49	0.207
BRONCHIOLITIS	402	146.06	508	178.42	0.82	0.72	0.93	0.003
BRONCHIOLITIS W PNEUMONIA	162	58.86	232	81.48	0.72	0.59	0.88	0.001
BRONCHOPULMONARY DYSPLASIA	4	1.45	3	1.05	1.38	0.28	7.39	0.694
CANCER	26	9.45	17	5.97	1.58	0.86	2.97	0.142
CARDIOMYOPATHY	1	0.36	1	0.35	1.03	0.03	40.34	0.983
CATARACT	0	0.00	1	0.35	0.00	0.00	19.66	0.508
CELLULITIS	17	6.18	17	5.97	1.03	0.52	2.05	0.922
CEREBRAL PALSY	19	6.90	20	7.02	0.98	0.52	1.86	0.958
CHOROID DISORDERS	0	0.00	1	0.35	0.00	0.00	19.66	0.508
CHRONIC LUNG DISEASE	2	0.73	1	0.35	2.07	0.16	61.03	0.606
CONGENITAL ANOMALY	143	51.96	123	43.20	1.20	0.95	1.53	0.134
CONGENITAL HEART DISEASE	36	13.08	53	18.61	0.70	0.46	1.07	0.102
CONJUNCTIVITIS	576	209.28	689	241.99	0.86	0.77	0.97	0.010
CONSTIPATION	49	17.80	46	16.16	1.10	0.74	1.65	0.638
CONTACT DERMATITIS	0	0.00	4	1.40	0.00	0.00	1.15	0.067
CORNEA DISORDERS	4	1.45	4	1.40	1.03	0.23	4.59	0.963
COUGH	1	0.36	0	0.00	.	0.05	.	0.492
CROUP	234	85.02	222	77.97	1.09	0.91	1.31	0.356
CYST	3	1.09	1	0.35	3.10	0.33	81.71	0.358
CYSTIC FIBROSIS	1	0.36	2	0.70	0.52	0.02	6.80	0.644
DACRYOCYSTITIS	0	0.00	1	0.35	0.00	0.00	19.66	0.508
DENTAL CARIES	0	0.00	2	0.70	0.00	0.00	3.59	0.259
DERMATITIS, SEBORRHEIC	1	0.36	0	0.00	.	0.05	.	0.492
DEVELOPMENTAL DELAY	64	23.25	72	25.29	0.92	0.66	1.29	0.627
DIABETES	2	0.73	1	0.35	2.07	0.16	61.03	0.606
DRUG INTOX	0	0.00	1	0.35	0.00	0.00	19.66	0.508
DRUG REACTION	6	2.18	6	2.11	1.03	0.32	3.39	0.954
DYSARTHRIA	0	0.00	1	0.35	0.00	0.00	19.66	0.508
DYSPHAGIA	1	0.36	0	0.00	.	0.05	.	0.492
ECZEMA	199	72.30	260	91.32	0.79	0.66	0.95	0.013
ELECTIVE SURGERY	40	14.53	16	5.62	2.59	1.46	4.74	0.001
ENURESIS	0	0.00	1	0.35	0.00	0.00	19.66	0.508
EPIDIDYMITIS/ORCHITIS	0	0.00	1	0.35	0.00	0.00	19.66	0.508
EPILEPSY	12	4.36	15	5.27	0.83	0.38	1.78	0.632
EPILEPSY - POST TRAUMATIC	1	0.36	0	0.00	.	0.05	.	0.492
EPIPHORA	19	6.90	11	3.86	1.79	0.85	3.89	0.125
ERYTHEMA MULTIFORME	0	0.00	1	0.35	0.00	0.00	19.66	0.508
ESOPHORIA	0	0.00	1	0.35	0.00	0.00	19.66	0.508
EUSTACHIAN	57	20.71	77	27.04	0.77	0.54	1.08	0.127
EXOPHORIA	0	0.00	2	0.70	0.00	0.00	3.59	0.259
FAILURE TO THRIVE	0	0.00	1	0.35	0.00	0.00	19.66	0.508
FEBRILE ILLNESS	179	65.04	172	60.41	1.08	0.87	1.33	0.490
FOLLICULITIS	1	0.36	0	0.00	.	0.05	.	0.492
FOOD ALLERGY	14	5.09	7	2.46	2.07	0.84	5.47	0.115
FOOT DISORDER	4	1.45	3	1.05	1.38	0.28	7.39	0.694
FUNGAL INFECTION	1	0.36	5	1.76	0.21	0.01	1.49	0.135
GASTRITIS	7	2.54	4	1.40	1.81	0.52	7.06	0.358

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Outpatient Visits
1 Year of Age -- Immunizations through 12/31/96, Events through 02/05/97
1-30 Day Risk Period and 31-60 Days BEFORE Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	1-30 days N	1-30 days Rate	31-60 days before N	31-60 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
GLAUCOMA	0	0.00	2	0.70	0.00	0.00	3.59	0.259
HAMARTOMA (COLL/EPI/SEBACEOUS	1	0.36	0	0.00	.	0.05	.	0.492
HAY FEVER	56	20.35	62	21.78	0.93	0.65	1.34	0.714
HEAD & NECK - ENT PROB. NOS	3	1.09	4	1.40	0.78	0.14	3.76	0.759
HEADACHE	3	1.09	1	0.35	3.10	0.33	81.71	0.358
HEALTHCARE CLASS	10	3.63	2	0.70	5.17	1.26	34.70	0.019
HEARING LOSS	6	2.18	7	2.46	0.89	0.28	2.74	0.837
HEART BLOCK	2	0.73	0	0.00	.	0.30	.	0.242
HEART MURMUR	12	4.36	6	2.11	2.07	0.78	5.97	0.146
HEMANGIOMA	0	0.00	1	0.35	0.00	0.00	19.66	0.508
HEMATOMA, SUBDURAL - TRAUMA	1	0.36	0	0.00	.	0.05	.	0.492
HEMOGLOBINOPATHY	2	0.73	2	0.70	1.03	0.11	9.94	0.975
HEMOPHILIA	2	0.73	1	0.35	2.07	0.16	61.03	0.606
HERPES - CORNEA	0	0.00	1	0.35	0.00	0.00	19.66	0.508
HOARSENESS	0	0.00	1	0.35	0.00	0.00	19.66	0.508
HYDROCEPHALUS	3	1.09	5	1.76	0.62	0.12	2.69	0.538
HYDRONEPHROSIS	3	1.09	3	1.05	1.03	0.18	6.02	0.968
HYPERTENSION	1	0.36	0	0.00	.	0.05	.	0.492
HYPOGLYCEMIA	0	0.00	1	0.35	0.00	0.00	19.66	0.508
HYPOSPADIAS	1	0.36	1	0.35	1.03	0.03	40.34	0.983
IDDM	2	0.73	0	0.00	.	0.30	.	0.242
IMPETIGO	102	37.06	121	42.50	0.87	0.67	1.13	0.309
INFESTATION	32	11.63	21	7.38	1.58	0.91	2.77	0.105
INSECT BITE(S)	54	19.62	44	15.45	1.27	0.85	1.90	0.241
INTERTRIGO	1	0.36	0	0.00	.	0.05	.	0.492
KAWASAKI'S DISEASE	1	0.36	0	0.00	.	0.05	.	0.492
KERATITIS	0	0.00	1	0.35	0.00	0.00	19.66	0.508
KERATOSIS-PILARIS	2	0.73	2	0.70	1.03	0.11	9.94	0.975
KIDNEY - STONE	0	0.00	2	0.70	0.00	0.00	3.59	0.259
KNEE/THIGH DYSFUNCTION	1	0.36	1	0.35	1.03	0.03	40.34	0.983
LACRIMAL SYSTEM DISORDERS	22	7.99	32	11.24	0.71	0.41	1.22	0.220
LENTIGO	1	0.36	0	0.00	.	0.05	.	0.492
LICHEN SIMPLEX CHR.	1	0.36	0	0.00	.	0.05	.	0.492
LIPOMA	2	0.73	2	0.70	1.03	0.11	9.94	0.975
LOWER EXTREMITY, CONGENITAL DE	1	0.36	0	0.00	.	0.05	.	0.492
MALABSORPTION SYNDROME	0	0.00	1	0.35	0.00	0.00	19.66	0.508
MENTAL RETARDATION	3	1.09	3	1.05	1.03	0.18	6.02	0.968
METATARSALGIA	0	0.00	1	0.35	0.00	0.00	19.66	0.508
METATARSUS ADDUCTUS	8	2.91	20	7.02	0.41	0.17	0.92	0.030
MICROPHALLUS	1	0.36	0	0.00	.	0.05	.	0.492
MOLLUSCUM CONTAGIOSUM	4	1.45	6	2.11	0.69	0.17	2.52	0.584
MONILIA	323	117.36	468	164.37	0.71	0.62	0.82	<0.001
MUSC./SKELETAL PAIN	28	10.17	35	12.29	0.83	0.50	1.36	0.459
NEPHRITIS / NEPHROSIS	7	2.54	10	3.51	0.72	0.26	1.92	0.524
NEUROFIBROMATOSIS	0	0.00	2	0.70	0.00	0.00	3.59	0.259
NEUROLOGICAL, GENERAL DISORDER	1	0.36	2	0.70	0.52	0.02	6.80	0.644
NEUROMUSC DISORDER	2	0.73	2	0.70	1.03	0.11	9.94	0.975
NEUROPHTHALMOLOGICAL DISORDER	3	1.09	2	0.70	1.55	0.23	13.05	0.661
NEUTROPENIA	1	0.36	0	0.00	.	0.05	.	0.492
NEVUS, PIGMENTED LESION	1	0.36	0	0.00	.	0.05	.	0.492
OB/GYN DISORDER	1	0.36	0	0.00	.	0.05	.	0.492
OBESITY	2	0.73	5	1.76	0.41	0.06	2.10	0.309
OCULAR	6	2.18	5	1.76	1.24	0.36	4.42	0.733
ONYCHOCRYPTOSIS	0	0.00	1	0.35	0.00	0.00	19.66	0.508
OPTIC NERVE DISORDER	1	0.36	2	0.70	0.52	0.02	6.80	0.644
ORTHO. PROB. NOS	3	1.09	2	0.70	1.55	0.23	13.05	0.661
OTHER DIS RESP SYS.	2	0.73	0	0.00	.	0.30	.	0.242
OTITIS EXTERNA	33	11.99	46	16.16	0.74	0.47	1.16	0.192
OTITIS MEDIA	4042	1468.58	4915	1726.24	0.85	0.82	0.89	<0.001
PAIN	0	0.00	2	0.70	0.00	0.00	3.59	0.259
PARAPLEGIA	0	0.00	1	0.35	0.00	0.00	19.66	0.508
PHARYNGITIS	571	207.46	570	200.19	1.04	0.92	1.16	0.547
PHIMOSIS	5	1.82	5	1.76	1.03	0.28	3.84	0.958

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Outpatient Visits
1 Year of Age -- Immunizations through 12/31/96, Events through 02/05/97
1-30 Day Risk Period and 31-60 Days BEFORE Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	1-30 days N	1-30 days Rate	31-60 days before N	31-60 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
PLEURAL EFFUSION	1	0.36	0	0.00	.	0.05	.	0.492
PNEUMONIA	81	29.43	59	20.72	1.42	1.02	1.99	0.040
PNEUMONIA, OTHER ORGANISM	1	0.36	0	0.00	.	0.05	.	0.492
POST-OP CARE	46	16.71	50	17.56	0.95	0.64	1.42	0.810
POST-OP COMPLICATION	0	0.00	1	0.35	0.00	0.00	19.66	0.508
PRE-OP	59	21.44	79	27.75	0.77	0.55	1.08	0.134
PREMATURITY	13	4.72	15	5.27	0.90	0.42	1.90	0.778
PSORIASIS	1	0.36	0	0.00	.	0.05	.	0.492
PSYCHOLOGICAL PROBLEM	29	10.54	31	10.89	0.97	0.58	1.61	0.901
PTOSIS	3	1.09	1	0.35	3.10	0.33	81.71	0.358
QUADRIPLEGIA	0	0.00	1	0.35	0.00	0.00	19.66	0.508
R/O SEPSIS	23	8.36	7	2.46	3.40	1.50	8.53	0.002
RASH	555	201.65	570	200.19	1.01	0.90	1.13	0.903
RECTAL BLEEDING	1	0.36	0	0.00	.	0.05	.	0.492
SCOLIOSIS	2	0.73	2	0.70	1.03	0.11	9.94	0.975
SEIZURE, FEBRILE	3	1.09	0	0.00	.	0.60	.	0.119
SEIZURES	52	18.89	42	14.75	1.28	0.85	1.93	0.234
SEIZURES W OR W/O FEVER	54	19.62	42	14.75	1.33	0.89	2.00	0.166
SEXUAL PRECOCITY	2	0.73	0	0.00	.	0.30	.	0.242
SHOULDER DYSFUNCTION	2	0.73	2	0.70	1.03	0.11	9.94	0.975
SICKLE CELL DS	2	0.73	1	0.35	2.07	0.16	61.03	0.606
SINUSITIS	248	90.11	240	84.29	1.07	0.90	1.28	0.462
SKIN/SUBCUT/TENDON/JOINT ABSCE	0	0.00	2	0.70	0.00	0.00	3.59	0.259
SOFT TISSUE DIS	7	2.54	1	0.35	7.24	1.12	164.44	0.035
STOMATITIS	129	46.87	124	43.55	1.08	0.84	1.38	0.560
STRIDOR	1	0.36	1	0.35	1.03	0.03	40.34	0.983
STROKE	1	0.36	1	0.35	1.03	0.03	40.34	0.983
SUBDURAL HEMATOMA	1	0.36	0	0.00	.	0.05	.	0.492
TEC	2	0.73	0	0.00	.	0.30	.	0.242
THROMBOCYTOPENIA	1	0.36	0	0.00	.	0.05	.	0.492
THYROID DISORDER	1	0.36	1	0.35	1.03	0.03	40.34	0.983
TINEA INFECTION	33	11.99	54	18.97	0.63	0.41	0.97	0.037
TONSILLITIS	2	0.73	0	0.00	.	0.30	.	0.242
TORTICOLLIS	0	0.00	2	0.70	0.00	0.00	3.59	0.259
TRAUMA	362	131.53	350	122.93	1.07	0.92	1.24	0.367
TRAUMATIC DISORDER, EYE/LIDS	1	0.36	0	0.00	.	0.05	.	0.492
TRIGGER FINGER	1	0.36	0	0.00	.	0.05	.	0.492
TYMPANIC MEMBRANE PERFORATION	1	0.36	1	0.35	1.03	0.03	40.34	0.983
URETER REFLUX	2	0.73	6	2.11	0.34	0.05	1.63	0.195
URETEROCELE	1	0.36	0	0.00	.	0.05	.	0.492
URI	3307	1201.53	3928	1379.59	0.87	0.83	0.91	<0.001
UTI	39	14.17	37	13.00	1.09	0.69	1.72	0.708
VAGINITIS/VAGINOSIS	7	2.54	2	0.70	3.62	0.81	25.43	0.099
VALVULAR HEART DISEASE	1	0.36	9	3.16	0.11	0.01	0.70	0.013
VARICELLA	22	7.99	6	2.11	3.79	1.59	10.24	0.002
VASCULITIS	1	0.36	0	0.00	.	0.05	.	0.492
VIRAL SYNDROME	1470	534.09	1386	486.79	1.10	1.02	1.18	0.013
VISION PROBLEM	75	27.25	68	23.88	1.14	0.82	1.59	0.432
VISUAL LOSS	4	1.45	5	1.76	0.83	0.20	3.27	0.792
VITILIGO	1	0.36	0	0.00	.	0.05	.	0.492
VOCAL CORD PARALYSIS	0	0.00	1	0.35	0.00	0.00	19.66	0.508
VOMITING	1	0.36	0	0.00	.	0.05	.	0.492
WARTS	10	3.63	9	3.16	1.15	0.46	2.92	0.768
WELL CARE	1914	695.41	3294	1156.91	0.60	0.57	0.64	<0.001
*Total	11116	4038.77	12902	4531.43	0.89	0.87	0.91	<0.001

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Outpatient Visits
1 Year of Age -- Immunizations through 12/31/96, Events through 02/05/97
1-30 Day Risk Period and 91-120 Days AFTER Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	1-30 days N	1-30 days Rate	91-120 days N	91-120 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
ABDOMINAL PAIN	10	3.63	11	4.35	0.84	0.34	2.00	0.686
ABSCESS	78	28.34	58	22.94	1.24	0.88	1.74	0.223
ACNE	1	0.36	0	0.00	.	0.05	.	0.521
ADENITIS	21	7.63	10	3.96	1.93	0.92	4.27	0.084
AGE	983	357.15	790	312.45	1.14	1.04	1.26	0.005
ALLERGIC REACT W OR W/O HIVES	180	65.40	130	51.42	1.27	1.02	1.60	0.036
ALLERGIC REACTION (INC. HIVES)	180	65.40	130	51.42	1.27	1.02	1.60	0.036
ALLERGIC RHINITIS	18	6.54	13	5.14	1.27	0.62	2.66	0.516
ALOPECIA	1	0.36	0	0.00	.	0.05	.	0.521
ANEMIA	1	0.36	2	0.79	0.46	0.02	6.04	0.578
APNEA	4	1.45	1	0.40	3.67	0.46	90.93	0.254
ARTHRALGIA / ARTHRITIS	2	0.73	0	0.00	.	0.26	.	0.272
ASTHMA	482	175.12	586	231.76	0.76	0.67	0.85	<0.001
ATAXIA	0	0.00	1	0.40	0.00	0.00	17.45	0.479
BACK PAIN	7	2.54	9	3.56	0.71	0.25	1.96	0.516
BRONCHIOLITIS	402	146.06	477	188.65	0.77	0.68	0.88	<0.001
BRONCHIOLITIS W PNEUMONIA	162	58.86	209	82.66	0.71	0.58	0.87	0.001
BRONCHOPULMONARY DYSPLASIA	4	1.45	1	0.40	3.67	0.46	90.93	0.254
CANCER	26	9.45	13	5.14	1.84	0.95	3.69	0.070
CARDIOMYOPATHY	1	0.36	0	0.00	.	0.05	.	0.521
CATARACT	0	0.00	1	0.40	0.00	0.00	17.45	0.479
CELLULITIS	17	6.18	28	11.07	0.56	0.30	1.02	0.056
CEREBRAL PALSY	19	6.90	18	7.12	0.97	0.50	1.87	0.925
CHOROID DISORDERS	0	0.00	1	0.40	0.00	0.00	17.45	0.479
CHRONIC LUNG DISEASE	2	0.73	2	0.79	0.92	0.10	8.82	0.936
CONGENITAL ANOMALY	143	51.96	101	39.95	1.30	1.01	1.68	0.042
CONGENITAL HEART DISEASE	36	13.08	41	16.22	0.81	0.51	1.26	0.349
CONJUNCTIVITIS	576	209.28	552	218.32	0.96	0.85	1.08	0.478
CONSTIPATION	49	17.80	71	28.08	0.63	0.44	0.91	0.014
CORNEA DISORDERS	4	1.45	4	1.58	0.92	0.21	4.07	0.907
COUGH	1	0.36	0	0.00	.	0.05	.	0.521
CROUP	234	85.02	250	98.88	0.86	0.72	1.03	0.097
CYST	3	1.09	1	0.40	2.76	0.29	72.56	0.419
CYSTIC FIBROSIS	1	0.36	1	0.40	0.92	0.02	35.83	0.958
DEGENERATIVE DISEASE	0	0.00	1	0.40	0.00	0.00	17.45	0.479
DERMATITIS, SEBORRHEIC	1	0.36	1	0.40	0.92	0.02	35.83	0.958
DEVELOPMENTAL DELAY	64	23.25	57	22.54	1.03	0.72	1.48	0.866
DIABETES	2	0.73	1	0.40	1.84	0.14	54.20	0.673
DRUG REACTION	6	2.18	1	0.40	5.51	0.81	127.66	0.088
DYSPHAGIA	1	0.36	0	0.00	.	0.05	.	0.521
ECZEMA	199	72.30	279	110.34	0.66	0.55	0.79	<0.001
ELECTIVE SURGERY	40	14.53	27	10.68	1.36	0.84	2.24	0.217
ENURESIS	0	0.00	1	0.40	0.00	0.00	17.45	0.479
EPILEPSY	12	4.36	6	2.37	1.84	0.70	5.30	0.228
EPILEPSY - POST TRAUMATIC	1	0.36	0	0.00	.	0.05	.	0.521
EPIPHORA	19	6.90	10	3.96	1.75	0.82	3.91	0.154
EUSTACHIAN	57	20.71	52	20.57	1.01	0.69	1.47	0.972
EXOPHORIA	0	0.00	1	0.40	0.00	0.00	17.45	0.479
FEBRILE ILLNESS	179	65.04	94	37.18	1.75	1.37	2.25	<0.001
FOLLICULITIS	1	0.36	2	0.79	0.46	0.02	6.04	0.578
FOOD ALLERGY	14	5.09	6	2.37	2.14	0.84	6.06	0.115
FOOT DISORDER	4	1.45	1	0.40	3.67	0.46	90.93	0.254
FUNGAL INFECTION	1	0.36	0	0.00	.	0.05	.	0.521
GASTRITIS	7	2.54	2	0.79	3.22	0.72	22.59	0.139
GI DISORDER NOS	0	0.00	1	0.40	0.00	0.00	17.45	0.479
GLAUCOMA	0	0.00	2	0.79	0.00	0.00	3.19	0.229
HAMARTOMA (COLL/EPI/SEBACEOUS	1	0.36	0	0.00	.	0.05	.	0.521
HAY FEVER	56	20.35	63	24.92	0.82	0.57	1.17	0.271
HEAD & NECK - ENT PROB. NOS	3	1.09	6	2.37	0.46	0.09	1.84	0.285
HEADACHE	3	1.09	5	1.98	0.55	0.11	2.39	0.436
HEALTHCARE CLASS	10	3.63	14	5.54	0.66	0.28	1.49	0.315
HEARING LOSS	6	2.18	13	5.14	0.42	0.15	1.10	0.079
HEART BLOCK	2	0.73	0	0.00	.	0.26	.	0.272
HEART MURMUR	12	4.36	5	1.98	2.20	0.79	6.96	0.135

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Outpatient Visits
1 Year of Age -- Immunizations through 12/31/96, Events through 02/05/97
1-30 Day Risk Period and 91-120 Days AFTER Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	1-30 days N	1-30 days Rate	91-120 days N	91-120 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
HEMANGIOMA	0	0.00	1	0.40	0.00	0.00	17.45	0.479
HEMATOMA, SUBDURAL - TRAUMA	1	0.36	0	0.00	.	0.05	.	0.521
HEMIPARESIS	0	0.00	1	0.40	0.00	0.00	17.45	0.479
HEMOGLOBINOPATHY	2	0.73	3	1.19	0.61	0.07	4.12	0.622
HEMOPHILIA	2	0.73	2	0.79	0.92	0.10	8.82	0.936
HERPES SIMPLEX	0	0.00	2	0.79	0.00	0.00	3.19	0.229
HYDROCEPHALUS	3	1.09	1	0.40	2.76	0.29	72.56	0.419
HYDRONEPHROSIS	3	1.09	1	0.40	2.76	0.29	72.56	0.419
HYPERTENSION	1	0.36	0	0.00	.	0.05	.	0.521
HYPOSPADIAS	1	0.36	1	0.40	0.92	0.02	35.83	0.958
IDDM	2	0.73	1	0.40	1.84	0.14	54.20	0.673
IMPETIGO	102	37.06	127	50.23	0.74	0.57	0.96	0.022
INFESTATION	32	11.63	24	9.49	1.22	0.72	2.10	0.457
INSECT BITE(S)	54	19.62	64	25.31	0.78	0.54	1.11	0.169
INTERTRIGO	1	0.36	0	0.00	.	0.05	.	0.521
JAUNDICE, NEONATAL	0	0.00	1	0.40	0.00	0.00	17.45	0.479
KAWASAKI'S DISEASE	1	0.36	1	0.40	0.92	0.02	35.83	0.958
KELOID/HYPERTROPHIC SCAR	0	0.00	1	0.40	0.00	0.00	17.45	0.479
KERATOSIS-PILARIS	2	0.73	1	0.40	1.84	0.14	54.20	0.673
KNEE/THIGH DYSFUNCTION	1	0.36	0	0.00	.	0.05	.	0.521
LACRIMAL SYSTEM DISORDERS	22	7.99	14	5.54	1.44	0.74	2.89	0.287
LENTIGO	1	0.36	0	0.00	.	0.05	.	0.521
LICHEN SIMPLEX CHR.	1	0.36	0	0.00	.	0.05	.	0.521
LIPOMA	2	0.73	0	0.00	.	0.26	.	0.272
LOWER EXTREMITY, CONGENITAL DE	1	0.36	0	0.00	.	0.05	.	0.521
MENTAL RETARDATION	3	1.09	1	0.40	2.76	0.29	72.56	0.419
METATARSUS ADDUCTUS	8	2.91	11	4.35	0.67	0.26	1.68	0.395
MICROPHALLUS	1	0.36	0	0.00	.	0.05	.	0.521
MOLLUSCUM CONTAGIOSUM	4	1.45	5	1.98	0.73	0.18	2.90	0.662
MONILIA	323	117.36	294	116.28	1.01	0.86	1.18	0.909
MUSC./SKELETAL PAIN	28	10.17	33	13.05	0.78	0.47	1.29	0.335
NEPHRITIS / NEPHROSIS	7	2.54	2	0.79	3.22	0.72	22.59	0.139
NEUROLOGICAL, GENERAL DISORDER	1	0.36	0	0.00	.	0.05	.	0.521
NEUROMUSC DISORDER	2	0.73	1	0.40	1.84	0.14	54.20	0.673
NEUROPHTHALMOLOGICAL DISORDER	3	1.09	5	1.98	0.55	0.11	2.39	0.436
NEUTROPENIA	1	0.36	0	0.00	.	0.05	.	0.521
NEVUS, PIGMENTED LESION	1	0.36	0	0.00	.	0.05	.	0.521
OB/GYN DISORDER	1	0.36	0	0.00	.	0.05	.	0.521
OBESITY	2	0.73	16	6.33	0.11	0.02	0.43	<0.001
OCULAR	6	2.18	5	1.98	1.10	0.32	3.92	0.881
OPTIC NERVE DISORDER	1	0.36	1	0.40	0.92	0.02	35.83	0.958
ORTHO. PROB. NOS	3	1.09	2	0.79	1.38	0.20	11.59	0.755
OTHER DIS RESP SYS.	2	0.73	2	0.79	0.92	0.10	8.82	0.936
OTHER NEUROPATHIES	0	0.00	1	0.40	0.00	0.00	17.45	0.479
OTITIS EXTERNA	33	11.99	39	15.42	0.78	0.49	1.24	0.289
OTITIS MEDIA	4042	1468.58	3956	1564.60	0.94	0.90	0.98	0.005
PHARYNGITIS	571	207.46	468	185.09	1.12	0.99	1.27	0.067
PHIMOSIS	5	1.82	5	1.98	0.92	0.25	3.41	0.896
PLEURAL EFFUSION	1	0.36	0	0.00	.	0.05	.	0.521
PNEUMONIA	81	29.43	84	33.22	0.89	0.65	1.20	0.437
PNEUMONIA, OTHER ORGANISM	1	0.36	0	0.00	.	0.05	.	0.521
POST-OP CARE	46	16.71	67	26.50	0.63	0.43	0.92	0.016
POST-OP COMPLICATION	0	0.00	1	0.40	0.00	0.00	17.45	0.479
PRE-OP	59	21.44	52	20.57	1.04	0.72	1.52	0.829
PREMATURITY	13	4.72	10	3.96	1.19	0.52	2.81	0.682
PSORIASIS	1	0.36	1	0.40	0.92	0.02	35.83	0.958
PSYCHOLOGICAL PROBLEM	29	10.54	37	14.63	0.72	0.44	1.17	0.187
PTOSIS	3	1.09	0	0.00	.	0.54	.	0.142
R/O SEPSIS	23	8.36	6	2.37	3.52	1.49	9.47	0.003
RASH	555	201.65	432	170.86	1.18	1.04	1.34	0.010
RECTAL BLEEDING	1	0.36	0	0.00	.	0.05	.	0.521
SCOLIOSIS	2	0.73	3	1.19	0.61	0.07	4.12	0.622
SEIZURE, FEBRILE	3	1.09	3	1.19	0.92	0.16	5.35	0.921
SEIZURES	52	18.89	30	11.87	1.59	1.02	2.52	0.041

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Outpatient Visits
1 Year of Age -- Immunizations through 12/31/96, Events through 02/05/97
1-30 Day Risk Period and 91-120 Days AFTER Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	1-30 days N	1-30 days Rate	91-120 days N	91-120 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
SEIZURES W OR W/O FEVER	54	19.62	33	13.05	1.50	0.98	2.34	0.064
SEXUAL PRECOCITY	2	0.73	0	0.00	.	0.26	.	0.272
SHOULDER DYSFUNCTION	2	0.73	1	0.40	1.84	0.14	54.20	0.673
SICKLE CELL DS	2	0.73	2	0.79	0.92	0.10	8.82	0.936
SINUSITIS	248	90.11	278	109.95	0.82	0.69	0.97	0.023
SKIN/SUBCUT/TENDON/JOINT ABSCE	0	0.00	1	0.40	0.00	0.00	17.45	0.479
SOFT TISSUE DIS	7	2.54	4	1.58	1.61	0.47	6.27	0.467
STOMATITIS	129	46.87	126	49.83	0.94	0.74	1.20	0.625
STRIDOR	1	0.36	0	0.00	.	0.05	.	0.521
STROKE	1	0.36	2	0.79	0.46	0.02	6.04	0.578
SUBDURAL HEMATOMA	1	0.36	0	0.00	.	0.05	.	0.521
TEC	2	0.73	0	0.00	.	0.26	.	0.272
THROMBOCYTOPENIA	1	0.36	1	0.40	0.92	0.02	35.83	0.958
THYROID DISORDER	1	0.36	1	0.40	0.92	0.02	35.83	0.958
TINEA INFECTION	33	11.99	46	18.19	0.66	0.42	1.03	0.067
TONSILLITIS	2	0.73	1	0.40	1.84	0.14	54.20	0.673
TRAUMA	362	131.53	335	132.49	0.99	0.86	1.15	0.923
TRAUMATIC DISORDER, EYE/LIDS	1	0.36	0	0.00	.	0.05	.	0.521
TRIGGER FINGER	1	0.36	0	0.00	.	0.05	.	0.521
TYMPANIC MEMBRANE PERFORATION	1	0.36	1	0.40	0.92	0.02	35.83	0.958
URETER REFLUX	2	0.73	6	2.37	0.31	0.04	1.45	0.145
URETEROCELE	1	0.36	0	0.00	.	0.05	.	0.521
URI	3307	1201.53	3606	1426.18	0.84	0.80	0.88	<0.001
UTI	39	14.17	37	14.63	0.97	0.62	1.52	0.888
VAGINITIS/VAGINOSIS	7	2.54	10	3.96	0.64	0.23	1.71	0.380
VALVULAR HEART DISEASE	1	0.36	3	1.19	0.31	0.01	2.87	0.334
VARICELLA	22	7.99	2	0.79	10.11	2.77	63.71	<0.001
VASCULITIS	1	0.36	0	0.00	.	0.05	.	0.521
VIRAL SYNDROME	1470	534.09	1030	407.37	1.31	1.21	1.42	<0.001
VISION PROBLEM	75	27.25	78	30.85	0.88	0.64	1.21	0.444
VISUAL LOSS	4	1.45	0	0.00	.	0.82	.	0.074
VITILIGO	1	0.36	0	0.00	.	0.05	.	0.521
VOMITING	1	0.36	0	0.00	.	0.05	.	0.521
WARTS	10	3.63	19	7.51	0.48	0.22	1.03	0.061
WELL CARE	1914	695.41	4771	1886.93	0.37	0.35	0.39	<0.001
*Total	11116	4038.77	12406	4906.58	0.82	0.80	0.84	<0.001

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Appendix II-2
Line Summaries - 2-12 Years

Varicella Vaccine Safety Analysis: Hospitalizations
2-12 Years of Age -- Immunizations through 12/31/96, Admissions through 02/05/97
0-60 Day Risk Period and 31-90 Days BEFORE Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	0-60 days N	0-60 days Rate	31-90 days before N	31-90 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
ADD	0	0.00	1	0.12	0.00	0.00	19.04	0.501
Acute Gastroenteritis	22	2.61	21	2.48	1.05	0.57	1.93	0.875
Adenitis	2	0.24	1	0.12	2.00	0.15	59.13	0.624
Allergic incl Angioedema	1	0.12	0	0.00	.	0.05	.	0.499
Anemia	1	0.12	0	0.00	.	0.05	.	0.499
Appendicitis	3	0.36	2	0.24	1.50	0.22	12.64	0.686
Asthma	18	2.13	39	4.61	0.46	0.26	0.80	0.005
Bronchiolitis	2	0.24	3	0.35	0.67	0.08	4.49	0.689
Cancer, R/O Cancer	3	0.36	0	0.00	.	0.58	.	0.125
Cellulitis	5	0.59	6	0.71	0.84	0.23	2.86	0.777
Cerebral Palsy	2	0.24	1	0.12	2.00	0.15	59.13	0.624
Congenital Anomaly	21	2.49	19	2.25	1.11	0.59	2.08	0.750
Congenital heart disease	2	0.24	5	0.59	0.40	0.05	2.03	0.290
Constipation	2	0.24	0	0.00	.	0.29	.	0.249
Group	2	0.24	4	0.47	0.50	0.06	2.82	0.455
Developmental Delay	4	0.47	0	0.00	.	0.90	.	0.062
Diabetes	2	0.24	1	0.12	2.00	0.15	59.13	0.624
Elective Procedure	129	15.29	90	10.65	1.44	1.10	1.88	0.008
Epilepsy	7	0.83	4	0.47	1.75	0.51	6.84	0.386
Epistaxis	0	0.00	1	0.12	0.00	0.00	19.04	0.501
Failure to thrive	0	0.00	1	0.12	0.00	0.00	19.04	0.501
Febrile illness	0	0.00	3	0.35	0.00	0.00	1.72	0.125
GE Reflux	1	0.12	0	0.00	.	0.05	.	0.499
GI Bleed	1	0.12	0	0.00	.	0.05	.	0.499
Hemolytic anemia	1	0.12	1	0.12	1.00	0.03	39.09	0.999
Histiocytosis	1	0.12	0	0.00	.	0.05	.	0.499
Hydrocephalus	2	0.24	0	0.00	.	0.29	.	0.249
Hypoglycemia	1	0.12	0	0.00	.	0.05	.	0.499
Hypoglycemic seizure	2	0.24	0	0.00	.	0.29	.	0.249
Hypovolemia	1	0.12	9	1.06	0.11	0.01	0.68	0.012
ITP	1	0.12	0	0.00	.	0.05	.	0.499
Idiopathic pulmonary hemosider	0	0.00	1	0.12	0.00	0.00	19.04	0.501
Infection	1	0.12	0	0.00	.	0.05	.	0.499
Kawasaki's Disease	1	0.12	1	0.12	1.00	0.03	39.09	0.999
Meningococcal Meningitis	0	0.00	1	0.12	0.00	0.00	19.04	0.501
Near Drowning	0	0.00	1	0.12	0.00	0.00	19.04	0.501
Neuromuscular disease	1	0.12	0	0.00	.	0.05	.	0.499
Osteomyelitis	1	0.12	0	0.00	.	0.05	.	0.499
Otitis Media	55	6.52	54	6.39	1.02	0.70	1.49	0.915
Partial Bowel Obstruction	0	0.00	1	0.12	0.00	0.00	19.04	0.501
Pharyngitis	1	0.12	0	0.00	.	0.05	.	0.499
Pituitary insufficiency	1	0.12	0	0.00	.	0.05	.	0.499
Pneumonia	16	1.90	21	2.48	0.76	0.39	1.47	0.422
Poisoning/Ingestion	6	0.71	4	0.47	1.50	0.41	6.04	0.547
Post-surgical complication	0	0.00	5	0.59	0.00	0.00	0.82	0.031
Psychiatric	1	0.12	2	0.24	0.50	0.02	6.59	0.626
Rash	1	0.12	0	0.00	.	0.05	.	0.499
Respiratory failure	1	0.12	0	0.00	.	0.05	.	0.499
Rhabdomyolysis	0	0.00	1	0.12	0.00	0.00	19.04	0.501
Seizure, Afebrile	1	0.12	0	0.00	.	0.05	.	0.499
Seizure, Febrile	5	0.59	3	0.35	1.67	0.39	8.49	0.506
Seizure, Type Unk.	0	0.00	1	0.12	0.00	0.00	19.04	0.501
Sepsis	0	0.00	1	0.12	0.00	0.00	19.04	0.501
Sickle Cell Disease	2	0.24	2	0.24	1.00	0.10	9.63	0.998
Sleep apnea	1	0.12	3	0.35	0.33	0.01	3.13	0.376
Small bowel obstruction	1	0.12	1	0.12	1.00	0.03	39.09	0.999
Syncope/LOC	0	0.00	1	0.12	0.00	0.00	19.04	0.501
Synovitis	0	0.00	4	0.47	0.00	0.00	1.12	0.063
T&A	1	0.12	0	0.00	.	0.05	.	0.499
Thalassemia	1	0.12	0	0.00	.	0.05	.	0.499
Tonsillitis	3	0.36	6	0.71	0.50	0.10	2.01	0.345
Transverse Myelitis	0	0.00	1	0.12	0.00	0.00	19.04	0.501
Trauma	42	4.98	30	3.55	1.40	0.88	2.26	0.157

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Hospitalizations
2-12 Years of Age -- Immunizations through 12/31/96, Admissions through 02/05/97
0-60 Day Risk Period and 31-90 Days BEFORE Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	0-60 days N	0-60 days Rate	31-90 days before N	31-90 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
Tuberosclerosis	1	0.12	0	0.00	.	0.05	.	0.499
URI	5	0.59	2	0.24	2.51	0.49	18.65	0.288
UTI	3	0.36	0	0.00	.	0.58	.	0.125
Viral Syndrome	4	0.47	4	0.47	1.00	0.23	4.44	0.998
Well Child/Reassurance/FU	1	0.12	0	0.00	.	0.05	.	0.499
Wheezing/SOB	0	0.00	1	0.12	0.00	0.00	19.04	0.501
r/o Sepsis	2	0.24	0	0.00	.	0.29	.	0.249
*Total	376	44.58	340	40.22	1.11	0.96	1.28	0.169

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Hospitalizations
2-12 Years of Age -- Immunizations through 12/31/96, Admissions through 02/05/97
0-60 Day Risk Period and 91-150 Days AFTER Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	0-60 days N	0-60 days Rate	91-150 days N	91-150 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
Abscess	0	0.00	1	0.13	0.00	0.00	17.60	0.481
Acute Gastroenteritis	22	2.61	11	1.41	1.85	0.91	3.96	0.092
Adenitis	2	0.24	4	0.51	0.46	0.06	2.61	0.401
Allergic incl Angioedema	1	0.12	0	0.00	.	0.05	.	0.519
Anal fissure	0	0.00	1	0.13	0.00	0.00	17.60	0.481
Anemia	1	0.12	0	0.00	.	0.05	.	0.519
Apnea	0	0.00	3	0.38	0.00	0.00	1.59	0.111
Appendicitis	3	0.36	2	0.26	1.39	0.21	11.68	0.748
Aspiration	0	0.00	1	0.13	0.00	0.00	17.60	0.481
Asthma	18	2.13	24	3.07	0.69	0.37	1.28	0.246
Ataxia	0	0.00	1	0.13	0.00	0.00	17.60	0.481
Bronchiolitis	2	0.24	0	0.00	.	0.27	.	0.269
Cancer, R/O Cancer	3	0.36	1	0.13	2.78	0.30	73.17	0.414
Cellulitis	5	0.59	6	0.77	0.77	0.22	2.65	0.681
Cerebral Palsy	2	0.24	1	0.13	1.85	0.14	54.65	0.669
Congenital Anomaly	21	2.49	27	3.46	0.72	0.40	1.28	0.263
Congenital heart disease	2	0.24	2	0.26	0.93	0.10	8.90	0.943
Conjunctivitis	0	0.00	1	0.13	0.00	0.00	17.60	0.481
Constipation	2	0.24	4	0.51	0.46	0.06	2.61	0.401
Croup	2	0.24	2	0.26	0.93	0.10	8.90	0.943
Developmental Delay	4	0.47	0	0.00	.	0.83	.	0.073
Diabetes	2	0.24	1	0.13	1.85	0.14	54.65	0.669
Elective Procedure	129	15.29	116	14.85	1.03	0.80	1.33	0.817
Epilepsy	7	0.83	5	0.64	1.30	0.40	4.47	0.673
GE Reflux	1	0.12	1	0.13	0.93	0.02	36.13	0.962
GI Bleed	1	0.12	0	0.00	.	0.05	.	0.519
Glaucoma	0	0.00	1	0.13	0.00	0.00	17.60	0.481
Hemolytic anemia	1	0.12	1	0.13	0.93	0.02	36.13	0.962
Histiocytosis	1	0.12	1	0.13	0.93	0.02	36.13	0.962
Hydrocephalus	2	0.24	0	0.00	.	0.27	.	0.269
Hypoglycemia	1	0.12	0	0.00	.	0.05	.	0.519
Hypoglycemic seizure	2	0.24	0	0.00	.	0.27	.	0.269
Hypovolemia	1	0.12	3	0.38	0.31	0.01	2.90	0.338
ITP	1	0.12	0	0.00	.	0.05	.	0.519
Infection	1	0.12	1	0.13	0.93	0.02	36.13	0.962
Kawasaki's Disease	1	0.12	2	0.26	0.46	0.02	6.09	0.583
Lupus	0	0.00	1	0.13	0.00	0.00	17.60	0.481
Microtia	0	0.00	1	0.13	0.00	0.00	17.60	0.481
Neuromuscular disease	1	0.12	0	0.00	.	0.05	.	0.519
Osteomyelitis	1	0.12	2	0.26	0.46	0.02	6.09	0.583
Otitis Media	55	6.52	63	8.06	0.81	0.56	1.16	0.251
Pharyngitis	1	0.12	2	0.26	0.46	0.02	6.09	0.583
Pituitary insufficiency	1	0.12	0	0.00	.	0.05	.	0.519
Pneumonia	16	1.90	10	1.28	1.48	0.67	3.39	0.335
Poisoning/Ingestion	6	0.71	8	1.02	0.69	0.23	2.05	0.513
Post-surgical complication	0	0.00	1	0.13	0.00	0.00	17.60	0.481
Psychiatric	1	0.12	0	0.00	.	0.05	.	0.519
Rash	1	0.12	0	0.00	.	0.05	.	0.519
Respiratory failure	1	0.12	1	0.13	0.93	0.02	36.13	0.962
Seizure, Afebrile	1	0.12	1	0.13	0.93	0.02	36.13	0.962
Seizure, Febrile	5	0.59	4	0.51	1.16	0.29	4.85	0.840
Sickle Cell Disease	2	0.24	4	0.51	0.46	0.06	2.61	0.401
Sleep apnea	1	0.12	0	0.00	.	0.05	.	0.519
Small bowel obstruction	1	0.12	1	0.13	0.93	0.02	36.13	0.962
Stomatitis	0	0.00	1	0.13	0.00	0.00	17.60	0.481
Syncope/LOC	0	0.00	1	0.13	0.00	0.00	17.60	0.481
T&A	1	0.12	0	0.00	.	0.05	.	0.519
Thalassemia	1	0.12	0	0.00	.	0.05	.	0.519
Tonsillitis	3	0.36	5	0.64	0.56	0.11	2.41	0.443
Trauma	42	4.98	40	5.12	0.97	0.63	1.51	0.900
Tuberosclerosis	1	0.12	0	0.00	.	0.05	.	0.519
URI	5	0.59	0	0.00	.	1.13	.	0.038
UTI	3	0.36	1	0.13	2.78	0.30	73.17	0.414
Viral Syndrome	4	0.47	4	0.51	0.93	0.21	4.11	0.916

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Hospitalizations
2-12 Years of Age -- Immunizations through 12/31/96, Admissions through 02/05/97
0-60 Day Risk Period and 91-150 Days AFTER Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	0-60 days N	0-60 days Rate	91-150 days N	91-150 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
Well Child/Reassurance/FU	1	0.12	0	0.00	.	0.05	.	0.519
r/o Sepsis	2	0.24	0	0.00	.	0.27	.	0.269
*Total	376	44.58	347	44.41	1.00	0.87	1.16	0.960

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Emergency Room Visits
2-12 Years of Age -- Immunizations through 12/31/96, Visits through 02/05/97
0-30 Day Risk Period and 31-60 Days BEFORE Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	0-30 days N	0-30 days Rate	31-60 days before N	31-60 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
Abscess	0	0.00	1	0.24	0.00	0.00	19.00	0.500
Acute Gastroenteritis	59	13.96	66	15.61	0.89	0.63	1.27	0.533
Allergic incl Angioedema	2	0.47	7	1.66	0.29	0.04	1.28	0.109
Allergic not incl Angioedema	1	0.24	7	1.66	0.14	0.01	0.92	0.039
Appendicitis	1	0.24	0	0.00	.	0.05	.	0.500
Arhythmia	0	0.00	1	0.24	0.00	0.00	19.00	0.500
Asthma	58	13.72	75	17.74	0.77	0.55	1.09	0.142
Bronchiolitis	15	3.55	6	1.42	2.50	0.99	7.01	0.052
Cellulitis	4	0.95	4	0.95	1.00	0.23	4.43	0.999
Cerebral Palsy	0	0.00	1	0.24	0.00	0.00	19.00	0.500
Chest Pain	0	0.00	1	0.24	0.00	0.00	19.00	0.500
Congenital Anomaly	0	0.00	1	0.24	0.00	0.00	19.00	0.500
Congenital heart disease	0	0.00	1	0.24	0.00	0.00	19.00	0.500
Conjunctivitis	10	2.37	9	2.13	1.11	0.44	2.83	0.824
Constipation	3	0.71	2	0.47	1.50	0.22	12.61	0.688
Croup	26	6.15	18	4.26	1.44	0.79	2.68	0.233
Drug Reaction	1	0.24	1	0.24	1.00	0.03	39.00	0.999
Elective Procedure	16	3.79	20	4.73	0.80	0.41	1.55	0.511
Encopresis	1	0.24	0	0.00	.	0.05	.	0.500
Epilepsy	7	1.66	6	1.42	1.17	0.38	3.70	0.791
Epistaxis	3	0.71	2	0.47	1.50	0.22	12.61	0.688
Febrile illness	9	2.13	13	3.08	0.69	0.28	1.63	0.405
GI Bleed	1	0.24	0	0.00	.	0.05	.	0.500
Gingivitis	0	0.00	1	0.24	0.00	0.00	19.00	0.500
HS Purpura	1	0.24	0	0.00	.	0.05	.	0.500
Headache	2	0.47	2	0.47	1.00	0.10	9.60	0.999
Hemophilia	1	0.24	1	0.24	1.00	0.03	39.00	0.999
Hives	11	2.60	6	1.42	1.83	0.68	5.36	0.238
Hydrocephalus	1	0.24	0	0.00	.	0.05	.	0.500
Hypertension	0	0.00	1	0.24	0.00	0.00	19.00	0.500
Hypoglycemia	0	0.00	1	0.24	0.00	0.00	19.00	0.500
Hypoglycemic seizure	1	0.24	0	0.00	.	0.05	.	0.500
Infection	1	0.24	1	0.24	1.00	0.03	39.00	0.999
Irritable child	1	0.24	0	0.00	.	0.05	.	0.500
Kawasaki's Disease	1	0.24	0	0.00	.	0.05	.	0.500
Migraine	1	0.24	0	0.00	.	0.05	.	0.500
Muscle pain	1	0.24	0	0.00	.	0.05	.	0.500
Musculoskeletal pain	1	0.24	0	0.00	.	0.05	.	0.500
Otitis Media	127	30.05	121	28.63	1.05	0.82	1.35	0.704
Parasitic Infection	1	0.24	0	0.00	.	0.05	.	0.500
Pharyngitis	12	2.84	16	3.79	0.75	0.35	1.59	0.458
Pneumonia	9	2.13	20	4.73	0.45	0.20	0.98	0.043
Poisoning/Ingestion	19	4.49	13	3.08	1.46	0.72	3.04	0.296
Post-surgical complication	0	0.00	1	0.24	0.00	0.00	19.00	0.500
Rash	7	1.66	8	1.89	0.88	0.30	2.49	0.804
Scabies	2	0.47	0	0.00	.	0.29	.	0.250
Seizure, Afebrile	1	0.24	1	0.24	1.00	0.03	39.00	0.999
Seizure, Febrile	12	2.84	20	4.73	0.60	0.28	1.22	0.163
Sickle Cell Disease	3	0.71	0	0.00	.	0.58	.	0.125
Sinusitis	2	0.47	3	0.71	0.67	0.08	4.48	0.687
Skin infection	0	0.00	2	0.47	0.00	0.00	3.47	0.250
Stomatitis	0	0.00	2	0.47	0.00	0.00	3.47	0.250
Syncope/LOC	1	0.24	2	0.47	0.50	0.02	6.57	0.625
Synovitis	3	0.71	0	0.00	.	0.58	.	0.125
Thrush	1	0.24	0	0.00	.	0.05	.	0.500
Tonsillitis	3	0.71	1	0.24	3.00	0.32	78.99	0.375
Trauma	427	101.02	395	93.45	1.08	0.94	1.24	0.265
URI	35	8.28	41	9.70	0.85	0.54	1.34	0.494
UTI	9	2.13	12	2.84	0.75	0.30	1.80	0.523
Varicella	6	1.42	0	0.00	.	1.54	.	0.016
Varicella w & w/o Cellulitis	6	1.42	0	0.00	.	1.54	.	0.016
Viral Syndrome	54	12.78	71	16.80	0.76	0.53	1.08	0.130
Well Child/Reassurance/FU	25	5.91	12	2.84	2.08	1.06	4.29	0.034

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Emergency Room Visits
2-12 Years of Age -- Immunizations through 12/31/96, Visits through 02/05/97
0-30 Day Risk Period and 31-60 Days BEFORE Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	0-30 days N	0-30 days Rate	31-60 days before N	31-60 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
Wheezing/SOB	2	0.47	0	0.00	.	0.29	.	0.250
*Total	955	225.93	938	221.91	1.02	0.93	1.11	0.696

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Emergency Room Visits
2-12 Years of Age -- Immunizations through 12/31/96, Visits through 02/05/97
0-30 Day Risk Period and 91-120 Days AFTER Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	0-30 days N	0-30 days Rate	91-120 days N	91-120 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
Abscess	0	0.00	1	0.25	0.00	0.00	17.91	0.485
Acute Gastroenteritis	59	13.96	55	13.81	1.01	0.70	1.46	0.954
Allergic incl Angioedema	2	0.47	6	1.51	0.31	0.04	1.48	0.155
Allergic not incl Angioedema	1	0.24	4	1.00	0.24	0.01	1.88	0.196
Anal fissure	0	0.00	2	0.50	0.00	0.00	3.27	0.235
Appendicitis	1	0.24	0	0.00	.	0.05	.	0.515
Asthma	58	13.72	56	14.06	0.98	0.68	1.41	0.897
Bronchiolitis	15	3.55	11	2.76	1.29	0.59	2.88	0.536
Cellulitis	4	0.95	3	0.75	1.26	0.26	6.74	0.784
Cerebral Palsy	0	0.00	1	0.25	0.00	0.00	17.91	0.485
Child Abuse	0	0.00	2	0.50	0.00	0.00	3.27	0.235
Conjunctivitis	10	2.37	9	2.26	1.05	0.42	2.66	0.924
Constipation	3	0.71	4	1.00	0.71	0.13	3.42	0.671
Croup	26	6.15	24	6.02	1.02	0.58	1.79	0.943
Drug Reaction	1	0.24	1	0.25	0.94	0.02	36.76	0.970
Elective Procedure	16	3.79	26	6.53	0.58	0.30	1.08	0.086
Encopresis	1	0.24	0	0.00	.	0.05	.	0.515
Epilepsy	7	1.66	4	1.00	1.65	0.48	6.43	0.442
Epistaxis	3	0.71	4	1.00	0.71	0.13	3.42	0.671
Febrile illness	9	2.13	11	2.76	0.77	0.31	1.89	0.572
GI Bleed	1	0.24	0	0.00	.	0.05	.	0.515
HS Purpura	1	0.24	0	0.00	.	0.05	.	0.515
Headache	2	0.47	1	0.25	1.88	0.14	55.60	0.659
Hematemesis	0	0.00	1	0.25	0.00	0.00	17.91	0.485
Hemophilia	1	0.24	1	0.25	0.94	0.02	36.76	0.970
Hives	**11**	**2.60**	**3**	**0.75**	**3.46**	**1.02**	**15.42**	**0.045**
Hydrocephalus	1	0.24	0	0.00	.	0.05	.	0.515
Hypoglycemic seizure	1	0.24	0	0.00	.	0.05	.	0.515
Infection	1	0.24	2	0.50	0.47	0.02	6.20	0.592
Irritable child	1	0.24	0	0.00	.	0.05	.	0.515
Kawasaki's Disease	1	0.24	0	0.00	.	0.05	.	0.515
Mastoiditis	0	0.00	1	0.25	0.00	0.00	17.91	0.485
Migraine	1	0.24	1	0.25	0.94	0.02	36.76	0.970
Muscle pain	1	0.24	0	0.00	.	0.05	.	0.515
Musculoskeletal pain	1	0.24	0	0.00	.	0.05	.	0.515
Otitis Media	127	30.05	102	25.60	1.17	0.90	1.53	0.229
Parasitic Infection	1	0.24	0	0.00	.	0.05	.	0.515
Pharyngitis	12	2.84	10	2.51	1.13	0.48	2.70	0.781
Pleuritis	0	0.00	1	0.25	0.00	0.00	17.91	0.485
Pneumonia	9	2.13	14	3.51	0.61	0.25	1.40	0.246
Poisoning/Ingestion	19	4.49	20	5.02	0.90	0.47	1.69	0.733
Post-surgical complication	0	0.00	1	0.25	0.00	0.00	17.91	0.485
Rash	7	1.66	4	1.00	1.65	0.48	6.43	0.442
Scabies	2	0.47	0	0.00	.	0.27	.	0.265
Seizure, Afebrile	1	0.24	1	0.25	0.94	0.02	36.76	0.970
Seizure, Febrile	12	2.84	13	3.26	0.87	0.39	1.94	0.732
Seizure, Type Unk.	0	0.00	2	0.50	0.00	0.00	3.27	0.235
Sickle Cell Disease	3	0.71	0	0.00	.	0.55	.	0.136
Sinusitis	2	0.47	2	0.50	0.94	0.10	9.05	0.956
Stomatitis	0	0.00	1	0.25	0.00	0.00	17.91	0.485
Syncope/LOC	1	0.24	1	0.25	0.94	0.02	36.76	0.970
Synovitis	3	0.71	1	0.25	2.83	0.30	74.44	0.405
Thrush	1	0.24	0	0.00	.	0.05	.	0.515
Tonsillitis	3	0.71	4	1.00	0.71	0.13	3.42	0.671
Trauma	**427**	**101.02**	**341**	**85.60**	**1.18**	**1.02**	**1.36**	**0.022**
URI	35	8.28	34	8.53	0.97	0.60	1.56	0.900
UTI	9	2.13	4	1.00	2.12	0.66	7.92	0.216
Varicella	6	1.42	1	0.25	5.65	0.84	130.97	0.082
Varicella w & w/o Cellulitis	6	1.42	1	0.25	5.65	0.84	130.97	0.082
Viral Syndrome	54	12.78	45	11.30	1.13	0.76	1.69	0.544
Well Child/Reassurance/FU	**25**	**5.91**	**9**	**2.26**	**2.62**	**1.25**	**5.91**	**0.010**
Wheezing/SOB	2	0.47	2	0.50	0.94	0.10	9.05	0.956
***Total**	**955**	**225.93**	**792**	**198.81**	**1.14**	**1.03**	**1.25**	**0.008**

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Outpatient Visits
2-12 Year of Age -- Immunizations through 12/31/96, Events through 02/05/97
0-30 Day Risk Period and 31-60 Days BEFORE Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	1-30 days N	1-30 days Rate	31-60 days before N	31-60 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
ABDOMINAL PAIN	78	19.09	72	17.03	1.12	0.81	1.55	0.487
ABSCESS	74	18.11	70	16.56	1.09	0.79	1.52	0.593
ABSCESS - HEAD	1	0.24	0	0.00	.	0.05	.	0.492
ACCOMMODATIVE DISORDER	1	0.24	2	0.47	0.52	0.02	6.80	0.644
ACNE	11	2.69	10	2.37	1.14	0.47	2.76	0.772
ADENITIS	33	8.08	36	8.52	0.95	0.59	1.52	0.827
AGE	491	120.17	523	123.73	0.97	0.86	1.10	0.642
ALLERGIC ENTEROPATHY	0	0.00	1	0.24	0.00	0.00	19.66	0.508
ALLERGIC REACT W OR W/O HIVES	142	34.75	154	36.43	0.95	0.76	1.20	0.686
ALLERGIC REACTION (EX. HIVES)	0	0.00	2	0.47	0.00	0.00	3.59	0.259
ALLERGIC REACTION (INC. HIVES)	142	34.75	152	35.96	0.97	0.77	1.22	0.770
ALLERGIC RHINITIS	85	20.80	71	16.80	1.24	0.90	1.70	0.184
ALLERGY CLASS/GROUP	1	0.24	0	0.00	.	0.05	.	0.492
ALOPECIA	8	1.96	2	0.47	4.14	0.96	28.52	0.058
ANEMIA	0	0.00	2	0.47	0.00	0.00	3.59	0.259
ANEMIA	41	10.03	16	3.79	2.65	1.51	4.85	0.001
APPENDICITIS, ACUTE	0	0.00	1	0.24	0.00	0.00	19.66	0.508
ARRHYTHMIA	4	0.98	2	0.47	2.07	0.37	16.15	0.430
ARTHRALGIA / ARTHRITIS	1	0.24	2	0.47	0.52	0.02	6.80	0.644
ASTHMA	802	196.28	912	215.76	0.91	0.83	1.00	0.051
ATAXIA	2	0.49	0	0.00	.	0.30	.	0.242
ATTENTION DEF. DIS.	71	17.38	50	11.83	1.47	1.02	2.12	0.037
AUTISM	8	1.96	3	0.71	2.76	0.75	12.85	0.132
AUTOIMMUNE ANEMIA	0	0.00	1	0.24	0.00	0.00	19.66	0.508
BACK PAIN	25	6.12	11	2.60	2.35	1.27	4.37	0.015
BELL'S PALSY	2	0.49	0	0.00	.	0.30	.	0.242
BRACHIAL CLEFT CYST	1	0.24	0	0.00	.	0.05	.	0.492
BRONCHIOLITIS	340	83.21	368	87.06	0.96	0.82	1.11	0.548
BRONCHIOLITIS W PNEUMONIA	263	64.37	363	85.88	0.75	0.64	0.88	<0.001
BRONCHOPULMONARY DYSPLASIA	1	0.24	0	0.00	.	0.05	.	0.492
CANCER	41	10.03	30	7.10	1.41	0.88	2.28	0.150
CATARACT	1	0.24	2	0.47	0.52	0.02	6.80	0.644
CELLULITIS	34	8.32	30	7.10	1.17	0.72	1.93	0.528
CEREBRAL PALSY	22	5.38	25	5.91	0.91	0.51	1.62	0.751
CHOLESTEROL CLASS/GROUP	1	0.24	0	0.00	.	0.05	.	0.492
CHRONIC LUNG DISEASE	3	0.73	2	0.47	1.55	0.23	13.05	0.661
COAGULOPATHY, UNSPECIFIC	1	0.24	0	0.00	.	0.05	.	0.492
CONDUIT OBSTRUCTION	1	0.24	0	0.00	.	0.05	.	0.492
CONGENITAL ANOMALY	135	33.04	79	18.69	1.77	1.34	2.34	<0.001
CONGENITAL HEART DISEASE	46	11.26	27	6.39	1.76	1.10	2.67	0.016
CONGENITAL, OTHER DYSRAPHISM	1	0.24	0	0.00	.	0.05	.	0.492
CONJUNCTIVITIS	433	105.97	475	112.37	0.94	0.83	1.07	0.377
CONSTIPATION	72	17.62	79	18.69	0.94	0.68	1.30	0.719
CONTACT DERMATITIS	0	0.00	6	1.42	0.00	0.00	0.67	0.017
CORNEA DISORDERS	9	2.20	8	1.89	1.16	0.44	3.14	0.762
COUGH	3	0.73	5	1.18	0.62	0.12	2.69	0.538
CROUP	146	35.73	134	31.70	1.13	0.89	1.43	0.318
CYST	5	1.22	3	0.71	1.72	0.40	8.76	0.479
CYSTIC FIBROSIS	4	0.98	1	0.24	4.14	0.52	102.39	0.206
DENTAL CARIES	2	0.49	2	0.47	1.03	0.11	9.94	0.975
DERMATITIS, SEBORRHEIC	2	0.49	2	0.47	1.03	0.11	9.94	0.975
DEVELOPMENTAL DELAY	52	12.73	51	12.07	1.05	0.72	1.56	0.787
DIABETES	11	2.69	15	3.55	0.76	0.34	1.66	0.494
DRUG REACTION	21	5.14	30	7.10	0.72	0.41	1.26	0.259
DYSFUNCTION OF THE ANKLE	1	0.24	0	0.00	.	0.05	.	0.492
DYSLALIA	1	0.24	0	0.00	.	0.05	.	0.492
DYSPEPSIA	1	0.24	1	0.24	1.03	0.03	40.34	0.983
DYSPHASIA	0	0.00	1	0.24	0.00	0.00	19.66	0.508
DYSTHYMIA	1	0.24	0	0.00	.	0.05	.	0.492
ECZEMA	140	34.26	198	46.84	0.73	0.59	0.91	0.004
ELECTIVE SURGERY	52	12.73	19	4.49	2.83	1.69	4.89	<0.001
ENCOPRESIS	6	1.47	1	0.24	6.21	0.92	143.76	0.064
ENOPHTHALMOS	1	0.24	0	0.00	.	0.05	.	0.492

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Outpatient Visits
2-12 Year of Age -- Immunizations through 12/31/96, Events through 02/05/97
0-30 Day Risk Period and 31-60 Days BEFORE Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	1-30 days N	1-30 days Rate	31-60 days before N	31-60 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
ENURESIS	17	4.16	19	4.49	0.93	0.47	1.79	0.820
EPIDIDYMITIS/ORCHITIS	1	0.24	0	0.00	.	0.05	.	0.492
EPILEPSY	19	4.65	11	2.60	1.79	0.85	3.89	0.125
EPILEPSY - GENERALIZED ABSCENC	1	0.24	0	0.00	.	0.05	.	0.492
EPIPHORA	3	0.73	2	0.47	1.55	0.23	13.05	0.661
EPISTAXIS	4	0.98	8	1.89	0.52	0.14	1.71	0.292
ESOPHAG.	1	0.24	0	0.00	.	0.05	.	0.492
ESOPHORIA	2	0.49	1	0.24	2.07	0.16	61.03	0.606
EUSTACHIAN	79	19.33	79	18.69	1.03	0.76	1.41	0.832
EXOPHORIA	0	0.00	1	0.24	0.00	0.00	19.66	0.508
EXOSTOSIS	1	0.24	0	0.00	.	0.05	.	0.492
FAILURE TO THRIVE	0	0.00	2	0.47	0.00	0.00	3.59	0.259
FATIGUE	0	0.00	1	0.24	0.00	0.00	19.66	0.508
FEBRILE ILLNESS	72	17.62	70	16.56	1.06	0.76	1.48	0.712
FOLLICULITIS	1	0.24	1	0.24	1.03	0.03	40.34	0.983
FOOD ALLERGY	12	2.94	11	2.60	1.13	0.49	2.62	0.777
FOOT DISORDER	5	1.22	8	1.89	0.65	0.19	2.00	0.459
FOREIGN BODY, EYE	1	0.24	0	0.00	.	0.05	.	0.492
FRACTURE-LOWER EXTREMITY	1	0.24	0	0.00	.	0.05	.	0.492
FUNGAL INFECTION	0	0.00	2	0.47	0.00	0.00	3.59	0.259
GAIT ABNORMALITIES - SPASTIC	1	0.24	0	0.00	.	0.05	.	0.492
GAIT ABNORMALITIES - WEAKNESS	1	0.24	0	0.00	.	0.05	.	0.492
GANGLION - WRIST/HAND	1	0.24	2	0.47	0.52	0.02	6.80	0.644
GASTRITIS	5	1.22	1	0.24	5.17	0.72	123.08	0.116
GLAUCOMA	1	0.24	5	1.18	0.21	0.01	1.49	0.135
GOITER	1	0.24	0	0.00	.	0.05	.	0.492
HAY FEVER	167	40.87	245	57.96	0.71	0.58	0.86	<0.001
HEAD & NECK - ENT PROB. NOS	3	0.73	5	1.18	0.62	0.12	2.69	0.538
HEADACHE	30	7.34	36	8.52	0.86	0.53	1.40	0.552
HEALTHCARE CLASS	12	2.94	2	0.47	6.21	1.57	40.88	0.006
HEARING LOSS	31	7.59	29	6.86	1.11	0.66	1.85	0.699
HEART BLOCK	2	0.49	1	0.24	2.07	0.16	61.03	0.606
HEART MURMUR	20	4.89	11	2.60	1.88	0.91	4.07	0.091
HEMATURIA	0	0.00	1	0.24	0.00	0.00	19.66	0.508
HEMOGLOBINOPATHY	6	1.47	3	0.71	2.07	0.52	10.13	0.319
HERPES (SIMPLEX / ZOZTER)- COR	2	0.49	0	0.00	.	0.30	.	0.242
HISTIOCYTOSIS	1	0.24	0	0.00	.	0.05	.	0.492
HOARSENESS	4	0.98	0	0.00	.	0.93	.	0.058
HSP	0	0.00	1	0.24	0.00	0.00	19.66	0.508
HSV	1	0.24	0	0.00	.	0.05	.	0.492
HYDROCEPHALUS	4	0.98	4	0.95	1.03	0.23	4.59	0.963
HYDRONEPHROSIS	2	0.49	0	0.00	.	0.30	.	0.242
HYPERTENSION	0	0.00	1	0.24	0.00	0.00	19.66	0.508
HYPOTHYROIDISM - ACQUIRED / OT	1	0.24	0	0.00	.	0.05	.	0.492
HYPOTHYROIDISM - AUTOIMMUNE	1	0.24	0	0.00	.	0.05	.	0.492
IDDM	6	1.47	1	0.24	6.21	0.92	143.76	0.064
IDENTITY DISORDER	1	0.24	0	0.00	.	0.05	.	0.492
IMPETIGO	129	31.57	157	37.14	0.85	0.67	1.07	0.171
INCONTINENCE URGE	1	0.24	0	0.00	.	0.05	.	0.492
INFECTION/HAND	1	0.24	0	0.00	.	0.05	.	0.492
INFESTATION	37	9.06	37	8.75	1.03	0.65	1.64	0.884
INFLUENZA	1	0.24	1	0.24	1.03	0.03	40.34	0.983
INSECT BITE(S)	64	15.66	50	11.83	1.32	0.91	1.92	0.137
IRRITABLE BOWEL SYNDROME	2	0.49	0	0.00	.	0.30	.	0.242
JUVENILE RHEUM. ARTHRITIS	1	0.24	2	0.47	0.52	0.02	6.80	0.644
KAWASAKI'S DISEASE	0	0.00	1	0.24	0.00	0.00	19.66	0.508
KELOID/HYPERTROPHIC SCAR	2	0.49	3	0.71	0.69	0.08	4.64	0.714
KERATOSIS-PILARIS	2	0.49	5	1.18	0.41	0.06	2.10	0.309
KNEE/THIGH DYSFUNCTION	1	0.24	1	0.24	1.03	0.03	40.34	0.983
LACRIMAL SYSTEM DISORDERS	4	0.98	1	0.24	4.14	0.52	102.39	0.206
LEARNING DISABILITIES	3	0.73	2	0.47	1.55	0.23	13.05	0.661
LENS, DISORDERS OF	1	0.24	0	0.00	.	0.05	.	0.492
LICHEN SIMPLEX CHR./PRURIGO NO	1	0.24	1	0.24	1.03	0.03	40.34	0.983

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Outpatient Visits
2-12 Year of Age -- Immunizations through 12/31/96, Events through 02/05/97
0-30 Day Risk Period and 31-60 Days BEFORE Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	1-30 days N	1-30 days Rate	31-60 days before N	31-60 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
LIPOMA	1	0.24	0	0.00	.	0.05	.	0.492
MALABSORPTION SYNDROME	0	0.00	1	0.24	0.00	0.00	19.66	0.508
MENTAL RETARDATION	3	0.73	2	0.47	1.55	0.23	13.05	0.661
METAB. MYOPATHIES	1	0.24	0	0.00	.	0.05	.	0.492
METABOLIC LIVER DISEASE - OTHE	1	0.24	0	0.00	.	0.05	.	0.492
METATARSUS ADDUCTUS	9	2.20	5	1.18	1.86	0.62	6.13	0.274
MILIA	1	0.24	0	0.00	.	0.05	.	0.492
MOLLUSCUM CONTAGIOSUM	24	5.87	15	3.55	1.66	0.87	3.23	0.126
MONILIA	41	10.03	56	13.25	0.76	0.50	1.13	0.177
MORPHEA/LSETA	1	0.24	0	0.00	.	0.05	.	0.492
MUSC./SKELETAL PAIN	90	22.03	101	23.89	0.92	0.69	1.23	0.576
MUSCULAR DYSTROPHY	1	0.24	0	0.00	.	0.05	.	0.492
NECK/PHARYNX/LARYNX, TRAUMATIC	1	0.24	0	0.00	.	0.05	.	0.492
NEPHRITIS / NEPHROSIS	6	1.47	5	1.18	1.24	0.36	4.42	0.733
NEUROFIBROMATOSIS	1	0.24	0	0.00	.	0.05	.	0.492
NEUROLOGICAL, GENERAL DISORDER	5	1.22	0	0.00	.	1.26	.	0.029
NEUROMUSC DISORDER	8	1.96	13	3.08	0.64	0.25	1.54	0.322
NEUROPHTHALMOLOGICAL DISORDER	3	0.73	4	0.95	0.78	0.14	3.76	0.759
OBESITY	8	1.96	26	6.15	0.32	0.14	0.69	0.003
OCULAR	9	2.20	7	1.66	1.33	0.49	3.77	0.582
ONYCHOCRYPTOSIS	3	0.73	0	0.00	.	0.60	.	0.119
ONYCHOLYSIS	2	0.49	1	0.24	2.07	0.16	61.03	0.606
OPTIC NERVE DISORDER	4	0.98	3	0.71	1.38	0.28	7.39	0.694
ORTHO. PROB. NOS	0	0.00	2	0.47	0.00	0.00	3.59	0.259
OTHER ILL DEFINED COND.	1	0.24	0	0.00	.	0.05	.	0.492
OTHER NEUROPATHIES	1	0.24	0	0.00	.	0.05	.	0.492
OTITIS EXTERNA	129	31.57	124	29.34	1.08	0.84	1.38	0.560
OTITIS MEDIA	2373	580.76	2674	632.61	0.92	0.87	0.97	0.002
PACEMAKER	2	0.49	1	0.24	2.07	0.16	61.03	0.606
PAIN	2	0.49	3	0.71	0.69	0.08	4.64	0.714
PAIN-UPPER EXTREMITY	1	0.24	0	0.00	.	0.05	.	0.492
PANHYPOPITUITARISM	1	0.24	0	0.00	.	0.05	.	0.492
PAT-FEM SYND	1	0.24	0	0.00	.	0.05	.	0.492
PENIS - MEATAL STENOSIS	2	0.49	0	0.00	.	0.30	.	0.242
PERIOSTITIS	0	0.00	1	0.24	0.00	0.00	19.66	0.508
PHARYNGITIS	775	189.67	858	202.98	0.93	0.85	1.03	0.171
PHIMOSIS	11	2.69	3	0.71	3.79	1.12	16.93	0.030
PINGUECULA	1	0.24	0	0.00	.	0.05	.	0.492
PITYRIASIS ROSEA	4	0.98	3	0.71	1.38	0.28	7.39	0.694
PNEUMONIA	79	19.33	78	18.45	1.05	0.77	1.43	0.771
POST-OP CARE	76	18.60	73	17.27	1.08	0.78	1.49	0.652
POST-OP COMPLICATION	2	0.49	0	0.00	.	0.30	.	0.242
PRE-OP	47	11.50	48	11.36	1.01	0.68	1.52	0.950
PREMATURITY	2	0.49	3	0.71	0.69	0.08	4.64	0.714
PSORIASIS	3	0.73	2	0.47	1.55	0.23	13.05	0.661
PSYCHOLOGICAL PROBLEM	295	72.20	266	62.93	1.15	0.97	1.35	0.104
PTOSIS	1	0.24	1	0.24	1.03	0.03	40.34	0.983
R/O SEPSIS	12	2.94	2	0.47	6.21	1.57	40.88	0.006
RADICULOPATHY	1	0.24	0	0.00	.	0.05	.	0.492
RASH	351	85.90	379	89.66	0.96	0.83	1.11	0.563
SCAR	2	0.49	1	0.24	2.07	0.16	61.03	0.606
SCOLIOSIS	4	0.98	2	0.47	2.07	0.37	16.15	0.430
SEIZURE, FEBRILE	3	0.73	2	0.47	1.55	0.23	13.05	0.661
SEIZURES	27	6.61	31	7.33	0.90	0.53	1.51	0.695
SEIZURES W OR W/O FEVER	30	7.34	33	7.81	0.94	0.57	1.55	0.810
SHONE COMPLEX	1	0.24	0	0.00	.	0.05	.	0.492
SHOULDER DYSFUNCTION	2	0.49	1	0.24	2.07	0.16	61.03	0.606
SICKLE CELL DS	1	0.24	0	0.00	.	0.05	.	0.492
SINGLE VENTRICLE	1	0.24	0	0.00	.	0.05	.	0.492
SINUSITIS	351	85.90	396	93.68	0.92	0.79	1.06	0.237
SKELETAL MALOCCLUSION	1	0.24	0	0.00	.	0.05	.	0.492
SKULL/SCALP/FOREHEAD INFECTION	1	0.24	0	0.00	.	0.05	.	0.492
SOFT TISSUE DIS	3	0.73	1	0.24	3.10	0.33	81.71	0.358

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Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Outpatient Visits
2-12 Year of Age -- Immunizations through 12/31/96, Events through 02/05/97
0-30 Day Risk Period and 31-60 Days BEFORE Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	1-30 days N	1-30 days Rate	31-60 days before N	31-60 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
SOLITARY THYROID NODULE	1	0.24	0	0.00	.	0.05	.	0.492
STOMATITIS	45	11.01	60	14.19	0.78	0.52	1.14	0.199
SYNCOPE	1	0.24	0	0.00	.	0.05	.	0.492
SYNOVITIS	0	0.00	1	0.24	0.00	0.00	19.66	0.508
THROMBOCYTOPENIA	3	0.73	1	0.24	3.10	0.33	81.71	0.358
THYROID DISORDER	0	0.00	2	0.47	0.00	0.00	3.59	0.259
TINEA INFECTION	84	20.56	97	22.95	0.90	0.67	1.20	0.462
TMJ SYNDROME	1	0.24	0	0.00	.	0.05	.	0.492
TONSILLITIS	35	8.57	23	5.44	1.57	0.93	2.70	0.090
TOURETTE'S DISORDER	1	0.24	0	0.00	.	0.05	.	0.492
TRAUMA	496	121.39	482	114.03	1.06	0.94	1.21	0.328
TRIGGER FINGER	3	0.73	2	0.47	1.55	0.23	13.05	0.661
TRUNK, ACQUIRED DEFORMITY	1	0.24	0	0.00	.	0.05	.	0.492
TYMPANIC MEMBRANE PERFORATION	9	2.20	6	1.42	1.55	0.55	4.68	0.417
ULCER	0	0.00	1	0.24	0.00	0.00	19.66	0.508
ULCERS / SKIN	1	0.24	0	0.00	.	0.05	.	0.492
UPPER EXTREMITY, FLEXOR TENDON	1	0.24	0	0.00	.	0.05	.	0.492
URETER REFLUX	9	2.20	6	1.42	1.55	0.55	4.68	0.417
URETHRA - HYPOSPADIAS	2	0.49	0	0.00	.	0.30	.	0.242
URI	2167	530.34	2395	566.60	0.94	0.88	0.99	0.026
UTI	86	21.05	102	24.13	0.87	0.65	1.16	0.351
VAGINITIS/VAGINOSIS	50	12.24	51	12.07	1.01	0.68	1.50	0.943
VALVULAR HEART DISEASE	16	3.92	5	1.18	3.31	1.26	10.30	0.014
VARICELLA	35	8.57	3	0.71	12.07	4.14	49.49	<0.001
VENOM ALLERGY	1	0.24	1	0.24	1.03	0.03	40.34	0.983
VENOUS STASIS ULCERATION	1	0.24	0	0.00	.	0.05	.	0.492
VIRAL SYNDROME	707	173.03	789	186.66	0.93	0.84	1.03	0.143
VISION PROBLEM	569	134.36	287	67.90	1.98	1.72	2.28	<0.001
VISUAL LOSS	3	0.73	4	0.95	0.78	0.14	3.76	0.759
VITILIGO	3	0.73	1	0.24	3.10	0.33	81.71	0.358
VITREOUS DISORDER	1	0.24	0	0.00	.	0.05	.	0.492
VOCAL	1	0.24	2	0.47	0.52	0.02	6.80	0.644
VSD	1	0.24	0	0.00	.	0.05	.	0.492
WARTS	73	17.87	80	18.93	0.94	0.69	1.30	0.723
WELL CARE	1746	427.31	2440	577.25	0.74	0.70	0.79	<0.001
*Total	10524	2575.60	11285	2669.78	0.96	0.94	0.99	0.008

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Outpatient Visits
2-12 Year of Age -- Immunizations through 12/31/96, Events through 02/05/97
1-30 Day Risk Period and 91-120 Days AFTER Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	1-30 days N	1-30 days Rate	91-120 days N	91-120 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
ABDOMINAL PAIN	78	19.09	94	23.60	0.81	0.60	1.09	0.167
ABSCESS	74	18.11	79	19.83	0.91	0.66	1.25	0.576
ABSCESS - HEAD	1	0.24	0	0.00	.	0.05	.	0.506
ACCOMMODATIVE DISORDER	1	0.24	1	0.25	0.97	0.02	38.02	0.987
ACNE	11	2.69	6	1.51	1.79	0.66	5.22	0.259
ADENITIS	33	8.08	25	6.28	1.29	0.76	2.19	0.344
AGE	491	120.17	429	107.69	1.12	0.98	1.27	0.097
ALLERGIC REACT W OR W/O HIVES	142	34.75	115	28.87	1.20	0.94	1.54	0.139
ALLERGIC REACTION (INC. HIVES)	142	34.75	115	28.87	1.20	0.94	1.54	0.139
ALLERGIC RHINITIS	85	20.80	85	21.34	0.97	0.72	1.32	0.869
ALLERGY CLASS/GROUP	1	0.24	0	0.00	.	0.05	.	0.506
ALOPECIA	8	1.96	1	0.25	7.80	1.25	174.47	0.024
APNEA	41	10.03	22	5.52	1.82	1.09	3.10	0.022
APPENDICITIS, ACUTE	0	0.00	1	0.25	0.00	0.00	18.52	0.494
ARRHYTHMIA	4	0.98	1	0.25	3.90	0.49	96.50	0.229
ARTHRALGIA / ARTHRITIS	1	0.24	3	0.75	0.32	0.01	3.05	0.362
ASTHMA	802	196.28	930	233.45	0.84	0.76	0.92	<0.001
ATAXIA	2	0.49	0	0.00	.	0.28	.	0.256
ATTENTION DEF. DIS.	71	17.38	67	16.82	1.03	0.74	1.45	0.849
AUTISM	8	1.96	6	1.51	1.30	0.44	4.01	0.640
BACK PAIN	25	6.12	8	2.01	3.05	1.41	7.19	0.004
BELL'S PALSY	2	0.49	0	0.00	.	0.28	.	0.256
BRACHIAL CLEFT CYST	1	0.24	0	0.00	.	0.05	.	0.506
BRONCHIOLITIS	340	83.21	443	111.20	0.75	0.65	0.86	<0.001
BRONCHIOLITIS W PNEUMONIA	263	64.37	337	84.59	0.76	0.65	0.89	0.001
BRONCHOPULMONARY DYSPLASIA	1	0.24	2	0.50	0.49	0.02	6.41	0.611
CANCER	41	10.03	29	7.28	1.38	0.86	2.24	0.187
CATARACT	1	0.24	2	0.50	0.49	0.02	6.41	0.611
CELLULITIS	34	8.32	31	7.78	1.07	0.66	1.75	0.789
CEREBRAL PALSY	22	5.38	19	4.77	1.13	0.61	2.11	0.703
CHEST PAIN	0	0.00	1	0.25	0.00	0.00	18.52	0.494
CHOLESTEROL CLASS/GROUP	1	0.24	0	0.00	.	0.05	.	0.506
CHRONIC LUNG DISEASE	3	0.73	3	0.75	0.97	0.17	5.67	0.976
COAGULOPATHY, UNSPECIFIC	1	0.24	0	0.00	.	0.05	.	0.506
CONDUIT OBSTRUCTION	1	0.24	0	0.00	.	0.05	.	0.506
CONGENITAL ANOMALY	135	33.04	88	22.09	1.50	1.14	1.96	0.003
CONGENITAL HEART DISEASE	46	11.26	26	6.53	1.72	1.07	2.82	0.025
CONGENITAL, OTHER DYSRAPHISM	1	0.24	0	0.00	.	0.05	.	0.506
CONJUNCTIVITIS	433	105.97	437	109.70	0.97	0.85	1.10	0.610
CONSTIPATION	72	17.62	86	21.59	0.82	0.60	1.12	0.204
CORNEA DISORDERS	9	2.20	7	1.76	1.25	0.46	3.55	0.665
COUGH	3	0.73	2	0.50	1.46	0.22	12.30	0.707
CROUP	146	35.73	160	40.16	0.89	0.71	1.11	0.307
CYST	5	1.22	4	1.00	1.22	0.31	5.10	0.782
CYSTIC FIBROSIS	4	0.98	0	0.00	.	0.87	.	0.066
DENTAL CARIES	2	0.49	0	0.00	.	0.28	.	0.256
DERMATITIS, SEBORRHEIC	2	0.49	0	0.00	.	0.28	.	0.256
DEVELOPMENTAL DELAY	52	12.73	62	15.56	0.82	0.56	1.18	0.286
DIABETES	11	2.69	17	4.27	0.63	0.29	1.35	0.238
DRUG REACTION	21	5.14	27	6.78	0.76	0.42	1.34	0.345
DYSARTHRIA	0	0.00	1	0.25	0.00	0.00	18.52	0.494
DYSFUNCTION OF THE ANKLE	1	0.24	0	0.00	.	0.05	.	0.506
DYSLALIA	1	0.24	0	0.00	.	0.05	.	0.506
DYSPEPSIA	1	0.24	1	0.25	0.97	0.02	38.02	0.987
DYSTHYMIA	1	0.24	0	0.00	.	0.05	.	0.506
ECZEMA	140	34.26	156	39.16	0.87	0.70	1.10	0.252
ELECTIVE SURGERY	52	12.73	25	6.28	2.03	1.27	3.31	0.003
ENCOPRESIS	6	1.47	1	0.25	5.85	0.86	135.48	0.075
ENOPHTHALMOS	1	0.24	0	0.00	.	0.05	.	0.506
ENURESIS	17	4.16	25	6.28	0.66	0.35	1.23	0.193
EPIDIDYMITIS/ORCHITIS	1	0.24	0	0.00	.	0.05	.	0.506
EPILEPSY	19	4.65	22	5.52	0.84	0.45	1.56	0.587
EPILEPSY - GENERALIZED ABSCENC	1	0.24	0	0.00	.	0.05	.	0.506
EPIPHORA	3	0.73	4	1.00	0.73	0.14	3.54	0.702

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Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Outpatient Visits
2-12 Year of Age -- Immunizations through 12/31/96, Events through 02/05/97
1-30 Day Risk Period and 91-120 Days AFTER Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	1-30 days N	1-30 days Rate	91-120 days N	91-120 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
EPISCLERITIS	0	0.00	1	0.25	0.00	0.00	18.52	0.494
EPISTAXIS	4	0.98	5	1.26	0.78	0.19	3.08	0.726
ERYTHEMA MULTIFORME	0	0.00	1	0.25	0.00	0.00	18.52	0.494
ESOPHAG.	1	0.24	0	0.00	.	0.05	.	0.506
ESOPHORIA	2	0.49	2	0.50	0.97	0.10	9.36	0.981
EUSTACHIAN	79	19.33	81	20.33	0.95	0.70	1.30	0.751
EXOPHORIA	0	0.00	3	0.75	0.00	0.00	1.67	0.120
EXOSTOSIS	1	0.24	0	0.00	.	0.05	.	0.506
FEBRILE ILLNESS	72	17.62	45	11.30	1.56	1.08	2.28	0.018
FOLLICULITIS	1	0.24	1	0.25	0.97	0.02	38.02	0.987
FOOD ALLERGY	12	2.94	6	1.51	1.95	0.74	5.63	0.184
FOOT DISORDER	5	1.22	3	0.75	1.62	0.38	8.26	0.530
FOREIGN BODY, EYE	1	0.24	0	0.00	.	0.05	.	0.506
FRACTURE-LOWER EXTREMITY	1	0.24	0	0.00	.	0.05	.	0.506
FUNGAL INFECTION	0	0.00	2	0.50	0.00	0.00	3.39	0.244
GAIT ABNORMALITIES - SPASTIC	1	0.24	2	0.50	0.49	0.02	6.41	0.611
GAIT ABNORMALITIES - WEAKNESS	1	0.24	1	0.25	0.97	0.02	38.02	0.987
GANGLION - WRIST/HAND	1	0.24	0	0.00	.	0.05	.	0.506
GASTRITIS	5	1.22	1	0.25	4.87	0.67	115.99	0.132
GI BLEEDING	0	0.00	1	0.25	0.00	0.00	18.52	0.494
GLAUCOMA	1	0.24	1	0.25	0.97	0.02	38.02	0.987
GOITER	1	0.24	0	0.00	.	0.05	.	0.506
HAY FEVER	167	40.87	171	42.92	0.95	0.77	1.18	0.653
HEAD & NECK - ENT PROB. NOS	3	0.73	4	1.00	0.73	0.14	3.54	0.702
HEADACHE	30	7.34	38	9.54	0.77	0.47	1.24	0.286
HEALTHCARE CLASS	12	2.94	18	4.52	0.65	0.30	1.35	0.252
HEARING LOSS	31	7.59	44	11.04	0.69	0.43	1.09	0.109
HEART BLOCK	2	0.49	1	0.25	1.95	0.15	57.52	0.639
HEART MURMUR	20	4.89	7	1.76	2.79	1.21	7.08	0.015
HEMATURIA	0	0.00	3	0.75	0.00	0.00	1.67	0.120
HEMOGLOBINOPATHY	6	1.47	3	0.75	1.95	0.49	9.54	0.363
HERPES (SIMPLEX / ZOZTER)- COR	2	0.49	1	0.25	1.95	0.15	57.52	0.639
HISTIOCYTOSIS	1	0.24	1	0.25	0.97	0.02	38.02	0.987
HOARSENESS	4	0.98	5	1.26	0.78	0.19	3.08	0.726
HSV	1	0.24	0	0.00	.	0.05	.	0.506
HYDROCEPHALUS	4	0.98	4	1.00	0.97	0.22	4.32	0.972
HYDRONEPHROSIS	2	0.49	2	0.50	0.97	0.10	9.36	0.981
HYPERTENSION	0	0.00	1	0.25	0.00	0.00	18.52	0.494
HYPOTHYROIDISM - ACQUIRED / OT	1	0.24	0	0.00	.	0.05	.	0.506
HYPOTHYROIDISM - AUTOIMMUNE	1	0.24	0	0.00	.	0.05	.	0.506
IDDM	6	1.47	9	2.26	0.65	0.22	1.85	0.426
IDENTITY DISORDER	1	0.24	0	0.00	.	0.05	.	0.506
IMPETIGO	129	31.57	143	35.90	0.88	0.69	1.12	0.291
INCONTINENCE URGE	1	0.24	1	0.25	0.97	0.02	38.02	0.987
INFECTION/HAND	1	0.24	0	0.00	.	0.05	.	0.506
INFECTIOUS DIS. NOS	0	0.00	1	0.25	0.00	0.00	18.52	0.494
INFESTATION	37	9.06	33	8.28	1.09	0.68	1.76	0.712
INFLUENZA	1	0.24	0	0.00	.	0.05	.	0.506
INSECT BITE(S)	64	15.66	60	15.06	1.04	0.73	1.48	0.828
IRRITABLE BOWEL SYNDROME	2	0.49	2	0.50	0.97	0.10	9.36	0.981
JUVENILE RHEUM. ARTHRITIS	1	0.24	2	0.50	0.49	0.02	6.41	0.611
KAWASAKI'S DISEASE	0	0.00	2	0.50	0.00	0.00	3.39	0.244
KELOID/HYPERTROPHIC SCAR	2	0.49	3	0.75	0.65	0.08	4.37	0.668
KERATITIS	0	0.00	1	0.25	0.00	0.00	18.52	0.494
KERATOSIS-PILARIS	2	0.49	5	1.26	0.39	0.05	1.98	0.275
KNEE/THIGH DYSFUNCTION	1	0.24	1	0.25	0.97	0.02	38.02	0.987
LACRIMAL SYSTEM DISORDERS	4	0.98	4	1.00	0.97	0.22	4.32	0.972
LEARNING DISABILITIES	3	0.73	0	0.00	.	0.57	.	0.130
LENS, DISORDERS OF	1	0.24	0	0.00	.	0.05	.	0.506
LICHEN SIMPLEX CHR./PRURIGO NO	1	0.24	0	0.00	.	0.05	.	0.506
LIPOMA	1	0.24	1	0.25	0.97	0.02	38.02	0.987
MASTOIDITIS/CHRONIC	0	0.00	1	0.25	0.00	0.00	18.52	0.494
MENTAL RETARDATION	3	0.73	5	1.26	0.58	0.12	2.53	0.486
METAB. MYOPATHIES	1	0.24	0	0.00	.	0.05	.	0.506

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Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Outpatient Visits
2-12 Year of Age -- Immunizations through 12/31/96, Events through 02/05/97
1-30 Day Risk Period and 91-120 Days AFTER Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	1-30 days N	1-30 days Rate	91-120 days N	91-120 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
METABOLIC LIVER DISEASE - OTHE	1	0.24	0	0.00	.	0.05	.	0.506
METATARSUS ADDUCTUS	9	2.20	1	0.25	8.77	1.44	193.96	0.013
MILIA	1	0.24	4	1.00	0.24	0.01	1.94	0.209
MOLLUSCUM CONTAGIOSUM	24	5.87	13	3.26	1.80	0.92	3.64	0.086
MONILIA	41	10.03	38	9.54	1.05	0.68	1.64	0.824
MORPHEA/LSETA	1	0.24	0	0.00	.	0.05	.	0.506
MUSC./SKELETAL PAIN	90	22.03	113	28.37	0.78	0.59	1.02	0.073
MUSCULAR DYSTROPHY	1	0.24	0	0.00	.	0.05	.	0.506
NASAL	0	0.00	1	0.25	0.00	0.00	18.52	0.494
NECK/PHARYNX/LARYNX, TRAUMATIC	1	0.24	0	0.00	.	0.05	.	0.506
NEPHRITIS / NEPHROSIS	6	1.47	4	1.00	1.46	0.40	5.88	0.575
NEUROFIBROMATOSIS	1	0.24	1	0.25	0.97	0.02	38.02	0.987
NEUROLOGICAL, GENERAL DISORDER	5	1.22	4	1.00	1.22	0.31	5.10	0.782
NEUROMUSC DISORDER	8	1.96	8	2.01	0.97	0.35	2.69	0.960
NEUROPHTHALMOLOGICAL DISORDER	3	0.73	5	1.26	0.58	0.12	2.53	0.486
OBESITY	8	1.96	12	3.01	0.65	0.25	1.60	0.354
OCULAR	9	2.20	6	1.51	1.46	0.51	4.41	0.484
ONYCHOCRYPTOSIS	3	0.73	1	0.25	2.92	0.31	77.01	0.388
ONYCHOLYSIS	2	0.49	0	0.00	.	0.28	.	0.256
OPTIC NERVE DISORDER	4	0.98	4	1.00	0.97	0.22	4.32	0.972
ORTHO. PROB. NOS	0	0.00	1	0.25	0.00	0.00	18.52	0.494
OTHER ILL DEFINED COND.	1	0.24	0	0.00	.	0.05	.	0.506
OTHER NEUROPATHIES	1	0.24	0	0.00	.	0.05	.	0.506
OTITIS EXTERNA	129	31.57	90	22.59	1.40	1.07	1.83	0.014
OTITIS MEDIA	2373	580.76	2799	702.61	0.83	0.78	0.87	<0.001
PACEMAKER	2	0.49	1	0.25	1.95	0.15	57.52	0.639
PAIN	2	0.49	0	0.00	.	0.28	.	0.256
PAIN-UPPER EXTREMITY	1	0.24	0	0.00	.	0.05	.	0.506
PANHYPOPITUITARISM	1	0.24	0	0.00	.	0.05	.	0.506
PAT-FEM SYND	1	0.24	1	0.25	0.97	0.02	38.02	0.987
PENIS - MEATAL STENOSIS	2	0.49	0	0.00	.	0.28	.	0.256
PHARYNGITIS	775	189.67	907	227.88	0.83	0.76	0.92	<0.001
PHIMOSIS	11	2.69	11	2.76	0.97	0.41	2.30	0.953
PINGUECULA	1	0.24	0	0.00	.	0.05	.	0.506
PITYRIASIS ROSEA	4	0.98	0	0.00	.	0.87	.	0.066
PLANTAR FASCIITIS	0	0.00	1	0.25	0.00	0.00	18.52	0.494
PNEUMONIA	79	19.33	87	21.84	0.89	0.65	1.20	0.434
PNEUMONIA, RECURRENT	0	0.00	1	0.25	0.00	0.00	18.52	0.494
POST-OP CARE	76	18.60	67	16.82	1.11	0.80	1.54	0.550
POST-OP COMPLICATION	2	0.49	1	0.25	1.95	0.15	57.52	0.639
PRE-OP	47	11.50	60	15.06	0.76	0.52	1.12	0.167
PREMATURITY	2	0.49	1	0.25	1.95	0.15	57.52	0.639
PSORIASIS	3	0.73	2	0.50	1.46	0.22	12.30	0.707
PSYCHOLOGICAL PROBLEM	295	72.20	315	79.07	0.91	0.78	1.07	0.262
PTOSIS	1	0.24	1	0.25	0.97	0.02	38.02	0.987
R/O SEPSIS	12	2.94	2	0.50	5.85	1.48	38.52	0.008
RADICULOPATHY	1	0.24	0	0.00	.	0.05	.	0.506
RASH	351	85.90	337	84.59	1.02	0.87	1.18	0.841
SCAR	2	0.49	3	0.75	0.65	0.08	4.37	0.668
SCOLIOSIS	4	0.98	4	1.00	0.97	0.22	4.32	0.972
SEIZURE, FEBRILE	3	0.73	2	0.50	1.46	0.22	12.30	0.707
SEIZURES	27	6.61	36	9.04	0.73	0.44	1.20	0.220
SEIZURES W OR W/O FEVER	30	7.34	37	9.29	0.79	0.48	1.28	0.341
SHONE COMPLEX	1	0.24	0	0.00	.	0.05	.	0.506
SHOULDER DYSFUNCTION	2	0.49	2	0.50	0.97	0.10	9.36	0.981
SICKLE CELL DS	1	0.24	1	0.25	0.97	0.02	38.02	0.987
SINGLE VENTRICLE	1	0.24	0	0.00	.	0.05	.	0.506
SINUSITIS	351	85.90	430	107.94	0.80	0.69	0.92	0.001
SKELETAL MALOCCLUSION	1	0.24	0	0.00	.	0.05	.	0.506
SKIN/SUBCUT/TENDON/JOINT ABSCE	0	0.00	1	0.25	0.00	0.00	18.52	0.494
SKULL/SCALP/FOREHEAD INFECTION	1	0.24	0	0.00	.	0.05	.	0.506
SOFT TISSUE DIS	3	0.73	1	0.25	2.92	0.31	77.01	0.388
SOLITARY THYROID NODULE	1	0.24	0	0.00	.	0.05	.	0.506
STOMATITIS	45	11.01	38	9.54	1.15	0.75	1.79	0.517

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Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Outpatient Visits
2-12 Year of Age -- Immunizations through 12/31/96, Events through 02/05/97
1-30 Day Risk Period and 91-120 Days AFTER Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	1-30 days N	1-30 days Rate	91-120 days N	91-120 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
SYNCOPE	1	0.24	0	0.00	.	0.05	.	0.506
THROMBOCYTOPENIA	3	0.73	3	0.75	0.97	0.17	5.67	0.976
THYROID DISORDER	0	0.00	1	0.25	0.00	0.00	18.52	0.494
TINEA INFECTION	84	20.56	88	22.09	0.93	0.69	1.26	0.638
TMJ SYNDROME	1	0.24	0	0.00	.	0.05	.	0.506
TONSILLITIS	35	8.57	18	4.52	1.90	1.08	3.42	0.025
TOURETTE'S DISORDER	1	0.24	1	0.25	0.97	0.02	38.02	0.987
TRAUMA	496	121.39	421	105.68	1.15	1.01	1.31	0.036
TRIGGER FINGER	3	0.73	1	0.25	2.92	0.31	77.01	0.388
TRUNK, ACQUIRED DEFORMITY	1	0.24	0	0.00	.	0.05	.	0.506
TYMPANIC MEMBRANE PERFORATION	9	2.20	10	2.51	0.88	0.34	2.21	0.782
ULCERS / SKIN	1	0.24	1	0.25	0.97	0.02	38.02	0.987
UNSPEC. DIS. INTESTINE	0	0.00	1	0.25	0.00	0.00	18.52	0.494
UNSPECIF. D/O URIN. TRACT	0	0.00	1	0.25	0.00	0.00	18.52	0.494
UPPER EXTREMITY, FLEXOR TENDON	1	0.24	0	0.00	.	0.05	.	0.506
URETER REFLUX	9	2.20	3	0.75	2.92	0.83	13.39	0.101
URETHRA - HYPOSPADIAS	2	0.49	0	0.00	.	0.28	.	0.256
URI	2167	530.34	2683	673.49	0.79	0.74	0.83	<0.001
UTI	86	21.05	94	23.60	0.89	0.66	1.20	0.445
VAGINITIS/VAGINOSIS	50	12.24	58	14.56	0.84	0.57	1.23	0.369
VALVULAR HEART DISEASE	16	3.92	1	0.25	15.60	2.01	330.40	<0.001
VARICELLA	35	8.57	4	1.00	8.53	3.28	28.17	<0.001
VENOM ALLERGY	1	0.24	1	0.25	0.97	0.02	38.02	0.987
VENOUS STASIS ULCERATION	1	0.24	0	0.00	.	0.05	.	0.506
VIRAL SYNDROME	707	173.03	819	205.59	0.84	0.76	0.93	0.001
VISION PROBLEM	549	134.36	345	86.60	1.55	1.36	1.78	<0.001
VISUAL LOSS	3	0.73	5	1.26	0.58	0.12	2.53	0.486
VITILIGO	3	0.73	2	0.50	1.46	0.22	12.30	0.707
VITREOUS DISORDER	1	0.24	0	0.00	.	0.05	.	0.506
VOCAL	1	0.24	0	0.00	.	0.05	.	0.506
VSD	1	0.24	0	0.00	.	0.05	.	0.506
WARTS	73	17.87	80	20.08	0.89	0.65	1.22	0.471
WELL CARE	1746	427.31	1706	428.24	1.00	0.93	1.07	0.949
*Total	10523	2575.60	10924	2742.17	0.94	0.91	0.96	<0.001

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Appendix II-3
Line Summaries - 13-18 Years

Varicella Vaccine Safety Analysis: Hospitalizations
13-17 Years of Age -- Immunizations through 12/31/96, Admissions through 02/05/97
0-60 Day Risk Period and 31-90 Days BEFORE Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	0-60 days N	0-60 days Rate	31-90 days before N	31-90 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
Acute Gastroenteritis	0	0.00	1	3.22	0.00	0.00	13.70	0.419
Asthma	2	4.64	1	3.22	1.44	0.11	42.55	0.816
Congenital Anomaly	0	0.00	2	6.44	0.00	0.00	2.50	0.176
Elective Procedure	2	4.64	3	9.66	0.48	0.06	3.23	0.453
Otitis Media	0	0.00	2	6.44	0.00	0.00	2.50	0.176
Pregnancy	0	0.00	2	6.44	0.00	0.00	2.50	0.176
Psychiatric	1	2.32	0	0.00	.	0.04	.	0.581
Seizure, Febrile	0	0.00	1	3.22	0.00	0.00	13.70	0.419
Seizure, Type Unk.	1	2.32	0	0.00	.	0.04	.	0.581
Trauma	4	9.29	2	6.44	1.44	0.26	11.26	0.710
*Total	10	23.22	13	41.85	0.55	0.24	1.28	0.166

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Hospitalizations
13-17 Years of Age -- Immunizations through 12/31/96, Admissions through 02/05/97
0-60 Day Risk Period and 91-150 Days AFTER Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	0-60 days N	0-60 days Rate	91-150 days N	91-150 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
Abscess	0	0.00	1	3.72	0.00	0.00	11.86	0.384
Asthma	2	4.64	0	0.00	.	0.18	.	0.379
Congenital Anomaly	0	0.00	1	3.72	0.00	0.00	11.86	0.384
Elective Procedure	2	4.64	1	3.72	1.25	0.09	36.83	0.904
Poisoning/Ingestion	0	0.00	1	3.72	0.00	0.00	11.86	0.384
Psychiatric	1	2.32	2	7.44	0.31	0.01	4.10	0.386
Seizure, Type Unk.	1	2.32	0	0.00	.	0.03	.	0.616
Trauma	4	9.29	1	3.72	2.50	0.31	61.80	0.453
*Total	10	23.22	6	22.31	1.04	0.38	3.09	0.955

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Emergency Room Visits
13-17 Years of Age -- Immunizations through 12/31/96, Visits through 02/05/97
0-30 Day Risk Period and 31-60 Days BEFORE Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	0-30 days N	0-30 days Rate	31-60 days before N	31-60 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
Abscess	1	4.13	2	12.88	0.32	0.01	4.21	0.398
Acute Gastroenteritis	3	12.38	4	25.75	0.48	0.09	2.33	0.359
Allergic incl Angioedema	1	4.13	1	6.44	0.64	0.02	24.99	0.781
Allergic not incl Angioedema	1	4.13	1	6.44	0.64	0.02	24.99	0.781
Arthropathy	1	4.13	0	0.00	.	0.03	.	0.609
Asthma	3	12.38	1	6.44	1.92	0.20	50.61	0.630
Bronchiolitis	1	4.13	1	6.44	0.64	0.02	24.99	0.781
Cerebral Palsy	0	0.00	1	6.44	0.00	0.00	12.17	0.391
Congenital Anomaly	0	0.00	1	6.44	0.00	0.00	12.17	0.391
Conjunctivitis	1	4.13	0	0.00	.	0.03	.	0.609
Epilepsy	0	0.00	1	6.44	0.00	0.00	12.17	0.391
Irritable Bowel Syndrome	1	4.13	0	0.00	.	0.03	.	0.609
Migraine	1	4.13	0	0.00	.	0.03	.	0.609
Otitis Media	1	4.13	1	6.44	0.64	0.02	24.99	0.781
Pleuritis	1	4.13	0	0.00	.	0.03	.	0.609
Poisoning/Ingestion	2	8.25	1	6.44	1.28	0.10	37.80	0.888
Renal Colic	1	4.13	0	0.00	.	0.03	.	0.609
Seizure, Febrile	0	0.00	1	6.44	0.00	0.00	12.17	0.391
Trauma	31	127.89	24	154.52	0.83	0.49	1.42	0.487
URI	1	4.13	0	0.00	.	0.03	.	0.609
UTI	2	8.25	2	12.88	0.64	0.07	6.15	0.677
Viral Syndrome	0	0.00	1	6.44	0.00	0.00	12.17	0.391
*Total	51	210.41	40	257.54	0.82	0.54	1.24	0.340

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Emergency Room Visits
13-17 Years of Age -- Immunizations through 12/31/96, Visits through 02/05/97
0-30 Day Risk Period and 91-120 Days AFTER Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	0-30 days N	0-30 days Rate	91-120 days N	91-120 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
Abscess	1	4.13	1	7.15	0.58	0.01	22.49	0.732
Acute Gastroenteritis	3	12.38	1	7.15	1.73	0.18	45.55	0.697
Allergic incl Angioedema	1	4.13	0	0.00	.	0.03	.	0.634
Allergic not incl Angioedema	1	4.13	0	0.00	.	0.03	.	0.634
Arthropathy	1	4.13	0	0.00	.	0.03	.	0.634
Asthma	3	12.38	1	7.15	1.73	0.18	45.55	0.697
Bronchiolitis	1	4.13	0	0.00	.	0.03	.	0.634
Conjunctivitis	1	4.13	1	7.15	0.58	0.01	22.49	0.732
Elective Procedure	0	0.00	1	7.15	0.00	0.00	10.96	0.366
Headache	0	0.00	2	14.31	0.00	0.00	2.00	0.134
Ingrown toenail	0	0.00	1	7.15	0.00	0.00	10.96	0.366
Irritable Bowel Syndrome	1	4.13	0	0.00	.	0.03	.	0.634
Migraine	1	4.13	0	0.00	.	0.03	.	0.634
Otitis Media	1	4.13	2	14.31	0.29	0.01	3.79	0.352
Pharyngitis	0	0.00	1	7.15	0.00	0.00	10.96	0.366
Pleuritis	1	4.13	0	0.00	.	0.03	.	0.634
Poisoning/Ingestion	2	8.25	3	21.46	0.38	0.05	2.59	0.323
Renal Colic	1	4.13	0	0.00	.	0.03	.	0.634
Syncope/LOC	0	0.00	2	14.31	0.00	0.00	2.00	0.134
Trauma	31	127.89	15	107.30	1.19	0.65	2.27	0.588
URI	1	4.13	0	0.00	.	0.03	.	0.634
UTI	2	8.25	0	0.00	.	0.17	.	0.402
*Total	51	210.41	31	221.76	0.95	0.61	1.50	0.811

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Outpatient Visits
13-17 Year of Age -- Immunizations through 12/31/96, Events through 02/05/97
1-30 Day Risk Period and 31-60 Days BEFORE Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	1-30 days N	1-30 days Rate	31-60 days before N	31-60 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
ABDOMINAL PAIN	9	38.42	8	51.51	0.75	0.28	2.01	0.551
ABSCESS	7	29.88	4	25.75	1.16	0.34	4.52	0.836
ACCOMMODATIVE DISORDER	1	4.27	0	0.00	.	0.03	.	0.601
ACNE	38	162.20	30	193.15	0.84	0.52	1.37	0.475
ADENITIS	2	8.54	1	6.44	1.33	0.10	39.11	0.867
AGE	3	12.81	4	25.75	0.50	0.09	2.41	0.382
ALLERGIC REACT W OR W/O HIVES	4	17.07	4	25.75	0.66	0.15	2.94	0.574
ALLERGIC REACTION (INC. HIVES)	4	17.07	4	25.75	0.66	0.15	2.94	0.574
ALLERGIC RHINITIS	11	46.95	7	45.07	1.04	0.40	2.85	0.947
ALOPECIA	1	4.27	0	0.00	.	0.03	.	0.601
APLASTIC ANEMIA	1	4.27	0	0.00	.	0.03	.	0.601
APNEA	1	4.27	0	0.00	.	0.03	.	0.601
ARTHRALGIA / ARTHRITIS	1	4.27	3	19.32	0.22	0.01	2.07	0.203
ARTHRALGIA NON-SPECIFIC	1	4.27	0	0.00	.	0.03	.	0.601
ASTHMA	29	123.78	29	186.71	0.66	0.39	1.11	0.120
ATROPHY OF TESTIS	1	4.27	0	0.00	.	0.03	.	0.601
ATTENTION DEF. DIS.	5	21.34	2	12.88	1.66	0.33	12.34	0.583
BACK PAIN	5	21.34	3	19.32	1.10	0.26	5.62	0.915
BREAST - MASTITIS, ABSCESS	0	0.00	1	6.44	0.00	0.00	12.60	0.399
BREAST CONCERNS	0	0.00	3	19.32	0.00	0.00	1.14	0.063
BRONCHIOLITIS	10	42.68	4	25.75	1.66	0.53	6.10	0.409
BRONCHIOLITIS W PNEUMONIA	2	8.54	8	51.51	0.17	0.02	0.72	0.014
CANCER	5	21.34	1	6.44	3.31	0.46	78.87	0.283
CATARACT	1	4.27	1	6.44	0.66	0.02	25.86	0.797
CELLULITIS	1	4.27	3	19.32	0.22	0.01	2.07	0.203
CEREBRAL PALSY	1	4.27	0	0.00	.	0.03	.	0.601
CHRONIC RENAL FAILURE	1	4.27	0	0.00	.	0.03	.	0.601
CONGENITAL ANOMALY	13	55.49	9	57.95	0.96	0.41	2.33	0.912
CONGENITAL HEART DISEASE	4	17.07	1	6.44	2.65	0.33	65.62	0.418
CONJUNCTIVITIS	5	21.34	11	70.82	0.30	0.09	0.85	0.023
CONSTIPATION	2	8.54	1	6.44	1.33	0.10	39.11	0.867
CONTACT DERMATITIS	0	0.00	1	6.44	0.00	0.00	12.60	0.399
CONTRACEPTION COUNSELING	3	12.81	4	25.75	0.50	0.09	2.41	0.382
CORN/CLAVUS/CALLUS	1	4.27	0	0.00	.	0.03	.	0.601
CORNEA DISORDERS	2	8.54	0	0.00	.	0.19	.	0.362
COUGH	1	4.27	1	6.44	0.66	0.02	25.86	0.797
CYST	5	21.34	2	12.88	1.66	0.33	12.34	0.583
CYSTIC FIBROSIS	1	4.27	0	0.00	.	0.03	.	0.601
DIABETES	3	12.81	4	25.75	0.50	0.09	2.41	0.382
DJD - WRIST/HAND	1	4.27	0	0.00	.	0.03	.	0.601
DRUG INTOX	1	4.27	0	0.00	.	0.03	.	0.601
DRUG REACTION	8	34.15	8	51.51	0.66	0.24	1.83	0.420
DYSFUNCTION OF THE CERVICAL SP	1	4.27	0	0.00	.	0.03	.	0.601
DYSFUNCTION OF THE LUMBOSACRAL	1	4.27	0	0.00	.	0.03	.	0.601
DYSFUNCTIONAL UTERINE BLEEDING	1	4.27	0	0.00	.	0.03	.	0.601
DYSMENORRHEA	1	4.27	0	0.00	.	0.03	.	0.601
DYSTHYMIA	2	8.54	1	6.44	1.33	0.10	39.11	0.867
ECZEMA	6	25.61	2	12.88	1.99	0.42	14.32	0.426
ELECTIVE SURGERY	2	8.54	1	6.44	1.33	0.10	39.11	0.867
EPILEPSY	1	4.27	1	6.44	0.66	0.02	25.86	0.797
EPISTAXIS	2	8.54	1	6.44	1.33	0.10	39.11	0.867
EUSTACHIAN	1	4.27	3	19.32	0.22	0.01	2.07	0.203
EXOPHORIA	0	0.00	1	6.44	0.00	0.00	12.60	0.399
FOLLICULITIS	2	8.54	1	6.44	1.33	0.10	39.11	0.867
FOOD ALLERGY	1	4.27	0	0.00	.	0.03	.	0.601
FOOT DISORDER	3	12.81	0	0.00	.	0.39	.	0.217
GANGLION - WRIST/HAND	1	4.27	0	0.00	.	0.03	.	0.601
GASTRITIS	0	0.00	1	6.44	0.00	0.00	12.60	0.399
HAY FEVER	5	21.34	14	90.14	0.24	0.08	0.64	0.004
HEAD & NECK - ENT PROB. NOS	1	4.27	0	0.00	.	0.03	.	0.601
HEADACHE	11	46.95	6	38.63	1.22	0.45	3.55	0.720
HEALTHCARE CLASS	1	4.27	1	6.44	0.66	0.02	25.86	0.797
HEART MURMUR	0	0.00	2	12.88	0.00	0.00	2.30	0.159

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Outpatient Visits
13-17 Year of Age -- Immunizations through 12/31/96, Events through 02/05/97
1-30 Day Risk Period and 31-60 Days BEFORE Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	1-30 days N	1-30 days Rate	31-60 days before N	31-60 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
HIP/KNEE/ANKLE PAIN	2	8.54	1	6.44	1.33	0.10	39.11	0.867
HYDROCEPHALUS	1	4.27	0	0.00	.	0.03	.	0.601
HYPERTENSION, SECONDARY	1	4.27	0	0.00	.	0.03	.	0.601
IMPETIGO	5	21.34	1	6.44	3.31	0.46	78.87	0.283
INFESTATION	2	8.54	0	0.00	.	0.19	.	0.362
INSECT BITE(S)	2	8.54	1	6.44	1.33	0.10	39.11	0.867
IRREG. MENSTRUAL CYCLE	2	8.54	0	0.00	.	0.19	.	0.362
IRRITABLE BOWEL SYNDROME	1	4.27	0	0.00	.	0.03	.	0.601
KELOID/HYPERTROPHIC SCAR	3	12.81	1	6.44	1.99	0.21	52.37	0.608
KERATITIS / ULCER	0	0.00	1	6.44	0.00	0.00	12.60	0.399
KERATOSIS-PILARIS	3	12.81	1	6.44	1.99	0.21	52.37	0.608
KNEE/THIGH DYSFUNCTION	2	8.54	2	12.88	0.66	0.07	6.37	0.700
LARYNGITIS	1	4.27	0	0.00	.	0.03	.	0.601
LEARNING DISABILITIES	1	4.27	0	0.00	.	0.03	.	0.601
LICHEN SIMPLEX CHR.	1	4.27	0	0.00	.	0.03	.	0.601
LIGAMENT SPRAIN - HAND	1	4.27	0	0.00	.	0.03	.	0.601
LIPOMA	1	4.27	0	0.00	.	0.03	.	0.601
LYMPHEDEMA	1	4.27	0	0.00	.	0.03	.	0.601
MASS/LIPOMA/CYST	1	4.27	0	0.00	.	0.03	.	0.601
MENTAL RETARDATION	0	0.00	1	6.44	0.00	0.00	12.60	0.399
MILIA	1	4.27	0	0.00	.	0.03	.	0.601
MOLLUSCUM CONTAGIOSUM	1	4.27	0	0.00	.	0.03	.	0.601
MONILIA	1	4.27	0	0.00	.	0.03	.	0.601
MUSC./SKELETAL PAIN	30	128.05	19	122.33	1.05	0.59	1.89	0.885
NASAL HYPERPLASIA	1	4.27	0	0.00	.	0.03	.	0.601
NEUROLOGICAL, GENERAL DISORDER	1	4.27	0	0.00	.	0.03	.	0.601
NEUROMUSC DISORDER	0	0.00	1	6.44	0.00	0.00	12.60	0.399
OBESITY	3	12.81	9	57.95	0.22	0.05	0.78	0.018
ONYCHOCRYPTOSIS	3	12.81	0	0.00	.	0.39	.	0.217
ONYCHOMYCOSIS	0	0.00	1	6.44	0.00	0.00	12.60	0.399
OTITIS EXTERNA	1	4.27	7	45.07	0.09	0.00	0.61	0.009
OTITIS MEDIA	18	76.83	26	167.40	0.46	0.25	0.84	0.011
PACEMAKER	0	0.00	1	6.44	0.00	0.00	12.60	0.399
PAIN	1	4.27	0	0.00	.	0.03	.	0.601
PAT-FEM SYND	3	12.81	2	12.88	0.99	0.15	8.36	0.976
PHARYNGITIS	40	170.74	26	167.40	1.02	0.62	1.69	0.945
PITYRIASIS ROSEA	1	4.27	0	0.00	.	0.03	.	0.601
PNEUMONIA	2	8.54	1	6.44	1.33	0.10	39.11	0.867
POST-OP CARE	2	8.54	0	0.00	.	0.19	.	0.362
POST-OP COMPLICATION	1	4.27	0	0.00	.	0.03	.	0.601
PRE-OP	3	12.81	3	19.32	0.66	0.11	3.86	0.630
PREGNANCY	0	0.00	1	6.44	0.00	0.00	12.60	0.399
PSYCHOLOGICAL PROBLEM	38	162.20	32	206.03	0.79	0.49	1.27	0.321
R/O PREGNANCY	0	0.00	1	6.44	0.00	0.00	12.60	0.399
R/O STD	2	8.54	2	12.88	0.66	0.07	6.37	0.700
RADICULOPATHY	1	4.27	0	0.00	.	0.03	.	0.601
RASH	21	89.64	9	57.95	1.55	0.72	3.55	0.277
SCAR	0	0.00	2	12.88	0.00	0.00	2.30	0.159
SCOLIOSIS	2	8.54	4	25.75	0.33	0.04	1.87	0.218
SHOULDER DYSFUNCTION	0	0.00	2	12.88	0.00	0.00	2.30	0.159
SINUSITIS	24	102.44	20	128.77	0.80	0.44	1.46	0.452
SLEEP DISORDERS	0	0.00	1	6.44	0.00	0.00	12.60	0.399
SOFT TISSUE DIS	3	12.81	0	0.00	.	0.39	.	0.217
SPRAIN/STRAIN ANKLE	1	4.27	0	0.00	.	0.03	.	0.601
STOMATITIS	1	4.27	0	0.00	.	0.03	.	0.601
SYNCOPE	0	0.00	1	6.44	0.00	0.00	12.60	0.399
TINEA INFECTION	1	4.27	6	38.63	0.11	0.00	0.75	0.020
TMJ SYNDROME	1	4.27	0	0.00	.	0.03	.	0.601
TRAUMA	76	324.40	44	283.29	1.15	0.79	1.67	0.478
ULCERATIVE COLITIS	1	4.27	0	0.00	.	0.03	.	0.601
URI	34	145.13	27	173.84	0.83	0.50	1.40	0.484
UTI	1	4.27	3	19.32	0.22	0.01	2.07	0.203
VAGINITIS/VAGINOSIS	4	17.07	3	19.32	0.88	0.18	4.74	0.864

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Outpatient Visits
13-17 Year of Age -- Immunizations through 12/31/96, Events through 02/05/97
1-30 Day Risk Period and 31-60 Days BEFORE Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	1-30 days N	1-30 days Rate	31-60 days before N	31-60 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
VALVULAR HEART DISEASE	2	8.54	0	0.00	.	0.19	.	0.362
VARICELLA	1	4.27	0	0.00	.	0.03	.	0.601
VIRAL SYNDROME	15	64.03	14	90.14	0.71	0.34	1.50	0.363
VISION PROBLEM	60	256.10	27	173.84	1.47	0.94	2.35	0.091
WARTS	10	42.68	10	64.38	0.66	0.27	1.63	0.366
WELL CARE	85	362.81	207	1332.75	0.27	0.21	0.35	<0.001
*Total	508	2168.34	497	3199.88	0.68	0.60	0.77	<0.001

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Outpatient Visits
13-17 Year of Age -- Immunizations through 12/31/96, Events through 02/05/97
1-30 Day Risk Period and 91-120 Days AFTER Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	1-30 days N	1-30 days Rate	91-120 days N	91-120 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
ABDOMINAL PAIN	9	38.42	4	28.61	1.34	0.42	5.02	0.651
ABSCESS	7	29.88	2	14.31	2.09	0.46	14.67	0.379
ACCOMMODATIVE DISORDER	1	4.27	1	7.15	0.60	0.02	23.27	0.747
ACNE	38	162.20	27	193.15	0.84	0.51	1.39	0.488
ADENITIS	2	8.54	0	0.00	.	0.17	.	0.392
AGE	3	12.81	3	21.46	0.60	0.10	3.47	0.546
ALLERGIC REACT W OR W/O HIVES	4	17.07	2	14.31	1.19	0.21	9.32	0.875
ALLERGIC REACTION (INC. HIVES)	4	17.07	2	14.31	1.19	0.21	9.32	0.875
ALLERGIC RHINITIS	11	46.95	2	14.31	3.28	0.82	21.80	0.103
ALOPECIA	1	4.27	0	0.00	.	0.03	.	0.626
AMENORRHEA	0	0.00	1	7.15	0.00	0.00	11.34	0.374
APLASTIC ANEMIA	1	4.27	0	0.00	.	0.03	.	0.626
APNEA	1	4.27	1	7.15	0.60	0.02	23.27	0.747
ARTHRALGIA / ARTHRITIS	1	4.27	1	7.15	0.60	0.02	23.27	0.747
ARTHRALGIA NON-SPECIFIC	1	4.27	0	0.00	.	0.03	.	0.626
ASTHMA	29	123.78	16	114.46	1.08	0.59	2.04	0.813
ATROPHY OF TESTIS	1	4.27	0	0.00	.	0.03	.	0.626
ATTENTION DEF. DIS.	5	21.34	3	21.46	0.99	0.23	5.05	0.973
AUTISM	0	0.00	1	7.15	0.00	0.00	11.34	0.374
BACK PAIN	5	21.34	1	7.15	2.98	0.41	70.99	0.337
BREAST CONCERNS	0	0.00	5	35.77	0.00	0.00	0.49	0.007
BRONCHIOLITIS	10	42.68	8	57.23	0.75	0.29	1.97	0.540
BRONCHIOLITIS W PNEUMONIA	2	8.54	3	21.46	0.40	0.05	2.68	0.341
CANCER	5	21.34	4	28.61	0.75	0.19	3.12	0.665
CATARACT	1	4.27	0	0.00	.	0.03	.	0.626
CELLULITIS	1	4.27	2	14.31	0.30	0.01	3.92	0.367
CEREBRAL PALSY	1	4.27	0	0.00	.	0.03	.	0.626
CHEST PAIN	0	0.00	1	7.15	0.00	0.00	11.34	0.374
CHRONIC RENAL FAILURE	1	4.27	0	0.00	.	0.03	.	0.626
CONGENITAL ANOMALY	13	55.49	8	57.23	0.97	0.40	2.46	0.933
CONGENITAL HEART DISEASE	4	17.07	2	14.31	1.19	0.21	9.32	0.875
CONJUNCTIVITIS	5	21.34	3	21.46	0.99	0.23	5.05	0.973
CONSTIPATION	2	8.54	0	0.00	.	0.17	.	0.392
CONTACT DERMATITIS	0	0.00	1	7.15	0.00	0.00	11.34	0.374
CONTRACEPTION COUNSELING	3	12.81	3	21.46	0.60	0.10	3.47	0.546
CORN/CLAVUS/CALLUS	1	4.27	0	0.00	.	0.03	.	0.626
CORNEA DISORDERS	2	8.54	0	0.00	.	0.17	.	0.392
COUGH	1	4.27	0	0.00	.	0.03	.	0.626
CROHN'S DISEASE	0	0.00	1	7.15	0.00	0.00	11.34	0.374
CROUP	0	0.00	1	7.15	0.00	0.00	11.34	0.374
CYST	5	21.34	0	0.00	.	0.73	.	0.096
CYSTIC FIBROSIS	1	4.27	1	7.15	0.60	0.02	23.27	0.747
DIABETES	3	12.81	1	7.15	1.79	0.19	47.13	0.675
DJD - WRIST/HAND	1	4.27	0	0.00	.	0.03	.	0.626
DRUG INTOX	1	4.27	2	14.31	0.30	0.01	3.92	0.367
DRUG REACTION	8	34.15	5	35.77	0.95	0.31	3.21	0.921
DYSFUNCTION OF THE CERVICAL SP	1	4.27	0	0.00	.	0.03	.	0.626
DYSFUNCTION OF THE LUMBOSACRAL	1	4.27	0	0.00	.	0.03	.	0.626
DYSFUNCTIONAL UTERINE BLEEDING	1	4.27	0	0.00	.	0.03	.	0.626
DYSMENORRHEA	1	4.27	1	7.15	0.60	0.02	23.27	0.747
DYSTHYMIA	2	8.54	0	0.00	.	0.17	.	0.392
ECZEMA	6	25.61	2	14.31	1.79	0.38	12.89	0.509
ELECTIVE SURGERY	2	8.54	0	0.00	.	0.17	.	0.392
EPILEPSY	1	4.27	0	0.00	.	0.03	.	0.626
EPISTAXIS	2	8.54	0	0.00	.	0.17	.	0.392
EUSTACHIAN	1	4.27	0	0.00	.	0.03	.	0.626
EUTHYROID	0	0.00	1	7.15	0.00	0.00	11.34	0.374
FATIGUE	0	0.00	2	14.31	0.00	0.00	2.07	0.140
FOLLICULITIS	2	8.54	0	0.00	.	0.17	.	0.392
FOOD ALLERGY	1	4.27	0	0.00	.	0.03	.	0.626
FOOT DISORDER	3	12.81	1	7.15	1.79	0.19	47.13	0.675
GANGLION - WRIST/HAND	1	4.27	0	0.00	.	0.03	.	0.626
HAY FEVER	5	21.34	6	42.92	0.50	0.14	1.70	0.262
HEAD & NECK - ENT PROB. NOS	1	4.27	0	0.00	.	0.03	.	0.626

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Outpatient Visits
13-17 Year of Age -- Immunizations through 12/31/96, Events through 02/05/97
1-30 Day Risk Period and 91-120 Days AFTER Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	1-30 days N	1-30 days Rate	91-120 days N	91-120 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
HEADACHE	11	46.95	8	57.23	0.82	0.33	2.14	0.668
HEALTHCARE CLASS	1	4.27	2	14.31	0.30	0.01	3.92	0.367
HEARING LOSS	0	0.00	2	14.31	0.00	0.00	2.07	0.140
HERPES - CORNEA	0	0.00	1	7.15	0.00	0.00	11.34	0.374
HIP/KNEE/ANKLE PAIN	2	8.54	1	7.15	1.19	0.09	35.20	0.931
HYDROCEPHALUS	1	4.27	0	0.00	.	0.03	.	0.626
HYPERTENSION, SECONDARY	1	4.27	0	0.00	.	0.03	.	0.626
IDDM	0	0.00	1	7.15	0.00	0.00	11.34	0.374
IMPETIGO	5	21.34	2	14.31	1.49	0.29	11.10	0.674
INFESTATION	2	8.54	1	7.15	1.19	0.09	35.20	0.931
INSECT BITE(S)	2	8.54	0	0.00	.	0.17	.	0.392
IRREG. MENSTRUAL CYCLE	2	8.54	1	7.15	1.19	0.09	35.20	0.931
IRRITABLE BOWEL SYNDROME	1	4.27	2	14.31	0.30	0.01	3.92	0.367
KELOID/HYPERTROPHIC SCAR	3	12.81	0	0.00	.	0.35	.	0.246
KERATOSIS-PILARIS	3	12.81	0	0.00	.	0.35	.	0.246
KNEE/THIGH DYSFUNCTION	2	8.54	1	7.15	1.19	0.09	35.20	0.931
LARYNGITIS	1	4.27	0	0.00	.	0.03	.	0.626
LEARNING DISABILITIES	1	4.27	0	0.00	.	0.03	.	0.626
LENTIGO	0	0.00	1	7.15	0.00	0.00	11.34	0.374
LICHEN SIMPLEX CHR.	1	4.27	0	0.00	.	0.03	.	0.626
LIGAMENT SPRAIN - HAND	1	4.27	0	0.00	.	0.03	.	0.626
LIPOMA	1	4.27	0	0.00	.	0.03	.	0.626
LYMPHEDEMA	1	4.27	0	0.00	.	0.03	.	0.626
MASS/LIPOMA/CYST	1	4.27	0	0.00	.	0.03	.	0.626
MILIA	1	4.27	0	0.00	.	0.03	.	0.626
MOLLUSCUM CONTAGIOSUM	1	4.27	0	0.00	.	0.03	.	0.626
MONILIA	1	4.27	0	0.00	.	0.03	.	0.626
MONONUCLEOSIS	0	0.00	1	7.15	0.00	0.00	11.34	0.374
MUSC./SKELETAL PAIN	30	128.05	15	107.30	1.19	0.65	2.27	0.587
NASAL HYPERPLASIA	1	4.27	0	0.00	.	0.03	.	0.626
NECK PAIN	0	0.00	1	7.15	0.00	0.00	11.34	0.374
NEUROLOGICAL, GENERAL DISORDER	1	4.27	0	0.00	.	0.03	.	0.626
OBESITY	3	12.81	0	0.00	.	0.35	.	0.246
ONYCHOCRYPTOSIS	3	12.81	0	0.00	.	0.35	.	0.246
OTITIS EXTERNA	1	4.27	4	28.61	0.15	0.01	1.19	0.076
OTITIS MEDIA	18	76.83	19	135.92	0.57	0.29	1.09	0.086
PAIN	1	4.27	2	14.31	0.30	0.01	3.92	0.367
PAT-FEM SYND	3	12.81	3	21.46	0.60	0.10	3.47	0.546
PHARYNGITIS	40	170.74	21	150.23	1.14	0.67	1.96	0.644
PITYRIASIS ROSEA	1	4.27	0	0.00	.	0.03	.	0.626
PNEUMONIA	2	8.54	1	7.15	1.19	0.09	35.20	0.931
POST-OP CARE	2	8.54	0	0.00	.	0.17	.	0.392
POST-OP COMPLICATION	1	4.27	0	0.00	.	0.03	.	0.626
PRE-OP	3	12.81	1	7.15	1.79	0.19	47.13	0.675
PREGNANCY	0	0.00	4	28.61	0.00	0.00	0.67	0.020
PSORIASIS	0	0.00	1	7.15	0.00	0.00	11.34	0.374
PSYCHOLOGICAL PROBLEM	38	162.20	31	221.76	0.73	0.45	1.18	0.200
R/O STD	2	8.54	6	42.92	0.20	0.03	0.94	0.041
RADICULOPATHY	1	4.27	0	0.00	.	0.03	.	0.626
RASH	21	89.64	12	85.84	1.04	0.52	2.19	0.918
SCAR	0	0.00	1	7.15	0.00	0.00	11.34	0.374
SCOLIOSIS	2	8.54	1	7.15	1.19	0.09	35.20	0.931
SEIZURES	0	0.00	1	7.15	0.00	0.00	11.34	0.374
SEIZURES W OR W/O FEVER	0	0.00	1	7.15	0.00	0.00	11.34	0.374
SINUSITIS	24	102.44	10	71.54	1.43	0.69	3.13	0.346
SOFT TISSUE DIS	3	12.81	1	7.15	1.79	0.19	47.13	0.675
SPRAIN/STRAIN ANKLE	1	4.27	0	0.00	.	0.03	.	0.626
STOMATITIS	1	4.27	0	0.00	.	0.03	.	0.626
SYNCOPE	0	0.00	1	7.15	0.00	0.00	11.34	0.374
TINEA INFECTION	1	4.27	3	21.46	0.20	0.01	1.87	0.170
TMJ SYNDROME	1	4.27	1	7.15	0.60	0.02	23.27	0.747
TONSILLITIS	0	0.00	2	14.31	0.00	0.00	2.07	0.140
TRAUMA	76	324.40	27	193.15	1.68	1.09	2.64	0.017
ULCERATIVE COLITIS	1	4.27	0	0.00	.	0.03	.	0.626

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Outpatient Visits
13-17 Year of Age -- Immunizations through 12/31/96, Events through 02/05/97
1-30 Day Risk Period and 91-120 Days AFTER Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	1-30 days N	1-30 days Rate	91-120 days N	91-120 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
URI	34	145.13	31	221.76	0.65	0.40	1.07	0.091
UTI	1	4.27	1	7.15	0.60	0.02	23.27	0.747
VAGINITIS/VAGINOSIS	4	17.07	3	21.46	0.80	0.16	4.26	0.762
VALVULAR HEART DISEASE	2	8.54	1	7.15	1.19	0.09	35.20	0.931
VARICELLA	1	4.27	2	14.31	0.30	0.01	3.92	0.367
VERTIGO/DIZZINESS	0	0.00	1	7.15	0.00	0.00	11.34	0.374
VIRAL SYNDROME	15	64.03	15	107.30	0.60	0.29	1.24	0.163
VISION PROBLEM	60	256.10	24	171.69	1.49	0.94	2.43	0.094
WARTS	10	42.68	4	28.61	1.49	0.48	5.49	0.522
WELL CARE	85	362.81	46	329.07	1.10	0.77	1.59	0.599
*Total	508	2168.34	328	2346.38	0.92	0.80	1.06	0.266

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Appendix II-4
Line Summaries - 18+ Years

Varicella Vaccine Safety Analysis: Hospitalizations
18+ Years of Age -- Immunizations through 12/31/96, Admissions through 02/05/97
0-60 Day Risk Period and 31-90 Days BEFORE Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	0-60 days N	0-60 days Rate	31-90 days before N	31-90 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
Abortion	0	0.00	1	3.51	0.00	0.00	13.98	0.424
Adenitis	1	2.58	0	0.00	.	0.04	.	0.576
Aseptic meningitis	0	0.00	1	3.51	0.00	0.00	13.98	0.424
Cancer, R/O Cancer	2	5.16	2	7.02	0.74	0.08	7.06	0.773
Cholelithiasis	3	7.75	0	0.00	.	0.43	.	0.191
Congenital Anomaly	0	0.00	1	3.51	0.00	0.00	13.98	0.424
Elective Procedure	7	18.08	8	28.09	0.64	0.22	1.83	0.405
Pneumonia	2	5.16	0	0.00	.	0.21	.	0.332
Poisoning/Ingestion	1	2.58	0	0.00	.	0.04	.	0.576
Pregnancy	0	0.00	24	84.26	0.00	0.00	0.10	<0.001
Psychiatric	1	2.58	0	0.00	.	0.04	.	0.576
Sepsis	0	0.00	1	3.51	0.00	0.00	13.98	0.424
Sinusitis	1	2.58	0	0.00	.	0.04	.	0.576
Trauma	2	5.16	1	3.51	1.47	0.11	43.40	0.805
*Total	18	46.48	39	136.92	0.34	0.19	0.59	<0.001

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Hospitalizations
18+ Years of Age -- Immunizations through 12/31/96, Admissions through 02/05/97
0-60 Day Risk Period and 91-150 Days AFTER Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	0-60 days N	0-60 days Rate	91-150 days N	91-150 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
Adenitis	1	2.58	0	0.00	.	0.03	.	0.609
Cancer, R/O Cancer	2	5.16	0	0.00	.	0.18	.	0.371
Cholelithiasis	3	7.75	0	0.00	.	0.37	.	0.226
Congenital Anomaly	0	0.00	1	4.02	0.00	0.00	12.19	0.391
Dysmenorrhea	0	0.00	1	4.02	0.00	0.00	12.19	0.391
Elective Procedure	7	18.08	5	20.12	0.90	0.28	3.10	0.847
Pneumonia	2	5.16	0	0.00	.	0.18	.	0.371
Poisoning/Ingestion	1	2.58	0	0.00	.	0.03	.	0.609
Pregnancy	0	0.00	1	4.02	0.00	0.00	12.19	0.391
Psychiatric	1	2.58	2	8.05	0.32	0.01	4.22	0.399
Sinusitis	1	2.58	0	0.00	.	0.03	.	0.609
Trauma	2	5.16	2	8.05	0.64	0.07	6.16	0.678
*Total	18	46.48	11	44.27	1.05	0.50	2.30	0.911

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Emergency Room Visits
18+ Years of Age -- Immunizations through 12/31/96, Visits through 02/05/97
0-30 Day Risk Period and 31-60 Days BEFORE Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	0-30 days N	0-30 days Rate	31-60 days before N	31-60 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
Abscess	1	4.62	0	0.00	.	0.03	.	0.603
Acute Gastroenteritis	4	18.49	3	21.06	0.88	0.18	4.70	0.857
Arhythmia	1	4.62	0	0.00	.	0.03	.	0.603
Asthma	1	4.62	0	0.00	.	0.03	.	0.603
Bronchiolitis	2	9.24	0	0.00	.	0.19	.	0.364
Cerebral Palsy	0	0.00	1	7.02	0.00	0.00	12.51	0.397
Cholecystitis	1	4.62	0	0.00	.	0.03	.	0.603
Cholelithiasis	1	4.62	0	0.00	.	0.03	.	0.603
Diabetic Foot Infection	1	4.62	0	0.00	.	0.03	.	0.603
Drug Reaction	2	9.24	0	0.00	.	0.19	.	0.364
Dysmenorrhea	1	4.62	0	0.00	.	0.03	.	0.603
Elective Procedure	0	0.00	1	7.02	0.00	0.00	12.51	0.397
Epistaxis	0	0.00	1	7.02	0.00	0.00	12.51	0.397
Gout	0	0.00	1	7.02	0.00	0.00	12.51	0.397
Headache	2	9.24	1	7.02	1.32	0.10	38.83	0.872
Hemophilia	0	0.00	1	7.02	0.00	0.00	12.51	0.397
Ingrown toenail	2	9.24	0	0.00	.	0.19	.	0.364
Migraine	3	13.87	0	0.00	.	0.38	.	0.219
Otitis Media	2	9.24	0	0.00	.	0.19	.	0.364
Pharyngitis	1	4.62	0	0.00	.	0.03	.	0.603
Post-partum Complication	0	0.00	1	7.02	0.00	0.00	12.51	0.397
Sinusitis	1	4.62	0	0.00	.	0.03	.	0.603
Syncope/LOC	1	4.62	0	0.00	.	0.03	.	0.603
Trauma	14	64.71	8	56.17	1.15	0.48	2.89	0.766
URI	0	0.00	1	7.02	0.00	0.00	12.51	0.397
UTI	0	0.00	1	7.02	0.00	0.00	12.51	0.397
Viral Syndrome	2	9.24	1	7.02	1.32	0.10	38.83	0.872
Well Child/Reassurance/FU	0	0.00	3	21.06	0.00	0.00	1.13	0.063
*Total	38	175.63	23	161.49	1.09	0.65	1.85	0.759

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Emergency Room Visits
18+ Years of Age -- Immunizations through 12/31/96, Visits through 02/05/97
0-30 Day Risk Period and 91-120 Days AFTER Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	0-30 days N	0-30 days Rate	91-120 days N	91-120 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
Abscess	1	4.62	1	7.80	0.59	0.02	23.10	0.744
Acute Gastroenteritis	4	18.49	2	15.61	1.18	0.21	9.25	0.882
Arhythmia	1	4.62	1	7.80	0.59	0.02	23.10	0.744
Asthma	1	4.62	0	0.00	.	0.03	.	0.628
Bronchiolitis	2	9.24	1	7.80	1.18	0.09	34.94	0.936
Cholecystitis	1	4.62	0	0.00	.	0.03	.	0.628
Cholelithiasis	1	4.62	0	0.00	.	0.03	.	0.628
Diabetic Foot Infection	1	4.62	0	0.00	.	0.03	.	0.628
Drug Reaction	2	9.24	0	0.00	.	0.17	.	0.394
Dysmenorrhea	1	4.62	0	0.00	.	0.03	.	0.628
Endometriosis	0	0.00	1	7.80	0.00	0.00	11.25	0.372
Headache	2	9.24	0	0.00	.	0.17	.	0.394
Hepatitis	0	0.00	1	7.80	0.00	0.00	11.25	0.372
Infection	0	0.00	1	7.80	0.00	0.00	11.25	0.372
Ingrown toenail	2	9.24	0	0.00	.	0.17	.	0.394
Kidney Stone	0	0.00	1	7.80	0.00	0.00	11.25	0.372
Migraine	3	13.87	1	7.80	1.78	0.19	46.78	0.680
Otitis Media	2	9.24	0	0.00	.	0.17	.	0.394
Pharyngitis	1	4.62	1	7.80	0.59	0.02	23.10	0.744
Post-surgical complication	0	0.00	1	7.80	0.00	0.00	11.25	0.372
Rash	0	0.00	1	7.80	0.00	0.00	11.25	0.372
Sinusitis	1	4.62	0	0.00	.	0.03	.	0.628
Syncope/LOC	1	4.62	1	7.80	0.59	0.02	23.10	0.744
Trauma	14	64.71	6	46.82	1.38	0.54	3.91	0.525
URI	0	0.00	1	7.80	0.00	0.00	11.25	0.372
UTI	0	0.00	1	7.80	0.00	0.00	11.25	0.372
Vertigo	0	0.00	1	7.80	0.00	0.00	11.25	0.372
Viral Syndrome	2	9.24	0	0.00	.	0.17	.	0.394
Well Child/Reassurance/FU	0	0.00	1	7.80	0.00	0.00	11.25	0.372
Wheezing/SOB	0	0.00	1	7.80	0.00	0.00	11.25	0.372
*Total	38	175.63	24	187.30	0.94	0.56	1.58	0.799

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Outpatient Visits
18+ Year of Age -- Immunizations through 12/31/96, Events through 02/05/97
1-30 Day Risk Period and 31-60 Days BEFORE Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	1-30 days N	1-30 days Rate	31-60 days before N	31-60 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
ABDOMINAL PAIN	7	33.48	4	28.09	1.19	0.35	4.65	0.803
ABDOMINAL WALL PAIN	1	4.78	0	0.00	.	0.04	.	0.595
ABORTION, MISSED	0	0.00	1	7.02	0.00	0.00	12.94	0.405
ABORTION, THREATENED	0	0.00	1	7.02	0.00	0.00	12.94	0.405
ABORTION-SPONTAN	1	4.78	0	0.00	.	0.04	.	0.595
ABSCESS	3	14.35	4	28.09	0.51	0.10	2.47	0.401
ACCOMMODATIVE DISORDER	1	4.78	0	0.00	.	0.04	.	0.595
ACNE	17	81.30	14	98.30	0.83	0.40	1.71	0.599
ADENITIS	1	4.78	0	0.00	.	0.04	.	0.595
AGE	11	52.61	8	56.17	0.94	0.37	2.44	0.880
ALLERGIC REACT W OR W/O HIVES	3	14.35	1	7.02	2.04	0.22	53.80	0.592
ALLERGIC REACTION (INC. HIVES)	3	14.35	1	7.02	2.04	0.22	53.80	0.592
ALLERGIC RHINITIS	27	129.12	24	168.51	0.77	0.44	1.34	0.346
ALOPECIA	2	9.56	1	7.02	1.36	0.10	40.18	0.851
AMENORRHEA	1	4.78	0	0.00	.	0.04	.	0.595
AMPHETAMINE DEPENDENCE	1	4.78	0	0.00	.	0.04	.	0.595
ANTIHISTAMINE	1	4.78	0	0.00	.	0.04	.	0.595
APNEA	1	4.78	0	0.00	.	0.04	.	0.595
ARRYTHMIAS/PALPITATIONS	2	9.56	0	0.00	.	0.20	.	0.354
ARTHRALGIA / ARTHRITIS	6	28.69	3	21.06	1.36	0.34	6.67	0.692
ASHD	0	0.00	1	7.02	0.00	0.00	12.94	0.405
ASTHMA	16	76.52	14	98.30	0.78	0.38	1.62	0.497
ATYPIA - CERVIX	2	9.56	2	14.04	0.68	0.07	6.54	0.719
BACK PAIN	19	90.86	12	84.26	1.08	0.52	2.29	0.849
BLOOD CELL DISORDERS	1	4.78	0	0.00	.	0.04	.	0.595
BPH	1	4.78	0	0.00	.	0.04	.	0.595
BREAST - FIBROCYSTIC DISEASE	2	9.56	0	0.00	.	0.20	.	0.354
BREAST CONCERNS	37	176.95	22	154.47	1.15	0.68	1.97	0.621
BREAST EXAM ONLY	1	4.78	0	0.00	.	0.04	.	0.595
BREAST REDUCTION	1	4.78	0	0.00	.	0.04	.	0.595
BRONCHIOLITIS	26	124.34	12	84.26	1.48	0.75	3.03	0.267
BURSITIS/TENDONITIS - LOWER EX	1	4.78	0	0.00	.	0.04	.	0.595
BURSITIS/TENDONITIS-UPPER EXTR	2	9.56	0	0.00	.	0.20	.	0.354
CA: SQUAMOUS CELL	1	4.78	0	0.00	.	0.04	.	0.595
CANCER	7	33.48	11	77.23	0.43	0.16	1.12	0.086
CARPAL TUNNEL SYNDROME	4	19.13	2	14.04	1.36	0.24	10.63	0.759
CATARACT	0	0.00	2	14.04	0.00	0.00	2.36	0.164
CELLULITIS	9	43.04	3	21.06	2.04	0.58	9.36	0.293
CERVICOGENIC HEADACHE	1	4.78	0	0.00	.	0.04	.	0.595
CHEST PAIN	2	9.56	2	14.04	0.68	0.07	6.54	0.719
CHOLECYSTITIS/CHOLELITHIASIS	0	0.00	1	7.02	0.00	0.00	12.94	0.405
CHOLELITHIASIS	1	4.78	1	7.02	0.68	0.02	26.56	0.810
CHRONIC LUNG DISEASE	1	4.78	0	0.00	.	0.04	.	0.595
COCCYX PAIN	1	4.78	0	0.00	.	0.04	.	0.595
CONDYLOMA - CERVIX	1	4.78	0	0.00	.	0.04	.	0.595
CONDYLOMA - VULVA	2	9.56	0	0.00	.	0.20	.	0.354
CONGENITAL ANOMALY	18	86.08	14	98.30	0.88	0.43	1.80	0.707
CONJUNCTIVITIS	8	38.26	4	28.09	1.36	0.41	5.19	0.638
CONSTIPATION	0	0.00	1	7.02	0.00	0.00	12.94	0.405
CONTRACEPTION COUNSELING	0	0.00	1	7.02	0.00	0.00	12.94	0.405
CONTUSION - UNSPECIFIED	1	4.78	0	0.00	.	0.04	.	0.595
CONVERGENCE DISORDER	1	4.78	0	0.00	.	0.04	.	0.595
CORNEA DISORDERS	0	0.00	1	7.02	0.00	0.00	12.94	0.405
CORNS/CALLUSES	2	9.56	0	0.00	.	0.20	.	0.354
COUGH	1	4.78	0	0.00	.	0.04	.	0.595
CYST	1	4.78	0	0.00	.	0.04	.	0.595
CYST/MASS - BREAST	1	4.78	0	0.00	.	0.04	.	0.595
CYST/MASS - WRIST	1	4.78	0	0.00	.	0.04	.	0.595
CYST/MASS HAND	1	4.78	0	0.00	.	0.04	.	0.595
CYST/MASS, FUNCTIONAL - ADNEXA	1	4.78	0	0.00	.	0.04	.	0.595
CYSTITIS	1	4.78	0	0.00	.	0.04	.	0.595
DERMATITIS, SEBORRHEIC	1	4.78	0	0.00	.	0.04	.	0.595
DIABETES	11	52.61	7	49.15	1.07	0.41	2.93	0.903

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Outpatient Visits
18+ Year of Age -- Immunizations through 12/31/96, Events through 02/05/97
1-30 Day Risk Period and 31-60 Days BEFORE Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	1-30 days N	1-30 days Rate	31-60 days before N	31-60 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
DRUG INTOX	2	9.56	2	14.04	0.68	0.07	6.54	0.719
DRUG REACTION	18	86.08	15	105.32	0.82	0.41	1.65	0.565
DYSFUNCTION OF THE CERVICAL SP	1	4.78	0	0.00	.	0.04	.	0.595
DYSFUNCTION OF THE SHOULDER	2	9.56	0	0.00	.	0.20	.	0.354
DYSFUNCTIONAL UTERINE BLEEDING	0	0.00	1	7.02	0.00	0.00	12.94	0.405
DYSHIDROSIS	1	4.78	0	0.00	.	0.04	.	0.595
DYSMENORRHEA	2	9.56	2	14.04	0.68	0.07	6.54	0.719
DYSPEPSIA	2	9.56	2	14.04	0.68	0.07	6.54	0.719
DYSPHAGIA/ESOPHAGEAL	1	4.78	0	0.00	.	0.04	.	0.595
DYSPLASIA - CERVIX	1	4.78	0	0.00	.	0.04	.	0.595
DYSPLASIA, HIGH GRADE - CERVIX	1	4.78	0	0.00	.	0.04	.	0.595
DYSPNEA	1	4.78	0	0.00	.	0.04	.	0.595
DYSTHYMIA	10	47.82	7	49.15	0.97	0.37	2.71	0.946
ECTOPIC PREGNANCY R/O	2	9.56	0	0.00	.	0.20	.	0.354
ECZEMA	0	0.00	1	7.02	0.00	0.00	12.94	0.405
ELBOW EPICONDYLITIS	1	4.78	0	0.00	.	0.04	.	0.595
ELECTIVE SURGERY	2	9.56	3	21.06	0.45	0.05	3.05	0.417
EMPHYSEMA/COPD	1	4.78	0	0.00	.	0.04	.	0.595
ENDOMETRIOSIS	1	4.78	0	0.00	.	0.04	.	0.595
EPISTAXIS	0	0.00	1	7.02	0.00	0.00	12.94	0.405
EUSTACHIAN	6	28.69	3	21.06	1.36	0.34	6.67	0.692
FATIGUE	2	9.56	4	28.09	0.34	0.04	1.92	0.230
FEVER	1	4.78	0	0.00	.	0.04	.	0.595
FIBROCYSTIC CHANGES - BREAST	2	9.56	0	0.00	.	0.20	.	0.354
FIBROIDS - UTERUS	3	14.35	0	0.00	.	0.40	.	0.210
FOLLICULITIS	2	9.56	0	0.00	.	0.20	.	0.354
FOOD ALLERGY	3	14.35	0	0.00	.	0.40	.	0.210
FOOT DISORDER	2	9.56	2	14.04	0.68	0.07	6.54	0.719
FUNGAL INFECTION	0	0.00	1	7.02	0.00	0.00	12.94	0.405
GASTRITIS	5	23.91	4	28.09	0.85	0.22	3.56	0.808
GI BLEEDING	0	0.00	1	7.02	0.00	0.00	12.94	0.405
GLAUCOMA	3	14.35	0	0.00	.	0.40	.	0.210
HAY FEVER	0	0.00	1	7.02	0.00	0.00	12.94	0.405
HEAD & NECK - ENT PROB. NOS	0	0.00	1	7.02	0.00	0.00	12.94	0.405
HEADACHE	16	76.52	8	56.17	1.36	0.59	3.36	0.488
HEALTHCARE CLASS	2	9.56	1	7.02	1.36	0.10	40.18	0.851
HEARING LOSS	1	4.78	1	7.02	0.68	0.02	26.56	0.810
HEMOPHILIA	1	4.78	0	0.00	.	0.04	.	0.595
HEMORRHOIDS	5	23.91	3	21.06	1.14	0.26	5.77	0.887
HERPES - VULVA	1	4.78	1	7.02	0.68	0.02	26.56	0.810
HERPES SIMPLEX	3	14.35	0	0.00	.	0.40	.	0.210
HIP/KNEE/ANKLE PAIN	4	19.13	3	21.06	0.91	0.19	4.87	0.891
HIRSUTISM	1	4.78	0	0.00	.	0.04	.	0.595
HORMONE MNGT, MENOPAUSAL	1	4.78	0	0.00	.	0.04	.	0.595
HYPERLIPIDEMIA	4	19.13	3	21.06	0.91	0.19	4.87	0.891
HYPERTENSION	6	28.69	4	28.09	1.02	0.28	4.11	0.990
HYPERTHYROIDISM	0	0.00	1	7.02	0.00	0.00	12.94	0.405
HYPOTHYROIDISM	4	19.13	0	0.00	.	0.61	.	0.125
INCONTINENCE - STRESS	1	4.78	0	0.00	.	0.04	.	0.595
INFERTILITY	3	14.35	2	14.04	1.02	0.15	8.59	0.999
INFESTATION	0	0.00	1	7.02	0.00	0.00	12.94	0.405
IRREG. MENSTRUAL CYCLE	4	19.13	2	14.04	1.36	0.24	10.63	0.759
IRRITABLE BOWEL SYNDROME	5	23.91	1	7.02	3.41	0.47	81.03	0.270
KERATOSIS, SEBORRHEIC	2	9.56	1	7.02	1.36	0.10	40.18	0.851
KERATOSIS-ACTINIC	1	4.78	1	7.02	0.68	0.02	26.56	0.810
KERATOSIS-PILARIS	3	14.35	1	7.02	2.04	0.22	53.80	0.592
KNEE/THIGH DYSFUNCTION	1	4.78	1	7.02	0.68	0.02	26.56	0.810
LAB. TEST/ABNORMALITY	1	4.78	0	0.00	.	0.04	.	0.595
LARYNGITIS	1	4.78	1	7.02	0.68	0.02	26.56	0.810
LATERAL EPICONDYLITIS	1	4.78	0	0.00	.	0.04	.	0.595
LENTIGO	2	9.56	1	7.02	1.36	0.10	40.18	0.851
MACULA - HOLE	1	4.78	0	0.00	.	0.04	.	0.595
MENORRHAGIA	1	4.78	0	0.00	.	0.04	.	0.595

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Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Outpatient Visits
18+ Year of Age -- Immunizations through 12/31/96, Events through 02/05/97
1-30 Day Risk Period and 31-60 Days BEFORE Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	1-30 days N	1-30 days Rate	31-60 days before N	31-60 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
MENSTRUAL DISORDER	1	4.78	0	0.00	.	0.04	.	0.595
METATARSALGIA	0	0.00	1	7.02	0.00	0.00	12.94	0.405
MID BACK PAIN-CHEST/THORACIC	1	4.78	0	0.00	.	0.04	.	0.595
MOLLUSCUM CONTAGIOSUM	1	4.78	1	7.02	0.68	0.02	26.56	0.810
MULTIFIT CARDIAC REHABILITATIO	1	4.78	0	0.00	.	0.04	.	0.595
MISC./SKELETAL PAIN	12	57.39	18	126.38	0.45	0.21	0.94	0.034
NASAL	1	4.78	2	14.04	0.34	0.01	4.48	0.426
NECK PAIN	2	9.56	6	42.13	0.23	0.03	1.07	0.062
NEUROLOGICAL, GENERAL DISORDER	2	9.56	2	14.04	0.68	0.07	6.54	0.719
NEUROMA/NEURITIS	1	4.78	0	0.00	.	0.04	.	0.595
NEUROPHTHALMOLOGICAL DISORDER	0	0.00	1	7.02	0.00	0.00	12.94	0.405
NEVUS, DYSPLASTIC SYNDROME	1	4.78	0	0.00	.	0.04	.	0.595
OBESITY	4	19.13	4	28.09	0.68	0.15	3.02	0.600
ONYCHOCRYPTOSIS	0	0.00	1	7.02	0.00	0.00	12.94	0.405
ONYCHOMYCOSIS	1	4.78	2	14.04	0.34	0.01	4.48	0.426
OPTIC NERVE DISORDER	1	4.78	0	0.00	.	0.04	.	0.595
ORTHO. PROB. NOS	1	4.78	0	0.00	.	0.04	.	0.595
OTITIS EXTERNA	4	19.13	0	0.00	.	0.61	.	0.125
OTITIS MEDIA	9	43.04	7	49.15	0.88	0.32	2.48	0.789
PARKINSON'S DISEASE	1	4.78	0	0.00	.	0.04	.	0.595
PAT-FEM SYND	2	9.56	0	0.00	.	0.20	.	0.354
PELVIC PAIN UNK ETIOLOGY	6	28.69	3	21.06	1.36	0.34	6.67	0.692
PERFORMANCE STATUS, BEDRIDDEN	1	4.78	0	0.00	.	0.04	.	0.595
PERIPHERAL NEUROPATHY	1	4.78	0	0.00	.	0.04	.	0.595
PHARYNGITIS	18	86.08	12	84.26	1.02	0.49	2.18	0.964
PLANTAR FASCIITIS	3	14.35	1	7.02	2.04	0.22	53.80	0.592
PNEUMONITIS	1	4.78	0	0.00	.	0.04	.	0.595
POLYARTHRITIS	1	4.78	0	0.00	.	0.04	.	0.595
POST-OP CARE	1	4.78	3	21.06	0.23	0.01	2.13	0.212
PRE-OP	6	28.69	13	91.28	0.31	0.11	0.82	0.017
PREGNANCY	3	14.35	14	98.30	0.15	0.03	0.47	0.001
PROSTATE CA.	1	4.78	0	0.00	.	0.04	.	0.595
PROSTATITIS	1	4.78	0	0.00	.	0.04	.	0.595
PSORIASIS	2	9.56	4	28.09	0.34	0.04	1.92	0.230
PSYCHOLOGICAL PROBLEM	37	176.95	34	238.73	0.74	0.46	1.19	0.210
PULMONARY FIBROSIS- RESTRICTIV	1	4.78	0	0.00	.	0.04	.	0.595
PVD (VIT. DETACH.)	1	4.78	0	0.00	.	0.04	.	0.595
PVD/VENOUS INSUF.	1	4.78	0	0.00	.	0.04	.	0.595
R/O STD	10	47.82	6	42.13	1.14	0.41	3.37	0.824
RADICULOPATHY	3	14.35	1	7.02	2.04	0.22	53.80	0.592
RASH	32	153.03	14	98.30	1.56	0.84	3.00	0.165
RENAL FAILURE	1	4.78	0	0.00	.	0.04	.	0.595
REPETITIVE USE/MOTION STRAIN -	2	9.56	1	7.02	1.36	0.10	40.18	0.851
ROUTINE POST-OP VISIT	1	4.78	0	0.00	.	0.04	.	0.595
SCAR	1	4.78	1	7.02	0.68	0.02	26.56	0.810
SCOLIOSIS	0	0.00	1	7.02	0.00	0.00	12.94	0.405
SEXUAL DYSFUNCTION	1	4.78	0	0.00	.	0.04	.	0.595
SHOULDER DYSFUNCTION	2	9.56	2	14.04	0.68	0.07	6.54	0.719
SHOULDER SPRAIN/STRAIN	2	9.56	0	0.00	.	0.20	.	0.354
SICKLE CELL DS	0	0.00	1	7.02	0.00	0.00	12.94	0.405
SINUSITIS	34	162.60	17	119.36	1.36	0.77	2.49	0.301
SLE	1	4.78	0	0.00	.	0.04	.	0.595
SLEEP DISORDERS	3	14.35	0	0.00	.	0.40	.	0.210
SOB/DOE	1	4.78	0	0.00	.	0.04	.	0.595
SOFT TISSUE DIS	1	4.78	1	7.02	0.68	0.02	26.56	0.810
STROKE	1	4.78	1	7.02	0.68	0.02	26.56	0.810
SUBACROM.PATH.	1	4.78	0	0.00	.	0.04	.	0.595
SYNOVITIS	0	0.00	1	7.02	0.00	0.00	12.94	0.405
THIGH STRAIN	1	4.78	0	0.00	.	0.04	.	0.595
TINEA INFECTION	4	19.13	3	21.06	0.91	0.19	4.87	0.891
TINNITUS	2	9.56	0	0.00	.	0.20	.	0.354
TMJ SYNDROME	2	9.56	2	14.04	0.68	0.07	6.54	0.719
TONSILLITIS	1	4.78	1	7.02	0.68	0.02	26.56	0.810

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Outpatient Visits
18+ Year of Age -- Immunizations through 12/31/96, Events through 02/05/97
1-30 Day Risk Period and 31-60 Days BEFORE Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	1-30 days N	1-30 days Rate	31-60 days before N	31-60 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
TRAUMA	44	210.42	41	287.87	0.73	0.48	1.12	0.151
TRIGGER FINGER	1	4.78	0	0.00	.	0.04	.	0.595
TUBERCULOSIS	1	4.78	0	0.00	.	0.04	.	0.595
TUMOR,SPINAL,INTRADURAL,EXTRAM	1	4.78	0	0.00	.	0.04	.	0.595
ULCER	2	9.56	0	0.00	.	0.20	.	0.354
ULCERS / SKIN	1	4.78	0	0.00	.	0.04	.	0.595
URETER - STONE	1	4.78	0	0.00	.	0.04	.	0.595
URETHRAL SYNDROME	1	4.78	0	0.00	.	0.04	.	0.595
URI	40	191.29	31	217.66	0.88	0.55	1.42	0.588
UTI	13	62.17	7	49.15	1.26	0.51	3.38	0.633
VAGINAL - HERPES	1	4.78	0	0.00	.	0.04	.	0.595
VAGINITIS/VAGINOSIS	21	100.43	7	49.15	2.04	0.89	5.17	0.094
VALVULAR HEART DISEASE	0	0.00	1	7.02	0.00	0.00	12.94	0.405
VARICELLA	1	4.78	0	0.00	.	0.04	.	0.595
VARICELLA ZOSTER	1	4.78	1	7.02	0.68	0.02	26.56	0.810
VARICOSE VEINS	1	4.78	0	0.00	.	0.04	.	0.595
VENOUS STASIS ULCERATION	1	4.78	1	7.02	0.68	0.02	26.56	0.810
VERTIGO/DIZZINESS	1	4.78	4	28.09	0.17	0.01	1.36	0.102
VIRAL SYNDROME	14	66.95	4	28.09	2.38	0.82	8.41	0.117
VISION PROBLEM	50	239.12	36	252.77	0.95	0.62	1.46	0.796
VISUAL LOSS	0	0.00	2	14.04	0.00	0.00	2.36	0.164
VULVA - CYST	1	4.78	0	0.00	.	0.04	.	0.595
WARTS	6	28.69	8	56.17	0.51	0.17	1.51	0.223
WEAKNESS/FATIGUE	3	14.35	0	0.00	.	0.40	.	0.210
WELL CARE	155	741.26	144	1011.07	0.73	0.58	0.92	0.008
*Total	561	2635.06	450	3159.60	0.83	0.74	0.94	0.004

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Outpatient Visits
18+ Year of Age -- Immunizations through 12/31/96, Events through 02/05/97
1-30 Day Risk Period and 91-120 Days AFTER Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	1-30 days N	1-30 days Rate	91-120 days N	91-120 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
ABDOMINAL PAIN	7	33.48	5	39.02	0.86	0.27	2.96	0.787
ABDOMINAL WALL PAIN	1	4.78	0	0.00	.	0.03	.	0.620
ABORTION, THREATENED	0	0.00	1	7.80	0.00	0.00	11.64	0.380
ABORTION-SPONTAN	1	4.78	0	0.00	.	0.03	.	0.620
ABSCESS	3	14.35	2	15.61	0.92	0.14	7.73	0.911
ACCOMMODATIVE DISORDER	1	4.78	0	0.00	.	0.03	.	0.620
ACNE	17	81.30	11	85.84	0.95	0.44	2.09	0.879
ADENITIS	1	4.78	0	0.00	.	0.03	.	0.620
AGE	11	52.61	8	62.43	0.84	0.34	2.19	0.709
ALLERGIC REACT W OR W/O HIVES	3	14.35	1	7.80	1.84	0.20	48.40	0.658
ALLERGIC REACTION (INC. HIVES)	3	14.35	1	7.80	1.84	0.20	48.40	0.658
ALLERGIC RHINITIS	27	129.12	19	148.28	0.87	0.48	1.59	0.641
ALOPECIA	2	9.56	2	15.61	0.61	0.06	5.89	0.647
AMENORRHEA	1	4.78	0	0.00	.	0.03	.	0.620
AMPHETAMINE DEPENDENCE	1	4.78	0	0.00	.	0.03	.	0.620
ANEMIA	0	0.00	1	7.80	0.00	0.00	11.64	0.380
ANTIHISTAMINE	1	4.78	0	0.00	.	0.03	.	0.620
APNEA	1	4.78	0	0.00	.	0.03	.	0.620
ARRHYTHMIA	0	0.00	1	7.80	0.00	0.00	11.64	0.380
ARRYTHMIAS/PALPITATIONS	2	9.56	0	0.00	.	0.18	.	0.384
ARTHRALGIA / ARTHRITIS	6	28.69	0	0.00	.	0.95	.	0.057
ASTHMA	16	76.52	10	78.04	0.98	0.45	2.24	0.950
ATYPIA - CERVIX	2	9.56	2	15.61	0.61	0.06	5.89	0.647
BACK PAIN	19	90.86	5	39.02	2.33	0.91	6.99	0.082
BLOOD CELL DISORDERS	1	4.78	1	7.80	0.61	0.02	23.90	0.760
BPH	1	4.78	0	0.00	.	0.03	.	0.620
BREAST - FIBROCYSTIC DISEASE	2	9.56	0	0.00	.	0.18	.	0.384
BREAST CONCERNS	37	176.95	16	124.86	1.42	0.80	2.61	0.244
BREAST EXAM ONLY	1	4.78	0	0.00	.	0.03	.	0.620
BREAST REDUCTION	1	4.78	0	0.00	.	0.03	.	0.620
BRONCHIOLITIS	26	124.34	12	93.65	1.33	0.68	2.72	0.425
BRONCHIOLITIS W PNEUMONIA	0	0.00	1	7.80	0.00	0.00	11.64	0.380
BURSITIS/TENDONITIS - LOWER EX	1	4.78	0	0.00	.	0.03	.	0.620
BURSITIS/TENDONITIS-UPPER EXTR	2	9.56	0	0.00	.	0.18	.	0.384
CA: SQUAMOUS CELL	1	4.78	0	0.00	.	0.03	.	0.620
CANCER	7	33.48	7	54.63	0.61	0.21	1.83	0.370
CARPAL TUNNEL SYNDROME	4	19.13	0	0.00	.	0.55	.	0.148
CATARACT	0	0.00	1	7.80	0.00	0.00	11.64	0.380
CELLULITIS	9	43.04	4	31.22	1.38	0.43	5.15	0.619
CERVICOGENIC HEADACHE	1	4.78	0	0.00	.	0.03	.	0.620
CHEST PAIN	2	9.56	4	31.22	0.31	0.04	1.73	0.185
CHOLELITHIASIS	1	4.78	0	0.00	.	0.03	.	0.620
CHRONIC LUNG DISEASE	1	4.78	0	0.00	.	0.03	.	0.620
COCCYX PAIN	1	4.78	0	0.00	.	0.03	.	0.620
CONDYLOMA - CERVIX	1	4.78	0	0.00	.	0.03	.	0.620
CONDYLOMA - VULVA	2	9.56	1	7.80	1.23	0.09	36.15	0.915
CONGENITAL ANOMALY	18	86.08	11	85.84	1.00	0.47	2.20	0.999
CONJUNCTIVITIS	8	38.26	8	62.43	0.61	0.22	1.69	0.337
CONSTIPATION	0	0.00	1	7.80	0.00	0.00	11.64	0.380
CONTUSION - UNSPECIFIED	1	4.78	0	0.00	.	0.03	.	0.620
CONVERGENCE DISORDER	1	4.78	0	0.00	.	0.03	.	0.620
CORNS/CALLUSES	2	9.56	0	0.00	.	0.18	.	0.384
COUGH	1	4.78	0	0.00	.	0.03	.	0.620
CYST	1	4.78	2	15.61	0.31	0.01	4.03	0.378
CYST/MASS - BREAST	1	4.78	0	0.00	.	0.03	.	0.620
CYST/MASS - WRIST	1	4.78	0	0.00	.	0.03	.	0.620
CYST/MASS HAND	1	4.78	0	0.00	.	0.03	.	0.620
CYST/MASS, FUNCTIONAL - ADNEXA	1	4.78	0	0.00	.	0.03	.	0.620
CYSTITIS	1	4.78	0	0.00	.	0.03	.	0.620
DERMATITIS, SEBORRHEIC	1	4.78	0	0.00	.	0.03	.	0.620
DIABETES	11	52.61	3	23.41	2.25	0.67	10.03	0.213
DRUG INTOX	2	9.56	2	15.61	0.61	0.06	5.89	0.647
DRUG REACTION	18	86.08	16	124.86	0.69	0.35	1.37	0.284
DYSFUNCTION OF THE CERVICAL SP	1	4.78	0	0.00	.	0.03	.	0.620

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Outpatient Visits
18+ Year of Age -- Immunizations through 12/31/96, Events through 02/05/97
1-30 Day Risk Period and 91-120 Days AFTER Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	1-30 days N	1-30 days Rate	91-120 days N	91-120 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
DYSFUNCTION OF THE SHOULDER	2	9.56	1	7.80	1.23	0.09	36.15	0.915
DYSHIDROSIS	1	4.78	0	0.00	.	0.03	.	0.620
DYSMENORRHEA	2	9.56	3	23.41	0.41	0.05	2.75	0.356
DYSPEPSIA	2	9.56	3	23.41	0.41	0.05	2.75	0.356
DYSPHAGIA/ESOPHAGEAL	1	4.78	0	0.00	.	0.03	.	0.620
DYSPLASIA - CERVIX	1	4.78	0	0.00	.	0.03	.	0.620
DYSPLASIA, HIGH GRADE - CERVIX	1	4.78	0	0.00	.	0.03	.	0.620
DYSPNEA	1	4.78	0	0.00	.	0.03	.	0.620
DYSTHYMIA	10	47.82	2	15.61	3.06	0.75	20.56	0.134
ECTOPIC PREGNANCY R/O	2	9.56	0	0.00	.	0.18	.	0.384
ELBOW EPICONDYLITIS	1	4.78	0	0.00	.	0.03	.	0.620
ELECTIVE SURGERY	2	9.56	2	15.61	0.61	0.06	5.89	0.647
EMPHYSEMA/COPD	1	4.78	0	0.00	.	0.03	.	0.620
ENDOMETRIOSIS	1	4.78	0	0.00	.	0.03	.	0.620
EPILEPSY	0	0.00	2	15.61	0.00	0.00	2.13	0.144
EPISCLERITIS	0	0.00	1	7.80	0.00	0.00	11.64	0.380
EPISTAXIS	0	0.00	1	7.80	0.00	0.00	11.64	0.380
EUSTACHIAN	6	28.69	0	0.00	.	0.95	.	0.057
FATIGUE	2	9.56	2	15.61	0.61	0.06	5.89	0.647
FEVER	1	4.78	0	0.00	.	0.03	.	0.620
FIBROCYSTIC CHANGES - BREAST	2	9.56	1	7.80	1.23	0.09	36.15	0.915
FIBROIDS - UTERUS	3	14.35	1	7.80	1.84	0.20	48.40	0.658
FOLLICULITIS	2	9.56	0	0.00	.	0.18	.	0.384
FOOD ALLERGY	3	14.35	1	7.80	1.84	0.20	48.40	0.658
FOOT DISORDER	2	9.56	1	7.80	1.23	0.09	36.15	0.915
GASTRITIS	5	23.91	7	54.63	0.44	0.13	1.42	0.167
GI BLEEDING	0	0.00	1	7.80	0.00	0.00	11.64	0.380
GI DISORDER NOS	0	0.00	1	7.80	0.00	0.00	11.64	0.380
GLAUCOMA	3	14.35	0	0.00	.	0.36	.	0.238
HEADACHE	16	76.52	8	62.43	1.23	0.53	3.03	0.655
HEALTHCARE CLASS	2	9.56	5	39.02	0.25	0.03	1.24	0.092
HEARING LOSS	1	4.78	2	15.61	0.31	0.01	4.03	0.378
HEMOPHILIA	1	4.78	0	0.00	.	0.03	.	0.620
HEMORRHOIDS	5	23.91	0	0.00	.	0.75	.	0.092
HERPES - VULVA	1	4.78	0	0.00	.	0.03	.	0.620
HERPES SIMPLEX	3	14.35	0	0.00	.	0.36	.	0.238
HIP/KNEE/ANKLE PAIN	4	19.13	1	7.80	2.45	0.31	60.66	0.464
HIRSUTISM	1	4.78	0	0.00	.	0.03	.	0.620
HORMONE MNGT, MENOPAUSAL	1	4.78	0	0.00	.	0.03	.	0.620
HYPERLIPIDEMIA	4	19.13	4	31.22	0.61	0.14	2.72	0.504
HYPERTENSION	6	28.69	8	62.43	0.46	0.15	1.35	0.158
HYPOTHYROIDISM	4	19.13	1	7.80	2.45	0.31	60.66	0.464
IDDM	0	0.00	1	7.80	0.00	0.00	11.64	0.380
INCONTINENCE - STRESS	1	4.78	0	0.00	.	0.03	.	0.620
INFERTILITY	3	14.35	2	15.61	0.92	0.14	7.73	0.911
IRREG. MENSTRUAL CYCLE	4	19.13	1	7.80	2.45	0.31	60.66	0.464
IRRITABLE BOWEL SYNDROME	5	23.91	2	15.61	1.53	0.30	11.40	0.651
KERATITIS	0	0.00	1	7.80	0.00	0.00	11.64	0.380
KERATOSIS, SEBORRHEIC	2	9.56	1	7.80	1.23	0.09	36.15	0.915
KERATOSIS-ACTINIC	1	4.78	2	15.61	0.31	0.01	4.03	0.378
KERATOSIS-PILARIS	3	14.35	0	0.00	.	0.36	.	0.238
KNEE/THIGH DYSFUNCTION	1	4.78	1	7.80	0.61	0.02	23.90	0.760
LAB. TEST/ABNORMALITY	1	4.78	0	0.00	.	0.03	.	0.620
LARYNGITIS	1	4.78	1	7.80	0.61	0.02	23.90	0.760
LATERAL EPICONDYLITIS	1	4.78	0	0.00	.	0.03	.	0.620
LENTIGO	2	9.56	0	0.00	.	0.18	.	0.384
LICHEN PLANUS	0	0.00	1	7.80	0.00	0.00	11.64	0.380
MACULA - HOLE	1	4.78	0	0.00	.	0.03	.	0.620
MENORRHAGIA	1	4.78	0	0.00	.	0.03	.	0.620
MENSTRUAL DISORDER	1	4.78	0	0.00	.	0.03	.	0.620
MID BACK PAIN-CHEST/THORACIC	1	4.78	0	0.00	.	0.03	.	0.620
MOLLUSCUM CONTAGIOSUM	1	4.78	0	0.00	.	0.03	.	0.620
MULTIFIT CARDIAC REHABILITATIO	1	4.78	0	0.00	.	0.03	.	0.620
MUSC./SKELETAL PAIN	12	57.39	6	46.82	1.23	0.46	3.54	0.705

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Outpatient Visits
18+ Year of Age -- Immunizations through 12/31/96, Events through 02/05/97
1-30 Day Risk Period and 91-120 Days AFTER Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	1-30 days N	1-30 days Rate	91-120 days N	91-120 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
NASAL	1	4.78	2	15.61	0.31	0.01	4.03	0.378
NECK PAIN	2	9.56	4	31.22	0.31	0.04	1.73	0.185
NEUROLOGICAL, GENERAL DISORDER	2	9.56	0	0.00	.	0.18	.	0.384
NEUROMA/NEURITIS	1	4.78	0	0.00	.	0.03	.	0.620
NEVUS, DYSPLASTIC SYNDROME	1	4.78	0	0.00	.	0.03	.	0.620
OBESITY	4	19.13	3	23.41	0.82	0.17	4.38	0.788
ONYCHOCRYPTOSIS	0	0.00	3	23.41	0.00	0.00	1.05	0.055
ONYCHOMYCOSIS	1	4.78	1	7.80	0.61	0.02	23.90	0.760
OPTIC NERVE DISORDER	1	4.78	0	0.00	.	0.03	.	0.620
ORTHO. PROB. NOS	1	4.78	0	0.00	.	0.03	.	0.620
OTITIS EXTERNA	4	19.13	0	0.00	.	0.55	.	0.148
OTITIS MEDIA	9	43.04	4	31.22	1.38	0.43	5.15	0.619
PARKINSON'S DISEASE	1	4.78	0	0.00	.	0.03	.	0.620
PAT-FEM SYND	2	9.56	1	7.80	1.23	0.09	36.15	0.915
PELVIC PAIN UNK ETIOLOGY	6	28.69	2	15.61	1.84	0.39	13.23	0.488
PERFORMANCE STATUS, BEDRIDDEN	1	4.78	0	0.00	.	0.03	.	0.620
PERIPHERAL NEUROPATHY	1	4.78	1	7.80	0.61	0.02	23.90	0.760
PHARYNGITIS	18	86.08	10	78.04	1.10	0.51	2.49	0.819
PLANTAR FASCIITIS	3	14.35	1	7.80	1.84	0.20	48.40	0.658
PNEUMONITIS	1	4.78	0	0.00	.	0.03	.	0.620
POLYARTHRITIS	1	4.78	0	0.00	.	0.03	.	0.620
POLYCYSTIC OVARIAN SYNDROME	0	0.00	1	7.80	0.00	0.00	11.64	0.380
POST-OP CARE	1	4.78	1	7.80	0.61	0.02	23.90	0.760
PRE-OP	6	28.69	5	39.02	0.74	0.21	2.62	0.616
PREGNANCY	3	14.35	10	78.04	0.18	0.04	0.63	0.006
PROSTATE CA.	1	4.78	0	0.00	.	0.03	.	0.620
PROSTATITIS	1	4.78	0	0.00	.	0.03	.	0.620
PSORIASIS	2	9.56	0	0.00	.	0.18	.	0.384
PSYCHOLOGICAL PROBLEM	37	176.95	28	218.51	0.81	0.50	1.33	0.401
PULMONARY FIBROSIS- RESTRICTIV	1	4.78	0	0.00	.	0.03	.	0.620
PVD (VIT. DETACH.)	1	4.78	0	0.00	.	0.03	.	0.620
PVD/VENOUS INSUF.	1	4.78	0	0.00	.	0.03	.	0.620
R/O STD	10	47.82	4	31.22	1.53	0.49	5.64	0.492
RADICULOPATHY	3	14.35	1	7.80	1.84	0.20	48.40	0.658
RASH	32	153.03	10	78.04	1.96	0.99	4.18	0.056
RENAL FAILURE	1	4.78	0	0.00	.	0.03	.	0.620
REPETITIVE USE/MOTION STRAIN -	2	9.56	0	0.00	.	0.18	.	0.384
ROUTINE POST-OP VISIT	1	4.78	0	0.00	.	0.03	.	0.620
SCAR	1	4.78	1	7.80	0.61	0.02	23.90	0.760
SEXUAL DYSFUNCTION	1	4.78	0	0.00	.	0.03	.	0.620
SHOULDER DYSFUNCTION	2	9.56	3	23.41	0.41	0.05	2.75	0.356
SHOULDER SPRAIN/STRAIN	2	9.56	0	0.00	.	0.18	.	0.384
SINUSITIS	34	162.60	19	148.28	1.10	0.63	1.96	0.758
SLE	1	4.78	0	0.00	.	0.03	.	0.620
SLEEP DISORDERS	3	14.35	1	7.80	1.84	0.20	48.40	0.658
SOB/DOE	1	4.78	0	0.00	.	0.03	.	0.620
SOFT TISSUE DIS	1	4.78	0	0.00	.	0.03	.	0.620
STROKE	1	4.78	0	0.00	.	0.03	.	0.620
SUBACROM. PATH.	1	4.78	0	0.00	.	0.03	.	0.620
THIGH STRAIN	1	4.78	0	0.00	.	0.03	.	0.620
TINEA INFECTION	4	19.13	3	23.41	0.82	0.17	4.38	0.788
TINNITUS	2	9.56	0	0.00	.	0.18	.	0.384
TMJ SYNDROME	2	9.56	0	0.00	.	0.18	.	0.384
TONSILLITIS	1	4.78	0	0.00	.	0.03	.	0.620
TRAUMA	44	210.42	31	241.92	0.87	0.55	1.39	0.551
TRIGGER FINGER	1	4.78	0	0.00	.	0.03	.	0.620
TUBERCULOSIS	1	4.78	0	0.00	.	0.03	.	0.620
TUMOR, SPINAL, INTRADURAL, EXTRAM	1	4.78	0	0.00	.	0.03	.	0.620
ULCER	2	9.56	2	15.61	0.61	0.06	5.89	0.647
ULCERS / SKIN	1	4.78	0	0.00	.	0.03	.	0.620
URETER - STONE	1	4.78	0	0.00	.	0.03	.	0.620
URETHRAL SYNDROME	1	4.78	0	0.00	.	0.03	.	0.620
URI	40	191.29	19	148.28	1.29	0.75	2.27	0.365
UTI	13	62.17	6	46.82	1.33	0.51	3.79	0.585

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Outpatient Visits
18+ Year of Age -- Immunizations through 12/31/96, Events through 02/05/97
1-30 Day Risk Period and 91-120 Days AFTER Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	1-30 days N	1-30 days Rate	91-120 days N	91-120 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
VAGINAL - HERPES	1	4.78	0	0.00	.	0.03	.	0.620
VAGINITIS/VAGINOSIS	21	100.43	9	70.24	1.43	0.66	3.28	0.377
VALVULAR HEART DISEASE	0	0.00	1	7.80	0.00	0.00	11.64	0.380
VARICELLA	1	4.78	0	0.00	.	0.03	.	0.620
VARICELLA ZOSTER	1	4.78	1	7.80	0.61	0.02	23.90	0.760
VARICOSE VEINS	1	4.78	0	0.00	.	0.03	.	0.620
VENOUS STASIS ULCERATION	1	4.78	1	7.80	0.61	0.02	23.90	0.760
VERTIGO/DIZZINESS	1	4.78	3	23.41	0.20	0.01	1.92	0.178
VIRAL SYNDROME	14	66.95	7	54.63	1.23	0.50	3.24	0.679
VISION PROBLEM	50	239.12	22	171.69	1.39	0.85	2.34	0.194
VULVA - CYST	1	4.78	0	0.00	.	0.03	.	0.620
WARTS	6	28.69	5	39.02	0.74	0.21	2.62	0.616
WEAKNESS/FATIGUE	3	14.35	1	7.80	1.84	0.20	48.40	0.658
WELL CARE	155	741.26	79	616.51	1.20	0.92	1.58	0.181
*Total	551	2635.06	323	2520.68	1.05	0.91	1.20	0.528

*Total may be somewhat less than column total due to multiple diagnoses
Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Appendix III
Significantly Elevated AEs

Significantly Elevated Adverse Events
VARIVAX®

Adverse Event	Visit Type	Age at Injection (Years)	Control Period	Relative Risk Estimate	95% CI	P-Value
Abscess	Outpatient	1	Before	1.47	(1.04 - 2.08)	0.029
Acute Gastroenteritis	Hospitalization	1	Historical	1.84	(1.04 - 3.34)	0.035
	Emergency Room	1	After	1.70	(1.20 - 2.43)	0.002
	Emergency Room	1	Historical	1.48	(1.08 - 2.06)	0.016
	Outpatient	1	After	1.14	(1.04 - 1.26)	0.005
Allergic React w or w/o Hives	Outpatient	1	After	1.27	(1.02 - 1.60)	0.036
Allergic React w Hives	Outpatient	1	After	1.27	(1.02 - 1.60)	0.036
Allergic Rhinitis	Outpatient	1	Before	3.72	(1.44 - 11.24)	0.005
Alopecia	Outpatient	2 - 12	After	7.80	(1.25 - 174.47)	0.024
Apnea	Outpatient	2 - 12	Before	2.65	(1.51 - 4.85)	0.001
	Outpatient	2 - 12	After	1.82	(1.09 - 3.10)	0.022
Attention Def Dis	Outpatient	2 - 12	Before	1.47	(1.02 - 2.12)	0.037
Back Pain	Outpatient	2 - 12	Before	2.35	(1.17 - 4.97)	0.015
	Outpatient	2 - 12	After	3.05	(1.41 - 7.19)	0.004
Congenital Anomaly	Outpatient	1	After	1.30	(1.01 - 1.68)	0.042
	Outpatient	2 - 12	Before	1.77	(1.34 - 2.34)	<0.001
	Outpatient	2 - 12	After	1.50	(1.14 - 1.96)	0.003
Congenital Heart Disease	Outpatient	2 - 12	Before	1.76	(1.10 - 2.87)	0.018
	Outpatient	2 - 12	After	1.72	(1.07 - 2.82)	0.025
Elective Procedure	Hospitalization	1	After	1.44	(1.09 - 1.90)	0.011
	Hospitalization	1	Historical	1.55	(1.18 - 2.04)	0.002
	Hospitalization	2 - 12	Before	1.44	(1.10 - 1.88)	0.008
Elective-Surgery	Outpatient	1	Before	2.59	(1.46 - 4.74)	0.001
	Outpatient	2 - 12	Before	2.83	(1.69 - 4.89)	<0.001
	Outpatient	2 - 12	After	2.03	(1.27 - 3.31)	0.003
Epilepsy	Emergency Room	1	Before	∞	(1.54 - ∞)	0.016
Febrile Illness	Hospitalization	1	Historical	∞	(1.23 - ∞)	0.031
	Outpatient	1	After	1.75	(1.37 - 2.25)	<0.001
	Emergency Room	1	Before	2.00	(1.26 - 3.25)	0.003
	Emergency Room	1	After	2.57	(1.52 - 4.49)	<0.001
	Outpatient	2 - 12	After	1.56	(1.08 - 2.28)	0.018
Healthcare Class	Outpatient	1	Before	5.17	(1.26 - 34.70)	0.019
	Outpatient	2 - 12	Before	6.21	(1.57 - 40.88)	0.006

Significantly Elevated Adverse Events
VARIVAX®

Adverse Event	Visit Type	Age at Injection (Years)	Control Period	Relative Risk Estimate	95% CI	P-Value
Heart Murmur	Outpatient	2 - 12	After	2.79	(1.21 - 7.08)	0.015
Hives	Emergency Room	2 - 12	After	3.46	(1.02 - 15.42)	0.045
Metatarsus Adductus	Outpatient	2 -12	After	8.77	(1.44 - 193.96)	0.013
Neurological Gen Dis	Outpatient	2 -12	Before	∞	(1.94 - ∞)	0.007
Otitis Externa	Outpatient	2 - 12	After	1.40	(1.07 - 1.83)	0.014
Phimosis	Outpatient	2 - 12	Before	3.79	(1.12 - 16.93)	0.030
Pneumonia	Outpatient	1	Before	1.42	(1.02 - 1.99)	0.040
Rash	Outpatient	1	After	1.18	(1.04 - 1.34)	0.010
	Emergency Room	1	After	2.54	(1.10 - 6.45)	0.028
Seizure, Febrile	Hospitalization	1	After	2.27	(1.03 - 5.45)	0.043
	Hospitalization	1	Historical	3.02	(1.32 - 7.63)	0.008
Seizures	Outpatient	1	After	1.59	(1.02 - 2.52)	0.041
R/O Sepsis	Outpatient	1	Before	3.40	(1.50 - 8.53)	0.002
	Outpatient	2 - 12	Before	6.21	(1.57 - 40.88)	0.006
	Outpatient	2 - 12	After	5.85	(1.48 - 38.52)	0.008
Soft Tissue Dis	Outpatient	1	Before	7.24	(1.12 - 164.44)	0.035
Tonsillitis	Outpatient	2 - 12	After	1.90	(1.08 - 3.42)	0.025
Trauma	Outpatient	2 - 12	After	1.15	(1.01 - 1.31)	0.036
	Emergency Room	2 - 12	After	1.18	(1.02 - 1.36)	0.022
URI	Hospitalization	2 - 12	After	∞	(1.13 - ∞)	0.038
Valvular Heart Disease	Outpatient	2 - 12	Before	3.31	(1.26 - 10.10)	0.014
	Outpatient	2 - 12	After	15.60	(2.81 - 330.40)	<0.001
Varicella	Outpatient	1	Before	3.79	(1.59 - 10.24)	0.002
	Outpatient	1	After	10.11	(2.77 - 63.71)	<0.001
	Outpatient	2 - 12	Before	12.07	(4.14 - 49.49)	<0.001
	Outpatient	2 - 12	After	8.53	(3.28 - 28.17)	<0.001
	Emergency Room	2 - 12	Before	∞	(1.54 - ∞)	0.016
Varicella w & w/o Cellulitis	Emergency Room	2 - 12	Before	∞	(1.54 - ∞)	0.016

Significantly Elevated Adverse Events
VARIVAX®

Adverse Event	Visit Type	Age at Injection (Years)	Control Period	Relative Risk Estimate	95% CI	P-Value
Viral Syndrome	Outpatient	1	Before	1.1	(1.02 - 1.18)	0.013
	Outpatient	1	After	1.31	(1.21 - 1.42)	<0.001
	Emergency Room	1	After	1.73	(1.25 - 2.41)	0.001
Vision Problem	Outpatient	2 - 12	Before	1.98	(1.72 - 2.28)	<0.001
	Outpatient	2 - 12	After	1.55	(1.36 - 1.78)	<0.001
Well Care/Child	Emergency Room	2 - 12	Before	2.08	(1.06 - 4.29)	0.034
	Emergency Room	2 - 12	After	2.62	(1.25 - 5.91)	0.010

Appendix IV
Stratifcation by MMR

Varicella Vaccine Safety Analysis: Hospitalizations
1 Year of Age -- Immunizations through 12/31/96, Visits through 02/05/97
0-60 Day Risk Period and 91-150 Days AFTER Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	0-60 days w/o MMR N	0-60 days w/o MMR Rate	91-150 days N	91-150 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
Febrile Illness	1	0.42	0	0.00	.	0.05	.	0.534
Seizure, Febrile	2	0.85	3	1.46	0.58	0.07	3.92	0.586

Diagnosis	0-60 days w MMR N	0-60 days w MMR Rate	91-150 days N	91-150 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
Febrile Illness	4	1.21	2	0.76	1.59	0.28	12.40	0.629
Seizure, Febrile	19	5.74	5	1.90	3.02	1.18	9.06	0.020

0-60 Day Risk Period and 31-90 Days BEFORE Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	0-60 days w/o MMR N	0-60 days w/o MMR Rate	31-90 days before N	31-90 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
Febrile Illness	1	0.42	3	1.27	0.33	0.01	3.14	0.377

Diagnosis	0-60 days w MMR N	0-60 days w MMR Rate	31-90 days before N	31-90 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
Febrile Illness	4	1.21	3	0.90	1.34	0.28	7.19	0.720

Varicella Vaccine Safety Analysis: Emergency Room Visits
1 Year of Age -- Immunizations through 12/31/96, Visits through 02/05/97
0-30 Day Risk Period and 91-120 Days AFTER Control Period
Without MMR vs. Concomitant MMR

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	0-30 days w/o MMR N	0-30 days w/o MMR Rate	91-120 days N	91-120 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
Acute Gastroenteritis	38	32.14	21	20.50	1.57	0.92	2.71	0.096
Febrile illness	18	15.22	8	7.81	1.95	0.86	4.75	0.113
Rash	4	3.38	4	3.91	0.87	0.20	3.84	0.844
Viral Syndrome	34	28.76	31	30.27	0.95	0.58	1.55	0.836

Diagnosis	0-30 days w MMR N	0-30 days w MMR Rate	91-120 days N	91-120 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
Acute Gastroenteritis	54	32.43	27	20.87	1.55	0.98	2.50	0.059
Febrile illness	34	20.42	10	7.73	2.64	1.34	5.61	0.004
Rash	16	9.61	3	2.32	4.14	1.31	17.82	0.012
Viral Syndrome	71	42.65	23	17.78	2.40	1.51	3.91	<0.001

Varicella Vaccine Safety Analysis: Emergency Room Visits
1 Year of Age -- Immunizations through 12/31/96, Visits through 02/05/97
0-30 Day Risk Period and 31-60 Days BEFORE Control Period
Without MMR vs. Concomitant MMR

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	0-30 days w/o MMR N	0-30 days w/o MMR Rate	31-60 days before N	31-60 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
Epilepsy	4	3.38	0	0.00	.	0.90	.	0.063
Febrile illness	18	15.22	12	10.15	1.50	0.72	3.20	0.281

Diagnosis	0-30 days w MMR N	0-30 days w MMR Rate	31-60 days before N	31-60 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
Epilepsy	2	1.20	0	0.00	.	0.29	.	0.250
Febrile illness	34	20.42	14	8.41	2.43	1.32	4.66	0.004

* Mid-Probability Method for CI and Two-Sided Binomial Test

Varicella Vaccine Safety Analysis: Outpatient Visits
Year of Age -- Immunizations through 12/31/96, Visits through 02/05/97
1-30 Day Risk Period and 91-120 Days AFTER Control Period
Without MMR vs. Concomitant MMR

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	1-30 days w/o MMR N	1-30 days w/o MMR Rate	91-120 days N	91-120 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
AGE	385	336.85	331	323.16	1.04	0.90	1.21	0.580
ALLERGIC REACT W OR W/O HIVES	62	54.25	65	63.46	0.85	0.60	1.21	0.378
ALLERGIC REACTION (INC. HIVES)	62	54.25	65	63.46	0.85	0.60	1.21	0.378
CONGENITAL ANOMALY	60	52.50	37	36.12	1.45	0.97	2.21	0.072
FEBRILE ILLNESS	66	57.75	40	39.05	1.48	1.00	2.21	0.049
R/O SEPSIS	11	9.62	2	1.95	4.93	1.23	32.74	0.021
RASH	186	162.74	203	198.19	0.82	0.67	1.00	0.052
SEIZURES	16	14.00	17	16.60	0.84	0.42	1.69	0.629
VARICELLA	11	9.62	2	1.95	4.93	1.23	32.74	0.021
VIRAL SYNDROME	506	442.72	444	433.49	1.02	0.90	1.16	0.746

Diagnosis	1-30 days w MMR N	1-30 days w MMR Rate	91-120 days N	91-120 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
AGE	598	371.57	459	354.77	1.05	0.93	1.18	0.456
ALLERGIC REACT W OR W/O HIVES	118	73.32	65	50.24	1.46	1.08	1.98	0.013
ALLERGIC REACTION (INC. HIVES)	118	73.32	65	50.24	1.46	1.08	1.98	0.013
CONGENITAL ANOMALY	83	51.57	64	49.47	1.04	0.75	1.45	0.805
FEBRILE ILLNESS	113	70.21	54	41.74	1.68	1.22	2.34	0.001
R/O SEPSIS	12	7.46	4	3.09	2.41	0.81	8.66	0.121
RASH	369	229.28	229	177.00	1.30	1.10	1.53	0.002
SEIZURES	36	22.37	13	10.05	2.23	1.20	4.34	0.010
VARICELLA	11	6.83	0	0.00	.	2.57	.	0.002
VIRAL SYNDROME	964	598.98	586	452.93	1.32	1.19	1.47	<0.001

Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Outpatient Visits
1 Year of Age -- Immunizations through 12/31/96, Visits through 02/05/97
1-30 Day Risk Period and 31-60 Days BEFORE Control Period
Without MMR vs. Concomitant MMR

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	1-30 days w/o MMR N	1-30 days w/o MMR Rate	31-60 days before N	31-60 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
ABSCESS	36	31.50	28	23.68	1.33	0.81	2.20	0.260
ALLERGIC RHINITIS	9	7.87	3	2.54	3.10	0.88	14.21	0.082
ELECTIVE SURGERY	18	15.75	10	8.46	1.86	0.86	4.20	0.114
HEALTHCARE CLASS	4	3.50	1	0.85	4.14	0.52	102.39	0.206
PNEUMONIA	29	25.37	21	17.76	1.43	0.81	2.54	0.215
R/O SEPSIS	11	9.62	5	4.23	2.28	0.80	7.27	0.126
SOFT TISSUE DIS	2	1.75	0	0.00	.	0.30	.	0.242
VARICELLA	11	9.62	4	3.38	2.84	0.93	10.33	0.067
VIRAL SYNDROME	506	442.72	552	466.87	0.95	0.84	1.07	0.388

Diagnosis	1-30 days w MMR N	1-30 days w MMR Rate	31-60 days before N	31-60 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
ABSCESS	42	26.10	27	16.22	1.61	0.99	2.64	0.053
ALLERGIC RHINITIS	9	5.59	2	1.20	4.66	1.11	31.61	0.034
ELECTIVE SURGERY	22	13.67	6	3.60	3.79	1.59	10.24	0.002
HEALTHCARE CLASS	6	3.73	1	0.60	6.21	0.92	143.76	0.064
PNEUMONIA	52	32.31	38	22.82	1.42	0.93	2.16	0.103
R/O SEPSIS	12	7.46	2	1.20	6.21	1.57	40.88	0.006
SOFT TISSUE DIS	5	3.11	1	0.60	5.17	0.72	123.08	0.116
VARICELLA	11	6.83	2	1.20	5.69	1.41	37.79	0.011
VIRAL SYNDROME	964	598.98	834	500.93	1.20	1.09	1.31	<0.001

Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Hospitalizations
2-12 Years of Age -- Immunizations through 12/31/96, Visits through 02/05/97
0-60 Day Risk Period and 91-150 Days AFTER Control Period
Without MMR vs. Concomitant MMR

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	0-60 days w/o MMR N	0-60 days w/o MMR Rate	91-150 days N	91-150 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
URI	5	0.72	0	0.00	.	1.11	.	0.040

Diagnosis	0-60 days w/o MMR N	0-60 days w/o MMR Rate	91-150 days N	91-150 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
URI	0	0	0	0.00				

Varicella Vaccine Safety Analysis: Hospitalizations
2-12 Years of Age -- Immunizations through 12/31/96, Visits through 02/05/97
0-60 Day Risk Period and 31-90 Days BEFORE Control Period
Without MMR vs. Concomitant MMR

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	0-60 days w/o MMR N	0-60 days w/o MMR Rate	31-90 days before N	31-90 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
Elective Procedure	106	15.20	78	11.16	1.36	1.02	1.83	0.038

Diagnosis	0-60 days w MMR N	0-60 days w MMR Rate	31-90 days before N	31-90 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
Elective Procedure	23	15.78	12	8.22	1.92	0.96	3.99	0.064

* Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Emergency Room Visits
2-12 Years of Age -- Immunizations through 12/31/96, Visits through 02/05/97
0-30 Day Risk Period and 91-120 Days AFTER Control Period
Without MMR vs. Concomitant MMR

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	0-30 days w/o MMR N	0-30 days w/o MMR Rate	91-120 days N	91-120 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
Hives	11	3.15	3	0.95	3.33	0.98	14.84	0.053
Trauma[1]	366	104.71	280	88.32	1.19	1.01	1.39	0.032
Well Child/Reassurance/FU	19	5.44	8	2.52	2.15	0.96	5.22	0.064

Diagnosis	0-30 days w MMR N	0-30 days w MMR Rate	91-120 days N	91-120 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
Hives	0	0.00	0	0.00				
Trauma[1]	61	83.52	59	87.65	0.95	0.67	1.37	0.791
Well Child/Reassurance/FU	6	8.22	1	1.49	5.53	0.82	128.07	0.087

[1] Because this analysis is limited to children who received a single dose of VZV only 2 trauma cases included in the main analysis are excluded here.

Varicella Vaccine Safety Analysis: Emergency Room Visits
2-12 Years of Age -- Immunizations through 12/31/96, Visits through 02/05/97
0-30 Day Risk Period and 31-60 Days BEFORE Control Period
Without MMR vs. Concomitant MMR

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	0-30 days w/o MMR N	0-30 days w/o MMR Rate	31-60 days before N	31-60 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
Varicella	5	1.43	0	0.00	.	1.22	.	0.031
Varicella w & w/o Cellulitis	5	1.43	0	0.00	.	1.22	.	0.031
Well Child/Reassurance/FU	19	5.44	9	2.57	2.11	0.97	4.90	0.061

Diagnosis	0-30 days w MMR N	0-30 days w MMR Rate	31-60 days before N	31-60 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
Varicella	1	1.37	0	0.00	.	0.05	.	0.500
Varicella w & w/o Cellulitis	1	1.37	0	0.00	.	0.05	.	0.500
Well Child/Reassurance/FU	6	8.22	3	4.11	2.00	0.50	9.79	0.344

* Mid-Probability Method for CI and Two-Sided Binomial Test

Varicella Vaccine Safety Analysis: Outpatient Visits
2-12 Years of Age -- Immunizations through 12/31/96, Visits through 02/05/97
1-30 Day Risk Period and 91-120 Days AFTER Control Period
Without MMR vs. Concomitant MMR

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	1-30 days w/o MMR N	1-30 days w/o MMR Rate	91-120 days N	91-120 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
ALOPECIA	7	2.07	1	0.32	6.57	1.02	149.14	0.048
APNEA	34	10.06	16	5.05	1.99	1.11	3.70	0.020
BACK PAIN	22	6.51	8	2.52	2.58	1.17	6.16	0.017
CONGENITAL ANOMALY	123	36.40	80	25.23	1.44	1.09	1.92	0.010
CONGENITAL HEART DISEASE	41	12.13	21	6.62	1.83	1.09	3.15	0.022
ELECTIVE SURGERY	44	13.02	22	6.94	1.88	1.13	3.18	0.014
FEBRILE ILLNESS	68	20.12	40	12.62	1.59	1.08	2.37	0.018
HEART MURMUR	15	4.44	6	1.89	2.35	0.93	6.58	0.072
METATARSUS ADDUCTUS	9	2.66	1	0.32	8.44	1.39	186.65	0.015
OTITIS EXTERNA	109	32.26	68	21.45	1.50	1.11	2.04	0.008
R/O SEPSIS	11	3.26	1	0.32	10.32	1.76	224.17	0.005
TONSILLITIS	28	8.29	17	5.36	1.55	0.85	2.88	0.157
TRAUMA	408	120.75	364	114.82	1.05	0.91	1.21	0.485
VALVULAR HEART DISEASE	15	4.44	1	0.32	14.07	2.52	299.19	<0.001
VARICELLA	29	8.58	2	0.63	13.60	3.82	84.65	<0.001
VISION PROBLEM	406	120.16	289	91.16	1.32	1.13	1.53	<0.001

Diagnosis	1-30 days w MMR N	1-30 days w MMR Rate	91-120 days N	91-120 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
ALOPECIA	1	1.42	0	0.00	.	0.05	.	0.512
APNEA	7	9.92	6	8.91	1.11	0.36	3.52	0.856
BACK PAIN	3	4.25	0	0.00	.	0.56	.	0.134
CONGENITAL ANOMALY	12	17.00	8	11.89	1.43	0.58	3.67	0.443
CONGENITAL HEART DISEASE	5	7.08	5	7.43	0.95	0.26	3.54	0.941
ELECTIVE SURGERY	8	11.33	3	4.46	2.54	0.70	11.84	0.168
FEBRILE ILLNESS	4	5.67	5	7.43	0.76	0.18	3.01	0.702
HEART MURMUR	5	7.08	1	1.49	4.77	0.66	113.43	0.139
METATARSUS ADDUCTUS	0	0.00	0	0.00	0.00	0.00	.	0.000
OTITIS EXTERNA	20	28.33	22	32.68	0.87	0.47	1.60	0.647
R/O SEPSIS	1	1.42	1	1.49	0.95	0.02	37.18	0.976
TONSILLITIS	7	9.92	1	1.49	6.67	1.03	151.55	0.045
TRAUMA	88	124.65	57	84.68	1.47	1.06	2.06	0.022
VALVULAR HEART DISEASE	1	1.42	0	0.00	.	0.05	.	0.512
VARICELLA	6	8.50	2	2.97	2.86	0.61	20.59	0.201
VISION PROBLEM	141	199.72	56	83.20	2.40	1.77	3.29	<0.001

Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Varicella Vaccine Safety Analysis: Outpatient Visits
2-12 Years of Age -- Immunizations through 12/31/96, Visits through 02/05/97
1-30 Day Risk Period and 31-60 Days BEFORE Control Period
Without MMR vs. Concomitant MMR

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	1-30 days w/o MMR N	1-30 days w/o MMR Rate	31-60 days before N	31-60 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
APNEA	34	10.06	14	4.01	2.51	1.36	4.82	0.003
ATTENTION DEF. DIS.	61	18.05	46	13.16	1.37	0.94	2.02	0.105
BACK PAIN	22	6.51	9	2.57	2.53	1.18	5.78	0.016
CONGENITAL ANOMALY	123	36.40	69	19.74	1.84	1.38	2.49	<0.001
CONGENITAL HEART DISEASE	41	12.13	25	7.15	1.70	1.03	2.82	0.036
ELECTIVE SURGERY	44	13.02	15	4.29	3.03	1.71	5.61	<0.001
HEALTHCARE CLASS	11	3.26	2	0.57	5.69	1.41	37.79	0.011
NEUROLOGICAL, GENERAL DISORDER	3	0.89	0	0.00	.	0.60	.	0.119
PHIMOSIS	9	2.66	2	0.57	4.66	1.11	31.61	0.034
R/O SEPSIS	11	3.26	2	0.57	5.69	1.41	37.79	0.011
VALVULAR HEART DISEASE	15	4.44	5	1.43	3.10	1.17	9.54	0.022
VARICELLA	29	8.58	3	0.86	10.00	3.38	41.35	<0.001
VISION PROBLEM	406	120.16	247	70.66	1.70	1.45	1.99	<0.001

Diagnosis	1-30 days w MMR N	1-30 days w MMR Rate	31-60 days before N	31-60 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
APNEA	7	9.92	2	2.74	3.62	0.81	25.43	0.099
ATTENTION DEF. DIS.	10	14.16	4	5.48	2.59	0.83	9.51	0.105
BACK PAIN	3	4.25	2	2.74	1.55	0.23	13.05	0.661
CONGENITAL ANOMALY	12	17.00	10	13.69	1.24	0.53	2.96	0.621
CONGENITAL HEART DISEASE	5	7.08	2	2.74	2.59	0.51	19.25	0.270
ELECTIVE SURGERY	8	11.33	4	5.48	2.07	0.63	7.88	0.243
HEALTHCARE CLASS	1	1.42	0	0.00	.	0.05	.	0.492
NEUROLOGICAL, GENERAL DISORDER	2	2.83	0	0.00	.	0.30	.	0.242
PHIMOSIS	2	2.83	1	1.37	2.07	0.16	61.03	0.606
R/O SEPSIS	1	1.42	0	0.00	.	0.05	.	0.492
VALVULAR HEART DISEASE	1	1.42	0	0.00	.	0.05	.	0.492
VARICELLA	6	8.50	0	0.00	.	1.60	.	0.014
VISION PROBLEM	141	199.72	40	54.77	3.65	2.59	5.23	<0.001

Mid-Probability Method for CI and Two-Sided Exact Binomial Test

Appendix V
Strafication by MMR (4-30 Days)

Varicella Vaccine Safety Analysis: Outpatient Visits
1 Year of Age -- Immunizations through 12/31/96, Visits through 02/05/97
4-30 Day Risk Period and 91-120 Days AFTER Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	4-30 days w/o MMR N	4-30 days w/o MMR Rate	91-120 days N	91-120 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
AGE	360	351.32	331	323.16	1.09	0.94	1.26	0.273
ALLERGIC REACT W OR W/O HIVES	57	55.63	65	63.46	0.88	0.61	1.25	0.469
ALLERGIC REACTION (INC. HIVES)	57	55.63	65	63.46	0.88	0.61	1.25	0.469
CONGENITAL ANOMALY	56	54.65	37	36.12	1.51	1.00	2.31	0.050
FEBRILE ILLNESS	59	57.58	40	39.05	1.47	0.99	2.22	0.057
R/O SEPSIS	11	10.73	2	1.95	5.50	1.37	36.51	0.013
RASH	173	168.83	203	198.19	0.85	0.69	1.04	0.121
SEIZURES	15	14.64	17	16.60	0.88	0.43	1.78	0.727
VARICELLA	10	9.76	2	1.95	5.00	1.22	33.53	0.023
VIRAL SYNDROME	489	477.21	444	433.49	1.10	0.97	1.25	0.143

Diagnosis	4-30 days w MMR N	4-30 days w MMR Rate	91-120 days N	91-120 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
AGE	572	396.42	459	354.77	1.12	0.99	1.26	0.076
ALLERGIC REACT W OR W/O HIVES	117	81.09	65	50.24	1.61	1.19	2.20	0.002
ALLERGIC REACTION (INC. HIVES)	117	81.09	65	50.24	1.61	1.19	2.20	0.002
CONGENITAL ANOMALY	74	51.29	64	49.47	1.04	0.74	1.45	0.834
FEBRILE ILLNESS	102	70.69	54	41.74	1.69	1.22	2.37	0.001
R/O SEPSIS	11	7.62	4	3.09	2.47	0.81	8.95	0.117
RASH	350	242.57	229	177.00	1.37	1.16	1.62	<0.001
SEIZURES	36	24.95	13	10.05	2.48	1.34	4.84	0.003
VARICELLA	11	7.62	0	0.00	.	2.86	.	0.001
VIRAL SYNDROME	934	647.31	586	452.93	1.43	1.29	1.59	<0.001

Varicella Vaccine Safety Analysis: Outpatient Visits
1 Year of Age -- Immunizations through 12/31/96, Visits through 02/05/97
4-30 Day Risk Period and 31-60 Days BEFORE Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	4-30 days w/o MMR N	4-30 days w/o MMR Rate	31-60 days before N	31-60 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
ABSCESS	35	34.16	28	23.68	1.44	0.88	2.39	0.150
ALLERGIC RHINITIS	9	8.78	3	2.54	3.46	0.98	15.85	0.055
ELECTIVE SURGERY	16	15.61	10	8.46	1.85	0.84	4.22	0.130
HEALTHCARE CLASS	4	3.90	1	0.85	4.62	0.58	114.21	0.168
PNEUMONIA	29	28.30	21	17.76	1.59	0.91	2.83	0.105
R/O SEPSIS	11	10.73	5	4.23	2.54	0.89	8.11	0.081
SOFT TISSUE DIS	2	1.95	0	0.00	.	0.33	.	0.216
VARICELLA	10	9.76	4	3.38	2.88	0.93	10.61	0.069
VIRAL SYNDROME	489	477.21	552	466.87	1.02	0.90	1.15	0.724

Diagnosis	4-30 days w MMR N	4-30 days w MMR Rate	31-60 days before N	31-60 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
ABSCESS	39	27.03	27	16.22	1.67	1.02	2.75	0.041
ALLERGIC RHINITIS	9	6.24	2	1.20	5.19	1.24	35.26	0.022
ELECTIVE SURGERY	20	13.86	6	3.60	3.85	1.60	10.47	0.002
HEALTHCARE CLASS	6	4.16	1	0.60	6.92	1.02	160.34	0.047
PNEUMONIA	49	33.96	38	22.82	1.49	0.97	2.29	0.066
R/O SEPSIS	11	7.62	2	1.20	6.35	1.58	42.15	0.006
SOFT TISSUE DIS	5	3.47	1	0.60	5.77	0.80	137.28	0.089
VARICELLA	11	7.62	2	1.20	6.35	1.58	42.15	0.006
VIRAL SYNDROME	934	647.31	834	500.93	1.29	1.18	1.42	<0.001

Varicella Vaccine Safety Analysis: Outpatient Visits
2-12 Years of Age -- Immunizations through 12/31/96, Visits through 02/05/97
4-30 Day Risk Period and 91-120 Days AFTER Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	4-30 days w/o MMR N	4-30 days w/o MMR Rate	91-120 days N	91-120 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
ALOPECIA	6	1.98	1	0.32	6.28	0.93	145.43	0.062
APNEA	32	10.56	16	5.05	2.09	1.16	3.90	0.014
BACK PAIN	22	7.26	8	2.52	2.88	1.31	6.87	0.007
CONGENITAL ANOMALY	119	39.28	80	25.23	1.56	1.17	2.07	0.002
CONGENITAL HEART DISEASE	35	11.55	21	6.62	1.74	1.02	3.04	0.042
ELECTIVE SURGERY	41	13.53	22	6.94	1.95	1.17	3.32	0.010
FEBRILE ILLNESS	62	20.47	40	12.62	1.62	1.09	2.43	0.016
HEART MURMUR	15	4.95	6	1.89	2.62	1.04	7.34	0.041
METATARSUS ADDUCTUS	7	2.31	1	0.32	7.33	1.13	166.35	0.034
OTITIS EXTERNA	104	34.33	68	21.45	1.60	1.18	2.18	0.002
R/O SEPSIS	10	3.30	1	0.32	10.46	1.76	229.11	0.005
TONSILLITIS	26	8.58	17	5.36	1.60	0.87	3.00	0.132
TRAUMA	382	126.10	364	114.82	1.10	0.95	1.27	0.201
VALVULAR HEART DISEASE	13	4.29	1	0.32	13.60	2.39	291.87	0.001
VARICELLA	28	9.24	2	0.63	14.65	4.10	91.30	<0.001
VISION PROBLEM	377	124.45	289	91.16	1.37	1.17	1.59	<0.001

Diagnosis	4-30 days w MMR N	4-30 days w MMR Rate	91-120 days N	91-120 days Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
ALOPECIA	1	1.58	0	0.00	.	0.06	.	0.485
APNEA	6	9.48	6	8.91	1.06	0.32	3.49	0.917
BACK PAIN	3	4.74	0	0.00	.	0.62	.	0.114
CONGENITAL ANOMALY	9	14.22	8	11.89	1.20	0.45	3.23	0.719
CONGENITAL HEART DISEASE	5	7.90	5	7.43	1.06	0.29	3.95	0.924
ELECTIVE SURGERY	8	12.64	3	4.46	2.84	0.78	13.21	0.121
FEBRILE ILLNESS	3	4.74	5	7.43	0.64	0.13	2.76	0.563
HEART MURMUR	5	7.90	1	1.49	5.32	0.74	126.52	0.109
OTITIS EXTERNA	19	30.02	22	32.68	0.92	0.49	1.71	0.790
R/O SEPSIS	1	1.58	1	1.49	1.06	0.03	41.47	0.969
TONSILLITIS	6	9.48	1	1.49	6.38	0.94	147.78	0.059
TRAUMA	82	129.55	57	84.68	1.53	1.09	2.15	0.013
VALVULAR HEART DISEASE	1	1.58	0	0.00	.	0.06	.	0.485
VARICELLA	6	9.48	2	2.97	3.19	0.68	22.97	0.154
VISION PROBLEM	129	203.80	56	83.20	2.45	1.80	3.37	<0.001

Varicella Vaccine Safety Analysis: Outpatient Visits
2-12 Years of Age -- Immunizations through 12/31/96, Visits through 02/05/97
4-30 Day Risk Period and 31-60 Days BEFORE Control Period

Rates, Relative Risk Estimates and 95% Confidence Intervals
(Rates per 1000 Person-Years)

Diagnosis	4-30 days w/o MMR N	4-30 days w/o MMR Rate	31-60 days before N	31-60 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
APNEA	32	10.56	14	4.01	2.64	1.42	5.09	0.002
ATTENTION DEF. DIS.	57	18.82	46	13.16	1.43	0.97	2.12	0.071
BACK PAIN	22	7.26	9	2.57	2.82	1.32	6.44	0.007
CONGENITAL ANOMALY	119	39.28	69	19.74	1.99	1.48	2.69	<0.001
CONGENITAL HEART DISEASE	35	11.55	25	7.15	1.62	0.97	2.73	0.067
ELECTIVE SURGERY	41	13.53	15	4.29	3.15	1.77	5.86	<0.001
HEALTHCARE CLASS	11	3.63	2	0.57	6.35	1.58	42.15	0.006
NEUROLOGICAL, GENERAL DISORDER	2	0.66	0	0.00	.	0.33	.	0.216
PHIMOSIS	9	2.97	2	0.57	5.19	1.24	35.26	0.022
R/O SEPSIS	10	3.30	2	0.57	5.77	1.41	38.71	0.012
VALVULAR HEART DISEASE	13	4.29	5	1.43	3.00	1.10	9.37	0.031
VARICELLA	28	9.24	3	0.86	10.77	3.63	44.61	<0.001
VISION PROBLEM	377	124.45	247	70.66	1.76	1.50	2.07	<0.001

Diagnosis	4-30 days w MMR N	4-30 days w MMR Rate	31-60 days before N	31-60 days before Rate	Relative Risk Estimate	95% CI Lower Bound	95% CI Upper Bound	P-Value (Mid-Prob.)
APNEA	6	9.48	2	2.74	3.46	0.73	24.92	0.125
ATTENTION DEF. DIS.	10	15.80	4	5.48	2.88	0.93	10.61	0.069
BACK PAIN	3	4.74	2	2.74	1.73	0.26	14.55	0.579
CONGENITAL ANOMALY	9	14.22	10	13.69	1.04	0.41	2.61	0.932
CONGENITAL HEART DISEASE	5	7.90	2	2.74	2.88	0.57	21.47	0.214
ELECTIVE SURGERY	8	12.64	4	5.48	2.31	0.70	8.79	0.176
HEALTHCARE CLASS	1	1.58	0	0.00	.	0.06	.	0.464
NEUROLOGICAL, GENERAL DISORDER	2	3.16	0	0.00	.	0.33	.	0.216
PHIMOSIS	2	3.16	1	1.37	2.31	0.18	68.07	0.547
R/O SEPSIS	1	1.58	0	0.00	.	0.06	.	0.464
VALVULAR HEART DISEASE	1	1.58	0	0.00	.	0.06	.	0.464
VARICELLA	6	9.48	0	0.00	.	1.78	.	0.010
VISION PROBLEM	129	203.80	40	54.77	3.72	2.63	5.36	<0.001

Appendix VI
Compilation Tablets

Table VI-1
Rate Comparison for Febrile Illness
June 1, 1995 - February 5, 1997

Comparison		Hospitalizations			Emergency Room Visits			Outpatient Visits		
Age at Vaccination	No. of Vaccinations	Relative Risk Estimate	95% CI	P-Value	Relative Risk Estimate	95% CI	P-Value	Relative Risk Estimate	95% CI	P-Value
12 - 23 Months of Age	34,665									
Before[1]		0.84	(0.24 - 2.87)	0.781	2.00	(1.26 - 3.25)	0.003	1.08	(0.87 - 1.33)	0.490
After[2]		2.16	(0.43 - 16.10)	0.380	2.57	(1.52 - 4.49)	<0.001	1.75	(1.37- 2.25)	<0.001
Historical[3,4]		∞	(1.23 - ∞)	0.031	1.53	(0.99 - 2.38)	0.053	NC[5]	-	-
Before (w/o MMR)					*1.50*	*(0.72 -3.20)*	*0.281*			
After (w/o MMR)					*1.95*	*(0.86 - 4.75)*	*0.113*	*1.48*	*(1.00 - 2.21)*	*0.049*
After, no MMR, days 4-30								*1.47*	*(0.99 - 2.22)*	*0.057*
Historical†		∞	*(0.13 - ∞)*	*0.293*	*1.27*	*(0.70 - 2.23)*	*0.416*			
2 - 12 Years of Age	51,463									
Before		0.00	(0.00 - 1.72)	0.125	0.69	(0.28 -1.63)	0.405	1.06	(0.76 - 1.48)	0.712
After		NC	-	-	0.77	(0.31 -1.89)	0.572	1.56	(1.08 - 2.28)	0.018
After (w/o MMR)								*1.59*	*(1.08 - 2.37)*	*0.018*
After, no MMR, days 4-30								*1.62*	*(1.09 - 2.43)*	*0.016*
13 - 17 Years of Age	1,891									
Before		NC	-	-	NC	-	-	NC	-	-
After		NC	-	-	NC	-	-	NC	-	-
18+ Years of Age	1,734									
Before		NC	-	-	NC	-	-	NC	-	-
After		NC	-	-	NC	-	-	NC	-	-

1 = Time period of 60 - 31 days prior to vaccination for ER and outpatient visits and 90 - 31 days prior to vaccination for hospitalizations. Subjects are their own controls.
2 = Time period of 90 - 120 days after vaccination for ER and outpatient visits and 90 - 150 days after vaccination for hospitalizations. Subjects are their own controls.
3 = Historical controls randomly selected from year prior to vaccine licensure from Kaiser database, matched on age to vaccinated individuals.
4 = Historical controls analysis available for age category 12 - 23 months only and for hospitalizations and emergency room visits only.
5 = NC --- No reported cases.
∞ Value resulted from division by zero because no events occurred in the control comparison period.
† These relative risks may be biased in favor of Varivax®, since some of the historical controls may have received MMR during the historical control period.

Table VI-2
Rate Comparison for Febrile Seizures
June 1, 1995 - February 5, 1997

Comparison		Hospitalizations			Emergency Room Visits			Outpatient Visits		
Age at Vaccination	No. of Vaccinations	Relative Risk Estimate	95% CI	P-Value	Relative Risk Estimate	95% CI	P-Value	Relative Risk Estimate	95% CI	P-Value
12 - 23 Months of Age	34,665									
Before[1]		1.76	(0.87 - 3.69)	0.118	1.26	(0.81 - 2.00)	0.308	∞	(0.60 - ∞)	0.119
After[2]		2.27	(1.03 - 5.45)	0.043	0.93	(0.61 - 1.43)	0.745	0.92	(0.16 -5.35)	0.921
Historical[3,4]		3.02	(1.32 - 7.63)	0.008	1.39	(0.87 - 2.22)	0.165	-	-	-
Before (w/o MMR)										
After (w/o MMR)		*0.58*	*(0.07 - 3.92)*	*0.586*						
2 - 12 Years of Age	51,463									
Before		1.67	(0.39 - 8.49)	0.506	0.60	(0.28 - 1.22)	0.163	1.55	(0.23 - 13.05)	0.661
After		1.16	(0.29 - 4.85)	0.840	0.87	(0.39 - 1.94)	0.732	1.46	(0.22 - 12.30)	0.707
13 - 17 Years of Age	1,891									
Before		0.00	(0.00 - 13.70)	0.419	NC	-	-	NC	-	-
After		NC[5]	-	-	NC	-	-	NC	-	-
18+ Years of Age	1,734									
Before		NC	-	-	NC	-	-	NC	-	-
After		NC	-	-	NC	-	-	NC	-	-

1 = Time period of 60 - 30 days prior to vaccination for ER and outpatient visits and 90 - 30 days prior to vaccination for hospitalizations. Subjects are their own controls.
2 = Time period of 90 - 120 days after vaccination for ER and outpatient visits and 90 - 150 days after vaccination for hospitalizations. Subjects are their own controls.
3 = Historical controls randomly selected from year prior to vaccine licensure from Kaiser database, matched on age to vaccinated individuals.
4 = Historical controls analysis available for age category 12 - 23 months only and for hospitalizations and emergency room visits only.
5 = NC --- No reported cases.
∞ Value resulted from division by zero because no events occurred in the control comparison period.

No deaths due to febrile seizures occurred in the follow-up periods.

Table VI-3
Rate Comparison for Afebrile Seizures
June 1, 1995 - February 5, 1997

Comparison		Hospitalizations			Emergency Room Visits			Outpatient Visits		
Age at Vaccination	No. of Vaccinations	Relative Risk Estimate	95% CI	P-Value	Relative Risk Estimate	95% CI	P-Value	Relative Risk Estimate	95% CI	P-Value
12 - 23 Months of Age	34,665									
Before[1]		NC	-	-	∞	(0.05 - ∞)	0.500	NC	-	-
After[2]		NC	-	-	∞	(0.05 - ∞)	0.530	NC	-	-
Historical[3,4]		NC	-	-	0.50	(0.02- 6.57)	0.625	-	-	-
2 - 12 Years of Age	51,463									
Before		∞	(0.05 - ∞)	0.499	1.00	(0.03 - 39.00)	0.999	NC	-	-
After		0.93	(0.02 - 36.13)	0.962	0.94	(0.02 - 36.76)	0.970	NC	-	-
13 - 17 Years of Age	1,891									
Before		NC	-	-	NC	-	-	NC	-	-
After		NC	-	-	NC	-	-	NC	-	-
18+ Years of Age	1,734									
Before		NC	-	-	NC	-	-	NC	-	-
After		NC	-	-	NC	-	-	NC	-	-

1 = Time period of 60 - 30 days prior to vaccination for ER and outpatient visits and 90 - 30 days prior to vaccination for hospitalizations. Subjects are their own controls.
2 = Time period of 90 - 120 days after vaccination for ER and outpatient visits and 90 - 150 days after vaccination for hospitalizations. Subjects are their own controls.
3 = Historical controls randomly selected from year prior to vaccine licensure from Kaiser database, matched on age to vaccinated individuals.
4 = Historical controls analysis available for age category 12 - 23 months only and for hospitalizations and emergency room visits only.
5 = NC --- No reported cases.
∞ Value resulted from division by zero because no events occurred in the control comparison period.

No deaths due to afebrile seizures occurred in the follow-up periods.

Table VI-4
Rate Comparison for Seizures (Type Unknown)
June 1, 1995 - February 5, 1997

Comparison		Hospitalizations			Emergency Room Visits			Outpatient Visits		
Age at Vaccination	No. of Vaccinations	Relative Risk Estimate	95% CI	P-Value	Relative Risk Estimate	95% CI	P-Value	Relative Risk Estimate	95% CI	P-Value
12 - 23 Months of Age	34,665									
Before[1]		∞	(0.05 - ∞)	0.499	NC	-	-	1.28	(1.85 - 1.93)	0.234
After[2]		0.87	(0.02 - 33.75)	0.928	NC	-	-	1.59	(1.02 - 2.52)	0.041
Historical[3,4]		∞	(0.05 - ∞)	0.499	NC	-	-	-	-	-
After (w/o MMR)								*0.84*	*(0.42 - 1.69)*	*0.629*
2 - 12 Years of Age	51,463									
Before		0.00	(0.00 - 19.04)	0.501	NC	-	-	0.90	(0.53 - 1.51)	0.695
After		NC	-	-	0.00	(0.00 - 3.27)	0.235	0.73	(0.44 - 1.20)	0.220
13 - 17 Years of Age	1,891									
Before		∞	(0.04 - ∞)	0.581	NC	-	-	NC	-	-
After		∞	(0.03 - ∞)	0.616	NC	-	-	0.00	(0.00 - 11.34)	0.374
18+ Years of Age	1,734									
Before		NC	-	-	NC	-	-	NC	-	-
After		NC	-	-	NC	-	-	NC	-	-

1 = Time period of 60 - 30 days prior to vaccination for ER and outpatient visits and 90 - 30 days prior to vaccination for hospitalizations. Subjects are their own controls.
2 = Time period of 90 - 120 days after vaccination for ER and outpatient visits and 90 - 150 days after vaccination for hospitalizations. Subjects are their own controls.
3 = Historical controls randomly selected from year prior to vaccine licensure from Kaiser database, matched on age to vaccinated individuals.
4 = Historical controls analysis available for age category 12 - 23 months only and for hospitalizations and emergency room visits only.
5 = NC --- No reported cases.
∞ Value resulted from division by zero because no events occurred in the control comparison period.

No deaths due to seizures (type unknown) occurred in the follow-up periods.

Table VI-5
Rate Comparison for Rule-Out Sepsis"
June 1, 1995 - February 5, 1997

Comparison		Hospitalizations			Emergency Room Visits			Outpatient Visits		
Age at Vaccination	No. of Vaccinations	Relative Risk Estimate	95% CI	P-Value	Relative Risk Estimate	95% CI	P-Value	Relative Risk Estimate	95% CI	P-Value
12 - 23 Months of Age	34,665									
Before[1]		NC[5]	-	-	NC	-	-	3.40	(1.50 - 8.53)	0.002
After[2]		NC	-	-	NC	-	-	3.52	(1.49 - 9.47)	0.003
Historical[3,4]		NC	-	-	NC	-	-	-	-	-
Before (w/o MMR)								*2.28*	*(0.80 - 7.27)*	*0.126*
After (w/o MMR)								*4.93*	*(1.23 - 32.74)*	*0.021*
After, no MMR, days 4-30								*2.54*	*(0.89 - 8.11)*	*0.081*
2 - 12 Years of Age	51,463									
Before		NC	-	-	NC	-	-	6.21	(1.57 - 40.88)	0.006
After		NC	-	-	NC	-	-	5.85	(1.48 - 38.52)	0.008
Before (w/o MMR)								*5.09*	*(1.41 - 37.79)*	*0.011*
Before, no MMR, days 4-30								*5.77*	*(1.41-38.71)*	*0.012*
After (w/o MMR)								*10.32*	*(1.76 - 224.1)*	*0.005*
After, no MMR, days 4-30								*10.46*	*(1.76 - 229.1)*	*0.005*
13 - 17 Years of Age	1,891									
Before		NC	-	-	NC	-	-	NC	-	-
After		NC	-	-	NC	-	-	NC	-	-
18+ Years of Age	1,734									
Before		NC	-	-	NC	-	-	NC	-	-
After		NC	-	-	NC	-	-	NC	-	-

1 = Time period of 60 - 30 days prior to vaccination for ER and outpatient visits and 90 - 30 days prior to vaccination for hospitalizations. Subjects are their own controls.
2 = Time period of 90 - 120 days after vaccination for ER and outpatient visits and 90 - 150 days after vaccination for hospitalizations. Subjects are their own controls.
3 = Historical controls randomly selected from year prior to vaccine licensure from Kaiser database, matched on age to vaccinated individuals.
4 = Historical controls analysis available for age category 12 - 23 months only and for hospitalizations and emergency room visits only.
5 = NC --- No reported cases.
∞ Value resulted from division by zero because no events occurred in the control comparison period

Table VI-6
Rate Comparison for Varicella
June 1, 1995 - February 5, 1997

Comparison		Hospitalizations			Emergency Room Visits			Outpatient Visits		
Age at Vaccination	No. of Vaccinations	Relative Risk Estimate	95% CI	P-Value	Relative Risk Estimate	95% CI	P-Value	Relative Risk Estimate	95% CI	P-Value
12 - 23 Months	34,665									
Before[1]		NC[5]	-	-	∞	(0.58 - ∞)	0.125	3.79	(1.59 - 10.24)	0.002
After[2]		NC	-	-	2.66	(0.28 -70.14)	0.437	10.11	(2.77 - 63.71)	<0.001
Historical[3,4]		0.00	(0.00 - 3.49)	0.251	1.00	(0.17 - 5.82)	0.999	-	-	-
Before (w/o MMR)		-			-			*2.84*	*(0.93 - 10.33)*	*0.067*
After (w/o MMR)		-			-			*4.93*	*(1.23 - 32.74)*	*0.021*
After, no MMR, days 4-30		-			-			*5.00*	*(1.22 - 33.53)*	*0.023*
2 - 12 Years	51,463									
Before		NC	-	-	∞	(1.54 - ∞)	0.016	12.07	(4.14 - 49.49)	<0.001
After		NC	-	-	5.65	(0.84-130.97)	0.082	8.53	(3.28 - 28.17)	<0.001
Before (w/o MMR)		-			∞	*(1.22 - ∞)*	*0.031*	*10.00*	*(3.38 - 41.33)*	*<0.001*
After (w/o MMR)		-			-			*13.60*	*(3.82 - 84.65)*	*<0.001*
After, no MMR, days 4-30		-			-			*14.65*	*(4.10 - 91.30)*	*<0.001*
13 - 17 Years	1,891									
Before		NC	-	-	NC	-	-	∞	(0.03 - ∞)	0.601
After		NC	-	-	NC	-	-	0.30	(0.01 - 3.92)	0.367
18+ Years	1,734									
Before		NC	-	-	NC	-	-	∞	(0.04 - ∞)	0.595
After		NC	-	-	NC	-	-	∞	(0.03 - ∞)	0.620

1 = Time period of 60 - 30 days prior to vaccination for ER and outpatient visits and 90 - 30 days prior to vaccination for hospitalizations. Subjects are their own controls.
2 = Time period of 90 - 120 days after vaccination for ER and outpatient visits and 90 - 150 days after vaccination for hospitalizations. Subjects are their own controls.
3 = Historical controls randomly selected from year prior to vaccine licensure from Kaiser database, matched on age to vaccinated individuals.
4 = Historical controls analysis available for age category 12 - 23 months only and for hospitalizations and emergency room visits only.
5 = NC --- No reported cases.
∞ Value resulted from division by zero because no events occurred in the control comparison period.

Table VI-7
Rate Comparison for Rash
June 1, 1995 - February 5, 1997

Comparison		Hospitalizations			Emergency Room Visits			Outpatient Visits		
Age at Vaccination	No. of Vaccinations	Relative Risk Estimate	95% CI	P-Value	Relative Risk Estimate	95% CI	P-Value	Relative Risk Estimate	95% CI	P-Value
12 - 23 Months of Age	34,665									
Before[1]		0.00	(0.00 - 19.10)	0.501	2.00	(0.94 - 4.45)	0.071	1.01	(0.90 - 1.13)	0.903
After[2]		NC	-	-	2.54	(1.10 - 6.45)	0.028	1.18	(1.04 - 1.34)	0.010
Historical[3,4]		0.00	(0.00 - 19.10)	0.501	0.91	(0.49 - 1.68)	0.761	-	-	-
After (w/o MMR)					*0.87*	*(0.20 - 3.84)*	*0.844*	*0.82*	*(0.67-1.00)*	*0.052*
2 - 12 Years of Age	51,463									
Before		∞	(0.05 - ∞)	0.499	0.88	(0.30 - 2.49)	0.804	0.96	(0.83 - 1.11)	0.563
After		∞	(0.05 - ∞)	0.519	1.65	(0.48 - 6.43)	0.442	1.02	(0.87 - 1.18)	0.841
13 - 17 Years of Age	1,891									
Before		NC	-	-	NC	-	-	1.55	(0.72 - 3.55)	0.277
After		NC	-	-	NC	-	-	1.04	(0.52 - 2.19)	0.918
18+ Years of Age	1,734									
Before		NC	-	-	NC	-	-	1.56	(0.84 - 3.00)	0.165
After		NC	-	-	0.00	(0.00 - 11.25)	0.372	1.96	(0.99 - 4.18)	0.056

1 = Time period of 60 - 30 days prior to vaccination for ER and outpatient visits and 90 - 30 days prior to vaccination for hospitalizations. Subjects are their own controls.
2 = Time period of 90 - 120 days after vaccination for ER and outpatient visits and 90 - 150 days after vaccination for hospitalizations. Subjects are their own controls.
3 = Historical controls randomly selected from year prior to vaccine licensure from Kaiser database, matched on age to vaccinated individuals.
4 = Historical controls analysis available for age category 12 - 23 months only and for hospitalizations and emergency room visits only.
5 = NC --- No reported cases.
∞ Value resulted from division by zero because no events occurred in the control comparison period.

Table VI-8
Rate Comparison for Allergic Reaction including Hives
June 1, 1995 - February 5, 1997

Comparison		Hospitalizations			Emergency Room Visits			Outpatient Visits		
Age at Vaccination	No. of Vaccinations	Relative Risk Estimate	95% CI	P-Value	Relative Risk Estimate	95% CI	P-Value	Relative Risk Estimate	95% CI	P-Value
12 - 23 Months of Age	34,665									
Before[1]		NC[5]	-	-	NC	-	-	1.03	(0.84 - 1.26)	0.788
After[2]		NC	-	-	NC	-	-	1.27	(1.02 - 1.60)	0.036
Historical[3,4]		NC	-	-	NC	-	-	-	-	-
After (w/o MMR)								*0.85*	*(0.60 - 1.21)*	*0.378*
2 - 12 Years of Age	51,463									
Before		NC	-	-	NC	-	-	0.97	(0.77 - 1.22)	0.770
After		NC	-	-	NC	-	-	1.20	(0.94 - 1.54)	0.139
13 - 17 Years of Age	1,891									
Before		NC	-	-	NC	-	-	0.66	(0.15 - 2.94)	0.574
After		NC	-	-	NC	-	-	1.19	(0.21 - 9.32)	0.875
18+ Years of Age	1,734									
Before		NC	-	-	NC	-	-	2.04	(0.22 - 53.80)	0.592
After		NC	-	-	NC	-	-	1.84	(0.20 - 48.40)	0.658

1 = Time period of 60 - 30 days prior to vaccination for ER and outpatient visits and 90 - 30 days prior to vaccination for hospitalizations. Subjects are their own controls.
2 = Time period of 90 - 120 days after vaccination for ER and outpatient visits and 90 - 150 days after vaccination for hospitalizations. Subjects are their own controls.
3 = Historical controls randomly selected from year prior to vaccine licensure from Kaiser database, matched on age to vaccinated individuals.
4 = Historical controls analysis available for age category 12 - 23 months only and for hospitalizations and emergency room visits only.
5 = NC --- No reported cases.
∞ Value resulted from division by zero because no events occurred in the control comparison period.

Table VI-9
Rate Comparison for Allergic Rhinitis
June 1, 1995 - February 5, 1997

Comparison		Hospitalizations			Emergency Room Visits			Outpatient Visits		
Age at Vaccination	No. of Vaccinations	Relative Risk Estimate	95% CI	P-Value	Relative Risk Estimate	95% CI	P-Value	Relative Risk Estimate	95% CI	P-Value
12 - 23 Months of Age	34,665									
Before[1]		NC[5]	-	-	NC	-	-	3.72	(1.44 - 11.24)	0.005
After[2]		NC	-	-	NC	-	-	1.27	(0.62 - 2.66)	0.516
Historical[3,4]		NC	-	-	NC	-	-	-	-	-
Before (w/o MMR)								*3.10*	*(0.88 - 14.21)*	*0.082*
2 - 12 Years of Age	51,463									
Before		NC	-	-	NC	-	-	1.24	(0.90 - 1.70)	0.184
After		NC	-	-	NC	-	-	0.97	(0.72 - 1.32)	0.869
13 - 17 Years of Age	1,891									
Before		NC	-	-	NC	-	-	1.04	(0.40 - 2.85)	0.947
After		NC	-	-	NC	-	-	3.28	(0.82 - 21.80)	0.103
18+ Years of Age	1,734									
Before		NC	-	-	NC	-	-	0.77	(0.44 - 1.34)	0.346
After		NC	-	-	NC	-	-	0.87	(0.48 - 1.59)	0.641

1 = Time period of 60 - 30 days prior to vaccination for ER and outpatient visits and 90 - 30 days prior to vaccination for hospitalizations. Subjects are their own controls.
2 = Time period of 90 - 120 days after vaccination for ER and outpatient visits and 90 - 150 days after vaccination for hospitalizations. Subjects are their own controls.
3 = Historical controls randomly selected from year prior to vaccine licensure from Kaiser database, matched on age to vaccinated individuals.
4 = Historical controls analysis available for age category 12 - 23 months only and for hospitalizations and emergency room visits only.
5 = NC --- No reported cases.
∞ Value resulted from division by zero because no events occurred in the control comparison period.

Table VI-10
Rate Comparison for Hives
June 1, 1995 - February 5, 1997

Comparison		Hospitalizations			Emergency Room Visits			Outpatient Visits		
Age at Vaccination	No. of Vaccinations	Relative Risk Estimate	95% CI	P-Value	Relative Risk Estimate	95% CI	P-Value	Relative Risk Estimate	95% CI	P-Value
12 - 23 Months of Age	34,665									
Before[1]		NC	-	-	3.00	(0.63 -21.60)	0.180	NC	-	-
After[2]		NC	-	-	1.33	(0.36 - 5.35)	0.677	NC	-	-
Historical[3,4]		NC	-	-	1.50	(0.41 -6.03)	0.549	-	-	-
2 - 12 Years of Age	51,463									
Before		NC	-	-	1.83	(0.68 - 5.36)	0.238	NC	-	-
After		NC	-	-	3.46	(1.02 - 15.42)	0.045	NC	-	-
After (w/o MMR)					*3.33*	*(0.98 - 14.84)*	*0.053*			
13 - 17 Years of Age	1,891									
Before		NC	-	-	NC	-	-	NC	-	-
After		NC	-	-	NC	-	-	NC	-	-
18+ Years of Age	1,734									
Before		NC	-	-	NC	-	-	NC	-	-
After		NC	-	-	NC	-	-	NC	-	-

1 = Time period of 60 - 30 days prior to vaccination for ER and outpatient visits and 90 - 30 days prior to vaccination for hospitalizations. Subjects are their own controls.
2 = Time period of 90 - 120 days after vaccination for ER and outpatient visits and 90 - 150 days after vaccination for hospitalizations. Subjects are their own controls.
3 = Historical controls randomly selected from year prior to vaccine licensure from Kaiser database, matched on age to vaccinated individuals.
4 = Historical controls analysis available for age category 12 - 23 months only and for hospitalizations and emergency room visits only.
5 = NC --- No reported cases.
∞ Value resulted from division by zero because no events occurred in the control comparison period.

Table VI-11
Rate Comparison for Epilepsy
June 1, 1995 - February 5, 1997

Comparison		Hospitalizations			Emergency Room Visits			Outpatient Visits		
Age at Vaccination	No. of Vaccinations	Relative Risk Estimate	95% CI	P-Value	Relative Risk Estimate	95% CI	P-Value	Relative Risk Estimate	95% CI	P-Value
12 - 23 Months of Age	34,665									
Before[1]		1.84	(0.68 - 5.39)	0.234	∞	(1.54 - ∞)	0.016	0.83	(0.38 - 1.78)	0.632
After[2]		0.87	(0.37 - 2.04)	0.738	2.66	(0.56 - 19.18)	0.237	1.84	(0.70 - 5.30)	0.228
Historical[3,4]		2.76	(0.91 -10.04)	0.075	∞	(1.54 - ∞)	0.016	-	-	-
Before (w/o MMR)					∞	*(0.90 - ∞)*	*0.063*			
2 - 12 Years of Age	51,463									
Before		1.75	(0.51 -6.84)	0.386	1.17	(0.38 - 3.70)	0.791	1.79	(0.85 - 3.89)	0.125
After		1.30	(0.40 -4.47)	0.673	1.65	(0.48 - 6.43)	0.442	0.84	(0.45 - 1.56)	0.587
13 - 17 Years of Age	1,891									
Before		NC	-	-	0.00	(0.00 -12.17)	0.391	0.66	(0.02 - 25.86)	0.797
After		NC	-	-	NC	-	-	∞	(0.03 - ∞)	0.626
18+ Years of Age	1,734									
Before		NC	-	-	NC	-	-	NC	-	-
After		NC	-	-	NC	-	-	0.00	(0.00 - 2.13)	0.144

1 = Time period of 60 - 30 days prior to vaccination for ER and outpatient visits and 90 - 30 days prior to vaccination for hospitalizations. Subjects are their own controls.
2 = Time period of 90 - 120 days after vaccination for ER and outpatient visits and 90 - 150 days after vaccination for hospitalizations. Subjects are their own controls.
3 = Historical controls randomly selected from year prior to vaccine licensure from Kaiser database, matched on age to vaccinated individuals.
4 = Historical controls analysis available for age category 12 - 23 months only and for hospitalizations and emergency room visits only.
5 = NC --- No reported cases.
∞ Value resulted from division by zero because no events occurred in the control comparison period.

No deaths due to epilepsy occurred in the follow-up periods.

Table VI-12
Rate Comparison for Soft Tissue Disease
June 1, 1995 - February 5, 1997

Comparison		Hospitalizations			Emergency Room Visits			Outpatient Visits		
Age at Vaccination	No. of Vaccinations	Relative Risk Estimate	95% CI	P-Value	Relative Risk Estimate	95% CI	P-Value	Relative Risk Estimate	95% CI	P-Value
12 - 23 Months of Age	34,665									
Before[1]		NC	-	-	NC	-	-	7.24	(1.12 - 164.44)	**0.035**
After[2]		NC	-	-	NC	-	-	1.84	(0.70 - 5.30)	0.228
Historical[3,4]		NC	-	-	NC	-	-	-	-	-
Before (w/oMMR)								∞	*(0.30 - ∞)*	*0.242*
2 - 12 Years of Age	51,463									
Before		NC	-	-	NC	-	-	3.10	(0.33 - 81.71)	0.358
After		NC	-	-	NC	-	-	2.92	(0.31 - 77.01)	0.388
13 - 17 Years of Age	1,891									
Before		NC	-	-	NC	-	-	∞	(0.39 - ∞)	0.217
After		NC	-	-	NC	-	-	1.79	(0.19 - 49.13)	0.675
18+ Years of Age	1,734									
Before		NC	-	-	NC	-	-	0.68	(0.02 - 26.56)	0.810
After		NC	-	-	NC	-	-	∞	(0.03 - ∞)	0.620

1 = Time period of 60 - 30 days prior to vaccination for ER and outpatient visits and 90 - 30 days prior to vaccination for hospitalizations. Subjects are their own controls.
2 = Time period of 90 - 120 days after vaccination for ER and outpatient visits and 90 - 150 days after vaccination for hospitalizations. Subjects are their own controls.
3 = Historical controls randomly selected from year prior to vaccine licensure from Kaiser database, matched on age to vaccinated individuals.
4 = Historical controls analysis available for age category 12 - 23 months only and for hospitalizations and emergency room visits only.
5 = NC --- No reported cases.
∞ Value resulted from division by zero because no events occurred in the control comparison period.

Table VI-13
Rate Comparison for Alopecia
June 1, 1995 - February 5, 1997

Comparison		Hospitalizations			Emergency Room Visits			Outpatient Visits		
Age at Vaccination	No. of Vaccinations	Relative Risk Estimate	95% CI	P-Value	Relative Risk Estimate	95% CI	P-Value	Relative Risk Estimate	95% CI	P-Value
12 - 23 Months of Age	34,665									
Before[1]		NC[5]	-	-	NC	-	-	1.03	(0.03 - 40.34)	0.983
After[2]		NC	-	-	NC	-	-	∞	(0.05 - ∞)	0.521
Historical[3,4]		NC	-	-	NC	-	-	-	-	-
2 - 12 Years of Age	51,463									
Before		NC	-	-	NC	-	-	4.14	(0.96 - 28.52)	0.058
After		NC	-	-	NC	-	-	7.80	(1.25 - 174.47)	0.024
After (w/o MMR)								*6.57*	*(1.02 - 149.14)*	*0.048*
After, no MMR, days 4-30								*6.28*	*(0.93-145.43)*	*0.062*
13 - 17 Years of Age	1,891									
Before		NC	-	-	NC	-	-	∞	(0.03 - ∞)	0.601
After		NC	-	-	NC	-	-	∞	(0.03 - ∞)	0.626
18+ Years of Age	1,734									
Before		NC	-	-	NC	-	-	1.36	(0.10 - 40.18)	0.851
After		NC	-	-	NC	-	-	0.61	(0.06 - 5.89)	0.647

1 = Time period of 60 - 30 days prior to vaccination for ER and outpatient visits and 90 - 30 days prior to vaccination for hospitalizations. Subjects are their own controls.
2 = Time period of 90 - 120 days after vaccination for ER and outpatient visits and 90 - 150 days after vaccination for hospitalizations. Subjects are their own controls.
3 = Historical controls randomly selected from year prior to vaccine licensure from Kaiser database, matched on age to vaccinated individuals.
4 = Historical controls analysis available for age category 12 - 23 months only and for hospitalizations and emergency room visits only.
5 = NC --- No reported cases.
∞ Value resulted from division by zero because no events occurred in the control comparison period.

Table VI-14
Rate Comparison for Total Diagnoses (All Visits)
June 1, 1995 - February 5, 1997

Comparison		Hospitalizations			Emergency Room Visits			Outpatient Visits		
Age at Vaccination	No. of Vaccinations	Relative Risk Estimate	95% CI	P-Value	Relative Risk Estimate	95% CI	P-Value	Relative Risk Estimate	95% CI	P-Value
12 - 23 Months of Age	34,665									
Before[1]		0.94	(0.83 - 1.07)	0.350	1.05	(0.96 - 1.14)	0.318	**0.89**	**(0.87 - 0.91)**	**<0.001**
After[2]		1.09	(0.95 - 1.25)	0.245	**1.17**	**(1.06 - 1.28)**	**0.001**	0.82	(0.80 - 0.84)	<0.001
Historical[3,4]		1.13	(0.99 - 1.30)	0.072	1.01	(0.92 - 1.10)	0.895	-	-	-
2 - 12 Years of Age	51,463									
Before		1.11	(0.96 - 1.28)	0.169	1.02	(0.93 - 1.11)	0.696	**0.96**	**(0.94 - 0.99)**	0.008
After		1.00	(0.87 - 1.16)	0.960	**1.14**	**(1.03 - 1.25)**	**0.008**	**0.94**	**(0.91 - 0.96)**	**<0.001**
13 - 17 Years of Age	1,891									
Before		0.55	(0.24 - 1.28)	0.166	0.82	(0.54 - 1.24)	0.340	**0.68**	**(0.60 - 0.77)**	**<0.001**
After		1.04	(0.38 - 3.09)	0.955	0.95	(0.61 - 1.50)	0.811	0.92	(0.80 - 1.06)	0.266
18+ Years of Age	1,734									
Before		0.34	(0.19 - 0.59)	<0.001	1.09	(0.65 - 1.85)	0.759	**0.83**	**(0.74 - 0.94)**	0.004
After		1.05	(0.50 - 2.30)	0.911	0.94	(0.56 - 1.58)	0.799	1.05	(0.91 - 1.20)	0.528

1 = Time period of 60 - 30 days prior to vaccination for ER and outpatient visits and 90 - 30 days prior to vaccination for hospitalizations. Subjects are their own controls.
2 = Time period of 90 - 120 days after vaccination for ER and outpatient visits and 90 - 150 days after vaccination for hospitalizations. Subjects are their own controls.
3 = Historical controls randomly selected from year prior to vaccine licensure from Kaiser database, matched on age to vaccinated individuals.
4 = Historical controls analysis available for age category 12 - 23 months only and for hospitalizations and emergency room visits only.
5 = NC --- No reported cases.
∞ Value resulted from division by zero because no events occurred in the control comparison period.

Appendix VII
Protocol 035

Product: V210
Protocol/Amendment No.: 035-00

THIS PROTOCOL AND ALL OF THE INFORMATION RELATING TO IT ARE CONFIDENTIAL AND PROPRIETARY PROPERTY OF MERCK & CO., INC.

SPONSOR:

Merck & Co., Inc.

TITLE:

Post-Marketing Evaluation of Short-Term Safety of Varicella Vaccine (VARIVAX®)

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INSTITUTIONAL REVIEW BOARD/ETHICAL REVIEW COMMITTEE:

Kaiser Foundation Hospitals, Northern California Region

Product: V210
Protocol/Amendment No.: 035-00

Short-Term Safety of VARIVAX®

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PROTOCOL SYNOPSIS

PRODUCT: V210

PROTOCOL TITLE: Post-Marketing Evaluation of Short-Term Safety of Varicella Vaccine (VARIVAX®)

PROTOCOL/AMENDMENT NO.: 035-00 / |Multicenter CLINICAL PHASE: **Error! Reference source not found.**

BACKGROUND AND RATIONALE: Clinical trials with varicella vaccine have been conducted in over 11,000 individuals since 1981. Although the vaccine has been shown to be generally well tolerated and efficacious (1,2), a larger study involving 25,000 children, such as the one outlined in this protocol, is necessary to determine if there are rare serious adverse events possibly related to vaccination which were not seen in these clinical trials.

OBJECTIVES:
(1) Describe the occurrence of adverse experiences (AEs) in a cohort of 25,000 children aged 12 to 23 months in a period (30 days for pediatric acute care visits and emergency room visits, 60 days for hospitalizations and mortality) immediately after vaccination with VARIVAX®.
(2) Compare the rates of specific AEs in the period postvaccination which are selected by the principal investigators, with input from Merck Research Laboratories (MRL) and the Center for Biologics Evaluation and Research (CBER) at the U.S. Food and Drug Administration, with the AE rates in three comparison periods of the same time duration:

- (a) a period among age-matched controls selected from the time period one calendar year prior to the start of the study;
- (b) a period for the same children ending one month prior to vaccination;
- (c) a period for the same children starting three months after vaccination.

STUDY DESIGN, DURATION, AND SAMPLE: Twenty-five thousand children aged 12 to 23 months who are members of the Kaiser Permanente Medical Care Program (KPMCP) and who meet the eligibility criteria for VARIVAX® vaccination will be vaccinated as soon as possible after licensure. AEs will be identified through the use of computer-stored records of pediatric acute care visits, emergency room visits, hospitalizations, and from the mortality data base of the state of California. The principal investigators at Kaiser will list all AEs that occurred among the study population during a post-vaccination period (30 days for pediatric acute care visits and emergency room visits, 60 days for hospitalizations and mortality) and select the AEs that they consider to be possibly related to vaccination. CBER may select additional AEs. The written medical charts of cases with the selected AEs will be reviewed, as will medical records for any deaths, to assess a possible vaccination effect. In addition, all

deaths and hospitalized neurological AEs will be reported to Merck on the VAERS form by fax within 24 hours. Rates of selected AEs will be compared to rates in control periods.

DOSAGE/DOSAGE FORM, ROUTE, AND DOSE REGIMEN: One 0.5 mL subcutaneous injection of VARIVAX® containing a minimum of 1350 plaque forming units (PFUs) 30 minutes after reconstitution.

SAFETY MEASUREMENTS: Safety measurement is the objective of this study, and will be assessed for the 30 days after vaccination from computerized data bases of pediatric acute care visits and emergency room visits, and for the 60 days after from automated records of hospitalizations at KPMCP, and from the mortality data base of the state of California.

DATA ANALYSIS: The study has 95% power to detect a two-fold increase for a specific AE with a baseline incidence of 1 per 1,000, and 86% power to detect a ten-fold increase for a specific AE with a baseline incidence of 4 per 100,000. Confidence intervals for the relative risks of AEs considered possibly related to vaccine will be calculated comparing the time period immediately post-vaccination to the comparison time periods. Confidence intervals will be based on McNemar's method for the two control groups emerging from the same cohort, and based on independent binomial sampling for the age-matched controls .

REPORTING OF ADVERSE EXPERIENCES

ANY DEATH, NEUROLOGICAL ADVERSE EXPERIENCE AS ASSESSED BY HOSPITALIZATIONS, OR SEIZURE AND ATAXIA AS ASSESSED BY OUTPATIENT CLINIC VISITS OR EMERGENCY ROOM VISITS WHICH OCCURS TO ANY SUBJECT WITHIN 60 DAYS (OR 30 DAYS FOR OUTPATIENT CLINIC AND EMERGENCY ROOM VISITS) FOLLOWING VACCINATION, WHETHER OR NOT RELATED TO THE VACCINE, MUST BE REPORTED ON THE VAERS FORM BY FAX WITHIN 24 HOURS TO DR. ROBERT G. SHARRAR LISTED ON THE MRL CONTACT INFORMATION PAGE. IN ADDITION, UPON REVIEW OF THE COMPUTERIZED SUMMARY REPORTS COVERING THE SAME TIME PERIOD, ANY OTHER SERIOUS ADVERSE EXPERIENCE, WHICH, IN THE OPINION OF EITHER THE INVESTIGATOR, MRL, OR CBER, IS POSSIBLY, PROBABLY, OR DEFINITELY RELATED TO THE VACCINE, MUST BE REPORTED ON THE VAERS FORM BY FAX WITHIN FIVE (5) WORKING DAYS OF RECEIPT OF THE APPROPRIATE MEDICAL RECORDS.

STUDY FLOW CHART

Time	Schedule of Events
Days -90 to -61	Collect comparison data on AEs from computerized database of mortality and hospitalizations.
Days -60 to -31	Collect comparison data on AEs from computerized databases of mortality, hospitalizations, emergency room visits and clinic visits.
Day 0	Administer 0.5 mL of varicella vaccine
Days 0 to 30	Collect reports on all postvaccination AEs from computerized databases of mortality, hospitalizations, ER visits and clinic visits.
Days 31 to 60	Collect reports on all postvaccination AEs from computerized databases of mortality and hospitalizations.
Days 91 to 120	Collect comparison data on AEs from computerized databases of mortality, hospitalizations, emergency room visits and clinic visits.
Days 121 to 150	Collect comparison data on AEs from computerized database of mortality and hospitalizations.

MRL CONTACT INFORMATION

To report serious adverse events, contact:

Robert G. Sharrar, M.D.
Director
Worldwide Product and Safety and Epidemiology
Merck Research Laboratories
Merck and Co., Inc.
P.O. Box 4, BL A-31
West Point, PA 19486
Telephone – Office: 610-397-2868
FAX No.: 215-397-2328

I. CLINICAL SECTIONS

A. BACKGROUND AND RATIONALE

Clinical trials with varicella vaccine have been conducted in over 11,000 individuals since 1981. Although the vaccine has been shown to be generally well tolerated and efficacious (1,2), a larger study involving 25,000 children, such as the one outlined in this protocol, is necessary to determine if there are rare serious adverse events possibly related to vaccination which were not seen in these clinical trials.

B. HYPOTHESES

This study is designed for post-marketing surveillance of VARIVAX® following licensure by the U.S. Food and Drug Administration. The purpose of this study is to maintain active surveillance of VARIVAX® safety under market conditions rather than test hypotheses.

C. OBJECTIVES

1. Overall Objectives:

The overall objective of this study is to assess the short-term safety of the varicella vaccine, VARIVAX®. This study will describe the AEs occurring in the period immediately following vaccination (30 days for pediatric acute care visits and emergency room visits, 60 days for hospitalizations and mortality). The study will allow comparison of differences in rates of AEs in the period immediately postvaccination with the rates of AEs seen in periods of the same time duration ending one month prior to vaccination and in periods starting three months after vaccination, and with rates seen in periods of the same time duration (30 days for pediatric acute care visits and emergency room visits, 60 days for hospitalizations and mortality) in age-matched unvaccinated controls. The age-matched unvaccinated controls will be selected from the time period one year prior to the time period of vaccination to avoid potential selection bias which could arise through choice of children who were the same age as the vaccinees but who did not receive the vaccine.

C. OBJECTIVES (CONT'D)

2. Specific Objectives:

   a. Describe the occurrence of AEs in a cohort of 25,000 children aged 12 to 23 months in a period immediately after VARIVAX® vaccination (30 days for pediatric acute care visits and emergency room visits, 60 days for hospitalizations and mortality).

   b. Estimate differences in rates of AEs between the follow-up period immediately after vaccination and three comparison periods of the same duration (30 days for pediatric acute care visits and emergency room visits, 60 days for hospitalizations and mortality):
      - a period among age-matched controls selected from the time period one calendar year prior to the start of the study;
      - a period for the same children ending one month prior to vaccination;
      - a period for the same children starting three months after vaccination.

D. SUBJECT/PATIENT DEFINITION

1. Inclusion Criteria

The study will be conducted at the clinics and medical centers of Kaiser Permanente Medical Care Program (KPMCP) following licensure of VARIVAX®. The vaccine will be offered to children aged 12 to 23 months who are members of the KPMCP, who have a negative clinical history of varicella, and who meet the eligibility criteria as specified in the package insert. At least twenty-five thousand such children who are vaccinated in the course of ordinary clinical practice with marketed varicella vaccine over a 1 to 2 year period after licensure of the vaccine will form the study population.

2. Exclusion Criteria

Children with a positive history of varicella and children who do not meet the eligibility criteria of the package insert will be excluded from the study population. The eligibility criteria of the package insert exclude children who are: less than 12 months of age; a history of anaphylactoid reaction to neomycin; hypersensitivity to any component of the vaccine, including gelatin; individuals with blood dyscrasias, leukemia, lymphomas of any type, or other malignant neoplasms affecting the bone marrow or lymphatic systems; individuals receiving immunosuppressive therapy; such as immunosuppressant doses of corticosteroids; individuals with primary and

D. SUBJECT/PATIENT DEFINITION (CONT'D)

acquired immunodeficiency states, including human immunodeficiency-related disease, cellular immune deficiencies, hypogammaglobulinemic and dysgammaglobulinemic states; a family history of congenital or hereditary immune deficiency unless the immunocompetence of the potential vaccine recipient is demonstrated; active untreated tuberculosis; and any febrile respiratory illness or other active febrile infection.

E. STUDY DESIGN

1. Summary of Study Design

Twenty-five thousand children ages 12 to 23 months of age will be enrolled over a 1 to 2 year period for safety evaluation. Children will be followed for at least 6 months through computerized records of the HMO. The first two months of follow-up will serve as a measure of AEs following vaccination (30 days for pediatric acute care visits and emergency room visits, 60 days for hospitalizations and mortality). A similar period of time before vaccination and three months after vaccination will be used as the control or baseline level of AEs. AEs noted for an equivalent window of time among age-matched, unvaccinated children selected from a time period one calendar year prior to the start of the study will provide an additional comparison. The principal investigators at Kaiser will provide CBER with a list of AEs that occurred among the study population during the post-vaccination period. The principal investigators will select the AEs that they consider to be possibly related to vaccination and compare rates of AEs in the 60-day postvaccination period with the three comparison periods. CBER and MRL may identify additional AEs for which rate comparisons should be made. Based on prior experience with 11,000 vaccinees, the most common reported adverse events in children under 13 years of age which are temporarily associated with vaccination are fever, injection-site complaints (eg pain, soreness, swelling, etc.), varicella-like rash at the injection site, and generalized varicella-like rash (1, 3).

2. Treatment

Children enrolled in the study population will be vaccinated in the course of ordinary clinical practice with marketed varicella vaccine over a 1 to 2 year period after licensure of the vaccine.

E. STUDY DESIGN (CONT'D)

3. Study Procedures

The Kaiser Permanente Northern California health maintenance organization (HMO) has 31 health care centers in the San Francisco Bay area and northern California, with an annual birth cohort among members of approximately 25,000 infants. The HMO maintains computerized records on all mortality, hospitalizations, and emergency room visit events among HMO members, both within the HMO and at external centers. Currently the HMO maintains computerized records of pediatric outpatient clinic visits at approximately half of the 31 centers and is scheduled to have computerized records of pediatric outpatient clinic visits for all centers by June 1995. Computerized records for identification of mortality are also available. Mortality searches will include not only vaccinees who remain in the Kaiser system, but those whose death may have occurred after disenrollment. The population of KPMCP is multi-ethnic and is similar in racial and ethnic composition to the general population of northern California.

AEs will be defined as any use of health care services, excluding routine health care visits, and any deaths. AEs will be identified through the use of computer-stored records of pediatric acute care visits, emergency room visits, hospitalizations and mortality records. All clinic and emergency room visits for 30 days after vaccination will be recorded. All hospitalizations, including hospitalizations for neurological AEs, and deaths up to 60 days after vaccination will also be included. Rates of occurrence for specific adverse events will be summarized and tabulated. The written medical charts of any cases where the diagnosis suggests a possible vaccination effect will be reviewed, as will medical records for any deaths.

The principal investigators at Kaiser will provide CBER with a list of AEs, including deaths, that occurred among the study population during the 60 days post-vaccination. Since scores of AEs will occur in the study population in this time window that will have no relation to vaccination, the principal investigators will identify AEs that they consider to be possibly related to vaccination. This judgement of possible relationship to vaccination will be based on the investigators' clinical experience, biological plausibility, knowledge of the scientific literature, and prior experience conducting similar short-term safety studies of four other vaccines. CBER and MRL will review the AEs and will add any for which they believe rate comparisons should be made.

Once a list of AEs has been identified for which rate comparisons should be made, statistical analysis will be performed comparing the incidence rate of these AEs in the vaccinees with incidence rates among age-matched, unvaccinated controls from the prior year. Analysis of only a limited set of AEs possibly related to vaccination will minimize the probability of type I statistical errors which may result from multiple

E. STUDY DESIGN (CONT'D)

comparisons. However, if each of the three parties involved in selecting AEs chooses several AEs so that approximately 20 AEs are selected for rate comparisons, it is expected that one adverse event would appear statistically elevated by chance alone. In addition, the incidence rates of the AEs among vaccinees in the 60 days immediately post-vaccination will be compared to the rates among vaccinees in the comparison time windows. Two comparison periods using the same children as their own controls will be available for this comparison. Two comparison periods will be used to avoid potential biases that may result from using a single comparison period either before or after vaccination.

In order to ensure selection of a window of time for age-matched controls from all seasons, a two stage sampling procedure will be adopted: controls will be randomly selected from the Kaiser database, and then a second random selection will take place - the 60-day time period in the year prior to vaccination will be randomly selected from all seasons of the year.

The mortality experience of vaccinees in the study population whose families disenroll from KPMCP during the 60 days of follow-up will be obtained by reviewing the California mortality data base to identify any deaths of disenrollees from the Kaiser HMO. If disenrollees have left the state of California, a comprehensive follow-up assessment of mortality experience will be conducted by post card and/or telephone interviews. A 6 month to one year period is required to complete the review of mortality records from all sources and to match these with the list of vaccinees. This will delay the provision of data on deaths in the study population to CBER by 6 months to 1 year.

Vaccine will be drop-shipped directly from the Merck warehouse to the Kaiser health centers from where it will be administered. It will be stored at below -15° C at the various Kaiser health center sites until reconstitution for vaccination. Storage and reconstitution will be in accordance with the package circular for VARIVAX®. Orders for vaccine will be faxed to both the customer account manager, Mr. John Oliveira (215-652-0511/ 215-652-6700) and the Merck monitor for the studies, Dr Paul Coplan (610-397-2992 fax, 610-397-7473 tel). Orders will be placed by a central authority at Kaiser Northern California responsible for vaccine administration in the post-marketing studies. The customer account manager will record the vaccine lot number of a shipment on the vaccine invoice and send copies of the invoices to the study monitor every month. Records of vaccine lot numbers shipped to the various health centers will thus be maintained.

Vaccine will be shipped to the KPMCP Northern California satellite health care centers in polystyrene shippers, designed specifically for VARIVAX® shipment, and 6 pounds of dry ice so that the vaccine cold chain is maintained at -20°C.

E. STUDY DESIGN (CONT'D)

4. Potential Biases

Biases in rate comparisons arising from comparison groups.

a. Age-matched controls from the previous year - If the incidence of a AE has a cycle with a periodicity of several years or there is a large random variation in the incidence of an AE by year, then the incidence of an AE may differ between two consecutive years. This may result in relative risks which are statistically elevated but are not associated with vaccination, or may result in relative risks which are not statistically elevated even though the vaccine may possibly cause a substantial increase in the rate of the AE. The disadvantage of controls from the same year is that these controls would be people who were not vaccinated with VARIVAX® when others were vaccinated. There may be differences in AE incidence between those who were vaccinated and those who were not.

b. Own control, 60 day period one month prior to vaccination - It is possible that comparisons between the 60 days postvaccination and the 60 day pre-vaccination period could be biased in either direction. The vaccine could appear less safe than it actually is for events whose occurrence would tend to make vaccination within 60 days less likely. Such events would include new onset seizure disorders and deaths. However, the vaccine could appear more safe than it actually is for events whose occurrence would tend to make vaccination within 60 days more likely. Such events might include certain respiratory illnesses or otitis media, where followup visits are common, leading to increased opportunities to vaccinate.

c. Own control, 60 day period 3 months post-vaccination - If a AE is vaccine-related and continues to occur 3 to 5 months after vaccination, such an AE would be elevated in this comparison period due to vaccination. For example, AE rates that are elevated for 3-5 months postvaccination would appear lower than they truly are when comparing AE rates immediately postvaccination to AE rates in the period starting 3 months post-vaccination.

In addition, rates of AEs that change rapidly with age may be biased by either of the two own-control comparison periods. For example, consider an AE with an incidence rate that has a large decrease with increasing age in the first 2 years of life. If children are vaccinated at 12 months of age, then the 60 day comparison period starting 3 months before vaccination would have a higher rate of AEs, and the 60 day comparison period ending 5 months postvaccination would have a lower rate of the AE than the 60 day period immediately postvaccination.

In order to account for biases arising from seasonal differences between comparison periods, subjects will be vaccinated over a 2 year period on a rolling

E. STUDY DESIGN (CONT'D)

basis over all seasons. The distribution of own-control periods to seasonal periods with higher or lower incidence rates than the period immediately following vaccination will presumably be random considering 25,000 children will be vaccinated. In order to ensure selection of age-matched controls from all seasons, a two stage sampling procedure will be adopted: controls will be randomly selected from the Kaiser database, and then a second random selection will take place - the 60-day time period in the year prior to vaccination will be randomly selected from all seasons of the year.

F. SAFETY MEASUREMENTS

1. Evaluating and Recording Adverse Experiences

The assessment of relationship between serious adverse experiences and vaccination will be reported by the investigator according to his/her best clinical judgment. The following definition of serious adverse experiences, criteria for assessing relationship to vaccine, and criteria for scaling the strength of relationship between serious adverse experiences and vaccination, is provided as guidance:

A. A serious adverse experience is one which:

- Results in death;
- Is immediately life-threatening (immediate risk of death from the experience as it occurred) [Note: This does not include an adverse experience that, had it occurred in a more serious form, might have caused death.];
- Results in permanent or substantial disability (permanent or substantial disruption of one's ability to carry out normal life functions);
- Results in or prolongs an existing inpatient hospitalization (an overnight stay in the hospital, regardless of length of stay, even if the hospitalization is a precautionary measure for continued observation) [Note: Hospitalization (including hospitalization for an elective procedure) for a preexisting condition which has not worsened does not constitute a serious adverse experience.];
- Is a cancer regardless of time from last dose; or
- Is the result of an overdose (whether accidental or intentional).

F. SAFETY MEASUREMENTS (CONT'D)

B. Relationship to vaccine (Did the vaccine cause the adverse experience?):

The criteria below are intended as reference guidelines to assist the investigator, CBER and MRL in assessing the likelihood of a relationship between the vaccine and the adverse experience based upon the available information.

The following components are to be used to assess this relationship; the greater the correlation with the components and their respective elements (in number and/or intensity), the more likely the vaccine caused the adverse experience (AE):

— Exposure:
Is there evidence that the patient was actually exposed to the vaccine?

— Time Course:
Did the AE follow in a reasonable temporal sequence from administration of the vaccine?

Is the time of onset of the AE compatible with a vaccine-induced effect?

— Likely Cause:
Is the AE not reasonably explained by another etiology such as underlying disease, medications, or other host or environmental factors?

— Consistency with previous knowledge:
Is the clinical/pathological presentation of the AE consistent with previous knowledge regarding the vaccine?

C. Scale of relationship of an AE to vaccination.

— Definitely related to vaccine:

There is evidence of exposure to the vaccine.

The temporal sequence of the AE onset relative to administration of the vaccine is reasonable.

The AE is most likely explained by the vaccine than by another cause.

The AE shows a pattern consistent with previous knowledge of the vaccine or vaccine class.

— Probably related to vaccine:

There is evidence of exposure to the vaccine.

F. SAFETY MEASUREMENTS (CONT'D)

The temporal sequence of the AE onset relative to administration of the vaccine is reasonable.

The AE is more likely explained by the vaccine than by another cause.

— Possibly related to vaccine:

There is evidence of exposure to the vaccine.

The temporal sequence of the AE onset relative to administration of the vaccine is reasonable.

The AE could have been due to another equally likely cause.

— Probably not related to vaccine:

There is evidence of exposure to the vaccine.

There is another more likely cause of the AE.

— Definitely not related to vaccine:
The subject/patient did not receive the vaccine.

OR

Temporal sequence of the AE onset relative to administration of the vaccine is not reasonable.

OR

There is another obvious cause of the AE.

2. **Immediate Reporting of Adverse Experiences to MRL**

ANY DEATH, NEUROLOGICAL ADVERSE EXPERIENCE AS ASSESSED BY HOSPITALIZATIONS, OR SEIZURE AND ATAXIA AS ASSESSED BY OUTPATIENT CLINIC VISITS OR EMERGENCY ROOM VISITS WHICH OCCURS TO ANY SUBJECT WITHIN 60 DAYS (OR 30 DAYS FOR OUTPATIENT CLINIC AND EMERGENCY ROOM VISITS) FOLLOWING VACCINATION, WHETHER OR NOT RELATED TO THE VACCINE, MUST BE REPORTED ON THE VAERS FORM BY FAX WITHIN 24 HOURS TO DR. ROBERT G. SHARRAR LISTED ON THE MRL CONTACT INFORMATION PAGE. IN ADDITION, UPON REVIEW OF THE COMPUTERIZED SUMMARY REPORTS COVERING THE SAME TIME PERIOD, ANY OTHER SERIOUS ADVERSE EXPERIENCE, WHICH, IN THE OPINION OF EITHER THE INVESTIGATOR, MRL, OR CBER, IS POSSIBLY, PROBABLY, OR DEFINITELY RELATED TO THE VACCINE, MUST

F. SAFETY MEASUREMENTS (CONT'D)

BE REPORTED ON THE VAERS FORM BY FAX WITHIN FIVE (5) WORKING DAYS OF RECEIPT OF THE APPROPRIATE MEDICAL RECORDS.

G. STUDY DURATION AND SUBMISSION OF DATA

Twenty-five thousand children ages 12 to 23 months of age will be enrolled over a 1 to 2 year period for safety evaluation, and followed for at least 6 months through computerized records of the HMO. The results of this study will be included as part of the annual reports on VARIVAX® post-marketing studies that MRL is required to make to the FDA for the 15 years after vaccine licensure. The study results will be included in the annual report on an ongoing basis as the results become available, with the exception of serious AE reporting for which FDA regulations require prompt reporting.

H. DATA ANALYSIS

Data collection, management and analysis for this study will be conducted by Kaiser Permanente, Northern California. Input regarding which adverse events are to be selected for comparative analysis will be provided by MRL and CBER, as outlined in the Study Procedures section.

1. Sample Size Considerations

The objective of the study is to determine if there are any rare serious adverse events that occur shortly after vaccination that are possibly related to the vaccine. With 25,000 children vaccinated, there is 90% [80%] chance that at least one adverse event will be reported in the study, given that the true incidence of the same event is at least 1 in 10,000 [6/100,000] vaccinations.

In addition the study is powered to detect an increased (or decreased) risk for a specific AE, using the three follow-up periods. Power calculations were performed at the 5% significance level. Since this is a post-marketing evaluation study, the underlying objective is to evaluate whether the safety of the vaccine under 'field' conditions is worse than that demonstrated in the completed clinical trials. As a result, statistical inference is made based on one-sided hypothesis testing.

The following table shows the power to detect an elevated risk for an AE with different rates of occurrence. As expected, when the incidence increases, smaller differences can be detected with similar power.

H. DATA ANALYSIS (CONT'D)

Table 1

Power to Detect Increased Risk for AEs

Period 1 AE Incidence (per 100,000)	Period 2 AE Incidence (per 100,000)	Risk Increase	Power (%)
4	40	10	86
10	50	5	92
20	80	4	95
50	150	3	99
100	200	2	95

2. Data Analysis Plan

Observed AE rates will be tabulated for all four at-risk windows[one treatment(T) and three controls(C)]: pre-vaccination period(C), first(T) and second(C) post-vaccination period and an independent, age-matched, vaccination free period(C). Confidence intervals for the relative risk of an AE in the treatment vs. each of the control periods will be calculated. For the two control groups emerging from the same cohort, the confidence intervals will be based on McNemar's method, where for the independent, age-matched control, they will be based on independent binomial sampling.

Due to the numerous constructed confidence intervals (one for each AE), it is expected that several apparent increases or decreases in risks of specific AE's may be seen by chance alone. Consequently, AEs with a reasonable possibility of a causal relationships will be identified by the principal investigators, with input from CBER and MRL. Incidence rates for the AEs possibly related to vaccination will be calculated based on the person-time distribution when necessary. However, since three rate comparisons will be made for every AE, even a relatively small number of AEs identified as possibly related to vaccine has a high probability of falsely suggesting a difference between groups when a true difference does not exist (elevated Type I error). Therefore, interpretation of the results of these comparisons will have to be made with the recognition of the overall pattern of the results, taking into account both biological and statistical results in a narrative discussion of all comparative tabulations.

II. ADMINISTRATIVE AND REGULATORY SECTIONS

A. LABELING, PACKAGING, STORAGE, AND RETURN OF CLINICAL SUPPLIES

Not applicable to this post-marketing study in which all vaccine is marketed product.

B. WORKSHEETS AND CASE REPORT FORMS

No work booklets/worksheets will be utilized for this study. Adverse events will be identified through the use of computer-stored records of pediatric emergency room visits, hospitalizations, and deaths.

C. STUDY DOCUMENTATION AND RECORDS RETENTION

Study Documentation includes sponsor-investigator correspondence and regulatory documents (e.g., signed protocol and amendments, and Ethics or Institutional Review Committee correspondence).

Government agency regulations and directives require that all study documentation pertaining to the conduct of a clinical trial must be retained by the investigator. These documents must be kept for a minimum of two years after notification by MRL of the final status of the investigation of which this protocol is a part, *or longer if requested by MRL.*

D. INFORMED CONSENT

KPMCP will obtain written informed consent for administration of the varicella vaccine at the request of a parent or guardian to all children aged 12 to 23 months of age who participate in the study. The signed, written consent will be stored in the medical records of the clinic at which the vaccine is administered. In addition, an information sheet describing the risks and benefits associated with the vaccine will be provided to parents or guardians requesting vaccination for their child before the written consent is signed and the child is vaccinated. The information sheet and consent form are attached in Appendices I and II, respectively.

D. INFORMED CONSENT (CONT'D)

Kaiser does not require informed consent to conduct computer database searches for health care utilization or vaccine administration of its members as long as individual patient confidentiality is maintained. In addition, Kaiser does not require informed consent to examine written medical records for medical care within the KPMCP. No informed consent will be obtained for Kaiser conducting computer database searches or examining medical records of its members. If it becomes necessary to review medical records for care delivered outside the KPMCP, the principal investigator will be responsible for attempting to obtain any necessary consent.

E. INSTITUTIONAL REVIEW BOARD (IRB)

The IRB will comply with all federal, state and local laws. Particular attention is drawn to the Food and Drug Administration Regulations for Institutional Review Boards (21 CFR, Part 56), and a copy of these regulations is attached to this protocol. The investigator is responsible for obtaining initial and continuing review (at intervals not less than once per year) of the study by an IRB. Written approval from the IRB must be forwarded to MRL before vaccine supplies will be shipped. The FDA regulations regarding IRB approval are attached in Appendix III.

Merck will be promptly advised of any regulatory inspection (relating to this study), of either the institution or the IRB. The investigator will promptly provide Merck with a copy of any inspection report.

F. CONFIDENTIALITY

1. Confidentiality of Data

By signing this protocol the investigator affirms to MRL that information furnished to the investigator by MRL will be maintained in confidence and such information will be divulged to the Institutional Review Board, Ethical Review Committee, or similar or expert committee; affiliated institution; and employees only under an appropriate understanding of confidentiality with such board or committee, affiliated institution and employees.

2. Confidentiality of Patient Records

By signing the protocol the investigator agrees that within local regulatory restrictions and ethical considerations MRL or any regulatory agency may consult and/or copy study documents (see Section II.G.) in order to verify study data.

G. COMPLIANCE WITH LAW, AUDIT, AND DEBARMENT

By signing this protocol, the investigator agrees to conduct the study in an efficient and diligent manner and in conformance with this protocol; generally accepted standards of good clinical practice; and all applicable Federal, state, and local laws, rules and regulations relating to the conduct of the clinical study.

The investigator shall prepare and maintain complete and accurate study documentation in compliance with good clinical practice standards and applicable Federal, state and local laws, rules and regulations.

Study documentation (see Section II.C.) will be promptly and fully disclosed to MRL by the investigator upon request and also shall be made available at the investigator's site upon request for inspection, copying, review and audit at reasonable times by representatives of MRL or any regulatory agencies. The investigator agrees to promptly take any reasonable steps that are requested by MRL as a result of an audit to cure deficiencies in the study documentation or data.

Persons debarred from conducting or working on clinical studies by any court or regulatory agency will not be allowed to conduct or work on studies sponsored by MRL. The investigator will immediately disclose in writing to MRL if any person who is involved in conducting the study is debarred, or if any proceeding for debarment is pending or, to the best of the investigator's knowledge, threatened.

H. PUBLICATIONS

Publications derived from this study should include input from the principal investigator, his or her colleagues, and the MRL personnel involved in the study. Such input should be reflected in publication authorship, and agreement regarding order of authors should be established before writing a manuscript..

MRL must have the opportunity to review all proposed abstracts, manuscripts or presentations regarding this study 60 days prior to submission for publication/presentation. Any information identified by MRL as confidential must be deleted prior to submission, it being understood that the results of this study are not to be considered confidential. MRL review can be expedited to meet publication guidelines.

III. SIGNATURES

A. SPONSOR'S REPRESENTATIVE

NAME	SIGNATURE	DATE
Paul Coplan, ScD MSPH Merck Monitor for the study		

B. INVESTIGATOR(S)

I agree to conduct this clinical study in accordance with the design and specific provisions of this protocol; deviations from the protocol are acceptable only with a mutually agreed upon protocol amendment. I also agree to report all information or data in accordance with the protocol, and, in particular, I agree to report any serious adverse experiences as defined in Section I.F. of this protocol.

TYPED NAME(S)	SIGNATURE	DATE
Steven Black, M.D. Primary Investigator(s)		
Henry Shinefield, M.D. Sub - Investigator(s)		

LIST OF REFERENCES

1. Weibel RE, Neff BJ, Kuter B, et al. Live attenuated varicella virus vaccine: efficacy trial in healthy children. *New England Journal of Medicine.* 1984;310:1409-1415.

2. Kuter BJ, Weibel RE, Guess HA, et al. Oka/Merck varicella vaccine in healthy children: final report of a 2-year efficacy study and 7 year follow-up studies. *Vaccine.* 1991;9:643-647.

3. Merck & Co. VARIVAX® package circular. 1995

Appendix I

Information about Varicella Vaccine

Chickenpox (varicella) is a highly contagious childhood disease in which crops of blisters and crusts appear on the skin and mucous membranes, such as in the mouth, eyes and, rarely, in the genital area. The disease is usually accompanied by fever. The harm caused by chickenpox ranges from a mild rash to a life-threatening disease complicated by encephalitis (an inflammation of the brain), pneumonia, other infections or, rarely, death. The rash may leave permanent scars on the skin. Shingles (varicella zoster) is caused by a recurrence of the same virus as chickenpox, and occurs from years to decades after the initial chickenpox infection.

The chickenpox or varicella vaccine is a live, attenuated (weakened) virus vaccine which is licensed by the FDA for use in children and adults. In children less than 13 years of age (up to their 13th birthday), a single dose is required. For adolescents older than 13 years or adults, two doses four to eight weeks apart are necessary. More than 90% of children will develop enough antibodies following immunization to be protected against the disease. Some children who receive varicella vaccine may develop a mild form of infection later. It is not known what protection the vaccine may afford against the development of shingles later in life. In children, the reported rate of zoster in vaccine recipients does not appear to exceed that of healthy children who have experienced natural varicella.

Vaccine Contraindications

The vaccine should not be given in the following situations:

- To a child or adult who has an illness or is taking a medicine that affects the immune system (such as high-dose corticosteroids)
- To any teenager or adult who may be pregnant or is planning on becoming pregnant within three months
- To those who have had a serious allergic reaction to neomycin

Since aspirin given during a natural chickenpox infection has been associated with a serious complication called Reye's Syndrome, that medication should not be given within six weeks of receiving varicella vaccine unless directed by a physician.

Less than five percent of children will develop fever following receipt of the vaccine. Between 3-5 percent may develop a mild rash either at the injection site or elsewhere on their bodies. Should you suspect that any more severe reaction has occurred, it should be reported to the child's physician or the advice center at your Kaiser facility.

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Appendix II

Consent Form

By signing below, I, the patient or the parent, legal guardian, or authorized adult for this child, acknowledge the following:	Al firmar abajo, yo, el paciente o el padre, la madre o el tutor legal, o el adulto encargado de este niño, reconozco lo siguiente:
1. I have received written documents describing these preventable diseases and the risks and benefits of the vaccines ordered on this form. These documents contain the information required by the federal government. It is emphasized that most experts agree that the known benefits of immunization far outweigh the possible side effects of the vaccines.	1. He recibido documentos por escrito describiendo estas enfermedades evitables y los riesgos y beneficios de las vacunas ordenadas en este formulario. Estos documentos contienen la información requerida por el gobierno federal. Se pone énfasis en que la mayoría de los expertos están de acuerdo en que los beneficios reconocidos de la inmunización sobrepasan en gran parte los posibles efectos secundarios de las vacunas.
2. I have been given appropriate information on how to evaluate and report any possible side effects of the vaccines. Any vaccine side effects should be reported to my child's /my own physician or advice center, or the federal government at 1-800-822-7967.	2. Me han dado información apropiada en cuanto a la evaluación de posibles efectos secundarios de las vacunas y cómo reportarlos. Cualquier efecto secundario de alguna vacuna deberá ser reportado a mi médico/al médico de mi niño o al centro de consejos, o al gobierno federal al 1-800-822-7967.
3. All of my questions have been adequately answered prior to my/my child receiving the vaccines.	3. Se han contestado todas mis preguntas a mi satisfacción antes de que yo o mi niño recibiéramos las vacunas.
4. I request that I/my child receive the routine immunizations indicated on the reverse side of this form. Should any circumstance arise where I or my own child's physician decide that any of the designated vaccines may be contraindicated or no longer wanted, I will be able to revoke the consent for that/those particular vaccine(s) after discussion with my own/child's physician.	4. Pido que yo/mi niño recibamos las inmunizaciones de rutina indicadas al reverso de este formulario. Si surgiera alguna circunstancia por la cual yo o el médico de mi niño decidiéramos que cualquiera de las vacunas designadas fuera contraindicada o no deseada, yo podré revocar mi consentimiento para esa(s) vacuna(s) después de discutirlo con mi médico/el médico de mi niño.

DATE/FECHA	NAME OF PATIENT, PARENT, LEGAL GUARDIAN OR AUTHORIZED ADULT NOMBRE DEL PACIENTE, EL PADRE, LA MADRE, EL TUTOR LEGAL O EL ADULTO ENCARGADO

Appendix III:

FOOD AND DRUG ADMINISTRATION REGULATIONS FOR INSTITUTIONAL REVIEW BOARDS (CODE OF FEDERAL REGULATIONS, TITLE 21, PART 56)

Subpart B — Organization and Personnel

56.107 IRB Membership

a. Each IRB shall have at least five members, with varying backgrounds to promote complete and adequate review of research activities commonly conducted by the institution. The IRB shall be sufficiently qualified through the experience and expertise of its members, and the diversity of the members, including consideration of race, gender, cultural backgrounds, and sensitivity to such issues as community attitudes, to promote respect for its advice and counsel in safeguarding the rights and welfare of human subjects. In addition to possessing the professional competence necessary to review the specific research activities, the IRB shall be able to ascertain the acceptability of proposed research in terms of institutional commitments and regulations, applicable law, and standards of professional conduct and practice. The IRB shall therefore include persons knowledgeable in these areas. If an IRB regularly reviews research that involves a vulnerable category of subjects, such as children, prisoners, pregnant women, or handicapped or mentally disabled persons, consideration shall be given to the inclusion of one or more individuals who are knowledgeable about and experienced in working with those subjects.

b. Every nondiscriminatory effort will be made to ensure that no IRB consists entirely of men or entirely of women, including the institution's consideration of qualified persons of both sexes, so long as no selection is made to the IRB on the basis of gender. No IRB may consist entirely of members of one profession.

c. Each IRB shall include at least one member whose primary concerns are in the scientific area and at least one member whose primary concerns are in nonscientific areas.

d. Each IRB shall include at least one member who is not otherwise affiliated with the institution and who is not part of the immediate family of a person who is affiliated with the institution.

e. No IRB may have a member participate in the IRB's initial or continuing review of any project in which the member has a conflicting interest, except to provide information requested by the IRB.

f. An IRB may, in its discretion, invite individuals with competence in special areas to assist in the review of complex issues which require expertise beyond or in addition to that available on the IRB. These individuals may not vote with the IRB.

Subpart C — IRB Functions and Operations

56.108 IRB Functions and Operations

In order to fulfill the requirements of these regulations, each IRB shall:

a. Follow written procedures: (1) For conducting its initial and continuing review of research and for reporting its findings and actions to the investigator and the institution; (2) for determining which projects require review more often than annually and which projects need verification from sources other than the investigator that no material changes have occurred since previous IRB review; (3) for ensuring prompt reporting to the IRB of changes in research activity; and (4) for ensuring that changes in approved research, during the period for which IRB approval has already been given, may not be initiated without IRB review and approval except where necessary to eliminate apparent immediate hazards to the human subjects.

b. Follow written procedures for ensuring prompt reporting to the IRB, appropriate institutional officials, and the Food and Drug Administration of: (1) Any unanticipated problems involving risks to human subjects or others; (2) any instance of serious or continuing noncompliance with these regulations or the requirements or determinations of the IRB; or (3) any suspension or termination of IRB approval.

c. Except when an expedited review procedure is used (see § 56.110), review proposed research at convened meetings at which a majority of the members of the IRB are present, including at least one member whose primary concerns are in nonscientific areas. In order for the research to be approved, it shall receive the approval of a majority of those members present at the meeting.

56.109 IRB Review of Research

a. An IRB shall review and have authority to approve, require modifications in (to secure approval), or disapprove all research activities covered by these regulations.

b. An IRB shall require that information given to subjects as part of informed consent is in accordance with § 50.25. The IRB may require that information, in addition to that specifically mentioned in § 50.25, be given to the subjects when in the IRB's judgment the information would meaningfully add to the protection of the rights and welfare of subjects.

c. An IRB shall require documentation of informed consent in accordance with § 50.27, except that the IRB may, for some or all subjects, waive the requirement that the subject or the subject's legally authorized representative sign a written consent form if it finds that the research presents no more than minimal risk of harm to subjects and involves no procedures for which written consent is normally required outside the research context. In cases where the documentation requirement is waived, the IRB may require the investigator to provide subjects with a written statement regarding the research.

d. An IRB shall notify investigators and the institution in writing of its decision to approve or disapprove the proposed research activity, or of modifications required to secure IRB approval of the research activity. If the IRB decides to disapprove a research activity, it shall include in its written notification a statement of the reasons for its decision and give the investigator an opportunity to respond in person or in writing.

e. An IRB shall conduct continuing review of research covered by these regulations at intervals appropriate to the degree of risk, but not less than once per year, and shall have authority to observe or have a third party observe the consent process and the research.