



MONTHLY MORBIDITY REPORT

EPIDEMIOLOGY

PUBLIC HEALTH STATISTICS

DEPARTMENT OF HEALTH AND HUMAN RESOURCES
OFFICE OF PREVENTIVE AND PUBLIC HEALTH SERVICES
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FETAL RISK ASSOCIATED WITH MATERNAL VACCINATION*

With the increased emphasis on vaccinating susceptible postpubertal woman, the need to have accurate information about the risks of the vaccine virus on the fetus becomes ever more important. The data are instrumental in formulating policy to vaccinate effectively this population and in providing accurate counsel to women who either were pregnant at the time of vaccination or conceived shortly after vaccination.

Concern about the potential teratogenicity of rubella vaccine viruses led to the institution in 1971 of a CDC register of women who received rubella vaccine within three months before or after the estimated date of conception. As of Dec. 31, 1984, a total of 237 susceptible women have given birth to 239 infants (see table). A total of 144 infants born to 142 women were exposed to the RA 27/3 strain of rubella vaccine. This vaccine was licensed for use in this country in 1979 and now is the only vaccine available.

Although the vaccine virus can cross the

placenta (3.0% for the RA 27/3 strain and 20.0% for the other strains) and rarely subclinically infect the fetus (1% to 2% for all strains), none of the infants born to susceptible vaccinees was born with defects compatible with CRS. Followup of the subclinically infected infants has extended from 17 months to nine years. All are growing and developing normally. Thus, following maternal vaccination, the observed risk of CRS-like defects occurring in these infants carried to term is zero. Since rubella vaccine virus (HPV - 77: DE-5) has been isolated from fetal eye tissue (obtained following induced abortion) with pathologic evidence of infection, the actual risk of CRS-like defects in any exposed fetus carried to term may not be zero. The theoretical maximum risk following RA 27/3 vaccination based on the 95% confidence limits of the binomial distribution with 144 observations is 2.6% (see table) (If all the infants exposed to any vaccine are included, the theoretical maximum risk drops to 1.6%.) in either case, the risk is far less than the 20% or greater risk associated with wild rubella virus infection of mothers during the first trimester of pregnancy.

*** NOTE:**

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This information continues to support the recommendation of vaccinating child-bearing age women without routine serologic or pregnancy testing. As stated

in the latest Immunization Practices Advisory Committee statement "reasonable practices in a rubella immunization program include (1) asking females if they are pregnant, (2) excluding them if they are, and (3) explaining the theoretical risks to the others." While vaccination during menses or after serologic screening may be appropriate in those private settings where followup vaccination can be assured, these practices are not generally advocated because they often require multiple patient visits, with a greater likelihood that patients will not return for vaccination.

While adequate counseling can reduce the risk of pregnancy for a three-month period by 90%, situations still occur where termination of pregnancy is a consideration. However, the available data also support the Immunization Practices Advisory Committee statement that the fetal risk associated with vaccination during pregnancy is so small as to be negligible. While any decision to terminate an affected pregnancy should be arrived at only after careful counseling between the woman and her physician, fetal exposure to the vaccine should not in and of itself constitute a reason to terminate the pregnancy. Nevertheless, because of the theoretical risk, women known to be pregnant should not be vaccinated.

Available data continue to indicate that rubella vaccine is safe and effective. The data support continued vaccination of all

young children as well as increased efforts to vaccinate susceptible adolescents and young adults, especially women. Vaccination of males should be encouraged in all settings where young adults congregate to decrease the risk of transmission of disease. There is no evidence at this time to support a mass reimmunization effort. Efforts must focus on vaccinating those never vaccinated, particularly susceptible females of childbearing age. As the highly immune cohorts of young children enter the childbearing age, CRS will disappear from this country. However, this process may take ten to 30 years, and potentially preventable cases of CRS - as well as miscarriages, stillbirths, and induced abortions resulting from congenital infection - will continue to occur. Only by more effective vaccination of susceptible postpubertal women can elimination of CRS be hastened.

The Immunization Section of the Office of Preventive and Public Health Services, Department of Health and Human Resources, request their office be notified in the event that a pregnant female is inadvertently vaccinated with rubella vaccine or becomes pregnant within three months of such vaccination. It is important that this individual be entered into an on-going evaluation system in order to accurately assess any possible risks. The office can be reached at 504-568-5007 or Line 621-5007.

Maximum Theoretical Risks of Congenital Rubella Syndrome (CRS)
Following Rubella Vaccination, by Vaccine Strain
United States, 1971-1984*

Vaccine Strain	No. of Susceptible Vaccinees	No. of Normal Live Births	Risk of CRS, ‰	
			Observed	Theoretical
RA 27/3	142	144**	0	0-2.6
Cendehill or HPV-77	94	94	0	0-3.8
Unknown	1	1	0	...
Total	237	239	0	0-1.6

* Through Dec 31, 1984. No women entered in the register after 1980 were vaccinated with Cendehill or HPV-77 vaccine.

**Includes two twin births.

SELECTED REPORTABLE DISEASES

(By Place of Residence)

STATE AND PARISH TOTALS	VACCINE PREVENTABLE DISEASES					ASEPTIC MENINGITIS	HEPATITIS - A AND UNSPECIFIED **	HEPATITIS B	LEGIONELLOSIS	MALARIA ***	MENINGOCOCCAL INFECTIONS	SHIGELLOSIS	TUBERCULOSIS, PULMONARY	TYPHOID FEVER	OTHER SALMONELLOSIS	UNDERNUTRITION SEVERE	GONORRHEA	SYPHILIS, PRIMARY AND SECONDARY	DISEASES IN ANIMALS (PARISH TOTALS CUMULATIVE, 1985)
	MEASLES	RUBELLA*	MUMPS	PERTUSSIS	TETANUS														
TOTAL TO DATE 1984	8	0	0	6	1	41	293	236	1	9	52	66	238	1	135	15	19540	933	47
TOTAL TO DATE 1985	42	0	2	12	0	56	153	166	3	1	25	30	271	0	157	3	16542	818	16
TOTAL THIS MONTH	0	0	0	2	0	10	28	15	0	0	1	7	34	0	29	0	1800	108	4
ACADIA						4	2										15	1	
ALLEN															1		13		
ASCENSION																	2	1	
ASSUMPTION												1					4		
AVOUELLES							1										7	2	3
BEAUREGARD																	4		
BIENVILLE																	7		
BOSSIER						1											25		
CADDO				1			7	2					2		2		240	5	1
CALCASIEU													1		1		72	10	
CALDWELL													1						
CAMERON																	1		
CATAHOULA															1		3	1	
CLAIBORNE																	3	2	
CONCORDIA																	1		
DESOTO																	1	2	2
EAST BATON ROUGE															1		174	6	2
EAST CARROLL																	1		
EAST FELICIANA																	2		
EVANGELINE							1					3			2		2	1	1
FRANKLIN													1				16	3	
GRANT																			
IBERIA																	15	3	
IBERVILLE																	1	2	
JACKSON																	1		
JEFFERSON						1							2		2		65	7	
JEFFERSON DAVIS								1					1				5		
LAFAYETTE							2						2				73	2	
LAFOURCHE												1	1				33		
LASALLE													1						
LINCOLN																	14		
LIVINGSTON															1				1
MADISON																	1		
MOREHOUSE							1								2		25		
NATCHITOCHE																	6		
ORLEANS						3	3	6					8		1		514	36	
OUACHITA				1			2	2									106	2	1
PLAQUEMINES																	3		
POINTE COUPEE																	2		
RAPIDES							1	1					3				87		6
RED RIVER															1		3		
RICHLAND													2				4		
SABINE																			1
ST. BERNARD							1								1		8		
ST. CHARLES																	11		
ST. HELENA													1				1		
ST. JAMES																	3		
ST. JOHN																	3		
ST. LANDRY												1	1		2		31	1	
ST. MARTIN							1										6	1	
ST. MARY							1						1				12		
ST. TAMMANY							1	2					1		4		15		
TANGIPAHOA											1		1		2		5		
TENSAS																			
TERREBONNE						1	1					1			3		48	6	
UNION							1						1		1		2	3	
VERMILION							1										7		
VERNON							2										73	1	
WASHINGTON													1		1				
WEBSTER													2						
WEST BATON ROUGE																	1		
WEST CARROLL																			
WEST FELICIANA																			4
WINN																			3
OUT OF STATE																	5		

* Includes Rubella, Congenital Syndrome.

** Includes 22 cases of Hepatitis Non A, and Non B.

*** Acquired outside United States unless otherwise stated.

From January 1, 1985 - September 30, 1985 the following cases were also reported:

2-Amebiasis; 1-Brucellosis; 1-Coccidioidomycosis; 2-Reye Syndrome; 2 Rocky Mountain Spotted Fever.

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