Louisiana



MONTHLY MORBIDITY REPORT

Provisional Statistics

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OFFICE OF PUBLIC HEALTH STATISTICS



STATEMENT ON MANAGEMENT OF CONTACTS OF STREPTOCOCCAL INFECTIONS

At the request of the Infectious Disease Committee of the Louisiana State Medical Society, the Louisiana Health and Human Resources Administration has formulated a statement on the management of contacts of streptococcal infection. The statement was developed by the Epidemiology Unit of the Louisiana Health and Human Resources Administration with the assistance of a group of infectious disease consultants representing both pediatric and adult medicine.

I. BACKGROUND INFORMATION

The hemolytic streptococci pathogenic for man include Lancefield's groups A, B, C, D, and G; but it is group A that accounts for the vast majority of human infections. Moreover, only group A organisms are known to cause rheumatic fever.

The most common sites of group A strepto-coccal infection in man are the nasopharynx and the skin. Virulence of a group A strepto-coccal infection can vary greatly as virulence in this organism is associated with the amount of M protein and hyaluronic acid elaborated on its surface. The amount of these substances varies from type to type. Immunity is correlated with the production of antibodies to the type-specific M protein. Furthermore, type-specific immunity appears to be lifelong. Reinfection with the same type of group A streptococcus is exceedingly

rare unless formation of anti-M antibody has been suppressed by prompt and adequate penicillin therapy.'

Investigations conducted recently have clarified some basic differences between cutaneous and pharyngeal streptococcal infections: (1) Acute rheumatic fever doesn't seem to follow streptococcal impetigo but rather seems to be almost always a complication of a pharyngeal infection. On the other hand, glomerulonephritis may follow streptococcal pharyngitis or impetigo; (2) "Skin strains" of group A streptococci frequently colonize the pharynx but do not usually produce severe pharyngitis."

Transmission of group A streptococcal infections occurs as a result of direct contact between infected persons or healthy carriers and susceptible persons. Significant extrahuman or animal reservoirs do not exist, except for

contaminated food or milk from a cow with mastitis. Studies show that organisms recovered from clothing, bedding, or house dust, although identifiable as group A, are non-infective.1

Children are primarily responsible for the spread of streptococcal disease. Spread throughout a household is common, with children being at highest risk of secondary infection (20-50%) and the adult male being at lowest risk (4-20%). Highest secondary attack rates are seen in large families (4 or more siblings) of low socioeconomic status or in large institutions with crowded living conditions. 1-5

Exceedingly mild or completely inapparent streptococcal throat infections account for a very large proportion of the total cases. 1,6,7 Persons with this type of "subclinical" infection can disseminate streptococci but are unlikely to develop rheumatic fever. 1,7

The epidemiology of scarlet fever is the same as that of any other group A streptococcal infection except that strains producing the infection produce an erythrogenic toxin. The toxin production is induced by a bacteriophage. Erythrogenic toxin may be produced by strains of varying degrees of virulence.1

The incidence of rheumatic fever seems to be declining; nevertheless, one study done in Nashville, Tennessee, from 1963 to 1965 reported the incidence to be 12.6 cases per 100,000 population of all ages.9 Rheumatic fever and rheumatic heart disease still remain an important problem in the U.S.A., with about 190,000 new cases of acute disease recognized nationwide annually.8

Once rheumatic fever is acquired, the chance of reactivating it following a streptococcal infection is many times greater than the acquiring of the disease itself. In other words, the attack rate of acute rheumatic fever per streptococcal infection is many times greater in the rheumatic subject than in the general population. 10 Moreover, in the opinion of many observers, in asymptomatic contacts without a history of allergy to penicillin and with positive throat cultures and a prior history of rheumatic fever, the risk of present or future reactions to penicillin is less than the risk of developing an attack of acute rheumatic fever. 10,11 Also there seems to be a tendency, from several studies, for rheumatic fever to be familial.

Culturing for group A streptococcus is fairly reliable. 12 Investigators do mention a 5 to 20 percent false negative testing. 2,13, 14 Culturing is available through the state laboratory and private laboratories.

II. RECOMMENDED MANAGEMENT OF CON-TACTS OF STREPTOCOCCAL PHARYNGITIS

It should be stressed that a contact is considered someone eating and sleeping in the same

household unit as the case. Contacts do not include routine school or day care associations. A <u>case</u> is a person who has streptococcal infection, with culture positive for beta-hemolytic streptococcus, group A.

Treatment with penicillin or an alternative antibiotic for persons with penicillin allergy is recommended for contacts who are ill or become ill with symptoms of streptococcal infections and are culture positive for group A streptococci during the two weeks following exposure to case. If culturing is not done, treatment is at the discretion of the physician. It is recommended that culturing be performed in every symptomatic

Asymptomatic contacts need not be treated. Currently, there are not enough data to support completely either the culturing of asymptomatic contacts or the treatment of asymptomatic contacts. 15 Therefore management of asymptomatic contacts is at the discretion of the consulted physician. It is recommended, however, that if treatment is contemplated, pharyngeal cultures be taken and only those persons with a positive culture be considered for treatment.

Usual treatment of streptococcal pharyngitis is a single intramuscular injection of benzathine penicillin G. The adult dose is 1.2 million units, and it will provide protection against reinfection for about 30 days. For young children, 600,000 to 900,000 units may be substituted. Oral penicillin therapy may be less effective because of patient non-compliance and irregular absorption. In the patient with penicillin allergy, erythromycin can be used. 12

III. IMPETIGO

A substantial proportion of streptococcal infection in children is associated with impetigo. Systemic treatment of impetigo, as for streptococcal pharyngitis, eradicates the infection, but may not prevent glomerulonephritis. Subclinical forms of post-streptococcal acute glomerulonephritis may be detected by signs of hematuria, proteinuria, and hypertension. If adequate systemic antibiotic therapy is provided for children with impetigo, topical antibiotic therapy is superfluous and unnecessary. 16

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EPIDEMIOLOGY BRIEFS:



SWINE INFLUENZA: The planning for the state's mass immunization program has begun. Although still in the early stages, we do know that the swine influenza vaccinations for the general public will begin in September. For the chronically ill or elderly, a bivalent vaccine including swine antigen and A/Victoria antigen will be available starting July. Policy for distributing the vaccines is still being formulated.

ST. LOUIS ENCEPHALITIS: St. Louis Encephalitis disease may be epidemic again this summer. Physicians are urged (1) to report any cases of viral meningitis and/or encephalitis to local health units and (2) to draw acute and convalescent serum on all suspect cases. Serum should be sent to the Division of Health's Laboratory in New Orleans for testing (there is no charge). Please label each specimen with name and address of patient and physician and date that serum was taken.

National data for 1975 estimate 1,367 confirmed cases of St. Louis Encephalitis disease (four-fold change in serum titers between acute and convalescent serum), 547 presumptive cases (only single serum submitted), and 95 deaths. In Louisiana there were 7 confirmed cases, 6

presumptive cases, and I death.

PESTICIDE IN RABBIT FEED IN LOUISIANA: A serious mistake occurred in the preparation of rabbit feed that is manufactured in a Baton Rouge facility. The feed was accidentally adulterated with chlordane pesticide; two batches, 2,000 lbs. each, prepared in late March and early April were

affected. This feed has been selling in 50 lbs. sacks at both wholesale and retail outlets within a 125 mile radius of Baton Rouge, Rabbits fed this product should not be offered as food.

Chlordane is primarily a neurotoxin and can lead to death. The levels found in rabbits that have consumed this feed have been very high; these rabbits, if eaten, could fatally poison a human. Any suspect feed or rabbits should be reported to the local health unit.

BOTULISM ALERT: "Sweet Cherry Peppers" in 1 gallon containers that are manufactured by Dreher Pickle Co., Denver, Colorado, and display on their lids the identifying codes 1-MAR-1977, MAR-197, or MAR-1977D, have been linked to an outbreak of botulism involving 4 people who ate this product at the Ramada Inn in Elk City, Oklahoma, between April 13-15. Any individuals who ate these peppers at this Ramada Inn should contact their health unit. The product with these 3 identification codes has been withdrawn from the market.

IN SOUTHEASTERN MEASLES SPREADS LOUISIANA: Cases of measles (rubeola) continue to occur in the New Orleans area. Additionally, Ascension and St. Charles parishes are reporting cases. Over 120 cases have been reported; most are among the unimmunized preschool population, with about 10 percent under 1 year of age. During this epidemic period the age limit for measles immunization in the New Orleans area has been lowered to six months of age, with reimmunization recommended following the first birthday.

SELECTED REPORTABLE DISEASES

(By Place of Residence)

STATE AND PARISH TOTALS	TIC MENINGITIS	DIPHTHERIA	ENCEPHALITIS	ENCEPHALITIS, POST INFECTIOUS	HEPATITIS A AND UNSPECIFIED	TITIS B	TUBERCULOSIS, PULMONARY	MENINGOCOCCAL	PERTUSSIS	ES IN ANIMALS	.WT	SEVERE UNDERNUTRITION	SHIGELLOSIS	TYPHOID FEVER	OTHER SALMONELLOSIS	NUS	LES	GONORRHEA	SYPHILIS, PRIMARY AND SECONDARY
Reported Morbidity April, 1976	ASEPTIC	PIPH	ENCE	POST	HEPA	HEPATITIS	TUBE	MENII	PERT	RABIES	RUBELLA*	SEVE	SHIG	TYPH	OTHE	TETANUS	MEASLES	GONC	SYPH
TOTAL TO DATE 19 75	28	0	8	6	175	64	176	18	12	2	172	8	47	0	47	3	0	7276	180
TOTAL TO DATE 19 76	17	0	5	3	153	42	184	17	1	0	72	7	18	0	27	1	113	6434	191
TOTAL THIS MONTH	1	0	0	0	34	8	49	2	0	0	1	3	1	0	6	0	95	1463	25
ACADIA					4		100											15	
ALLEN																		3	
ASCENSION						-												1	4
ASSUMPTION AVOYELLES				-		. 1				-								<u>1</u> 5	1
BEAUREGARD																		2	
BIENVILLE												-						11	
BOSSIER					1													9	
CADDO					1		5									-		90	1
CALCASIEU CALDWELL							2	-									1	69	
CALDWELL				_			1						-			-		2	
CATAHOULA																		2	
CLAIBORNE																		4 5	
CONCORDIA					2		2												
DESOTO							1							_	4			5	-
EAST BATON ROUGE EAST CARROLL				-	2		3								1			110	1
EAST FELICIANA							-	-										2	
EVANGELINE																			
FRANKLIN				N														2	
GRANT					1							١.						1	
IBERIA				_			1_											9 12	
JACKSON JACKSON																		1	
JEFFERSON					9	3	2	2					-		2	==	8	64	3
JEFFERSON DAVIS																		10	
LAFAYETTE							4					200						23	2
LAFOURCHE			ļ.,,	1			1						-				1	21	
LASALLE		-	-	-	1			-		_					_			32	-
LIVINGSTON					1		1											4	
MADISON					1													8	
MOREHOUSE							2											6	1
NATCHITOCHES													_					13	40
ORLEANS	1			_	3	2	6						1		3		67	523 72	10
OUACHITA PLAQUEMINES	-				1		1											1	
POINTE COUPEE				-													1		
RAPIDES					1		2											52	
RED RIVER																		3	
RICHLAND							2					-	_					3	
SABINE ST. BERNARD					1		2				1			-		-	15	5	
ST. BERNARD ST. CHARLES					1						1						13	3	
ST. HELENA																		2	
ST. JAMES								-										4	
ST. JOHN							_											5 10	
ST. LANDRY							1											7	
ST. MARTIN ST. MARY						1	3		-			-		AT.		-		4	
ST. TAMMANY						T	,										2	31	1
TANGIPAHOA					2		1				_	2						15	
TENSAS																		4	
TERREBONNE					2		2								-			10	1
UNION				-			1											4	
VERMILION VERNON	1		-	-		1	1									-		40	4
WASHINGTON					1	•												15	
WEBSTER												7			-			37	
WEST BATON ROUGE							1											9	
WEST CARROLL							1					1		_				48	
WEST FELICIANA												T			-			2	
OUT OF STATE			-	-		-												1	