Louisiana

LOUISIANA HEALTH AND HUMAN RESOURCES ADMINISTRATION
DIVISION OF HEALTH

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MONTHLY MORBIDITY REPORT

Provisional Statistics

FROM THE

OFFICE OF PUBLIC HEALTH STATISTICS

Reported Morbidity
January, 1975

RECOMMENDED TREATMENT SCHEDULES FOR GONORRHEA

Note: Physicians are cautioned to use no less than the recommended dosages of antibiotics.

UNCOMPLICATED GONOCOCCAL INFECTIONS IN MEN AND WOMEN

Drug Regimen of Choice

Aqueous procaine penicillin G (APPG) 4.8 million units intramuscularly divided into at least 2 doses and injected at different sites at one visit, together with 1 gm of probenecid by mouth just before the injections.

Alternative Regimens

A. Patients in whom oral therapy is preferred:
   Ampicillin 3.5 gm by mouth, together with 1 gm probenecid by mouth administered at the same time. There is evidence that this regimen may be slightly less effective than the recommended APPG regimen.

B. Patients who are allergic to the penicillins or probenecid (i.e. allergy to penicillin, ampicillin, probenecid, or previous anaphylactic reaction):
   1. Tetracycline hydrochloride, 1.5 gm initially by mouth, followed by 0.5 gm by mouth 4 times per day for 4 days (total dosage 9.5 gm). Other tetracyclines are not more effective than tetracycline hydrochloride. All tetracyclines are ineffective as single-dose therapy.
   2. Spectinomycin hydrochloride, 2 gm intramuscularly in 1 injection.

Treatment of Sexual Partners

Men and women with known recent exposure to gonorrhea should receive the same treatment as those known to have gonorrhea. Male sex partners of persons with gonorrhea must be examined and treated because of the high prevalence of nonsymptomatic urethral gonococcal infection in such men.

Follow-up

Follow-up urethral and other appropriate cultures should be obtained from men, and cervical, anal, and other appropriate cultures should be obtained from women, 7 to 14 days after completion of treatment.

Treatment Failures

Most recurrent infection after treatment with the recommended schedules is due to reinfection. True treatment failure after therapy with penicillin, ampicillin, or tetracycline should be treated with 2 gm of spectinomycin intramuscularly.

Postgonococcal Urethritis

Tetracycline 0.5 gm 4 times a day by mouth, for at least 7 days.

Pharyngeal Infection

Pharyngeal gonococcal infections may be more difficult to treat than anogenital gonorrhea. Posttreatment cultures are essential follow-up for pharyngeal infection. The schedules of ampicillin and spectinomycin recommended for anogenital gonorrhea are ineffective in pharyngeal gonorrhea. Patients whose infection is not eradicated after treatment with 4.8 million units of APPG plus 1 gm of probenecid may be treated with 9.5 gm of tetracycline in the dosage schedule outlined above (Alternative Regimens).

Syphilis

All patients with gonorrhea should have a serologic test for syphilis at the time of diagnosis. Seronegative patients without clinical signs of syphilis who are receiving the recommended parenteral penicillin schedule need not have follow-up serologic tests for syphilis. Patients treated with ampicillin, spectinomycin, or tetracycline should have a follow-up serologic test after 3 months to detect inadequately treated syphilis.

Patients with gonorrhea who also have syphilis should be given additional treatment appropriate to the stage of

SOURCE: *Morbidity and Mortality Weekly Report*, Vol. 23, No. 40, Center for Disease Control, D.H.E.W., Oct. 5, 1974, pp. 341-348.

syphilis.

Not Recommended

Although long-acting forms of penicillin (such as benzathine penicillin G) are effective in syphilotherapy, they have **NO** place in the treatment of gonorrhea. Oral penicillin preparations such as penicillin V are not recommended for the treatment of gonococcal infection.

TREATMENT OF UNCOMPLICATED GONORRHEA IN PREGNANT PATIENTS

A. For women who are not allergic to penicillin:

Use the regimens of APPG plus probenecid or use ampicillin plus probenecid as defined above.

B. For pregnant patients who are allergic to penicillins (Note: there are several possible alternative regimens, each of which has potential disadvantages):

1. Erythromycin, 1.5 gm orally, followed by 0.5 gm 4 times a day for 4 days for a total of 9.5 gm. This regimen is safe for mother and fetus, but its efficacy has not been established. Erythromycin estolate should not be used in patients with underlying liver disease.
2. Cefazolin, 2 gm intramuscularly, with 1 gm of probenecid. Because of the possibility of cross-allergenicity between penicillins and cephalosporins, this regimen should not be used in patients with a history of penicillin anaphylaxis.
3. Spectinomycin, 2 gm intramuscularly, is an effective dose, but safety for the fetus has not been established.

Contraindicated

Tetracycline should not be used for uncomplicated gonococcal infection in pregnant women because of potential toxic effects for mother and fetus.

ACUTE SALPINGITIS (PELVIC INFLAMMATORY DISEASE)

The diagnosis of acute salpingitis should be considered in women with acute lower abdominal pain and adnexal tenderness on pelvic examination. Since there are no completely reliable clinical criteria on which to distinguish gonococcal from nongonococcal salpingitis, endocervical cultures for *Neisseria gonorrhoeae* are essential in such patients. Therapy, however, should be initiated immediately, without waiting for the results of the cultures.

A. *Hospitalization.* It should be strongly considered for women with suspected salpingitis in these situations:

1. Uncertain diagnosis, where surgical emergencies must be excluded
2. Suspicion of pelvic abscess
3. Pregnant patients with salpingitis
4. Inability of the patient to follow an outpatient regimen of oral medication, especially because of nausea and vomiting
5. Failure to respond to outpatient therapy

B. *Antimicrobial Agents.* Controlled studies of the treatment of acute salpingitis are not available. Initial management must **AT LEAST** be adequate for gonococcal salpingitis. These regimens are known to be adequate for the treatment of gonococcal salpingitis:

1. Outpatients
   a. 1.5 gm tetracycline hydrochloride given as a single oral loading dose, followed by 500 mg taken orally 4 times a day for 10 days.
   b. APPG 4.8 million units intramuscularly, divided into at least 2 doses and injected at different sites at one visit **OR** 3.5 gm of oral ampicillin. One gm of oral probenecid is given along with either penicillin or ampicillin, and both are followed by 500 mg of ampicillin taken orally 4 times a day for 10 days.
2. Hospitalized patients
   a. Aqueous crystalline penicillin G 20 million units given intravenously each day until clear-cut improvement occurs, followed by 500 mg of ampicillin taken orally 4 times a day to complete 10 days of therapy. The need for additional or alternative antibiotics for the treatment of nongonococcal salpingitis requires further study. Since it is impossible to distinguish gonococcal from nongonococcal salpingitis clinically, many physicians also use an aminoglycoside in addition to penicillin and/or antibiotics which are effective against *Bacteroides fragilis* as initial therapy.
   b. Tetracycline hydrochloride 500 mg, given intravenously 4 times a day until improvement occurs, followed by 500 mg taken orally 4 times a day to complete 10 days of therapy. This regimen should not be used for pregnant women or for patients with renal failure.
3. Failure to improve on the recommended regimens does not necessarily indicate the need for stepwise additional antibiotics, but requires reassessment of the possibility of other diagnoses and of the specific microbial etiology.

C. The effect of the removal of an intrauterine device on the response of acute salpingitis to antimicrobial therapy and on the risk of recurrent salpingitis requires further study.

D. **Adequate treatment of women with acute gonococcal salpingitis must include examination and appropriate treatment of their male sex partners because of the high prevalence of nonsymptomatic urethral gonococcal infection in such men. Failure to treat male sex partners is a major cause of recurrent gonococcal salpingitis.**

E. Follow-up of patients with acute salpingitis is essential. All patients should receive repeat pelvic examinations and cultures for *N. gonorrhoeae* after treatment.

DISSEMINATED GONOCOCCAL INFECTION

A. Equally effective treatment schedules in the arthritis-dermatitis syndrome include:

1. Aqueous crystalline penicillin G, 10 million units intravenously per day for 3 days or until there is significant clinical improvement. This may be followed with ampicillin, 500 mg 4 times a day orally to complete 7 days of antibiotic treatment.
2. Ampicillin, 3.5 gm orally, plus probenecid 1 gm, followed by ampicillin, 500 mg 4 times a day orally for at least 7 days.

B. In penicillin- and/or probenecid-allergic patients:

1. Tetracycline 1.5 gm orally followed by 500 mg 4 times a day orally for at least 7 days. Tetracycline should not be used for complicated gonococcal infection in pregnant women because of potential toxic

effects for mother and fetus.

2. Erythromycin 0.5 gm intravenously every 6 hours for at least 3 days.

Additional measures

1. Hospitalization is indicated in patients who are unreliable, have uncertain diagnosis, or have purulent joint effusions or other complications.
2. Immobilization of the affected joint(s) appears helpful. Repeated aspirations and saline irrigations appear beneficial, but controlled studies of these procedures have not been performed. Open drainage of joints other than the hip is now generally discouraged in patients with gonococcal arthritis.
3. Intra-articular injection of penicillin is unnecessary, since penicillin levels in the synovial fluid of inflamed joints approximate serum levels; furthermore, intra-articular injection per se may produce a toxic synovitis.

D. Meningitis and endocarditis due to the gonococcus require high-dose intravenous penicillin therapy (at least 10 million units per day) for longer periods: usually at least 10 days for meningitis and 3-4 weeks for endocarditis.

GONOCOCCAL INFECTION IN PEDIATRIC PATIENTS

Pediatric patients encompass those from birth to adolescence. When a child is postpubertal and/or over 100 pounds, he or she should be treated with dosage regimens as defined above for adults.

The efficacy of therapeutic regimens for uncomplicated and complicated gonococcal infections of childhood is unproven at present.

With gonococcal infection in children, the possibility of child abuse must be considered.

Prevention of Neonatal Infection

All pregnant women should have endocervical cultures examined for gonococci as an integral part of prenatal care.

Prevention of Gonococcal Ophthalmia

A. One percent silver nitrate (do not irrigate with saline, as this may reduce efficacy).

B. Ophthalmic ointments containing tetracycline, erythromycin, or neomycin are also probably effective.

C. **Not Recommended**: Bacitracin ointment (not effective) and penicillin drops (sensitizing).

Management of Infants Born to Mothers With Gonococcal Infection

Orogastric and rectal cultures should be taken from all patients. Blood cultures should be taken if septicemia is suspected. Aqueous crystalline penicillin G, 50,000 units/kg/day should be administered in 2 daily doses intravenously if cultures or Gram-stained smears reveal gonococci. The duration of therapy should be determined by clinical response. In suspected septicemia, an aminoglycoside should also be given.

Neonatal Disease

A. Gonococcal ophthalmia: Patient should be hospitalized. Antimicrobial agents: Aqueous crystalline penicillin G 50,000 units/kg/day in 2 or 3 doses intravenously for 7 days **PLUS** frequent saline irrigations and instillation of penicillin, tetracycline, or chloramphenicol eyedrops.

B. Complicated infection: Arthritis and septicemia should be treated by hospitalization and administration of aqueous crystalline penicillin G 75,000-100,000 units/kg/day in 4 doses or procaine penicillin G 75,000-100,000 units/kg/day in 2 doses for 7 days. Meningitis should be treated with aqueous crystalline penicillin G 100,000 units/kg/day, divided into 2 or 3 intravenous doses a day and continued for at least 10 days.

Childhood Disease

Gonococcal ophthalmia should be treated with hospitalization and by the administration of aqueous crystalline penicillin G intravenously 75,000-100,000 units/kg/day in 4 doses or procaine penicillin G intramuscularly 75,000-100,000 units/kg/day in 2 doses for 7 days **PLUS** saline irrigations and instillation of penicillin, tetracycline, or chloramphenicol eyedrops. Topical antibiotics **alone** are **NOT** recommended in therapy of gonococcal ophthalmitis. The source of the infection must be identified.

Uncomplicated vulvovaginitis and urethritis usually do not require hospitalization. Both may be treated at one visit with APPG 75,000-100,000 units/kg intramuscularly and probenecid 25 mg/kg by mouth. Topical and systemic estrogen therapy are of no benefit in vulvovaginitis. All patients should have follow-up cultures, and the source of infection should be identified, examined, and treated.

Infection complicated by peritonitis or arthritis should be treated by hospitalization and administration of aqueous crystalline penicillin G intravenously 75,000-100,000 units/kg/day in 4 doses or procaine penicillin G 75,000-100,000 units/kg/day intramuscularly in 2 doses for 7 days.

Treatment of patients with allergy to penicillin: Patients under 6 years of age should be treated with erythromycin 40 mg/kg/day in 4 doses by mouth for 7 days for uncomplicated disease. Complicated disease should be treated with cephalothin 60-80 mg/kg/day in 4 doses intravenously for 7 days. Patients older than 6 may be treated with an oral regimen of tetracycline 25 mg/kg as an initial dose followed by 40-60 mg/kg/day in 4 doses for 7 days or an intravenous regimen of tetracycline 15-20 mg/kg/day in 4 doses for 7 days.

SELECTED REPORTABLE DISEASES

(By Place of Residence)

STATE AND PARISH TOTALS Reported Morbidity January, 1975	ASEPTIC MENINGITIS	DIPHTHERIA	ENCEPHALITIS	ENCEPHALITIS, POST INFECTIOUS	HEPATITIS A AND UNSPECIFIED	HEPATITIS B	TUBERCULOSIS, PULMONARY	MENINGOCOCCAL INFECTIONS	PERTUSSIS	RABIES IN ANIMALS	RUBELLA*	SEVERE UNDERNUTRITION	SHIGELLOSIS	TYPHOID FEVER	OTHER SALMONELLOSIS	TETANUS	MEASLES	GONORRHEA	SYPHILIS, PRIMARY AND SECONDARY
TOTAL TO DATE 19 74	5	0	0	0	54	18	63	7	0	1	1	2	4	0	16	0	2	2167	60
TOTAL TO DATE 19 75	2	0	1	0	30	7	33	4	2	0	25	0	13	0	10	0	0	1796	60
TOTAL THIS MONTH	2	0	1	0	30	7	33	4	2	0	25	0	13	0	10	0	0	1796	60
ACADIA							2											2	
ALLEN																		2	
ASCENSION							1											7	
ASSUMPTION																		2	
AVOYELLES							2	1										17	
BEAUREGARD																		3	
BIENVILLE																		3	
BOSSIER					1										1			10	
CADDO							4						2		2			137	2
CALCASIEU					1		1								1			87	1
CALDWELL																		2	
CAMERON																			
CATAHOULA							1											1	
CLAIBORNE																		8	
CONCORDIA					1		1											4	
DESOTO																		5	1
EAST BATON ROUGE					3		1						1					85	4
EAST CARROLL																		7	
EAST FELICIANA							1											3	
EVANGELINE							1												1
FRANKLIN																		8	
GRANT																		6	
IBERIA																		19	
IBERVILLE																		10	
JACKSON					1													2	
JEFFERSON						1	2											126	5
JEFFERSON DAVIS																		8	
LAFAYETTE																		29	
LAFOURCHE																		18	1
LASALLE							1												
LINCOLN																		22	1
LIVINGSTON							1											1	4
MADISON																		4	1
MOREHOUSE							1											12	
NATCHITOCHES																		23	
ORLEANS	2		1		13	6		2	2		1		8		5			619	29
OUACHITA					1													60	3
PLAQUEMINES																		3	
POINTE COUPEE																		7	
RAPIDES					2													96	
RED RIVER																		3	
RICHLAND							2											4	
SABINE																			
ST. BERNARD					1		1				2							2	
ST. CHARLES							1											3	
ST. HELENA																		4	
ST. JAMES							1											3	
ST. JOHN																		4	1
ST. LANDRY							2											18	
ST. MARTIN																		4	
ST. MARY																		12	1
ST. TAMMANY					1		1											39	
TANGIPAHOA					3		1											35	3
TENSAS																			1
TERREBONNE							1											21	
UNION																		6	
VERMILION							1											5	
VERNON					2			1			22		1		1			84	
WASHINGTON																		10	
WEBSTER							1						1					38	1
WEST BATON ROUGE							1											8	
WEST CARROLL																		2	
WEST FELICIANA																		30	
WINN																		2	
OUT OF STATE																		1	

* Includes Rubella, Congenital Syndrome