CENTER FOR DISEASE CONTROL

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MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

Current Trends

GONORRHEA
CDC Recommended Treatment Schedules,* 1979

Note: Physicians are cautioned to use no less than the recommended dosages of antibiotics. The major change from the 1974 published treatment schedule is that there are now 4 drug regimens which can be used for the treatment of uncomplicated gonorrhea.

UNCOMPLICATED GONOCOCCAL INFECTIONS IN MEN AND WOMEN

Drug Regimens of Choice

Aqueous procaine penicillin G (APPG): 4.8 million units injected intramuscularly at 2 sites, with 1.0 g of probenecid by mouth. **OR**

Tetracycline hydrochloride†: 0.5 g by mouth 4 times a day for 5 days (total dosage 10.0 g). Other tetracyclines are not more effective than tetracycline hydrochloride. All tetracyclines are ineffective as a single-dose therapy. **OR**

Ampicillin or amoxicillin: Ampicillin, 3.5 g, or amoxicillin, 3.0 g, either with 1 g probenecid by mouth. Evidence shows that these regimens are slightly less effective than the other recommended regimens.

Patients who are allergic to the penicillins or probenecid should be treated with oral tetracycline as above. Patients who cannot tolerate tetracycline may be treated with spectinomycin hydrochloride, 2.0 g, in 1 intramuscular injection.

Special Considerations

Single-dose treatment is preferred in patients who are unlikely to complete the multiple-dose tetracycline regimen. The APPG regimen is preferred in men with anorectal infection.

Pharyngeal infection is difficult to treat. High failure rates have been reported with ampicillin and spectinomycin.

Tetracycline treatment results in fewer cases of postgonococcal urethritis in men. It may eliminate coexisting chlamydial infections in men and women.

Patients with incubating syphilis (seronegative, without clinical signs of syphilis) are likely to be cured by all the above regimens except spectinomycin. All patients should have a serologic test for syphilis at the time of diagnosis.

*These recommendations were established after deliberation with these therapy consultants: HC Neu, MD, College of Physicians and Surgeons, Columbia University; EH Braff, MD, San Francisco Dept of Public Health; G Cunningham, MD, Southwestern Medical School, Dallas; KK Holmes, MD, PhD, USPHS Hospital, Seattle; F Judson, MD, Dept of Health and Hospitals, Denver; W McCormack, MD, State Laboratory Institute, Boston; EM Mears, Jr, MD, New England Medical Center, Boston; JD Nelson, MD, Southwestern Medical School, Dallas; M Nelson, MD, Orange County, Calif.; SM Sgroi, MD, Suffield, Conn.; F Sparling, MD, School of Medicine, The University of North Carolina, Chapel Hill; Lt. Col. EC Tramont, Walter Reed Army Medical Center, Washington, D.C.

†Food and some dairy products interfere with absorption. Oral forms of tetracycline should be given 1 hour before or 2 hours after meals.

Gonorrhea – Continued

Patients with gonorrhea who also have syphilis or are established contacts of syphilis patients should be given additional treatment appropriate to the stage of syphilis.

Treatment of Sexual Partners

Men and women exposed to gonorrhea should be examined, cultured, and treated at once with one of the regimens above.

Follow-up

Follow-up cultures should be obtained from the infected site(s) 3-7 days after completion of treatment. Cultures should be obtained from the anal canal of all women who have been treated for gonorrhea.

Treatment Failures

The patient who fails therapy with penicillin, ampicillin, amoxicillin, or tetracycline should be treated with 2.0 g of spectinomycin intramuscularly.

Most recurrent infections after treatment with the recommended schedules are due to *reinfection* and indicate a need for improved contact tracing and patient education. Since infections by penicillinase (β-lactamase)-producing *Neisseria gonorrhoeae* is a cause of treatment failure, posttreatment isolates should be tested for penicillinase production.

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.

PENICILLINASE-PRODUCING *NEISSERIA GONORRHOEAE* (PPNG)

Patients with uncomplicated PPNG infections and their sexual contacts should receive spectinomycin, 2.0 g, intramuscularly in a single injection. Because gonococci are very rarely resistant to spectinomycin and reinfection is the most common cause of treatment failure, patients with positive cultures after spectinomycin therapy should be re-treated with the same dose.

A PPNG isolate that is resistant to spectinomycin may be treated with cefoxitin, 2.0 g, in a single intramuscular injection, with probenecid, 1.0 g, by mouth.

TREATMENT IN PREGNANCY

All pregnant women should have endocervical cultures for gonococci as an integral part of the prenatal care at the time of the first visit. A second culture late in the third trimester should be obtained from women at high risk of gonococcal infection.

Drug regimens of choice are APPG, ampicillin, or amoxicillin, each with probenecid as described above.

Women who are allergic to penicillin or probenecid should be treated with spectinomycin.

Refer to the sections on acute salpingitis and disseminated gonococcal infections for the treatment of these conditions during pregnancy. Tetracycline should not be used in pregnant women because of potential toxic effects for mother and fetus.

ACUTE SALPINGITIS (PELVIC INFLAMMATORY DISEASE)

There are no reliable clinical criteria to distinguish gonococcal from nongonococcal salpingitis. Endocervical cultures for *N. gonorrhoeae* are essential. Therapy should be initiated immediately.

Hospitalization

In the following situations, hospitalization should be strongly considered: uncertain diagnosis, in which surgical emergencies such as appendicitis and ectopic pregnancy must be excluded; suspicion of pelvic abscess; severe illness; pregnancy; inability of patient to follow or tolerate an outpatient regimen; or failure of patient to respond to outpatient therapy.

Gonorrhea — Continued

Antimicrobial Agents

Outpatients: *Tetracycline**: 0.5 g, taken orally 4 times a day for 10 days. This regimen should not be used for pregnant patients. **OR** *APPG*: 4.8 million units intramuscularly, ampicillin, 3.5 g, or amoxicillin, 3.0 g, each with probenecid, 1.0 g. Either regimen is followed by ampicillin, 0.5 g, or amoxicillin, 0.5 g, orally 4 times a day for 10 days.

Hospitalized patients: *Aqueous crystalline penicillin G*: 20 million units given intravenously each day until improvement occurs, followed by ampicillin, 0.5 g, orally 4 times a day to complete 10 days of therapy. **OR** *Tetracycline**: 0.25 g, given intravenously 4 times a day until improvement occurs, followed by 0.5 g orally 4 times a day to complete 10 days of therapy. This regimen should not be used for pregnant women. The dosage may have to be adjusted if renal function is depressed.

Since optimal therapy for hospitalized patients has not been established, other antibiotics in addition to penicillin are frequently used.

Special Considerations

Failure of the patient to improve on the recommended regimens does not indicate the need for stepwise additional antibiotics, but requires clinical reassessment.

The intrauterine device is a risk factor for the development of pelvic inflammatory disease. The effect of removing an intrauterine device on the response of acute salpingitis to antimicrobial therapy and on the risk of recurrent salpingitis is unknown.

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

Follow-up of patients with acute salpingitis is essential during and after treatment. All patients should be recultured for *N. gonorrhoeae* after treatment.

ACUTE EPIDIDYMITIS

Acute epididymitis can be caused by *N. gonorrhoeae, Chlamydia*, or other organisms. If gonococci are demonstrated by Gram stain or culture of urethral secretions, treatment should be APPG, 4.8 million units, ampicillin, 3.5 g, or amoxicillin, 3.0 g, each with probenecid, 1.0 g. Either regimen is followed by ampicillin, 0.5 g, or amoxicillin, 0.5 g, orally 4 times a day for 10 days, OR tetracycline,* 0.5 g, orally 4 times a day for 10 days.

If gonococci are not demonstrated, the above tetracycline regimen should be used.

DISSEMINATED GONOCOCCAL INFECTION

Treatment Schedules

There are several, equally effective treatment schedules in the arthritis-dermatitis syndrome. These include the following.

Ampicillin/amoxicillin: ampicillin, 3.5 g, or amoxicillin, 3.0 g, orally, each with probenecid, 1.0 g, followed by ampicillin 0.5 g, or amoxicillin, 0.5 g, 4 times a day orally for 7 days. **OR**

Tetracycline*: 0.5 g, orally 4 times a day for 7 days. Tetracycline should not be used for complicated gonococcal infection in pregnant women. **OR**

Spectinomycin: 2.0 g, intramuscularly twice a day for 3 days (treatment of choice for disseminated infections caused by PPNG). **OR**

Erythromycin: 0.5 g, orally 4 times a day for 7 days. **OR**

Aqueous crystalline penicillin G: 10 million units intravenously per day until improvement occurs, followed by ampicillin, 0.5 g, 4 times a day, to complete 7 days of antibiotic treatment.

*Food and some dairy products interfere with absorption. Oral forms of tetracycline should be given 1 hour before or 2 hours after meals.

Gonorrhea — Continued

Special Considerations

Hospitalization is indicated in patients who may be unreliable, have uncertain diag nosis, or have purulent joint effusions or other complications.

Open drainage of joints other than the hip is not indicated. Intra-articular injection o antibiotics is unnecessary.

Meningitis and Endocarditis

Meningitis and endocarditis caused by the gonococcus require high-dose intravenou penicillin therapy. In penicillin-allergic patients with endocarditis, desensitization an administration of penicillin are indicated. Chloramphenicol may be used in penicillin allergic patients with meningitis.

GONOCOCCAL INFECTIONS IN PEDIATRIC PATIENTS

With gonococcal infections in children beyond the newborn period, the possibility o sexual abuse must be considered. Genital, anal, and pharyngeal cultures should be ob tained from all patients before antibiotic treatment. Appropriate cultures should be obtained from individuals who have had contact with the child.

PREVENTION OF GONOCOCCAL OPHTHALMIA

When required by state legislation or indicated by local epidemiologic considerations effective and acceptable regimens for prophylaxis of neonatal gonococcal ophthalmia include ophthalmic ointment or drops containing tetracycline or erythromycin OR a 1% silver nitrate solution.

(Continued on page 21

TABLE I. Summary — cases of specified notifiable diseases, United States

[Cumulative totals include revised and delayed reports through previous weeks.]

DISEASE	2nd WEEK ENDING		MEDIAN	CUMULATIVE, FIRST 2 WEEKS		
	January 13, 1979	January 14, 1978*	1974-1978**	January 13, 1979	January 14, 1978*	MEDIAN 1974-1978**
Aseptic meningitis	54	43	41	120	73	73
Brucellosis	3	–	1	4	3	3
Chickenpox	4,734	3,487	3,487	7,072	5,812	5,812
Diphtheria	5	–	1	10	–	3
Encephalitis: Primary (arthropod-borne & unspec.)	10	9	9	16	13	26
Post-infectious	1	3	2	2	6	4
Hepatitis, Viral: Type B	252	291	237	429	524	466
Type A	478	437	625	837	819	1,176
Type unspecified	166	149	149	308	280	285
Malaria	8	8	5	11	15	7
Measles (rubeola)	66	228	344	184	384	622
Meningococcal infections: Total	53	28	28	82	41	49
Civilian	53	28	28	82	41	49
Military	–	–	–	–	–	–
Mumps	243	335	1,138	363	564	1,981
Pertussis	41	73	30	64	95	47
Rubella (German measles)	77	99	144	124	171	271
Tetanus	–	–	–	1	1	2
Tuberculosis	408	406	451	752	662	726
Tularemia	3	2	2	3	5	5
Typhoid fever	3	5	4	6	9	9
Typhus fever, tick-borne (Rky. Mt. spotted)	4	–	1	5	2	2
Venereal diseases:						
Gonorrhea: Civilian	17,589	18,679	18,679	34,165	34,985	37,846
Military	408	459	613	1,078	751	1,026
Syphilis, primary & secondary: Civilian	424	364	407	820	648	817
Military	3	5	5	6	10	10
Rabies in animals	36	47	41	64	89	82

TABLE II. Notifiable diseases of low frequency, United States

	CUM. 1979		CUM. 197
Anthrax	–	Poliomyelitis: Total	–
Botulism	–	Paralytic†	–
Congenital rubella syndrome † (Calif. 1)	1	Psittacosis (Calif. 1)	1
Leprosy (Tex. 2)	12	Rabies in man	–
Leptospirosis	1	Trichinosis†	–
Plague	–	Typhus fever, flea-borne (endemic, murine)†	–

*Delayed reports received for calendar year 1978 are used to update last year's weekly and cumulative totals.

**Medians for gonorrhea and syphilis are based on data for 1976-1978.

†Delayed reports: Cong. Rubella Synd.: Tex. –1 (1978): Polio, para.: Hawaii +1 (1978); Trichinosis: Conn. +2 (1978), Typhus, murine: Tex. +1 (1978)

TABLE III. Cases of specified notifiable diseases, United States, weeks ending January 13, 1979, and January 14, 1978 (2nd week)

REPORTING AREA	ASEPTIC MENINGITIS	BRUCELLOSIS	CHICKENPOX	DIPHTHERIA		ENCEPHALITIS			HEPATITIS (VIRAL), BY TYPE			MALARIA	
						Primary		Post-infectious	B	A	Unspecified		
	1979	1979	1979	1979	CUM. 1979	1979	1978*	1979	1979	1979	1979	1979	CUM. 1979
UNITED STATES	54	3	4,734	5	10	10	9	1	252	478	166	8	11
NEW ENGLAND													
Maine†	3	–	911	–	–	–	–	–	10	13	5	2	2
N.H.	1	–	262	–	–	–	–	–	–	1	–	–	–
Vt.	–	–	6	–	–	–	–	–	1	1	1	–	–
Mass.	–	–	1	–	–	–	–	–	–	1	–	–	–
R.I.	2	–	332	–	–	–	–	–	4	4	4	–	–
Conn.	–	–	174	–	–	–	–	–	1	3	–	2	2
	–	–	136	–	–	–	–	–	4	3	–	–	–
MID. ATLANTIC													
Upstate N.Y.	4	–	162	–	–	1	1	–	38	32	15	–	–
N.Y. City	2	–	91	–	–	–	1	–	14	14	7	–	–
N.J.	2	–	71	–	–	1	–	–	17	13	4	–	–
Pa.†	–	–	NN	–	–	–	–	–	7	5	4	–	–
	–	–	–	–	–	–	–	–	NA	NA	NA	–	–
E.N. CENTRAL													
Ohio	3	–	1,738	–	–	2	3	–	27	54	6	1	1
Ind.†	–	–	153	–	–	2	2	–	9	22	–	1	1
Ill. †	–	–	376	–	–	–	1	–	1	1	2	–	–
Mich.	1	–	178	–	–	–	–	–	5	9	3	–	–
Wis.	2	–	444	–	–	–	–	–	12	21	1	–	–
	–	–	587	–	–	–	–	–	–	1	–	–	–
W.N. CENTRAL													
Minn.	3	1	606	–	–	1	–	–	9	34	5	–	–
Iowa	–	–	1	–	–	–	–	–	6	14	1	–	–
Mo.	1	1	362	–	–	1	–	–	2	10	–	–	–
N. Dak.	2	–	76	–	–	–	–	–	1	7	3	–	–
S. Dak.	–	–	6	–	–	–	–	–	–	–	–	–	–
Nebr.	–	–	12	–	–	–	–	–	–	3	–	–	–
Kans.	–	–	–	–	–	–	–	–	–	–	1	–	–
	–	–	149	–	–	–	–	–	–	–	–	–	–
S. ATLANTIC													
Del.	10	–	323	–	–	2	–	–	29	48	20	1	1
Md.	–	–	1	–	–	–	–	–	–	2	–	–	–
D.C.	–	–	31	–	–	–	–	–	–	2	–	–	–
Va.	–	–	–	–	–	–	–	–	–	2	–	–	–
W. Va.	–	–	12	–	–	1	–	–	9	11	6	1	1
N.C.	–	–	222	–	–	–	–	–	–	4	2	–	–
S.C.	10	–	NN	–	–	1	–	–	10	17	6	–	–
Ga.	–	–	6	–	–	–	–	–	2	3	3	–	–
Fla.†	–	–	–	–	–	–	–	–	5	3	–	–	–
	–	–	51	–	–	–	–	–	3	4	3	–	–
E.S. CENTRAL													
Ky.	3	2	340	–	–	–	1	–	14	21	2	–	–
Tenn.	1	–	332	–	–	–	–	–	6	13	1	–	–
Ala.	1	2	NN	–	–	–	1	–	8	8	1	–	–
Miss.	1	–	7	–	–	–	–	–	–	–	–	–	–
	–	–	1	–	–	–	–	–	–	–	–	–	–
W.S. CENTRAL													
Ark.	3	–	140	–	–	–	–	–	26	64	27	–	1
La.	–	–	–	–	–	–	–	–	1	2	2	–	1
Okla.	–	–	NN	–	–	–	–	–	8	5	1	–	–
Tex.	–	–	–	–	–	–	–	–	3	1	2	–	–
	3	–	140	–	–	–	–	–	14	56	22	–	–
MOUNTAIN													
Mont.	2	–	189	–	–	–	1	–	1	69	31	–	–
Idaho	–	–	49	–	–	–	1	–	–	5	–	–	–
Wyo.	–	–	4	–	–	–	–	–	–	–	–	–	–
Colo.	–	–	–	–	–	–	–	–	–	–	–	–	–
N. Mex.	–	–	121	–	–	–	–	–	–	7	2	–	–
Ariz.	1	–	–	–	–	–	–	–	–	12	2	–	–
Utah	–	–	NN	–	–	–	–	–	–	33	24	–	–
Nev.	1	–	9	–	–	–	–	–	1	12	2	–	–
	–	–	6	–	–	–	–	–	–	–	1	–	–
PACIFIC													
Wash.	23	–	325	5	10	4	3	1	98	143	55	4	6
Oreg.	–	–	288	5	10	1	–	–	7	26	8	–	–
Calif.†	–	–	4	–	–	–	–	–	16	23	6	–	–
Alaska	22	–	–	–	–	3	3	1	73	93	39	4	6
Hawaii	–	–	29	–	–	–	–	–	1	–	2	–	–
	1	–	4	–	–	–	–	–	1	1	–	–	–
Guam													
P.R.	NA	NA	NA	NA	–	NA	–	–	NA	NA	NA	NA	–
V.I.	–	–	1	–	–	–	–	–	–	–	–	–	–
Pac. Trust Terr.	–	–	1	–	–	–	–	–	–	–	–	–	–
	NA	NA	NA	NA	–	NA	–	–	NA	NA	NA	NA	–

NN: Not notifiable. NA: Not available.

*Delayed reports received for 1978 are not shown below but are used to update last year's weekly and cumulative totals.

†The following delayed reports will be reflected in next week's cumulative totals: Asep. meng.: Ind. +1; Chickenpox: Maine –4, Ill. +11, Fla. +22, Calif. +8; Hep. B: Pa. +6, Fla. +1; Hep. A: Pa. +8, Ill. +11, Fla. +1; Hep. unsp.: Pa. +3, Fla. +4.

TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending January 13, 1979, and January 14, 1978 (2nd week)

REPORTING AREA	MEASLES (RUBEOLA)			MENINGOCOCCAL INFECTIONS TOTAL			MUMPS		PERTUSSIS	RUBELLA		TETANUS
	1979	CUM. 1979	CUM. 1978*	1979	CUM. 1979	CUM. 1978*	1979	CUM. 1979	1979	1979	CUM. 1979	CUM. 1979
UNITED STATES	66	184	384	53	82	41	243	363	41	77	124	1
NEW ENGLAND	2	2	4	1	1	3	11	21	2	18	22	-
Maine	-	-	4	-	-	-	7	8	-	1	1	-
N.H.†	-	-	-	-	-	-	1	2	-	-	-	-
Vt.	2	2	-	-	-	-	-	-	-	13	15	-
Mass.	-	-	-	1	1	2	-	1	2	4	6	-
R.I.	-	-	-	-	-	-	-	4	-	-	-	-
Conn.	-	-	-	-	-	1	3	6	-	-	-	-
MID. ATLANTIC	4	16	68	11	17	5	9	21	2	9	18	1
Upstate N.Y.	2	10	44	6	9	2	1	8	2	2	6	1
N.Y. City	2	6	19	5	7	3	3	4	-	2	2	-
N.J.	-	-	1	-	-	-	4	6	-	5	7	-
Pa.	-	-	4	-	1	-	1	3	-	-	3	-
E.N. CENTRAL	19	63	154	5	9	3	100	141	5	11	27	-
Ohio	-	-	1	3	4	-	11	13	5	-	1	-
Ind.	4	5	-	1	1	1	10	15	-	7	7	-
Ill.†	4	37	4	-	-	-	28	37	-	1	13	-
Mich.	11	18	145	1	4	2	7	13	-	3	6	-
Wis.†	-	3	4	-	-	-	44	63	-	-	-	-
W.N. CENTRAL	3	7	3	-	1	4	13	14	-	11	13	-
Minn.	-	-	-	-	-	-	-	-	-	-	-	-
Iowa	-	-	2	-	-	1	8	9	-	-	-	-
Mo.	2	6	1	-	1	2	1	1	-	-	2	-
N. Dak.	1	1	-	-	-	-	-	-	-	4	4	-
S. Dak.	-	-	-	-	-	-	-	-	-	-	-	-
Nebr.	-	-	-	-	-	-	-	-	-	-	-	-
Kans.	-	-	-	-	-	1	4	4	-	7	7	-
S. ATLANTIC	3	10	49	17	26	12	4	14	4	2	4	-
Del.	-	-	1	-	1	-	1	2	-	-	-	-
Md.†	-	1	-	-	1	-	-	-	-	-	-	-
D.C.	-	-	-	-	-	-	-	-	-	-	-	-
Va.†	-	2	26	1	3	2	-	4	2	-	-	-
W. Va.	2	6	16	-	1	1	1	4	1	1	3	-
N.C.	-	-	-	5	5	1	1	3	1	-	-	-
S.C.	-	-	3	5	6	2	-	-	-	-	-	-
Ga.	-	-	-	4	7	3	-	-	-	-	-	-
Fla.†	1	1	3	2	2	3	1	1	-	1	1	-
E.S. CENTRAL	-	-	63	1	3	-	37	60	12	2	3	-
Ky.	-	-	18	-	-	-	28	49	12	-	-	-
Tenn.	-	-	38	1	2	-	7	7	-	2	2	-
Ala.	-	-	-	-	1	-	-	1	-	-	1	-
Miss.	-	-	7	-	-	-	2	3	-	-	-	-
W.S. CENTRAL	9	29	4	4	6	6	38	50	6	2	6	-
Ark.	-	-	-	-	1	1	12	12	-	-	-	-
La.	-	-	-	1	1	-	7	7	-	-	-	-
Okla.	-	-	-	-	-	1	-	-	-	-	-	-
Tex.	9	29	4	3	4	4	19	31	6	2	6	-
MOUNTAIN	1	5	23	3	6	-	3	5	6	-	3	-
Mont.	1	3	22	1	1	-	-	1	1	-	3	-
Idaho	-	-	-	-	-	-	-	-	-	-	-	-
Wyo.	-	-	-	-	-	-	-	-	-	-	-	-
Colo.	-	-	1	-	-	-	3	3	4	-	-	-
N. Mex.	-	-	-	1	1	-	-	-	-	-	-	-
Ariz.	-	-	-	-	3	-	-	-	-	-	-	-
Utah	-	-	-	1	1	-	-	-	-	-	-	-
Nev.	-	2	-	-	-	-	-	1	1	-	-	-
PACIFIC	25	52	16	11	13	8	28	37	4	22	28	-
Wash.	13	36	1	1	1	-	12	13	-	4	4	-
Oreg.	-	1	1	-	-	-	1	3	-	-	-	-
Calif.	12	15	14	10	11	8	14	20	4	18	24	-
Alaska	-	-	-	-	-	-	-	-	-	-	-	-
Hawaii	-	-	-	-	1	-	1	1	-	-	-	-
Guam	NA	-	1	-	-	-	NA	-	NA	NA	-	-
P.R.	-	-	5	-	-	-	1	1	-	-	-	-
V.I.	-	-	-	-	-	-	-	-	-	-	-	-
Pac. Trust Terr.	NA	1	36	-	-	-	NA	2	NA	NA	-	-

NA: Not available.

*Delayed reports received for 1978 are not shown below but are used to update last year's weekly and cumulative totals.

†The following delayed reports will be reflected in next week's cumulative totals: Measles: Ill. +1, Wis. −2, Md. −1, Va. −2; Pertussis: Ill. +1; Rubella: N.H. +1, Ill. +1, Fla. +3.

TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending January 13, 1979, and January 14, 1978 (2nd week)

REPORTING AREA	TUBERCULOSIS		TULAREMIA	TYPHOID FEVER		TYPHUS FEVER (Tick-borne) (RMSF)		VENEREAL DISEASES (Civilian)						RABIES (in Animals)
								GONORRHEA			SYPHILIS (Pri. & Sec.)			
	1979	CUM. 1979	CUM. 1979	1979	CUM. 1979	1979	CUM. 1979	1979	CUM. 1979	CUM. 1978*	1979	CUM. 1979	CUM. 1978*	CUM. 1979
UNITED STATES	408	752	3	3	6	4	5	17,589	34,165	34,985	424	820	648	64
NEW ENGLAND	10	19	–	1	1	–	–	501	892	920	6	19	22	–
Maine	–	1	–	–	–	–	–	34	80	47	–	–	–	–
N.H.	1	1	–	–	–	–	–	19	36	48	–	–	–	–
Vt.	–	2	–	–	–	–	–	3	11	18	–	–	–	–
Mass.	6	9	–	–	–	–	–	250	372	451	4	15	16	–
R.I.	2	3	–	1	1	–	–	41	75	44	–	–	1	–
Conn.	1	3	–	–	–	–	–	154	318	312	2	4	5	–
MID. ATLANTIC	44	115	–	–	–	–	–	1,437	3,389	3,997	45	92	86	1
Upstate N.Y.	1	16	–	–	–	–	–	664	1,044	74	6	6	–	1
N.Y. City	30	47	–	–	–	–	–	730	1,268	1,686	34	76	59	–
N.J.	–	17	–	–	–	–	–	43	601	982	5	7	16	–
Pa.	13	35	–	–	–	–	–	NA	476	1,255	NA	3	11	–
E.N. CENTRAL	29	66	–	–	–	2	2	2,371	4,430	3,844	75	130	70	2
Ohio	–	–	–	–	–	2	2	388	1,091	1,138	18	37	3	–
Ind.†	9	16	–	–	–	–	–	115	130	667	1	1	5	–
Ill.	20	50	–	–	–	–	–	855	1,443	779	53	77	59	2
Mich.	–	–	–	–	–	–	–	629	1,212	1,078	1	11	2	–
Wis.	–	–	–	–	–	–	–	384	554	182	2	4	1	–
W.N. CENTRAL	22	30	3	–	–	–	–	863	1,730	1,722	1	8	16	18
Minn.	2	3	–	–	–	–	–	240	339	289	1	3	3	6
Iowa	6	6	–	–	–	–	–	157	211	185	–	–	1	5
Mo.	8	11	3	–	–	–	–	237	547	803	–	2	6	7
N. Dak.	1	2	–	–	–	–	–	8	27	35	–	–	–	–
S. Dak.	–	–	–	–	–	–	–	46	62	59	–	–	1	–
Nebr.	–	–	–	–	–	–	–	32	67	154	–	–	–	–
Kans.	5	8	–	–	–	–	–	143	477	197	–	3	5	–
S. ATLANTIC	94	183	–	–	–	2	3	4,809	8,532	9,022	123	198	185	11
Del.	–	–	–	–	–	–	–	78	162	199	–	2	1	–
Md.	22	47	–	–	–	1	2	590	1,064	1,369	8	14	13	–
D.C.	1	7	–	–	–	–	–	272	638	547	14	19	19	–
Va.	19	19	–	–	–	–	–	451	714	835	8	19	12	–
W. Va.	6	12	–	–	–	–	–	58	106	150	–	1	–	–
N.C.	12	20	–	–	–	1	1	510	915	1,094	12	26	11	–
S.C.	5	22	–	–	–	–	–	497	813	664	11	11	11	–
Ga.	10	37	–	–	–	–	–	930	1,447	1,539	24	49	45	11
Fla.	19	19	–	–	–	–	–	1,423	2,673	2,625	46	57	73	–
E.S. CENTRAL	31	62	–	1	2	–	–	1,670	3,283	2,815	36	48	30	1
Ky.	9	9	–	1	1	–	–	108	302	162	–	2	1	–
Tenn.	6	7	–	–	–	–	–	856	1,389	953	20	20	13	1
Ala.	11	20	–	–	1	–	–	355	955	872	11	14	8	–
Miss.	5	26	–	–	–	–	–	351	637	828	5	12	8	–
W.S. CENTRAL	46	60	–	–	–	–	–	2,331	5,284	5,515	45	110	95	24
Ark.†	3	5	–	–	–	–	–	264	456	216	2	7	6	8
La.	5	15	–	–	–	–	–	516	578	797	–	–	12	–
Okla.	10	12	–	–	–	–	–	218	403	449	–	1	4	6
Tex.	28	28	–	–	–	–	–	1,333	3,847	4,053	43	102	73	10
MOUNTAIN	12	16	–	–	–	–	–	705	1,181	1,092	1	9	11	–
Mont.	–	–	–	–	–	–	–	44	47	87	–	–	–	–
Idaho	–	–	–	–	–	–	–	16	33	26	–	–	–	–
Wyo.	–	–	–	–	–	–	–	31	37	30	–	–	3	–
Colo.	–	–	–	–	–	–	–	166	324	285	1	7	3	–
N. Mex.	1	3	–	–	–	–	–	86	183	144	–	–	2	–
Ariz.	11	11	–	–	–	–	–	238	307	294	–	–	1	–
Utah	–	–	–	–	–	–	–	33	59	56	–	–	1	–
Nev.	–	2	–	–	–	–	–	91	191	170	–	2	1	–
PACIFIC	120	201	–	1	3	–	–	2,902	5,444	6,058	92	206	133	7
Wash.	NA	–	–	–	–	–	–	129	279	274	NA	–	6	–
Oreg.	5	5	–	–	–	–	–	172	430	352	8	9	1	–
Calif.	109	183	–	1	3	–	–	2,478	4,495	5,182	84	195	123	7
Alaska	–	–	–	–	–	–	–	80	152	138	–	–	–	–
Hawaii	6	13	–	–	–	–	–	43	88	112	–	2	3	–
Guam	NA	–	–	NA	–	NA	–	NA	–	3	NA	–	–	–
P.R.	–	–	–	–	–	–	–	42	46	77	3	16	9	–
V.I.	–	–	–	–	–	–	–	2	4	9	–	–	1	–
Pac. Trust Terr.	NA	1	–	NA	–	NA	–	NA	9	22	NA	–	–	–

NA: Not available.
*Delayed reports received for 1978 are not shown below but are used to update last year's weekly and cumulative totals.
†The following delayed reports will be reflected in next week's cumulative totals: TB: Ark. –2; GC: Ind. +12; Syphilis: Ind. +2.

TABLE IV. Deaths in 121 U.S. cities,* week ending January 13, 1979 (2nd week)

REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P & I** TOTAL
	ALL AGES	>65	45-64	25-44	<1	
NEW ENGLAND	709	453	170	41	19	48
Boston, Mass.	203	115	53	15	9	10
Bridgeport, Conn.	54	37	9	2	2	4
Cambridge, Mass.	31	23	5	3	–	3
Fall River, Mass.	21	16	4	1	–	2
Hartford, Conn.	62	42	14	3	2	4
Lowell, Mass.	29	22	5	1	–	2
Lynn, Mass.	16	13	3	–	–	2
New Bedford, Mass.	26	20	5	–	–	4
New Haven, Conn.	34	25	6	2	1	–
Providence, R.I.	87	53	21	9	–	8
Somerville, Mass.	6	6	–	–	–	–
Springfield, Mass.	49	26	16	2	4	2
Waterbury, Conn.	28	16	10	1	–	3
Worcester, Mass.	63	39	19	2	1	4
MID. ATLANTIC	2,210	1,353	568	156	59	103
Albany, N.Y.	58	43	13	1	1	2
Allentown, Pa.	20	16	4	–	–	–
Buffalo, N.Y.	116	71	28	13	–	6
Camden, N.J.	52	32	11	4	4	3
Elizabeth, N.J.	38	27	10	1	–	2
Erie, Pa.†	24	15	5	1	1	3
Jersey City, N.J.	39	21	15	1	1	1
Newark, N.J.	79	31	20	11	7	5
N.Y. City, N.Y.††	1,434	873	367	107	35	60
Paterson, N.J.	41	32	7	1	1	4
Philadelphia, Pa.†	493	286	152	25	17	27
Pittsburgh, Pa.†	76	39	28	3	5	3
Reading, Pa.	31	20	8	2	1	1
Rochester, N.Y.	106	67	28	4	5	8
Schenectady, N.Y.	38	23	14	1	–	1
Scranton, Pa.†	37	19	12	3	–	1
Syracuse, N.Y.	83	47	26	5	2	3
Trenton, N.J.	34	19	11	3	–	4
Utica, N.Y.	24	18	4	1	1	2
Yonkers, N.Y.	17	13	2	1	1	1
E.N. CENTRAL	2,783	1,743	671	175	97	66
Akron, Ohio	68	44	17	–	4	–
Canton, Ohio	59	41	11	2	1	1
Chicago, Ill.	704	406	179	55	39	14
Cincinnati, Ohio	157	113	35	3	1	1
Cleveland, Ohio	184	106	52	17	3	–
Columbus, Ohio	160	107	55	10	5	3
Dayton, Ohio	111	76	24	4	5	2
Detroit, Mich.	337	195	91	28	11	8
Evansville, Ind.	45	31	9	4	1	1
Fort Wayne, Ind.	76	53	15	4	–	2
Gary, Ind.	26	7	12	3	1	2
Grand Rapids, Mich.	86	61	16	6	1	9
Indianapolis, Ind.	180	116	38	12	9	2
Madison, Wis.	45	27	8	2	1	1
Milwaukee, Wis.	168	115	38	10	3	5
Peoria, Ill.	47	27	12	1	3	1
Rockford, Ill.	41	26	7	4	3	3
South Bend, Ind.	84	62	14	3	3	9
Toledo, Ohio	119	80	26	6	2	2
Youngstown, Ohio	66	50	12	1	1	–
W.N. CENTRAL	899	574	193	47	45	44
Des Moines, Iowa	70	48	14	5	3	2
Duluth, Minn.	43	24	11	4	2	2
Kansas City, Kans.	45	24	8	5	4	4
Kansas City, Mo.	146	94	35	6	5	9
Lincoln, Nebr.	30	25	3	1	–	3
Minneapolis, Minn.	117	76	22	6	7	5
Omaha, Nebr.	89	53	20	4	8	2
St. Louis, Mo.	193	122	47	7	9	11
St. Paul, Minn.	78	50	14	3	6	1
Wichita, Kans.	88	58	19	6	1	5

REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P & I** TOTAL
	ALL AGES	>65	45-64	25-44	<1	
S. ATLANTIC	1,478	873	401	104	56	49
Atlanta, Ga.	99	51	30	9	4	6
Baltimore, Md.	384	242	95	20	13	9
Charlotte, N.C.	61	39	11	7	3	3
Jacksonville, Fla.	109	62	32	6	6	6
Miami, Fla.	71	46	18	5	1	2
Norfolk, Va.	77	40	19	5	7	3
Richmond, Va.	111	58	38	9	3	5
Savannah, Ga.	39	15	15	6	2	2
St. Petersburg, Fla.	112	91	15	2	2	4
Tampa, Fla.	80	55	16	2	6	3
Washington, D.C.	301	156	100	31	8	6
Wilmington, Del.	34	18	12	2	1	–
E.S. CENTRAL	926	525	238	60	66	50
Birmingham, Ala.	153	83	42	9	11	2
Chattanooga, Tenn.	73	44	20	4	5	8
Knoxville, Tenn.	69	49	17	2	–	–
Louisville, Ky.	106	65	31	4	4	11
Memphis, Tenn.	229	123	48	16	32	3
Mobile, Ala.	71	36	20	5	3	10
Montgomery, Ala.	76	43	19	7	3	6
Nashville, Tenn.	149	82	41	13	8	10
W.S. CENTRAL	1,594	908	420	123	73	57
Austin, Tex.	55	32	11	5	4	1
Baton Rouge, La.	43	29	9	2	1	1
Corpus Christi, Tex.	65	39	15	6	2	–
Dallas, Tex.	262	153	66	24	11	7
El Paso, Tex.	81	32	31	10	6	9
Fort Worth, Tex.	108	68	25	9	2	2
Houston, Tex.	320	151	93	30	22	4
Little Rock, Ark.	70	41	21	4	3	7
New Orleans, La.	201	103	65	15	4	1
San Antonio, Tex.	224	153	44	12	9	12
Shreveport, La.	69	40	18	3	7	4
Tulsa, Okla.	96	67	22	3	2	9
MOUNTAIN	711	441	166	39	31	36
Albuquerque, N.Mex.	64	36	18	4	1	3
Colo. Springs, Colo.	48	27	16	3	–	10
Denver, Colo.	146	96	31	6	12	6
Las Vegas, Nev.	78	44	22	4	3	2
Ogden, Utah	29	23	3	1	2	2
Phoenix, Ariz.	167	101	41	7	4	2
Pueblo, Colo.	24	18	3	2	–	6
Salt Lake City, Utah	56	35	8	4	7	3
Tucson, Ariz.	99	61	24	8	2	2
PACIFIC	2,168	1,445	500	117	52	76
Berkeley, Calif.	16	13	2	1	–	–
Fresno, Calif.	68	41	19	2	6	4
Glendale, Calif.	37	31	6	–	–	1
Honolulu, Hawaii	70	41	20	5	1	–
Long Beach, Calif.	98	59	31	7	–	6
Los Angeles, Calif.	710	471	150	48	19	29
Oakland, Calif.	87	62	20	4	–	7
Pasadena, Calif.	46	42	3	–	1	1
Portland, Oreg.	162	108	35	8	6	4
Sacramento, Calif.	75	42	25	4	2	–
San Diego, Calif.	180	117	51	8	1	1
San Francisco, Calif.	167	122	31	8	2	2
San Jose, Calif.	185	124	38	13	2	10
Seattle, Wash.	159	98	48	3	7	7
Spokane, Wash.	61	36	15	5	3	2
Tacoma, Wash.	47	38	6	1	2	2
TOTAL	13,478	8,315	3,327	862	498	529
Expected Number	11,632	7,193	2,912	689	418	443

*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

**Pneumonia and influenza

†Because of changes in reporting methods in these 4 Pennsylvania cities, there will now be 117 cities involved in the generation of the expected values used to monitor pneumonia and influenza activity in the United States. Data from these 4 cities will appear in the tables but will not be included in the totals for the United States and the Middle Atlantic Region.

††Data not available this week. Figures are estimates based on average percent of regional totals.

Gonorrhea – Continued

Special Considerations

Bacitracin is not recommended. The value of irrigation after application of silver nitrate is unknown.

MANAGEMENT OF INFANTS BORN TO MOTHERS WITH GONOCOCCAL INFECTION

The infant born to a mother with gonorrhea is at high risk of infection and requires treatment with a single intravenous or intramuscular injection of aqueous crystalline penicillin G, 50,000 units to full-term infants or 20,000 units to low-birth-rate infants. Topical prophylaxis for neonatal ophthalmia is not adequate treatment. Clinical illness requires additional treatment.

NEONATAL DISEASE

Gonococcal Ophthalmia

Patients should be hospitalized and isolated for 24 hours after initiation of treatment. Untreated gonococcal ophthalmia is highly contagious. Aqueous crystalline penicillin G, 50,000 units/kg/day, in 2 doses intravenously should be administered for 7 days. Saline irrigation of the eyes should be performed as needed. Topical antibiotic preparations alone are not sufficient or required when appropriate systemic antibiotic therapy is given.

Complicated Infection

Patients with arthritis and septicemia should be hospitalized and treated with aqueous crystalline penicillin G, 75,000 to 100,000 units/kg/day, intravenously in 2 or 3 divided doses for 7 days. Meningitis should be treated with aqueous crystalline penicillin G, 100,000 units/kg/day, divided into 3 or 4 intravenous doses, and continued for at least 10 days.

CHILDHOOD DISEASE

Children who weigh 100 lbs. (45 kg) or more should receive adult regimens. Children who weigh less than 100 lbs. should be treated as follows.

Uncomplicated Disease

Uncomplicated vulvovaginitis, urethritis, proctitis, or pharyngitis can be treated at 1 visit with amoxicillin, 50/kg, orally with probenecid, 25 mg/kg (maximum 1.0 g), OR with aqueous procaine penicillin G, 100,000 units/kg, intramuscularly plus probenecid, 25 mg/kg (maximum 1.0 g).

Special Considerations

Topical and/or systemic estrogen therapy are of no benefit in vulvovaginitis. Long-acting penicillins, such as benzathine penicillin G, are not effective. All patients should have follow-up cultures, and the source of infection should be identified, examined, and treated.

Gonococcal Ophthalmia

Ophthalmia in children is treated as in neonates, but the dose of penicillin is increased to 100,000 units/kg/day intravenously.

Complicated Infections

Patients with peritonitis or arthritis require hospitalization and treatment with aqueous crystalline penicillin G, 100,000 units/kg/day, intravenously for 7 days. Aqueous crystalline penicillin G, 250,000 units/kg/day, intravenously in 6 divided doses for at least 10 days, is recommended for meningitis.

Allergy to Penicillins

Children who are allergic to penicillins should be treated with spectinomycin, 40 mg/kg, intramuscularly. Children older than 8 years may be treated with tetracycline, 40 mg/kg/day, orally in 4 divided doses for 5 days. For treatment of complicated disease, the alternative regimens recommended for adults may be used in appropriate pediatric dosages.

Guillain-Barré Syndrome

Surveillance, January-June 1978: After an association was demonstrated between Guillain-Barré syndrome (GBS) and vaccination with the A/New Jersey influenza vaccine (*1*), the usefulness of monitoring trends of GBS became apparent. In February-April 1978, with the cooperation of the American Academy of Neurology and the State and Territorial Epidemiologists, CDC asked members of the Academy to report GBS cases to the CDC; 1,990 neurologists agreed to participate in an ongoing surveillance program. Based on the membership roles of the Academy, it was estimated that this included approximately 50%-60% of the neurologists in private practice and academic settings who would be seeing patients with GBS. For the purpose of this surveillance, a case was defined as a patient with objective signs of muscle weakness diagnosed by a neurologist as GBS. The following is a summary of the preliminary findings on GBS for the first 6 months of 1978.*

From January 1 through June 30, 268 neurologists reported to CDC a total of 327 cases of GBS from 42 of the 50 states. Six of the patients (1.8%) had had GBS previously. The attack rate was significantly higher in males, who accounted for 56% of cases ($p<.05$), than females (Table 1), and a significant correlation was noted between advancing age and attack rate ($p<.005$).

TABLE 1. Age-adjusted attack rates for Guillain-Barré syndrome, by sex, United States January 1-June 30, 1978

	Cases		Age-adjusted
Sex	Number reported	Percent	attack rate**
Female	145	44	.26
Male	181	56	.35
Total	326*	100	

$\chi^2 = 5.6$, $p<.05$

*Not specified for 1 case

**Cases per 100,000 population per year, based on 1976 estimates

Ninety-one percent of patients were white, 8% black, and 1% Asian. The age-adjusted semiannual attack rate for whites was 0.15/100,000 population; this compared with 0.11/100,000 population for blacks, a difference which is not statistically significant. Two hundred thirty-two (71%) of the patients had an associated acute illness within 8 weeks before onset on GBS; 70% of these had fever, 82% had respiratory symptoms, and 31% had gastrointestinal symptoms.

Follow-up on Guillain-Barré Syndrome and the 1976 National Influenza Immunization Program (NIIP): In early 1977, each state conducted an inventory of its unused A/New Jersey influenza vaccine. This enabled determination of the proportions of monovalent vaccine (containing only A/New Jersey/76 antigen) and bivalent vaccine (containing both A/New Jersey/76 and A/Victoria/75 antigens), by manufacturer, that were received by each state but not on hand for inventory. These proportions and the monthly reports of vaccine administered, in turn, enabled estimation of GBS attack rates by manufacturer and revealed that no single manufacturer's vaccine had a significantly different rate of GBS than the other manufacturers combined. There was also no significant difference in GBS attack rates between whole-virus and split-virus vaccines.

Based on a lot-specific inventory completed in June 1978 after vaccine was placed in centralized storage facilities, the net national distribution of vaccine was calculated by subtracting inventory data for each lot from the total doses of each lot distributed

*A copy of the report from which some of these data were derived is available from: CDC, Attention Bureau of Epidemiology, Viral Diseases Division.

Guillain-Barré Syndrome -- Continued

Although these net distributions included numbers of doses lost in shipment, wasted, or otherwise unaccounted for, they provided rough but the best available estimate of the number of doses of each lot of vaccine administered. One hundred seven (76%) of the total 141 lots used during the NIIP Program were known to be associated with at least 1 case of GBS within a 6-week period after vaccination. Of these, 91% were associated with between 1 and 6 cases. The maximum number of cases associated with any single lot within the period was 11. The distribution of the observed number of cases associated with lots grouped by 100,000 dose sizes was not significantly different from what would be expected based on the number of doses in each group and the rate of cases for all lots combined ($.10>p>.05$). When the rate of each of the 141 lots was compared statistically to the rate of the remaining lots combined, each of 3 lots among those with the highest attack rate differed from all the remaining lots with a relatively high degree of statistical significance ($\chi^2>7.92$). The lot with the most significant elevation ($\chi^2=9.52$) was associated with cases from Ohio only; there was an unexplained statistically significant lower attack rate associated with this lot's distribution outside Ohio when compared to the attack rate inside Ohio. When information provided by the Bureau of Biologics was used, the lot-specific attack rates did not correlate significantly with thimerosal concentration, protein concentration, formaldehyde concentration, potency, or endotoxin levels.

In June 1978 CDC convened an expert group to review and comment on these data relating to GBS cases and vaccine lots. The group concluded that there was no substantive evidence for any single lot or group of lots having any unusual or significant propensity to produce GBS beyond that which would be expected by normal biological variation. The statistically significant association between GBS and the A/New Jersey influenza vaccine, however, was reaffirmed.

Reported by the Viral Diseases Division, Bureau of Epidemiology, CDC.

Reference

1. MMWR 26:7, 1977

Epidemiologic Notes and Reports

International Importation of Measles -- Utah

On December 15, 1978, the 2-year-old son of a visiting Australian physician was seen by a pediatrician in the Salt Lake City area because of respiratory symptoms and a morbilliform rash. Measles was clinically diagnosed.

Two days prior to the onset of rash, the child had entered a local day-care center. Thirteen cases of clinically confirmed measles have subsequently been diagnosed in the area, 8 of which have been epidemiologically linked to the index patient, 6 in the day-care center, itself. Further investigation and control measures are underway.

Subsequent information confirmed that the index patient had not been immunized against measles in Australia because of "chronic tonsillitis" and that he had been exposed

The Morbidity and Mortality Weekly Report, circulation 84,000, is published by the Center for Disease Control, Atlanta, Georgia. The data in this report are provisional, based on weekly telegraphs to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Send reports to: Center for Disease Control, Attn: Editor, Morbidity and Mortality Weekly Report, Atlanta, Georgia 30333.

Send mailing list additions, deletions, and address changes to: Center for Disease Control, Attn: Distribution Services, GSO, 1-SB-36, Atlanta, Georgia 30333. When requesting changes be sure to give your former address, including zip code and mailing list code number, or send an old address label.

Measles — Continued

to measles in a day-care center outbreak in Australia just prior to leaving for the United States. He had spent part of his infectious period in Colorado, but no measles cases have been linked to him in that state.

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Editorial Note: Within the last several months, CDC has received several reports of measles cases in persons who had recently arrived in the United States from several countries in Europe, Asia, and North America. Similar instances have probably gone unreported because this type of information has not specifically been sought. As measles is brought under greater control in the United States, disease acquired in other countries may assume increasing importance as a source of measles transmission in this country.

The immunization status of all secondary measles cases acquired in the day-care center has not yet been documented; at least 2, however, are known to have been unimmunized although older than 15 months. As pointed out by the Advisory Committee on Immunization Practices, measles immunization of young children in day-care center settings is of particular importance (*1*).

Except during a febrile period, chronic or recurrent upper respiratory infection such as tonsillitis is not a contraindication to measles immunization (*1,2*).

References

1. Advisory Committee on Immunization Practices: Measles prevention. MMWR 27:427-430, 435-437, 1978

2. American Academy of Pediatrics: Report of the Committee on Infectious Diseases, 1977, pp 132-137

Erratum, Vol. 27, No. 51

p 511 In the article "Fatality and Illness Associated with Consumption of Pennyroyal Oil — Colorado," the empirical formula for pulegone, the main ingredient in this oil, was incorrect. It should be $C_{10}H_{16}O$.

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