

Staphylococcus aureus — Continued

endemic. The recovery of *S. aureus* with presumptive reduced susceptibility to vancomycin should be reported immediately to state health departments and to CDC's Hospital Infections Program, National Center for Infectious Diseases, telephone (404) 639-6400. In addition, special infection-control precautions should be adhered to strictly (10), and an epidemiologic investigation should be initiated promptly.

References

1. Hiramatsu K, Hanaki H, Ino T, et al. Methicillin-resistant *Staphylococcus aureus* clinical strain with reduced vancomycin susceptibility. *J Antimicrob Chemother* 1997 (in press).
2. National Committee for Clinical Laboratory Standards. Methods for dilution antimicrobial susceptibility tests for bacteria that grow aerobically—fourth edition: approved standard, M7-A4. Villanova, Pennsylvania: National Committee for Clinical Laboratory Standards, 1997.
3. Hashimoto H, Inoue M, Hayashi I. A survey of *Staphylococcus aureus* for typing and drug-resistance in various areas of Japan during 1992 and 1993 [Japanese]. *Japanese Journal of Antibiotics* 1994;47:618–26.
4. Noble WC, Virani Z, Cree RG. Co-transfer of vancomycin and other resistance genes from *Enterococcus faecalis* NCTC 12201 to *Staphylococcus aureus*. *FEMS Microbiol Lett* 1992; 72:195–8.
5. Schwalbe RS, Stapleton JT, Gilligan PH. Emergence of vancomycin resistance in coagulase-negative staphylococci. *N Engl J Med* 1987;316:927–31.
6. Garrett DO, Jochimsen E, Murfitt K, et al. The impending apocalypse: the emergence of vancomycin resistance in *Staphylococcus* spp. [Abstract S1]. *Infect Control Hosp Epidemiol* 1997; 18:P32.
7. Schwalbe RS, Ritz WJ, Verma PR, Barranco EA, Gilligan PH. Selection for vancomycin resistance in clinical isolates of *Staphylococcus haemolyticus*. *J Infect Dis* 1990;161:45–51.
8. Daum RS, Gupta S, Sabbagh R, Milewski WM. Characterization of *Staphylococcus aureus* isolates with decreased susceptibility to vancomycin and teicoplanin: isolation and purification of a constitutively produced protein associated with decreased susceptibility. *J Infect Dis* 1992; 166:1066–72.
9. Hospital Infection Control Practices Advisory Committee. Recommendations for preventing the spread of vancomycin resistance: recommendations of the Hospital Infection Control Practices Advisory Committee (HICPAC). *MMWR* 1995;44(no. RR-12).
10. CDC. Interim guidelines for prevention and control of staphylococcal infection associated with reduced susceptibility to vancomycin. *MMWR* 1997;46:626–8,635.

Interim Guidelines for Prevention and Control of Staphylococcal Infection Associated with Reduced Susceptibility to Vancomycin

Staphylococci are one of the most common causes of community- and hospital-acquired infection. In many U.S. hospitals, strains of staphylococci (i.e., *Staphylococcus aureus* or coagulase-negative staphylococci) are resistant to all available antimicrobials except vancomycin. Rare cases of infection in the United States (1) have been caused by coagulase-negative staphylococci with reduced susceptibility to vancomycin (minimum inhibitory concentration [MIC] ≥ 8 $\mu\text{g}/\text{mL}$)* (2).

In May 1996, an infection caused by a strain of *S. aureus* with reduced susceptibility to vancomycin (MIC=8 $\mu\text{g}/\text{mL}$) was diagnosed in a patient in a hospital in Japan (3,4); no such infections have been reported in the United States. Although the strain from Japan was not fully resistant to vancomycin (i.e., MIC ≥ 32 $\mu\text{g}/\text{mL}$), its appearance increases the likelihood that fully resistant strains may emerge. Because the

*National Committee for Clinical Laboratory Standards breakpoints: susceptible, ≤ 4 $\mu\text{g}/\text{mL}$ or zone size ≥ 12 mm; intermediate, 8–16 $\mu\text{g}/\text{mL}$ or zone size 10–11 mm; and resistant, ≥ 32 $\mu\text{g}/\text{mL}$ or zone size ≤ 9 mm.

Guidelines — Continued

occurrence of fully vancomycin-resistant staphylococcal infection in a hospital could result in serious public health consequences, CDC and the Hospital Infection Control Practices Advisory Committee have developed interim guidelines to direct medical and public health responses when isolates of staphylococci with reduced vancomycin susceptibility are identified. This report describes these interim guidelines, which include steps to 1) decrease the likelihood that staphylococci with reduced vancomycin susceptibility will emerge; 2) recognize the occurrence of staphylococci with reduced vancomycin susceptibility; 3) obtain information about investigational antimicrobials for treating either patients infected with fully vancomycin-resistant staphylococci or patients infected with staphylococci with intermediate vancomycin resistance for whom conventional therapy fails; and 4) implement interim infection-control measures. To effectively implement these interim guidelines, each health-care facility should develop a plan based on these guidelines in which responsibilities for critical departments and personnel are clearly delineated.

Preventing the Emergence of Vancomycin Resistance

Antimicrobial use is a major risk factor for the emergence of antimicrobial-resistant pathogens. Reduction of overuse and misuse of antimicrobials will decrease the risk for emergence of staphylococci with reduced susceptibility to vancomycin. Medical and ancillary staff members who are responsible for pharmacy formulary decisions should review and restrict use of vancomycin (5) and ensure that use of other antimicrobials is appropriate.

Detecting Staphylococci with Reduced Vancomycin Susceptibility

Use of recommended laboratory methods (including media and incubation methods, antimicrobial susceptibility testing methods, and susceptibility breakpoints) for identifying such strains is essential.

1. The most accurate form of antimicrobial susceptibility testing for staphylococci is a minimal inhibitory concentration method (broth dilution, agar dilution, or agar-gradient diffusion) using a full 24-hour incubation. Strains of staphylococci with a MIC=8 µg/mL (classified as intermediate using National Committee for Clinical Laboratory Standards breakpoints) were not detected by using the current disk diffusion procedure.
2. All strains with a MIC ≥4 µg/mL should be considered candidate strains for reduced vancomycin susceptibility. Other than the isolate reported in Japan (4), all *S. aureus* strains with putative reduced vancomycin susceptibility sent to CDC for confirmation have been misidentified or mixed with other microorganisms. Therefore, the laboratory should ensure that the strain is in pure culture and reconfirm the genus and species of the organism; then repeat the susceptibility test for vancomycin using a minimal inhibitory concentration method.
3. After repeat testing, if species identification and vancomycin test results are consistent, immediately contact the state health department (SHD) and CDC's Hospital Infections Program, National Center for Infectious Diseases, telephone (404) 639-6400, to report the occurrence of a "presumptive" staphylococcal strain with reduced susceptibility to vancomycin and to obtain epidemiologic and laboratory assistance.

Guidelines — Continued

4. Retest staphylococci isolated from patients who fail to respond to vancomycin therapy because resistance may have emerged during therapy.

Obtaining Investigational Antimicrobials

The susceptibility pattern of a particular staphylococcus strain, the site of infection, and the response to conventional therapy is important in determining the need for investigational antimicrobials to treat infections caused by staphylococci with reduced vancomycin susceptibility. Several antimicrobial agents in clinical development may be useful in treating vancomycin-resistant enterococci and methicillin-resistant *S. aureus*. Some of these agents also may be useful in treating infections with *S. aureus* with reduced susceptibility to vancomycin. The usefulness of any antimicrobial agent will depend on the resistance mechanism and susceptibility pattern of the *S. aureus* strain. CDC and the Food and Drug Administration (FDA) are working to improve access by clinical providers to investigational agents that may be useful for treating patients with confirmed infections with *S. aureus* strains with reduced susceptibility to vancomycin. Physicians treating infections caused by staphylococci with reduced vancomycin susceptibility can obtain information about investigational drug therapies from FDA's Division of Anti-Infective Drug Products, telephone (301) 827-2120. The physician will be requested to send the isolate to CDC for microbiologic and epidemiologic evaluation.

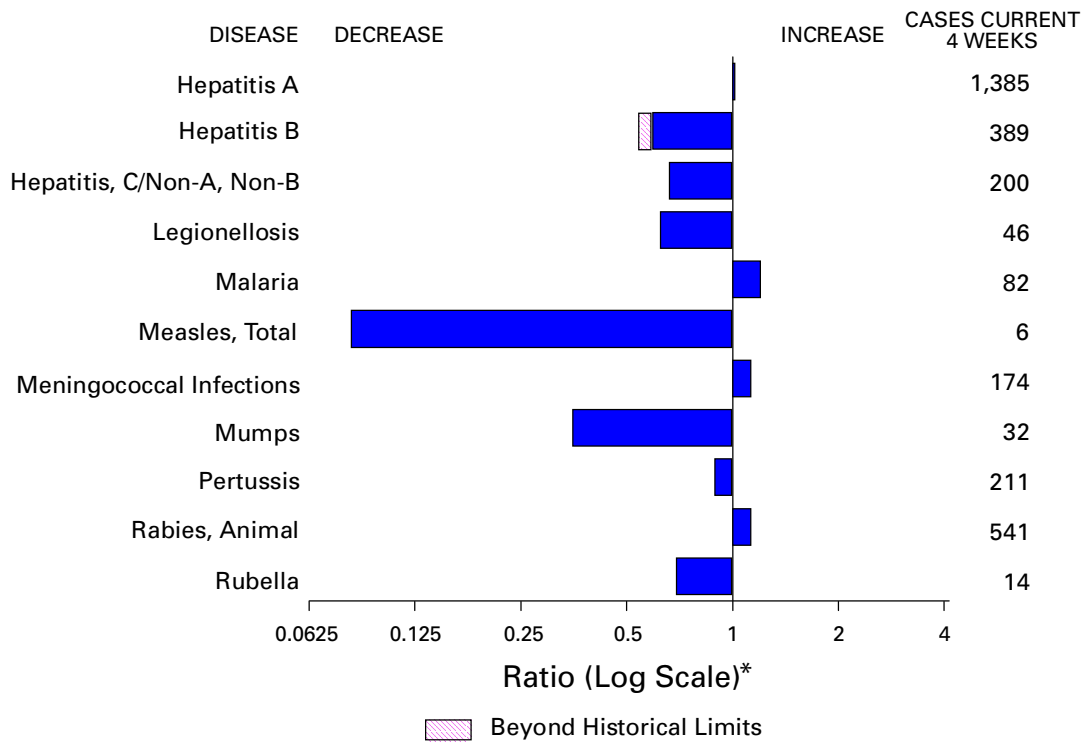
Preventing the Spread of Staphylococci with Reduced Vancomycin Susceptibility

To prevent the spread of staphylococci with reduced susceptibility to vancomycin within and between facilities and to minimize the potential for the organism to become endemic, the following steps should be taken whenever such an organism is isolated:

1. The laboratory should immediately notify infection-control personnel, the clinical unit, and the attending physician.
2. Infection-control personnel, in collaboration with appropriate authorities (including the SHD and CDC), should initiate an epidemiologic and laboratory investigation.
3. Medical and nursing staff should
 - a. isolate the patient in a private room and use contact precautions (gown, mask, glove, and antibacterial soap for handwashing) as recommended for multidrug-resistant organisms (6);
 - b. minimize the number of persons with access to colonized/infected patients; and
 - c. dedicate specific health-care workers to provide one-on-one care for the colonized/infected patient or the cohort of colonized/infected patients.
4. Infection-control personnel should
 - a. inform all personnel providing direct patient care of the epidemiologic implications of such strains and of the infection-control precautions necessary for their containment;
 - b. monitor and strictly enforce compliance with contact precautions and other recommended infection-control practices;

(Continued on page 635)

FIGURE I. Selected notifiable disease reports, comparison of provisional 4-week totals ending July 5, 1997, with historical data — United States



*Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

TABLE I. Summary — provisional cases of selected notifiable diseases, United States, cumulative, week ending July 5, 1997 (27th Week)

| | Cum. 1997 | | Cum. 1997 |
|---|-----------|---|-----------|
| Anthrax | - | Plague | 2 |
| Brucellosis | 28 | Poliomyelitis, paralytic | - |
| Cholera | 3 | Psittacosis | 21 |
| Congenital rubella syndrome | 2 | Rabies, human | 2 |
| Cryptosporidiosis* | 605 | Rocky Mountain spotted fever (RMSF) | 121 |
| Diphtheria | 5 | Streptococcal disease, invasive Group A | 867 |
| Encephalitis: California* | 4 | Streptococcal toxic-shock syndrome* | 21 |
| eastern equine* | - | Syphilis, congenital [†] | 125 |
| St. Louis* | 1 | Tetanus | 21 |
| western equine* | 1 | Toxic-shock syndrome | 60 |
| Hansen Disease | 53 | Trichinosis | 3 |
| Hantavirus pulmonary syndrome* [‡] | 6 | Typhoid fever | 136 |
| Hemolytic uremic syndrome, post-diarrheal* | 21 | Yellow fever | - |
| HIV infection, pediatric* [§] | 131 | | |

-:no reported cases

*Not notifiable in all states.

[†]Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases (NCID).

[‡]Updated monthly to the Division of HIV/AIDS Prevention—Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP), last update June 24, 1997.

[§]Updated from reports to the Division of STD Prevention, NCHSTP.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending July 5, 1997, and July 6, 1996 (27th Week)

| Reporting Area | AIDS | | Chlamydia | | Escherichia coli O157:H7 | | Gonorrhea | | Hepatitis C/NA,NB | |
|----------------|------------|-----------|-----------|-----------|--------------------------|--------------------|-----------|-----------|-------------------|-----------|
| | Cum. 1997* | Cum. 1996 | Cum. 1997 | Cum. 1996 | NETSS [†] | PHLIS [§] | Cum. 1997 | Cum. 1996 | Cum. 1997 | Cum. 1996 |
| | | | | | Cum. 1997 | Cum. 1996 | | | | |
| UNITED STATES | 30,463 | 34,082 | 208,706 | 206,400 | 661 | 327 | 130,054 | 152,114 | 1,558 | 1,845 |
| NEW ENGLAND | 1,277 | 1,384 | 8,369 | 8,342 | 60 | 27 | 2,803 | 3,205 | 31 | 50 |
| Maine | 28 | 22 | 485 | U | 6 | - | 29 | 22 | - | - |
| N.H. | 17 | 42 | 383 | 371 | 4 | 3 | 58 | 72 | 6 | 4 |
| Vt. | 23 | 10 | 201 | 231 | 3 | 1 | 25 | 30 | - | 15 |
| Mass. | 467 | 648 | 3,637 | 3,349 | 38 | 23 | 1,135 | 1,080 | 21 | 28 |
| R.I. | 85 | 94 | 1,021 | 1,042 | 1 | - | 234 | 267 | 4 | 3 |
| Conn. | 657 | 568 | 2,642 | 3,349 | 8 | - | 1,322 | 1,734 | - | - |
| MID. ATLANTIC | 9,745 | 9,439 | 29,047 | 34,558 | 42 | 11 | 17,032 | 21,254 | 170 | 154 |
| Upstate N.Y. | 1,645 | 1,163 | N | N | 27 | 4 | 2,741 | 3,711 | 132 | 122 |
| N.Y. City | 4,978 | 5,302 | 15,258 | 18,913 | 7 | - | 6,697 | 8,292 | - | 3 |
| N.J. | 1,973 | 1,786 | 4,448 | 6,729 | 8 | 5 | 3,147 | 4,184 | - | - |
| Pa. | 1,149 | 1,188 | 9,341 | 8,916 | N | 2 | 4,447 | 5,067 | 38 | 29 |
| E.N. CENTRAL | 2,041 | 2,762 | 29,720 | 44,701 | 111 | 41 | 18,163 | 29,114 | 289 | 272 |
| Ohio | 396 | 618 | 6,345 | 10,514 | 31 | 15 | 4,140 | 7,372 | 8 | 10 |
| Ind. | 361 | 389 | 4,378 | 4,878 | 23 | 10 | 2,917 | 3,242 | 7 | 7 |
| Ill. | 765 | 1,203 | 5,643 | 12,659 | 27 | - | 2,757 | 8,438 | 32 | 53 |
| Mich. | 386 | 401 | 9,173 | 11,158 | 30 | 6 | 6,529 | 7,618 | 242 | 202 |
| Wis. | 133 | 151 | 4,181 | 5,492 | N | 10 | 1,820 | 2,444 | - | - |
| W.N. CENTRAL | 565 | 811 | 11,609 | 16,079 | 99 | 64 | 5,434 | 7,429 | 90 | 50 |
| Minn. | 101 | 157 | U | 2,702 | 42 | 27 | U | 1,099 | 2 | - |
| Iowa | 70 | 57 | 2,351 | 1,980 | 16 | 8 | 643 | 504 | 18 | 24 |
| Mo. | 237 | 398 | 5,770 | 6,814 | 18 | 22 | 3,757 | 4,396 | 57 | 12 |
| N. Dak. | 7 | 9 | 417 | 508 | 3 | 3 | 28 | 14 | 2 | - |
| S. Dak. | 4 | 8 | 631 | 688 | 6 | - | 67 | 97 | - | - |
| Nebr. | 61 | 55 | 489 | 1,056 | 9 | - | 126 | 220 | 2 | 5 |
| Kans. | 85 | 127 | 1,951 | 2,331 | 5 | 4 | 813 | 1,099 | 9 | 9 |
| S. ATLANTIC | 7,504 | 8,521 | 43,860 | 25,736 | 72 | 35 | 42,222 | 48,627 | 151 | 93 |
| Del. | 144 | 165 | - | 563 | 2 | 2 | 601 | 742 | - | - |
| Md. | 950 | 1,022 | 3,711 | U | 6 | 3 | 6,713 | 5,018 | 10 | 1 |
| D.C. | 538 | 599 | N | N | - | - | 1,535 | 2,275 | - | - |
| Va. | 651 | 542 | 5,686 | 5,554 | N | 15 | 3,975 | 4,797 | 11 | 8 |
| W. Va. | 57 | 65 | 1,543 | 1,079 | N | - | 469 | 367 | 9 | 7 |
| N.C. | 428 | 466 | 8,783 | U | 19 | 12 | 8,148 | 9,531 | 29 | 27 |
| S.C. | 410 | 439 | 6,150 | U | 1 | - | 5,586 | 5,696 | 26 | 15 |
| Ga. | 965 | 1,279 | 5,781 | 6,327 | 19 | - | 6,513 | 10,926 | U | - |
| Fla. | 3,361 | 3,944 | 12,206 | 12,213 | 25 | 3 | 8,682 | 9,275 | 66 | 35 |
| E.S. CENTRAL | 1,022 | 1,132 | 16,908 | 15,487 | 48 | 7 | 16,849 | 16,367 | 184 | 341 |
| Ky. | 177 | 173 | 3,492 | 3,525 | 15 | - | 2,186 | 2,097 | 8 | 20 |
| Tenn. | 418 | 444 | 6,292 | 6,684 | 24 | 7 | 5,245 | 5,738 | 120 | 265 |
| Ala. | 237 | 323 | 4,133 | 4,337 | 6 | - | 5,860 | 6,752 | 6 | 2 |
| Miss. | 190 | 192 | 2,991 | 941 | 3 | - | 3,558 | 1,780 | 50 | 54 |
| W.S. CENTRAL | 3,187 | 3,297 | 28,107 | 10,906 | 28 | 5 | 17,442 | 10,223 | 194 | 168 |
| Ark. | 120 | 144 | 648 | 901 | 4 | 1 | 1,333 | 2,128 | - | 4 |
| La. | 545 | 777 | 4,142 | 3,630 | 4 | 3 | 3,865 | 3,839 | 117 | 101 |
| Okla. | 166 | 139 | 3,744 | 3,942 | 2 | 1 | 2,377 | 2,428 | 4 | 1 |
| Tex. | 2,356 | 2,237 | 19,573 | 2,433 | 18 | - | 9,867 | 1,828 | 73 | 62 |
| MOUNTAIN | 881 | 971 | 12,271 | 12,972 | 81 | 45 | 3,761 | 3,988 | 201 | 327 |
| Mont. | 22 | 14 | 477 | 636 | 5 | - | 20 | 13 | 12 | 10 |
| Idaho | 28 | 23 | 754 | 794 | 12 | 8 | 57 | 55 | 24 | 84 |
| Wyo. | 13 | 3 | 284 | 335 | 4 | - | 26 | 14 | 80 | 100 |
| Colo. | 210 | 298 | 1,896 | 989 | 30 | 16 | 1,058 | 916 | 24 | 30 |
| N. Mex. | 79 | 56 | 1,844 | 2,150 | 5 | 4 | 640 | 438 | 33 | 40 |
| Ariz. | 227 | 281 | 4,806 | 5,782 | N | 13 | 1,442 | 1,945 | 21 | 37 |
| Utah | 68 | 102 | 847 | 799 | 22 | - | 124 | 156 | 3 | 12 |
| Nev. | 234 | 194 | 1,363 | 1,487 | 3 | 4 | 394 | 451 | 4 | 14 |
| PACIFIC | 4,241 | 5,765 | 28,815 | 37,619 | 120 | 89 | 6,348 | 11,907 | 248 | 390 |
| Wash. | 380 | 380 | 4,711 | 5,136 | 23 | 22 | 986 | 1,116 | 16 | 34 |
| Oreg. | 162 | 266 | 1,991 | 2,856 | 37 | 40 | 309 | 438 | 4 | 6 |
| Calif. | 3,643 | 5,016 | 20,564 | 28,165 | 57 | 24 | 4,606 | 9,867 | 150 | 237 |
| Alaska | 22 | 14 | 731 | 538 | 3 | - | 211 | 228 | - | 2 |
| Hawaii | 34 | 89 | 818 | 924 | N | 3 | 236 | 258 | 78 | 111 |
| Guam | 2 | 4 | 31 | 220 | N | - | 3 | 36 | - | 6 |
| P.R. | 1,021 | 1,047 | U | U | 23 | U | 337 | 326 | 62 | 94 |
| V.I. | 52 | 14 | N | N | N | U | - | - | - | - |
| Amer. Samoa | - | - | - | - | N | U | - | - | - | - |
| C.N.M.I. | 1 | - | N | N | N | U | 16 | 11 | 2 | - |

N: Not notifiable U: Unavailable -: no reported cases C.N.M.I.: Commonwealth of Northern Mariana Islands

*Updated monthly to the Division of HIV/AIDS Prevention—Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention, last update June 24, 1997.

†National Electronic Telecommunications System for Surveillance.

§Public Health Laboratory Information System.

TABLE II. (Cont'd.) Provisional cases of selected notifiable diseases, United States, weeks ending July 5, 1997, and July 6, 1996 (27th Week)

| Reporting Area | Legionellosis | | Lyme Disease | | Malaria | | Syphilis (Primary & Secondary) | | Tuberculosis | | Rabies, Animal |
|----------------|---------------|--------------|--------------|--------------|--------------|--------------|-----------------------------------|--------------|--------------|--------------|-------------------|
| | Cum. 1997 | Cum. 1996 | Cum. 1997 | Cum. 1996 | Cum. 1997 | Cum. 1996 | Cum. 1997 | Cum. 1996 | Cum. 1997 | Cum. 1996 | Cum. 1997 |
| UNITED STATES | 412 | 385 | 1,615 | 2,966 | 677 | 632 | 4,066 | 5,937 | 8,371 | 9,351 | 3,727 |
| NEW ENGLAND | 25 | 18 | 353 | 543 | 36 | 24 | 79 | 82 | 214 | 226 | 557 |
| Maine | 1 | 1 | 3 | 7 | 1 | 3 | - | - | 11 | 16 | 113 |
| N.H. | 3 | - | 7 | 13 | 1 | 1 | - | 1 | 6 | 8 | 21 |
| Vt. | 4 | 2 | 3 | 4 | 2 | 2 | - | - | 3 | 1 | 90 |
| Mass. | 7 | 9 | 59 | 32 | 14 | 7 | 38 | 39 | 127 | 98 | 117 |
| R.I. | 5 | 6 | 43 | 52 | 4 | 3 | 2 | 1 | 16 | 23 | 11 |
| Conn. | 5 | N | 238 | 435 | 14 | 8 | 39 | 41 | 51 | 80 | 205 |
| MID. ATLANTIC | 66 | 83 | 898 | 2,089 | 170 | 198 | 191 | 272 | 1,610 | 1,652 | 770 |
| Upstate N.Y. | 15 | 21 | 140 | 898 | 29 | 38 | 18 | 43 | 215 | 180 | 564 |
| N.Y. City | 2 | 4 | 16 | 115 | 91 | 109 | 40 | 88 | 841 | 852 | - |
| N.J. | 11 | 8 | 277 | 504 | 37 | 36 | 77 | 89 | 314 | 365 | 84 |
| Pa. | 38 | 50 | 465 | 572 | 13 | 15 | 56 | 52 | 240 | 255 | 122 |
| E.N. CENTRAL | 140 | 137 | 26 | 26 | 42 | 84 | 346 | 1,001 | 851 | 994 | 78 |
| Ohio | 75 | 47 | 20 | 12 | 9 | 7 | 107 | 376 | 156 | 155 | 59 |
| Ind. | 23 | 32 | 5 | 9 | 6 | 6 | 77 | 130 | 81 | 97 | 8 |
| Ill. | 3 | 17 | 1 | 5 | 5 | 42 | 34 | 272 | 414 | 540 | 2 |
| Mich. | 33 | 27 | - | - | 19 | 17 | 72 | 109 | 143 | 156 | 8 |
| Wis. | 6 | 14 | U | U | 3 | 12 | 56 | 114 | 57 | 46 | 1 |
| W.N. CENTRAL | 37 | 21 | 20 | 56 | 26 | 14 | 75 | 209 | 263 | 243 | 241 |
| Minn. | 1 | 1 | 15 | 3 | 9 | 3 | U | 25 | 68 | 62 | 23 |
| Iowa | 9 | 3 | 1 | 9 | 8 | 2 | 3 | 13 | 30 | 34 | 83 |
| Mo. | 10 | 5 | 2 | 24 | 4 | 7 | 50 | 149 | 106 | 89 | 12 |
| N. Dak. | 2 | - | - | - | 2 | - | - | - | 5 | 3 | 34 |
| S. Dak. | 2 | 2 | - | - | - | - | - | - | 7 | 13 | 32 |
| Nebr. | 9 | 8 | 1 | - | 1 | - | 1 | 7 | 12 | 13 | 1 |
| Kans. | 4 | 2 | 1 | 20 | 2 | 2 | 21 | 15 | 35 | 29 | 56 |
| S. ATLANTIC | 62 | 52 | 187 | 140 | 150 | 95 | 1,705 | 2,003 | 1,680 | 1,754 | 1,579 |
| Del. | 6 | 4 | 16 | 62 | 2 | 2 | 15 | 19 | 11 | 27 | 33 |
| Md. | 14 | 7 | 135 | 32 | 45 | 28 | 480 | 340 | 154 | 152 | 288 |
| D.C. | 3 | 3 | 7 | 1 | 9 | 5 | 45 | 84 | 52 | 73 | 2 |
| Va. | 11 | 12 | 4 | 7 | 32 | 16 | 144 | 234 | 165 | 149 | 312 |
| W. Va. | N | N | 1 | 4 | - | 1 | 1 | 2 | 29 | 27 | 45 |
| N.C. | 6 | 5 | 8 | 27 | 7 | 10 | 364 | 550 | 196 | 247 | 495 |
| S.C. | 2 | 4 | 1 | 2 | 9 | 4 | 211 | 224 | 180 | 196 | 83 |
| Ga. | - | 1 | 1 | - | 14 | 8 | 285 | 346 | 305 | 338 | 159 |
| Fla. | 20 | 15 | 14 | 5 | 32 | 21 | 160 | 204 | 588 | 545 | 162 |
| E.S. CENTRAL | 22 | 23 | 34 | 38 | 15 | 15 | 912 | 1,368 | 557 | 730 | 141 |
| Ky. | 2 | 2 | 4 | 13 | 3 | 3 | 80 | 70 | 97 | 120 | 19 |
| Tenn. | 14 | 9 | 15 | 12 | 4 | 6 | 386 | 444 | 154 | 254 | 81 |
| Ala. | 2 | 2 | 4 | 1 | 5 | 3 | 242 | 287 | 212 | 233 | 41 |
| Miss. | 4 | 10 | 11 | 12 | 3 | 3 | 204 | 567 | 94 | 123 | - |
| W.S. CENTRAL | 7 | 2 | 28 | 29 | 6 | 13 | 580 | 605 | 1,055 | 988 | 166 |
| Ark. | - | - | 4 | 15 | 2 | - | 60 | 143 | 107 | 102 | 25 |
| La. | 2 | - | 1 | 1 | 4 | 2 | 200 | 289 | - | 5 | 1 |
| Okla. | 2 | 2 | 11 | 3 | - | - | 59 | 99 | 97 | 83 | 63 |
| Tex. | 3 | - | 12 | 10 | - | 11 | 261 | 74 | 851 | 798 | 77 |
| MOUNTAIN | 26 | 25 | 8 | 4 | 36 | 29 | 72 | 73 | 283 | 325 | 60 |
| Mont. | 1 | 1 | - | - | 2 | 3 | - | - | 7 | 14 | 14 |
| Idaho | 2 | - | 2 | - | - | - | - | 1 | 7 | 4 | - |
| Wyo. | 1 | 3 | 2 | 3 | 2 | 2 | - | 2 | 2 | 3 | 18 |
| Colo. | 8 | 6 | 2 | - | 18 | 14 | 3 | 22 | 50 | 44 | - |
| N. Mex. | 1 | 1 | - | - | 5 | 1 | - | 4 | 16 | 51 | 4 |
| Ariz. | 7 | 7 | 1 | - | 4 | 3 | 59 | 38 | 144 | 114 | 22 |
| Utah | 5 | 2 | - | 1 | 2 | 4 | 3 | 2 | 11 | 34 | - |
| Nev. | 1 | 5 | 1 | - | 3 | 2 | 7 | 4 | 46 | 61 | 2 |
| PACIFIC | 27 | 24 | 61 | 41 | 196 | 160 | 106 | 324 | 1,858 | 2,439 | 135 |
| Wash. | 6 | 2 | 2 | 3 | 8 | 9 | 7 | 6 | 99 | 133 | - |
| Oreg. | - | - | 9 | 10 | 10 | 11 | 4 | 4 | 82 | 92 | 2 |
| Calif. | 20 | 22 | 50 | 27 | 173 | 134 | 93 | 313 | 1,546 | 2,069 | 115 |
| Alaska | - | - | - | - | 3 | 2 | 1 | - | 46 | 46 | 18 |
| Hawaii | 1 | - | - | 1 | 2 | 4 | 1 | 1 | 85 | 99 | - |
| Guam | - | 1 | - | - | - | - | - | 3 | 5 | 55 | - |
| P.R. | - | - | - | - | 3 | - | 124 | 127 | 88 | 105 | 31 |
| V.I. | - | - | - | - | - | - | - | - | - | - | - |
| Amer. Samoa | - | - | - | - | - | - | - | - | - | - | - |
| C.N.M.I. | - | - | - | - | - | - | 5 | 1 | - | - | - |

N: Not notifiable

U: Unavailable

-: no reported cases

TABLE III. Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending July 5, 1997, and July 6, 1996 (27th Week)

| Reporting Area | <i>H. influenzae</i> , invasive | | Hepatitis (Viral), by type | | | | Measles (Rubeola) | | | | | |
|----------------|---------------------------------|-----------|----------------------------|-----------|-----------|-----------|-------------------|-----------|-----------|-----------|-----------|-----------|
| | Cum. 1997* | Cum. 1996 | A | | B | | Indigenous | | Imported† | | Total | |
| | | | Cum. 1997 | Cum. 1996 | Cum. 1997 | Cum. 1996 | 1997 | Cum. 1997 | 1997 | Cum. 1997 | Cum. 1997 | Cum. 1996 |
| UNITED STATES | 602 | 620 | 13,729 | 13,877 | 4,308 | 4,802 | - | 50 | - | 21 | 71 | 286 |
| NEW ENGLAND | 34 | 16 | 306 | 160 | 76 | 101 | - | 9 | - | 1 | 10 | 11 |
| Maine | 3 | - | 41 | 12 | 7 | 2 | - | - | - | - | - | - |
| N.H. | 4 | 9 | 18 | 7 | 5 | 8 | - | 1 | - | - | 1 | - |
| Vt. | 3 | - | 7 | 3 | 2 | 8 | - | - | - | - | - | 1 |
| Mass. | 21 | 6 | 129 | 79 | 32 | 30 | - | 8 | - | - | 8 | 9 |
| R.I. | 2 | 1 | 47 | 7 | 9 | 6 | - | - | - | - | - | - |
| Conn. | 1 | - | 64 | 52 | 21 | 47 | U | - | U | 1 | 1 | 1 |
| MID. ATLANTIC | 69 | 130 | 1,003 | 934 | 596 | 777 | - | 12 | - | 4 | 16 | 25 |
| Upstate N.Y. | 12 | 33 | 147 | 208 | 117 | 180 | - | 2 | - | 3 | 5 | 4 |
| N.Y. City | 20 | 34 | 354 | 297 | 210 | 281 | - | 4 | - | 1 | 5 | 9 |
| N.J. | 27 | 35 | 176 | 210 | 127 | 159 | - | 1 | - | - | 1 | 1 |
| Pa. | 10 | 28 | 326 | 219 | 142 | 157 | - | 5 | - | - | 5 | 11 |
| E.N. CENTRAL | 98 | 107 | 1,403 | 1,261 | 460 | 566 | - | 5 | - | 3 | 8 | 16 |
| Ohio | 59 | 56 | 204 | 470 | 44 | 64 | - | - | - | - | - | 2 |
| Ind. | 8 | 7 | 159 | 161 | 49 | 77 | - | - | - | - | - | - |
| Ill. | 22 | 32 | 299 | 318 | 111 | 171 | - | 5 | - | 1 | 6 | 3 |
| Mich. | 8 | 7 | 665 | 203 | 241 | 202 | - | - | - | 2 | 2 | 2 |
| Wis. | 1 | 5 | 76 | 109 | 15 | 52 | - | - | - | - | - | 9 |
| W.N. CENTRAL | 29 | 21 | 1,052 | 1,069 | 255 | 242 | - | 9 | - | 2 | 11 | 16 |
| Minn. | 19 | 10 | 90 | 50 | 23 | 19 | - | - | - | 2 | 2 | 14 |
| Iowa | 3 | 3 | 179 | 208 | 29 | 29 | - | - | - | - | - | - |
| Mo. | 3 | 5 | 565 | 543 | 175 | 156 | - | 1 | - | - | 1 | 1 |
| N. Dak. | - | - | 10 | 28 | 1 | - | - | - | - | - | - | - |
| S. Dak. | 2 | 1 | 14 | 39 | - | - | U | 8 | U | - | 8 | - |
| Nebr. | 1 | 1 | 47 | 82 | 10 | 16 | - | - | - | - | - | - |
| Kans. | 1 | 1 | 147 | 119 | 17 | 22 | - | - | - | - | - | 1 |
| S. ATLANTIC | 119 | 108 | 874 | 561 | 637 | 643 | - | 2 | - | 4 | 6 | 5 |
| Del. | - | 1 | 12 | 6 | 3 | 4 | - | - | - | - | - | 1 |
| Md. | 47 | 37 | 141 | 103 | 95 | 82 | - | - | - | 1 | 1 | - |
| D.C. | 2 | 5 | 14 | 18 | 21 | 26 | - | - | - | 1 | 1 | - |
| Va. | 7 | 4 | 100 | 82 | 63 | 80 | - | - | - | - | - | 2 |
| W. Va. | 3 | 4 | 6 | 12 | 9 | 14 | - | - | - | - | - | - |
| N.C. | 17 | 18 | 106 | 68 | 123 | 182 | - | - | - | 1 | 1 | - |
| S.C. | 4 | 3 | 66 | 30 | 60 | 43 | - | - | - | - | - | - |
| Ga. | 20 | 27 | 190 | 41 | 57 | 7 | - | - | - | - | - | 1 |
| Fla. | 19 | 9 | 239 | 201 | 206 | 205 | - | 2 | - | 1 | 3 | 1 |
| E.S. CENTRAL | 34 | 18 | 339 | 799 | 361 | 411 | - | - | - | - | - | - |
| Ky. | 4 | 5 | 44 | 16 | 22 | 40 | - | - | - | - | - | - |
| Tenn. | 22 | 7 | 209 | 558 | 234 | 240 | - | - | - | - | - | - |
| Ala. | 8 | 5 | 51 | 101 | 37 | 27 | - | - | - | - | - | - |
| Miss. | - | 1 | 35 | 124 | 68 | 104 | U | - | U | - | - | - |
| W.S. CENTRAL | 31 | 27 | 2,855 | 2,586 | 540 | 524 | - | 3 | - | 1 | 4 | 5 |
| Ark. | 1 | - | 141 | 254 | 31 | 45 | - | - | - | - | - | - |
| La. | 6 | 2 | 114 | 82 | 68 | 60 | - | - | - | - | - | - |
| Okla. | 19 | 22 | 859 | 1,088 | 17 | 24 | - | - | - | - | - | - |
| Tex. | 5 | 3 | 1,741 | 1,162 | 424 | 395 | U | 3 | U | 1 | 4 | 5 |
| MOUNTAIN | 61 | 33 | 2,125 | 2,255 | 475 | 587 | - | 5 | - | - | 5 | 80 |
| Mont. | - | - | 52 | 67 | 5 | 6 | - | - | - | - | - | - |
| Idaho | 1 | 1 | 77 | 136 | 15 | 62 | - | - | - | - | - | 1 |
| Wyo. | 1 | - | 20 | 20 | 20 | 22 | - | - | - | - | - | - |
| Colo. | 9 | 7 | 241 | 208 | 93 | 64 | - | - | - | - | - | 6 |
| N. Mex. | 7 | 8 | 171 | 257 | 159 | 196 | - | - | - | - | - | 6 |
| Ariz. | 24 | 12 | 1,078 | 861 | 105 | 137 | - | 5 | - | - | 5 | 8 |
| Utah | 3 | 5 | 352 | 504 | 55 | 60 | - | - | - | - | - | 54 |
| Nev. | 16 | - | 134 | 202 | 23 | 40 | - | - | - | - | - | 5 |
| PACIFIC | 127 | 160 | 3,772 | 4,252 | 908 | 951 | - | 5 | - | 6 | 11 | 128 |
| Wash. | 2 | 2 | 285 | 286 | 41 | 55 | - | - | - | - | - | 37 |
| Oreg. | 22 | 22 | 200 | 560 | 59 | 61 | - | - | - | - | - | 7 |
| Calif. | 97 | 130 | 3,194 | 3,329 | 787 | 824 | - | 2 | - | 6 | 8 | 19 |
| Alaska | 1 | 4 | 23 | 28 | 13 | 4 | - | - | - | - | - | 63 |
| Hawaii | 5 | 2 | 70 | 49 | 8 | 7 | - | 3 | - | - | 3 | 2 |
| Guam | - | - | - | 6 | 1 | - | U | - | U | - | - | - |
| P.R. | - | 1 | 172 | 111 | 691 | 530 | - | - | - | - | - | 2 |
| V.I. | - | - | - | 24 | - | 21 | U | - | U | - | - | - |
| Amer. Samoa | - | - | - | - | - | - | U | - | U | - | - | - |
| C.N.M.I. | 5 | 10 | 1 | 1 | 21 | 5 | U | 1 | U | - | 1 | - |

N: Not notifiable U: Unavailable -: no reported cases

*Of 128 cases among children aged <5 years, serotype was reported for 65 and of those, 26 were type b.

†For imported measles, cases include only those resulting from importation from other countries.

TABLE III. (Cont'd.) Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending July 5, 1997, and July 6, 1996 (27th Week)

| Reporting Area | Meningococcal Disease | | Mumps | | | Pertussis | | | Rubella | | |
|----------------|-----------------------|-----------|-------|-----------|-----------|-----------|-----------|-----------|---------|-----------|-----------|
| | Cum. 1997 | Cum. 1996 | 1997 | Cum. 1997 | Cum. 1996 | 1997 | Cum. 1997 | Cum. 1996 | 1997 | Cum. 1997 | Cum. 1996 |
| UNITED STATES | 2,000 | 1,934 | 3 | 326 | 379 | 44 | 2,496 | 1,940 | - | 64 | 129 |
| NEW ENGLAND | 123 | 81 | - | 7 | 1 | 5 | 521 | 435 | - | - | 24 |
| Maine | 12 | 9 | - | - | - | - | 6 | 13 | - | - | - |
| N.H. | 13 | 3 | - | - | - | 1 | 60 | 19 | - | - | - |
| Vt. | 2 | 3 | - | - | - | 2 | 173 | 10 | - | - | 2 |
| Mass. | 62 | 30 | - | 2 | 1 | 2 | 260 | 388 | - | - | 20 |
| R.I. | 9 | 8 | - | 4 | - | - | 12 | - | - | - | - |
| Conn. | 25 | 28 | U | 1 | - | U | 10 | 5 | U | - | 2 |
| MID. ATLANTIC | 175 | 213 | - | 30 | 53 | 3 | 173 | 125 | - | 3 | 7 |
| Upstate N.Y. | 44 | 53 | - | 6 | 15 | - | 52 | 62 | - | 1 | 3 |
| N.Y. City | 31 | 31 | - | - | 13 | - | 40 | 19 | - | 2 | 2 |
| N.J. | 40 | 46 | - | - | 2 | - | 5 | 7 | - | - | 2 |
| Pa. | 60 | 83 | - | 24 | 23 | 3 | 76 | 37 | - | - | - |
| E.N. CENTRAL | 284 | 278 | 2 | 34 | 85 | 3 | 188 | 257 | - | 4 | 3 |
| Ohio | 110 | 97 | 2 | 16 | 27 | 3 | 77 | 82 | - | - | - |
| Ind. | 32 | 37 | - | 4 | 5 | - | 29 | 15 | - | - | - |
| Ill. | 85 | 83 | - | 7 | 17 | - | 28 | 61 | - | 1 | 1 |
| Mich. | 34 | 29 | - | 7 | 35 | - | 31 | 22 | - | - | 2 |
| Wis. | 23 | 32 | - | - | 1 | - | 23 | 77 | - | 3 | - |
| W.N. CENTRAL | 149 | 148 | - | 12 | 5 | 3 | 146 | 71 | - | - | - |
| Minn. | 19 | 14 | - | 5 | 1 | 3 | 99 | 43 | - | 1 | - |
| Iowa | 33 | 32 | - | 6 | - | - | 16 | 3 | - | - | - |
| Mo. | 75 | 61 | - | - | 2 | - | 19 | 15 | - | - | - |
| N. Dak. | 1 | 2 | - | - | 2 | - | 2 | 1 | - | - | - |
| S. Dak. | 4 | 7 | U | - | - | U | 2 | 2 | U | - | - |
| Nebr. | 5 | 13 | - | 1 | - | - | 3 | 2 | - | - | - |
| Kans. | 12 | 19 | - | - | - | - | 5 | 5 | - | - | - |
| S. ATLANTIC | 362 | 293 | - | 46 | 54 | 7 | 248 | 186 | - | 33 | 22 |
| Del. | 5 | 2 | - | - | - | - | - | 13 | - | - | - |
| Md. | 35 | 35 | - | 4 | 18 | 1 | 79 | 64 | - | - | - |
| D.C. | 1 | 4 | - | - | - | - | 2 | - | - | - | 1 |
| Va. | 33 | 35 | - | 6 | 5 | - | 25 | 20 | - | 1 | 2 |
| W. Va. | 14 | 12 | - | - | - | - | 4 | 2 | - | - | - |
| N.C. | 64 | 49 | - | 7 | 11 | - | 68 | 34 | - | 22 | 8 |
| S.C. | 41 | 38 | - | 10 | 5 | - | 11 | 7 | - | 9 | 1 |
| Ga. | 69 | 81 | - | 4 | 2 | - | 7 | 9 | - | - | - |
| Fla. | 100 | 37 | - | 15 | 13 | 6 | 52 | 37 | - | 1 | 10 |
| E.S. CENTRAL | 149 | 136 | - | 16 | 15 | 1 | 54 | 149 | - | - | 2 |
| Ky. | 35 | 19 | - | 3 | - | - | 11 | 128 | - | - | - |
| Tenn. | 54 | 41 | - | 3 | 1 | - | 22 | 12 | - | - | - |
| Ala. | 44 | 40 | - | 6 | 3 | 1 | 13 | 4 | - | - | 2 |
| Miss. | 16 | 36 | U | 4 | 11 | U | 8 | 5 | U | - | N |
| W.S. CENTRAL | 199 | 222 | - | 34 | 28 | 5 | 48 | 65 | - | 4 | 7 |
| Ark. | 25 | 26 | - | - | 1 | 1 | 10 | 2 | - | - | - |
| La. | 37 | 41 | - | 11 | 10 | - | 11 | 4 | - | - | 1 |
| Okla. | 23 | 20 | - | - | - | 4 | 10 | 5 | - | - | - |
| Tex. | 114 | 135 | U | 23 | 17 | U | 17 | 54 | U | 4 | 6 |
| MOUNTAIN | 116 | 116 | - | 43 | 16 | 7 | 721 | 184 | - | 5 | 6 |
| Mont. | 8 | 5 | - | - | - | - | 9 | 7 | - | - | - |
| Idaho | 8 | 16 | - | 2 | - | 1 | 510 | 60 | - | 1 | 2 |
| Wyo. | 1 | 3 | - | 1 | - | 1 | 5 | 1 | - | - | - |
| Colo. | 32 | 19 | - | 3 | 3 | 1 | 141 | 41 | - | - | 2 |
| N. Mex. | 18 | 20 | N | N | N | 1 | 32 | 32 | - | - | - |
| Ariz. | 32 | 29 | - | 29 | 1 | 3 | 18 | 12 | - | 4 | 1 |
| Utah | 11 | 11 | - | 6 | 2 | - | 4 | 6 | - | - | - |
| Nev. | 6 | 13 | - | 2 | 10 | - | 2 | 25 | - | - | 1 |
| PACIFIC | 443 | 447 | 1 | 104 | 122 | 10 | 397 | 468 | - | 15 | 58 |
| Wash. | 54 | 57 | - | 12 | 17 | 10 | 192 | 191 | - | 3 | 12 |
| Oreg. | 91 | 77 | - | - | - | - | 18 | 33 | - | - | 1 |
| Calif. | 295 | 307 | 1 | 80 | 86 | - | 180 | 231 | - | 7 | 42 |
| Alaska | 1 | 4 | - | 2 | 2 | - | 1 | 1 | - | - | - |
| Hawaii | 2 | 2 | - | 10 | 17 | - | 6 | 12 | - | 5 | 3 |
| Guam | - | 3 | U | 1 | 4 | U | - | - | U | - | - |
| P.R. | 8 | 9 | - | 4 | 1 | - | - | 2 | - | - | - |
| V.I. | - | - | U | - | 1 | U | - | - | U | - | - |
| Amer. Samoa | - | - | U | - | - | U | - | - | U | - | - |
| C.N.M.I. | - | - | U | 4 | - | U | - | - | U | - | - |

N: Not notifiable

U: Unavailable

-: no reported cases

**TABLE IV. Deaths in 122 U.S. cities,* week ending
July 5, 1997 (27th Week)**

| Reporting Area | All Causes, By Age (Years) | | | | | | P&J† Total | Reporting Area | All Causes, By Age (Years) | | | | | | P&J† Total |
|---------------------|----------------------------|-------|-------|-------|------|----|---------------|-----------------------|----------------------------|-------|-------|-------|------|-----|---------------|
| | All Ages | >65 | 45-64 | 25-44 | 1-24 | <1 | | | All Ages | >65 | 45-64 | 25-44 | 1-24 | <1 | |
| NEW ENGLAND | 465 | 324 | 84 | 35 | 15 | 7 | 34 | S. ATLANTIC | 1,144 | 714 | 253 | 124 | 35 | 18 | 46 |
| Boston, Mass. | 141 | 90 | 32 | 12 | 5 | 2 | 11 | Atlanta, Ga. | 160 | 101 | 37 | 17 | 4 | 1 | 4 |
| Bridgeport, Conn. | 32 | 20 | 8 | 2 | 2 | - | 2 | Baltimore, Md. | 168 | 108 | 32 | 20 | 6 | 2 | 14 |
| Cambridge, Mass. | 18 | 15 | 3 | - | - | - | 2 | Charlotte, N.C. | 59 | 41 | 10 | 5 | 1 | 2 | 4 |
| Fall River, Mass. | 29 | 23 | 3 | 3 | - | - | - | Jacksonville, Fla. | 112 | 70 | 26 | 9 | 7 | - | - |
| Hartford, Conn. | 41 | 27 | 4 | 6 | 1 | 3 | 1 | Miami, Fla. | 99 | 59 | 18 | 20 | 1 | 1 | - |
| Lowell, Mass. | 13 | 9 | 3 | 1 | - | - | 2 | Norfolk, Va. | 47 | 33 | 8 | 3 | 1 | 2 | 1 |
| Lynn, Mass. | 8 | 5 | 3 | - | - | - | 1 | Richmond, Va. | 50 | 29 | 14 | 7 | - | - | 2 |
| New Bedford, Mass. | 13 | 12 | 1 | - | - | - | 1 | Savannah, Ga. | 59 | 32 | 16 | 5 | 2 | 4 | 2 |
| New Haven, Conn. | 20 | 10 | 5 | 3 | 1 | 1 | 1 | St. Petersburg, Fla. | 69 | 48 | 11 | 7 | 1 | 2 | 2 |
| Providence, R.I. | 42 | 31 | 6 | 2 | 3 | - | 8 | Tampa, Fla. | 153 | 105 | 30 | 13 | 4 | 1 | 13 |
| Somerville, Mass. | 6 | 5 | - | 1 | - | - | - | Washington, D.C. | 147 | 79 | 40 | 17 | 8 | 3 | 4 |
| Springfield, Mass. | 33 | 23 | 6 | 2 | 2 | - | - | Wilmington, Del. | 21 | 9 | 11 | 1 | - | - | - |
| Waterbury, Conn. | 26 | 23 | 1 | 2 | - | - | 1 | E.S. CENTRAL | 670 | 464 | 119 | 39 | 30 | 18 | 53 |
| Worcester, Mass. | 43 | 31 | 9 | 1 | 1 | 1 | 4 | Birmingham, Ala. | 177 | 131 | 27 | 9 | 6 | 4 | 12 |
| MID. ATLANTIC | 2,095 | 1,435 | 388 | 166 | 57 | 48 | 81 | Chattanooga, Tenn. | 54 | 38 | 10 | 2 | 2 | 2 | 5 |
| Albany, N.Y. | 46 | 36 | 6 | 1 | 2 | 1 | 2 | Knoxville, Tenn. | 85 | 66 | 12 | 3 | 2 | 2 | 14 |
| Allentown, Pa. | 18 | 12 | 3 | 3 | - | - | - | Lexington, Ky. | 53 | 29 | 15 | 2 | 2 | 5 | 5 |
| Buffalo, N.Y. | 62 | 48 | 11 | 1 | 1 | 1 | 3 | Memphis, Tenn. | 141 | 93 | 24 | 12 | 10 | 2 | 13 |
| Camden, N.J. | 25 | 15 | 6 | 1 | - | 3 | 1 | Mobile, Ala. | 45 | 30 | 7 | 4 | 2 | 2 | - |
| Elizabeth, N.J. | 14 | 11 | 3 | - | - | - | - | Montgomery, Ala. | 19 | 15 | 2 | - | 2 | - | 1 |
| Erie, Pa. | 35 | 29 | 3 | 1 | - | 2 | 1 | Nashville, Tenn. | 96 | 62 | 22 | 7 | 4 | 1 | 3 |
| Jersey City, N.J. | 77 | 52 | 16 | 6 | 2 | 1 | - | W.S. CENTRAL | 1,228 | 806 | 232 | 107 | 55 | 28 | 67 |
| New York City, N.Y. | 1,014 | 689 | 188 | 89 | 25 | 23 | 25 | Austin, Tex. | 43 | 29 | 7 | 3 | 3 | 1 | 1 |
| Newark, N.J. | 61 | 25 | 22 | 9 | 4 | - | 4 | Baton Rouge, La. | 48 | 32 | 9 | 5 | 2 | - | - |
| Paterson, N.J. | 13 | 11 | 1 | - | 1 | - | - | Corpus Christi, Tex. | 48 | 35 | 6 | 4 | 2 | 1 | 4 |
| Philadelphia, Pa. | 401 | 253 | 90 | 35 | 17 | 6 | 22 | Dallas, Tex. | 122 | 65 | 37 | 11 | 8 | 1 | 1 |
| Pittsburgh, Pa.‡ | 46 | 37 | 7 | 1 | - | 1 | 5 | El Paso, Tex. | 58 | 44 | 7 | 6 | 1 | - | 6 |
| Reading, Pa. | 7 | 5 | 1 | 1 | - | - | - | Ft. Worth, Tex. | 93 | 64 | 18 | 4 | 4 | 3 | 3 |
| Rochester, N.Y. | 101 | 79 | 16 | 3 | 1 | 2 | 6 | Houston, Tex. | 306 | 195 | 59 | 31 | 12 | 9 | 23 |
| Schenectady, N.Y. | 21 | 16 | 3 | 2 | - | - | 4 | Little Rock, Ark. | 63 | 43 | 9 | 6 | 2 | 3 | 4 |
| Scranton, Pa. | 35 | 29 | 2 | 3 | - | 1 | 2 | New Orleans, La. | 95 | 56 | 13 | 12 | 13 | 1 | - |
| Syracuse, N.Y. | 70 | 53 | 3 | 7 | 3 | 4 | 4 | San Antonio, Tex. | 139 | 98 | 25 | 9 | 5 | 2 | 9 |
| Trenton, N.J. | 30 | 22 | 3 | 2 | - | 3 | 2 | Shreveport, La. | 80 | 56 | 11 | 7 | 2 | 4 | 5 |
| Utica, N.Y. | 19 | 13 | 4 | 1 | 1 | - | - | Tulsa, Okla. | 133 | 89 | 31 | 9 | 1 | 3 | 11 |
| Yonkers, N.Y. | U | U | U | U | U | U | U | MOUNTAIN | 616 | 420 | 109 | 48 | 20 | 19 | 34 |
| E.N. CENTRAL | 1,882 | 1,239 | 369 | 162 | 64 | 48 | 97 | Albuquerque, N.M. | 90 | 68 | 16 | 3 | 2 | 1 | 7 |
| Akron, Ohio | 30 | 17 | 7 | 4 | 1 | 1 | - | Boise, Idaho | 33 | 28 | 5 | - | - | - | 3 |
| Canton, Ohio | 31 | 24 | 5 | - | 1 | 1 | 3 | Colo. Springs, Colo. | 45 | 31 | 9 | 2 | 2 | 1 | 2 |
| Chicago, Ill. | 461 | 274 | 106 | 46 | 22 | 13 | 22 | Denver, Colo. | 92 | 50 | 19 | 8 | 7 | 8 | 6 |
| Cincinnati, Ohio | 74 | 54 | 16 | 4 | - | - | 8 | Las Vegas, Nev. | 112 | 70 | 25 | 12 | 2 | 3 | 8 |
| Cleveland, Ohio | 96 | 52 | 27 | 8 | 4 | 5 | - | Ogden, Utah | 17 | 14 | 1 | 1 | - | 1 | - |
| Columbus, Ohio | 157 | 105 | 31 | 13 | 4 | 4 | 9 | Phoenix, Ariz. | 94 | 63 | 12 | 10 | 5 | 4 | - |
| Dayton, Ohio | 94 | 68 | 13 | 11 | 2 | - | 7 | Pueblo, Colo. | 20 | 17 | 2 | 1 | - | - | - |
| Detroit, Mich. | 172 | 109 | 37 | 19 | 4 | 3 | 4 | Salt Lake City, Utah | U | U | U | U | U | U | U |
| Evansville, Ind. | 29 | 24 | 4 | 1 | - | - | 1 | Tucson, Ariz. | 113 | 79 | 20 | 11 | 2 | 1 | 8 |
| Fort Wayne, Ind. | 74 | 47 | 14 | 8 | 3 | 2 | 1 | PACIFIC | 1,429 | 1,011 | 239 | 102 | 42 | 35 | 104 |
| Gary, Ind. | 17 | 13 | 1 | 1 | 2 | - | 1 | Berkeley, Calif. | 7 | 6 | - | - | - | 1 | 1 |
| Grand Rapids, Mich. | 51 | 39 | 4 | 3 | 4 | 1 | 1 | Fresno, Calif. | 70 | 48 | 14 | 1 | 4 | 3 | 3 |
| Indianapolis, Ind. | 161 | 90 | 43 | 14 | 7 | 7 | 12 | Glendale, Calif. | 37 | 32 | 4 | - | - | 1 | 4 |
| Lansing, Mich. | 32 | 24 | 6 | 1 | - | 1 | 3 | Honolulu, Hawaii | 53 | 36 | 9 | 1 | 2 | 5 | 3 |
| Milwaukee, Wis. | 122 | 94 | 17 | 7 | 2 | 2 | 7 | Long Beach, Calif. | 63 | 46 | 9 | 3 | 4 | 1 | 9 |
| Peoria, Ill. | 30 | 18 | 5 | 2 | 3 | 2 | 3 | Los Angeles, Calif. | 460 | 332 | 71 | 39 | 11 | 7 | 21 |
| Rockford, Ill. | 38 | 26 | 6 | 3 | 1 | 2 | 2 | Pasadena, Calif. | 12 | 9 | 3 | - | - | - | 2 |
| South Bend, Ind. | 60 | 46 | 4 | 7 | 1 | 2 | 6 | Portland, Oreg. | 112 | 72 | 20 | 12 | 4 | 4 | 5 |
| Toledo, Ohio | 96 | 71 | 16 | 6 | 2 | 1 | 4 | Sacramento, Calif. | U | U | U | U | U | U | U |
| Youngstown, Ohio | 57 | 44 | 7 | 4 | 1 | 1 | 3 | San Diego, Calif. | 100 | 69 | 17 | 6 | 2 | 6 | 13 |
| W.N. CENTRAL | 678 | 472 | 121 | 47 | 12 | 17 | 45 | San Francisco, Calif. | 125 | 84 | 25 | 13 | 2 | 1 | 11 |
| Des Moines, Iowa | 89 | 63 | 19 | 4 | 3 | - | 11 | San Jose, Calif. | 170 | 117 | 30 | 14 | 7 | 2 | 14 |
| Duluth, Minn. | 36 | 27 | 8 | - | 1 | - | 4 | Santa Cruz, Calif. | 19 | 13 | 4 | 2 | - | - | 4 |
| Kansas City, Kans. | 13 | 7 | 4 | 1 | - | 1 | - | Seattle, Wash. | 99 | 69 | 16 | 8 | 5 | 1 | 3 |
| Kansas City, Mo. | 93 | 58 | 16 | 8 | 1 | 1 | 3 | Spokane, Wash. | 52 | 41 | 7 | 1 | 1 | 2 | 5 |
| Lincoln, Nebr. | 25 | 20 | 2 | 3 | - | - | 2 | Tacoma, Wash. | 50 | 37 | 10 | 2 | - | 1 | 6 |
| Minneapolis, Minn. | 154 | 113 | 19 | 14 | 2 | 6 | 10 | TOTAL | 10,207† | 6,885 | 1,914 | 830 | 330 | 238 | 561 |
| Omaha, Nebr. | 61 | 37 | 12 | 6 | 2 | 4 | 3 | | | | | | | | |
| St. Louis, Mo. | 96 | 69 | 16 | 7 | - | 4 | 5 | | | | | | | | |
| St. Paul, Minn. | 50 | 38 | 11 | 1 | - | - | 5 | | | | | | | | |
| Wichita, Kans. | 61 | 40 | 14 | 3 | 3 | 1 | 2 | | | | | | | | |

U: Unavailable - : no reported cases

*Mortality data in this table are voluntarily reported from 122 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 this Pennsylvania city, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

¶Total includes unknown ages.

Guidelines — Continued

- c. determine whether transmission has already occurred by obtaining baseline cultures (before initiation of precautions) for staphylococci with reduced susceptibility to vancomycin from the anterior nares and hands of all health-care workers, roommates, and others with direct patient contact;
- d. assess efficacy of precautions by monitoring health-care personnel for acquisition of staphylococci with reduced susceptibility to vancomycin as recommended by consultants from SHD or CDC;
- e. avoid transferring infected patients within or between facilities, and if transfer is necessary, fully inform the receiving institution or unit of the patient's colonization/infection status and appropriate precautions; and
- f. consult with SHD and CDC before discharge of the colonized/infected patient.

Reported by: Hospital Infection Control Practices Advisory Committee. Div of Anti-Infective Drug Products and Div of Special Pathogens and Immunologic Drug Products, Center for Drug Evaluation and Research, Food and Drug Administration. Hospital Infections Program, National Center for Infectious Diseases, CDC.

References

1. Garrett DO, Jochimsen E, Murfitt K, et al. The impending apocalypse: the emergence of vancomycin resistance in *Staphylococcus* spp. [Abstract S1]. *Infect Control Hosp Epidemiol* 1997; 18:P32.
2. National Committee for Clinical Laboratory Standards. Methods for dilution antimicrobial susceptibility tests for bacteria that grow aerobically—fourth edition: approved standard, M7-A4. Villanova, Pennsylvania: National Committee for Clinical Laboratory Standards, 1997.
3. Hiramatsu K, Hanaki H, Ino T, et al. Methicillin-resistant *Staphylococcus aureus* clinical strain with reduced vancomycin susceptibility. *J Antimicrob Chemother* 1997 (in press).
4. CDC. Reduced susceptibility of *Staphylococcus aureus* to vancomycin—Japan, 1996. *MMWR* 1997;46:624–6.
5. Hospital Infection Control Practices Advisory Committee. Recommendations for preventing the spread of vancomycin resistance. *MMWR* 1995;44(no. RR-12).
6. Garner JS, Hospital Infection Control Practices Advisory Committee. Guideline for isolation precautions in hospitals. *Infect Control Hosp Epidemiol* 1996;17:53–80.

Contributors to the Production of the *MMWR* (Weekly)

Weekly Notifiable Disease Morbidity Data and 122 Cities Mortality Data

Denise Koo, M.D., M.P.H.

State Support Team

Robert Fagan
 Jill Andrews
 Karl A. Brendel
 Siobhan Gilchrist, M.P.H.
 Harry Holden
 Gerald Jones
 Felicia Perry
 Svati Shah, M.P.H.

CDC Operations Team

Carol M. Knowles
 Deborah A. Adams
 Willie J. Anderson
 Christine R. Burgess
 Patsy A. Hall
 Myra A. Montalbano
 Angela Trosclair, M.S.

Desktop Publishing and Graphics Support

Morie M. Higgins
 Peter M. Jenkins

The *Morbidity and Mortality Weekly Report (MMWR) Series* is prepared by the Centers for Disease Control and Prevention (CDC) and is available free of charge in electronic format and on a paid subscription basis for paper copy. To receive an electronic copy on Friday of each week, send an e-mail message to listserv@listserv.cdc.gov. The body content should read *SUBscribe mmwr-toc*. Electronic copy also is available from CDC's World-Wide Web server at <http://www.cdc.gov/> or from CDC's file transfer protocol server at <ftp.cdc.gov>. To subscribe for paper copy, contact Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402; telephone (202) 512-1800.

Data in the weekly *MMWR* are provisional, based on weekly reports 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 following Friday. Address inquiries about the *MMWR* Series, including material to be considered for publication, to: Editor, *MMWR* Series, Mailstop C-08, CDC, 1600 Clifton Rd., N.E., Atlanta, GA 30333; telephone (404) 332-4555.

All material in the *MMWR* Series is in the public domain and may be used and reprinted without permission; citation as to source, however, is appreciated.

Director, Centers for Disease Control
and Prevention
David Satcher, M.D., Ph.D.
Deputy Director, Centers for Disease Control
and Prevention
Claire V. Broome, M.D.
Director, Epidemiology Program Office
Stephen B. Thacker, M.D., M.Sc.

Editor, *MMWR* Series
Richard A. Goodman, M.D., M.P.H.
Managing Editor, *MMWR* (weekly)
Karen L. Foster, M.A.
Writers-Editors, *MMWR* (weekly)
David C. Johnson
Darlene D. Rumph Person
Teresa F. Rutledge
Caran R. Wilbanks