Table 2C. Zone Diameter and MIC Breakpoints for *Staphylococcus* spp.

Testing Conditions

Medium: Disk diffusion: MHA
Broth dilution: CAMHB; CAMHB + 2% NaCl for oxacillin; CAMHB supplemented to 50 µg/mL calcium for daptomycin.
Agar dilution: MHA; MHA + 2% NaCl for oxacillin.
NOTE: Agar dilution has not been validated for daptomycin.

Inoculum: Colony suspension, equivalent to a 0.5 McFarland standard

Incubation: 35°C ± 2°C; ambient air
Disk diffusion: 16–18 hours; 24 hours (for cefoxitin when testing *Staphylococcus* spp., except *S. aureus*, *S. lugdunensis*, *S. pseudintermedius*, and *S. schleiferi*)
Dilution methods: 16–20 hours; 24 hours for oxacillin and vancomycin
Testing at temperatures above 35°C may not detect MRS.

Routine QC Recommendations (see Tables 4A-1 and 5A-1 for acceptable QC ranges)

Disk diffusion:
S. aureus ATCC®[a] 25923

Dilution methods:
S. aureus ATCC® 29213

Refer to Tables 4A-2 and 5A-2 to select strains for routine QC of β-lactam combination agents.

When a commercial test system is used for susceptibility testing, refer to the manufacturer's instructions for QC test recommendations and QC ranges.

General Comments

(1) Refer to Table 1H for antimicrobial agents that should be considered for testing and reporting by microbiology laboratories.

(2) For disk diffusion, test a maximum of 12 disks on a 150-mm plate and no more than 6 disks on a 100-mm plate; disks should be placed no less than 24 mm apart, center to center (see M02,[1] Subchapter 3.6). Each zone diameter should be clearly measurable; overlapping zones prevent accurate measurement. Measure the diameter of the zones of complete inhibition (as judged by the unaided eye), including the diameter of the disk (see the *M02 Disk Diffusion Reading Guide*[2]). Hold the Petri plate a few inches above a black background illuminated with reflected light, except for linezolid, which should be read with transmitted light (plate held up to light source). The zone margin should be considered the area showing no obvious, visible growth that can be detected with the unaided eye. Ignore faint growth of tiny colonies that can be detected only with a magnifying lens at the edge of the zone of inhibited growth. With trimethoprim and the sulfonamides, antagonists in the medium may allow some slight growth; therefore, disregard slight growth (20% or less of the lawn of growth) and measure the more obvious margin to determine the zone diameter. For linezolid, any discernible growth within the zone of inhibition is indicative of resistance to the respective agent.

(3) *S. aureus* complex consists of the coagulase-positive species *S. aureus*, *Staphylococcus argenteus*, and *Staphylococcus schweitzeri*. If *S. argenteus* is identified by MALDI-TOF MS or sequencing, it is recommended that it be reported as "*S. aureus* complex (*S. argenteus*)," and *S. aureus* phenotypic testing method recommendations, breakpoints, and interpretive categories should be used. Human infections with *S. schweitzeri* have yet to be reported.[3]

Table 2C. Staphylococcus spp. (Continued)

(4) For staphylococci when testing chloramphenicol, clindamycin, erythromycin, linezolid, tedizolid, and tetracycline by broth microdilution MIC, trailing growth can make end-point determination difficult. In such cases, read the MIC at the lowest concentration where the trailing begins. Tiny buttons of growth should be ignored (see M07,[4] Figures 3 and 4). With trimethoprim and the sulfonamides, antagonists in the medium may allow some slight growth; therefore, read the end point at the concentration in which there is ≥ 80% reduction in growth compared with the control (see M07,[4] Figure 5).

(5) Routine testing of urine isolates of *Staphylococcus saprophyticus* is not advised, because infections respond to concentrations achieved in urine of antimicrobial agents commonly used to treat acute, uncomplicated UTIs (eg, nitrofurantoin, trimethoprim - sulfamethoxazole, or a fluoroquinolone).

(6) Historically, resistance to the penicillinase-stable penicillins (see Glossary I) has been referred to as "methicillin resistance" or "oxacillin resistance." MRSA are strains of *S. aureus* that express *mecA*, *mecC*, or another mechanism of methicillin (oxacillin) resistance, such as changes in affinity of penicillin-binding proteins for oxacillin (modified *S. aureus* strains).

(7) Most methicillin (oxacillin) resistance is mediated by *mecA*, encoding PBP2a (also called PBP2′). Tests for *mecA* and PBP2a are the most definitive tests for detection of methicillin (oxacillin) resistance for *Staphylococcus* spp. Isolates that test positive for *mecA* or PBP2a or resistant by any of the recommended phenotypic methods should be reported as methicillin (oxacillin) resistant (see Appendix H and the table below).

Detection of methicillin (oxacillin) resistance in staphylococci is achieved by using specific methods as listed in Table 2C and further described in Tables 3G-1 and 3G-2.

Organism	Phenotypic Methods for Detection of Methicillin (Oxacillin)-Resistant *Staphylococcus* spp.				
	Cefoxitin MIC	Cefoxitin disk diffusion	Oxacillin MIC	Oxacillin disk diffusion	Oxacillin salt agar
S. aureus	Yes (16-20 h)	Yes (16-18 h)	Yes (24 h)	No	Yes (24 h)
S. lugdunensis	Yes (16-20 h)	Yes (16-18 h)	Yes (24 h)	No	No
S. epidermidis	No	Yes (24 h)	Yes (24 h)	Yes (16-18 h)	No
S. pseudintermedius	No	No	Yes (24 h)	Yes (16-18 h)	No
S. schleiferi	No	No	Yes (24 h)	Yes (16-18 h)	No
Staphylococcus spp. (not listed above or not identified to the species level)	No	Yes[a] (24 h)	Yes[a] (24 h)	No	No

Abbreviations: h, hour(s); MIC, minimal inhibitory concentration; MRS, methicillin (oxacillin)-resistant staphylococci; PBP2a, penicillin-binding protein 2a.

[a] For isolates that fall into the category of *Staphylococcus* spp (not listed above or not identified to the species level) from serious infections for which the oxacillin MICs are 1–2 µg/mL, tests for *mecA* or PBP2a should be considered, because these are the most definitive tests for detection of methicillin (oxacillin) resistance (see comment [19]). Recent data suggest that the cefoxitin disk diffusion test may not perform reliably for all species (eg, *S. haemolyticus*) that fall into the category of "*Staphylococcus* spp. (not listed above or not identified to the species level)."[5]

Mechanisms of methicillin (oxacillin) resistance other than *mecA* are rare and include a novel *mecA* homologue, *mecC*.[6] MICs for strains with *mecC* are typically cefoxitin resistant and oxacillin susceptible; *mecC* resistance cannot be detected by tests directed at *mecA* or PBP2a.

Table 2C. *Staphylococcus* spp. (Continued)

(8) MRS, as defined by cefoxitin or oxacillin testing, as appropriate to the species, are considered resistant to other β-lactam agents, ie, penicillins, β-lactam combination agents, cephems (with the exception of ceftaroline), and carbapenems. This is because most cases of documented MRS infections have responded poorly to β-lactam therapy or because convincing clinical data that document clinical efficacy for those agents have not been presented.

(9) For tests for β-lactamase production, methicillin (oxacillin) resistance and *mecA*-mediated methicillin (oxacillin) resistance using cefoxitin, reduced susceptibility to vancomycin, ICR, and high-level mupirocin resistance (*S. aureus* only), refer to Tables 3F, 3G-1, 3G-2, 3H, and 3J, respectively.

NOTE: Information in black boldface type is new or modified since the previous edition.

Table 2C. *Staphylococcus* spp. (Continued)

Antimicrobial Agent	*Staphylococcus* spp. Indications	Disk Content	Interpretive Categories and Zone Diameter Breakpoints, nearest whole mm				Interpretive Categories and MIC Breakpoints, µg/mL				Comments
			S	SDD	I	R	S	SDD	I	R	
PENICILLINASE-LABILE PENICILLINS											
(10) Penicillin-susceptible staphylococci are susceptible to other ß-lactam agents with established clinical efficacy for staphylococcal infections (including both penicillinase-labile and penicillinase-stable agents; see Glossary I). Penicillin-resistant staphylococci are resistant to penicillinase-labile penicillins. **(11)** Penicillin should be used to test the susceptibility of all staphylococci to penicillinase-labile penicillins (see Glossary I). Penicillin-resistant strains of staphylococci produce ß-lactamase. Perform a test(s) to detect ß-lactamase production on staphylococci for which the penicillin MICs are ≤ 0.12 µg/mL or zone diameters ≥ 29 mm before reporting the isolate as penicillin susceptible. Rare isolates of staphylococci that contain genes for ß-lactamase production may appear negative by ß-lactamase tests. Consequently, for serious infections requiring penicillin therapy, laboratories should perform MIC tests and ß-lactamase testing on all subsequent isolates from the same patient. PCR testing of the isolate for the *blaZ* ß-lactamase gene may be considered. See Table 3F.										
Penicillin	All staphylococci	10 units	≥29	-	-	≤28	≤0.12		-	≥0.25	**(12)** For MRS, report penicillin as resistant or do not report.
PENICILLINASE-STABLE PENICILLINS											
(13) Cefoxitin is tested as a surrogate for oxacillin for some species of *Staphylococcus*. Isolates that test resistant by cefoxitin or oxacillin, when using the appropriate test method for the species, should be reported as methicillin (oxacillin) resistant. If testing only cefoxitin, report as methicillin (oxacillin) susceptible or resistant based on the cefoxitin result. **(14)** Oxacillin (or cefoxitin) results can be applied to the other penicillinase-stable penicillins (cloxacillin, dicloxacillin, methicillin, and nafcillin). For agents with established clinical efficacy and considering site of infection and appropriate dosing, methicillin (oxacillin)-susceptible staphylococci can be considered susceptible to: • ß-lactam combination agents (amoxicillin-clavulanate, ampicillin-sulbactam, piperacillin-tazobactam) • Oral cephems (cefaclor, cefdinir, cephalexin, cefpodoxime, cefprozil, cefuroxime, loracarbef) • Parenteral cephems including cephalosporins I, II, III, and IV (cefamandole, cefazolin, cefepime, cefmetazole, cefonicid, cefoperazone, cefotaxime, cefotetan, ceftizoxime, ceftriaxone, cefuroxime, ceftaroline, moxalactam) • Carbapenems (doripenem, ertapenem, imipenem, meropenem) Methicillin (oxacillin)-resistant staphylococci are resistant to all currently available ß-lactam antimicrobial agents, with the exception of ceftaroline. Thus, susceptibility or resistance to a wide array of ß-lactam antimicrobial agents may be deduced from testing only penicillin and either cefoxitin or oxacillin. Testing of other ß-lactam agents, except ceftaroline, is not advised. See general comments (7) and (8). Additional explanation on the use of cefoxitin for prediction of *mecA*-mediated methicillin (oxacillin) resistance can be found in Subchapter 3.12 of M07[4] and Subchapter 3.9 of M02.[1]										

Table 2C. *Staphylococcus* spp. (Continued)

Antimicrobial Agent	*Staphylococcus* spp. Indications	Disk Content	Interpretive Categories and Zone Diameter Breakpoints, nearest whole mm				Interpretive Categories and MIC Breakpoints, µg/mL				Comments
			S	SDD	I	R	S	SDD	I	R	
PENICILLINASE-STABLE PENICILLINS (Continued)											
Oxacillin	*S. aureus* and *S. lugdunensis*	-	-	-	-	-	≤ 2 (oxacillin)	-	-	≥ 4 (oxacillin)	**(15)** Oxacillin disk testing is not reliable for *S. aureus* and *S. lugdunensis*. **(16)** For isolates of *S. aureus* that do not grow well on CAMHB or unsupplemented MHA (eg, small-colony variants), testing on other media (eg, BMHA) does not reliably detect *mecA*-mediated resistance. Testing for PBP2a using induced growth (ie, growth taken from the zone margin surrounding a cefoxitin disk on either BMHA or a blood agar plate after 24 hours incubation in 5% CO_2) or *mecA* should be done. See general comments (7) and (8) and comments (10), (13), and (14).
		30 µg cefoxitin (surrogate test for oxacillin)	≥ 22	-	-	≤ 21	≤ 4 (cefoxitin)	-	-	≥ 8 (cefoxitin)	
Oxacillin	*S. epidermidis*	1 µg oxacillin	≥ 18 (oxacillin)	-	-	≤ 17 (oxacillin)	≤ 0.5 (oxacillin)	-	-	≥ 1 (oxacillin)	See general comments (7) and (8) and comments (10), (13), and (14). **(17)** Cefoxitin MIC testing is not reliable for detecting *mecA*-mediated resistance in *S. epidermidis*.
		30 µg cefoxitin (surrogate test for oxacillin)	≥ 25 (cefoxitin)	-	-	≤ 24 (cefoxitin)	-	-	-	–	
	S. pseudintermedius and *S. schleiferi*	1 µg oxacillin	≥ 18	-	-	≤ 17	≤ 0.5	-	-	≥ 1	**(18)** Neither cefoxitin MIC nor cefoxitin disk tests are reliable for detecting *mecA*-mediated resistance in *S. pseudintermedius* and *S. schleiferi*. See general comments (7) and (8) and comments (10), (13), and (14).

Table 2C. *Staphylococcus* spp. (Continued)

Antimicrobial Agent	*Staphylococcus* spp. Indications	Disk Content	Interpretive Categories and Zone Diameter Breakpoints, nearest whole mm				Interpretive Categories and MIC Breakpoints, µg/mL				Comments
			S	SDD	I	R	S	SDD	I	R	
PENICILLINASE-STABLE PENICILLINS (Continued)											
Oxacillin	*Staphylococcus* spp., except: *S. aureus* *S. lugdunensis* *S. epidermidis* *S. pseudintermedius* *S. schleiferi*	30 µg cefoxitin (surrogate test for oxacillin)	≥ 25 (cefoxitin)	-	-	≤ 24 (cefoxitin)	≤ 0.5 (oxacillin)	-	-	≥ 1 (oxacillin)	**(19)** Oxacillin MIC breakpoints may overcall resistance, and some isolates for which the oxacillin MICs are 1–2 µg/mL may be *mecA* negative. Isolates from serious infections for which oxacillin MICs are 1–2 µg/mL may be tested for *mecA* or for PBP2a. Isolates that test *mecA* or PBP2a negative should be reported as methicillin (oxacillin) susceptible. See general comments (7) and (8) and comments (10), (13), and (14).
CEPHEMS (PARENTERAL)											
Ceftaroline	*S. aureus*, including MRSA	30 µg	≥ 25	20–24		≤ 19	≤ 1	2–4	-	≥ 8	**(20)** The breakpoint for susceptible is based on a dosage regimen of 600 mg administered every 12 h. **(21)** The breakpoint for SDD is based on a dosage of 600 mg every 8 h administered over 2 h.

Table 2C. *Staphylococcus* spp. (Continued)

Antimicrobial Agent	*Staphylococcus* spp. Indications	Disk Content	Interpretive Categories and Zone Diameter Breakpoints, nearest whole mm				Interpretive Categories and MIC Breakpoints, µg/mL				Comments
			S	SDD	I	R	S	SDD	I	R	
GLYCOPEPTIDES											
(22) MIC tests should be performed to determine the susceptibility of all isolates of staphylococci to vancomycin. The disk test does not differentiate vancomycin-susceptible isolates of *S. aureus* from vancomycin-intermediate isolates, nor does the test differentiate among vancomycin-susceptible, -intermediate, and -resistant isolates of *Staphylococcus* spp. other than *S. aureus*, all of which give similar size zones of inhibition.											
Vancomycin	*S. aureus*, including MRSA	-	-	-	-	-	≤2	-	4-8	≥16	**(23)** For *S. aureus*, vancomycin-susceptible isolates may become vancomycin intermediate during the course of prolonged therapy. **(24)** Send any *S. aureus* for which the vancomycin is ≥8 µg/mL to a referral laboratory. See Appendix A. Also refer to Table 3G-1 for *S. aureus*, Subchapter 3.12 in M07,[4] and Subchapter 3.9 in M02.[1]
	Staphylococcus spp. other than *S. aureus*	-	-	-	-	-	≤4	-	8-16	≥32	**(25)** Send any *Staphylococcus* spp. other than *S. aureus* for which the vancomycin MIC is ≥32 µg/mL to a referral laboratory. See Appendix A. See also Subchapter 3.12 in M07[4] and Subchapter 3.9 in M02.[1]
LIPOGLYCOPEPTIDES											
Dalbavancin	*S. aureus*, including MRSA	-	-	-	-	-	≤0.25	-	-	-	**(26)** Breakpoints are based on a dosage regimen of 1500 mg (single dose) or 1000 mg (two doses) IV administered over 30 minutes followed one week later by 500 mg IV administered over 30 minutes.
Oritavancin		-	-	-	-	-	≤0.12	-	-	-	**(27)** Breakpoints are based on a dosage regimen of 1200 mg IV administered once.
Telavancin		-	-	-	-	-	≤0.12	-	-	-	**(28)** Breakpoints are based on a dosage regimen of 10 mg/kg administered every 24 h.
Teicoplanin **(Inv.)**	All staphylococci	-	-	-	-	-	≤8	-	16	≥32	

Table 2C. *Staphylococcus* spp. (Continued)

Antimicrobial Agent	*Staphylococcus* spp. Indications	Disk Content	Interpretive Categories and Zone Diameter Breakpoints, nearest whole mm				Interpretive Categories and MIC Breakpoints, µg/mL				Comments
			S	SDD	I	R	S	SDD	I	R	
LIPOPEPTIDES											
Daptomycin	All staphylococci	-	-	-	-	-	≤1	-	-	-	**(29) Not routinely** reported **on organisms** isolated from the respiratory tract.
AMINOGLYCOSIDES											
(30) For staphylococci that test susceptible, gentamicin is used only in combination with other active agents that test susceptible.											
Gentamicin	All staphylococci	10 µg	≥15	-	13-14	≤12	≤4	-	8	≥16	
MACROLIDES											
(31) Not routinely reported on organisms isolated from the urinary tract.											
Azithromycin	All staphylococci	15 µg	≥18	-	14-17	≤13	≤2	-	4	≥8	
or clarithromycin or erythromycin		15 µg	≥18		14-17	≤13	≤2		4	≥8	
		15 µg	≥23		14-22	≤13	≤0.5		1-4	≥8	
Dirithromycin*		15 µg	≥19	-	16-18	≤15	≤2	-	4	≥8	
TETRACYCLINES											
(32) Organisms that are susceptible to tetracycline are also considered susceptible to doxycycline and minocycline. However, some organisms that are intermediate or resistant to tetracycline may be susceptible to doxycycline, minocycline, or both.											
Tetracycline	All staphylococci	30 µg	≥19	-	15-18	≤14	≤4	-	8	≥16	
Doxycycline		30 µg	≥16	-	13-15	≤12	≤4	-	8	≥16	
Minocycline		30 µg	≥19	-	15-18	≤14	≤4	-	8	≥16	See comment (31).
FLUOROQUINOLONES											
(33) *Staphylococcus* spp. may develop resistance during prolonged therapy with quinolones. Therefore, isolates that are initially susceptible may become resistant within 3 to 4 days after initiation of therapy. Testing of repeat isolates may be warranted.											
Ciprofloxacin or levofloxacin	All staphylococci	5 µg	≥21	-	16-20	≤15	≤1	-	2	≥4	
Moxifloxacin		5 µg	≥19	-	16-18	≤15	≤1	-	2	≥4	
		5 µg	≥24	-	21-23	≤20	≤0.5	-	1	≥2	
Enoxacin* **(U)**[b]		10 µg	≥18	-	15-17	≤14	≤2	-	4	≥8	
Gatifloxacin*		5 µg	≥23	-	20-22	≤19	≤0.5	-	1	≥2	
Grepafloxacin*		5 µg	≥18	-	15-17	≤14	≤1	-	2	≥4	
Lomefloxacin*		10 µg	≥22	-	19-21	≤18	≤2	-	4	≥8	
Norfloxacin* **(U)**[b]		10 µg	≥17	-	13-16	≤12	≤4	-	8	≥16	
Ofloxacin*		5 µg	≥18	-	15-17	≤14	≤1	-	2	≥4	
Sparfloxacin*		5 µg	≥19	-	16-18	≤15	≤0.5	-	1	≥2	
Fleroxacin **(Inv.)**		5 µg	≥19	-	16-18	≤15	≤2	-	4	≥8	

Table 2C. *Staphylococcus* spp. (Continued)

Antimicrobial Agent	*Staphylococcus* spp. Indications	Disk Content	Interpretive Categories and Zone Diameter Breakpoints, nearest whole mm				Interpretive Categories and MIC Breakpoints, µg/mL				Comments
			S	SDD	I	R	S	SDD	I	R	
NITROFURANS											
Nitrofurantoin **(U)**[b]	All staphylococci	300 µg	≥17	-	15-16	≤14	≤32	-	64	≥128	
LINCOSAMIDES											
Clindamycin	All staphylococci	2 µg	≥21	-	15-20	≤14	≤0.5	-	1-2	≥4	**(34)** For isolates that test erythromycin resistant and clindamycin susceptible or intermediate, testing for ICR by disk diffusion using the D-zone test or by broth microdilution is required before reporting clindamycin (see Table 3I, Subchapter 3.9 in M02,[1] and Subchapter 3.12 in M07[4]). See comment (31).
FOLATE PATHWAY ANTAGONISTS											
Trimethoprim-sulfamethoxazole	All staphylococci	1.25/23.75 µg	≥16	-	11-15	≤10	≤2/38	-	-	≥4/76	
Sulfonamides **(U)**[b]	All staphylococci	250 or 300 µg	≥17	-	13-16	≤12	≤256	-	-	≥512	**(35)** Sulfisoxazole can be used to represent any of the currently available sulfonamide preparations.
Trimethoprim **(U)**[b]	All staphylococci	5 µg	≥16	-	11-15	≤10	≤8	-	-	≥16	
PHENICOLS											
Chloramphenicol*	All staphylococci	30 µg	≥18	-	13-17	≤12	≤8	-	16	≥32	See comment (31).
ANSAMYCINS											
Rifampin	All staphylococci	5 µg	≥20	-	17-19	≤16	≤1	-	2	≥4	**(36)** ***Rx:*** Rifampin should not be used alone for antimicrobial therapy.
STREPTOGRAMINS											
Quinupristin-dalfopristin*	*S. aureus*	15 µg	≥19	-	16-18	≤15	≤1	-	2	≥4	**(37) Report only on** methicillin (oxacillin)-susceptible *S. aureus*.

Table 2C. *Staphylococcus* spp. (Continued)

Antimicrobial Agent	*Staphylococcus* spp. Indications	Disk Content	Interpretive Categories and Zone Diameter Breakpoints, nearest whole mm				Interpretive Categories and MIC Breakpoints, µg/mL				Comments
			S	SDD	I	R	S	SDD	I	R	
OXAZOLIDINONES											
(38) *S. aureus* that test susceptible to linezolid by MIC are also considered susceptible to tedizolid. However, some organisms that test resistant to linezolid may be susceptible to tedizolid.											
Linezolid	All staphylococci	30 µg	≥ 21	-	-	≤ 20	≤ 4	-	-	≥ 8	**(39)** When testing linezolid, disk diffusion zones should be examined using transmitted light. Organisms with resistant results by disk diffusion should be confirmed using an MIC method.
Tedizolid	*S. aureus*, including MRSA	-	-	-	-	-	≤ 0.5	-	1	≥ 2	**(40)** Breakpoints are based on a dosage regimen of 200 mg administered every 24 h.
PLEUROMUTILINS											
Lefamulin	*S. aureus*, including MRSA	20 µg	≥ 23	-	-	-	≤ 0.25	-	-	-	**(41)** The breakpoints for susceptible are based on a dosage regimen of 150 mg IV or 600 mg orally administered every 12 h. **(42)** Not routinely reported on organisms isolated from the urinary tract.

Abbreviations: ATCC®, American Type Culture Collection; BMHA, blood Mueller-Hinton agar; CAMHB, cation-adjusted Mueller-Hinton broth; I, intermediate; ICR, inducible clindamycin resistance; **Inv., investigational agent;** IV, intravenous; MALDI-TOF MS; matrix-assisted laser-desorption/ionization time-of-flight mass spectrometry; MHA, Mueller-Hinton agar; MIC, minimal inhibitory concentration; MRS, methicillin (oxacillin)-resistant staphylococci; MRSA, methicillin (oxacillin)-resistant *S. aureus*; PBP2a, penicillin-binding protein 2a; PCR, polymerase chain reaction; QC, quality control; R, resistant; S, susceptible; SDD, susceptible-dose dependent; **U, urine;** UTI, urinary tract infection.

Symbol: *, designation for "Other" agents that are not included in Tables 1 but have established clinical breakpoints.

Footnotes

a. ATCC® is a registered trademark of the American Type Culture Collection.

b. Report only on organisms isolated from the urinary tract.

Table 2C. *Staphylococcus* spp. (Continued)

References for Table 2C

1 CLSI. *Performance Standards for Antimicrobial Disk Susceptibility Tests*. 13th ed. CLSI standard M02. Clinical and Laboratory Standards Institute; 2018.

2 CLSI. *M02 Disk Diffusion Reading Guide*. 1st ed. CLSI quick guide M02QG. Clinical and Laboratory Standards Institute; 2018.

3 Becker K, Schaumburg F, Kearns A, et al. Implications of Identifying the recently defined members of the *Staphylococcus aureus* complex S. *argenteus* and *S. schweitzeri*: a position paper of members of the ESCMID Study Group for Staphylococci and Staphylococcal Diseases (ESGS). *Clin Microbiol Infect*. 2019;25(9):1064-1070.

4 CLSI. *Methods for Dilution Antimicrobial Susceptibility Tests for Bacteria That Grow Aerobically*. 11th ed. CLSI standard M07. Clinical and Laboratory Standards Institute; 2018.

5 Humphries RM, Magnano P, Burnham CA, et al. Evaluation of surrogate tests for the presence of *mecA*-mediated methicillin resistance in *Staphylococcus haemolyticus*, *Staphylococcus hominis*, *Staphylococcus capitis* and *Staphylococcus warneri*. *J. Clin Microbiol*. 2020;59(1):e02290-20.

6 García-Álvarez L, Holden MT, Lindsay H, et al. Methicillin-resistant *Staphylococcus aureus* with a novel *mecA* homologue in human and bovine populations in the UK and Denmark: a descriptive study. *Lancet Infect Dis*. 2011;11(8):595-603.