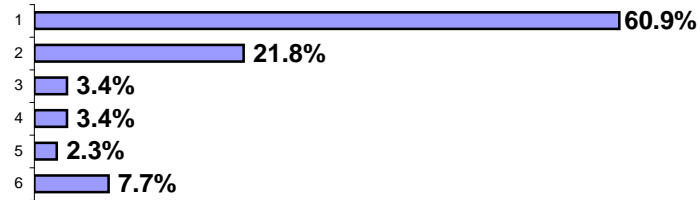


2007 AST Practices Survey from 87 Wisconsin Clinical Laboratories
 Response Rate = 83% (112/135) Labs Performing AST = 78% (87/112)

Table 1. Demographics for Participating Laboratories

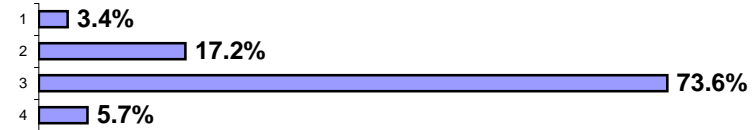
Types of laboratories responding to this survey

1. Community (City or County) non-profit hospital
2. Laboratory for a hospital and/or clinic network
3. Physician's office laboratory
4. University/Medical school/Teaching Hospital
5. Commercial/Independent laboratory, Multiple locations
6. Other



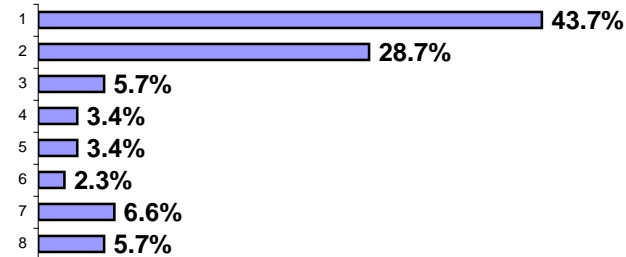
Size of hospital served by hospital laboratories responding to this survey

1. Large hospital (more than 500 beds)
2. Moderate sized hospital (200-499 beds)
3. Small hospital (fewer than 200 beds)
4. No answer



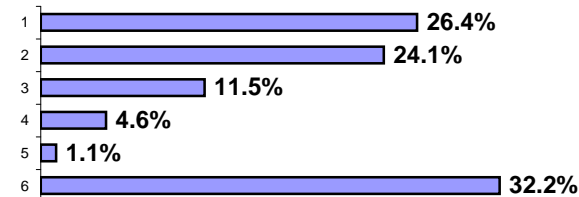
Types of hospitals responding to this survey

1. Critical Access Hospital
2. Hospital Network
3. Outpatient Clinic
4. Outpatient Clinic, Critical Access Hospital
5. Outpatient Clinic, Hospital Network
6. Outpatient Clinic, Critical Access Hospital, Hospital Network
7. Other
8. No answer



Certification/accreditation status of responding laboratories

1. CAP
2. JCAHO
3. CMS
4. COLA
5. State accreditation
6. Combination of the above



2007 AST Practices Survey from 87 Wisconsin Clinical Laboratories
 Response Rate = 83% (112/135) Labs Performing AST = 78% (87/112)

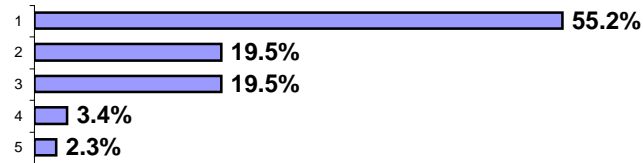
Laboratories that REFER routine bacterial specimens to other laboratories to perform antimicrobial susceptibility tests

- 1. Yes
- 2. No



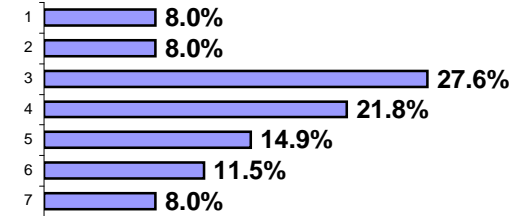
Primary population served by responding laboratories (including outpatient services)

- 1. Small city plus rural population
- 2. Large city plus smaller rural populations
- 3. Rural population
- 4. Large city
- 5. Small city



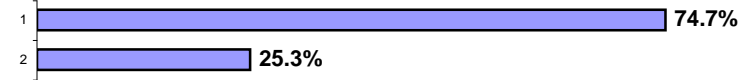
Approximate population size serviced by responding laboratories

- 1. Fewer than 4,999
- 2. 5,000 - 9,999
- 3. 10,000 - 24,999
- 4. 25,000 - 49,999
- 5. 50,000 - 99,999
- 6. 100,000 - 500,000
- 7. More than 500,000



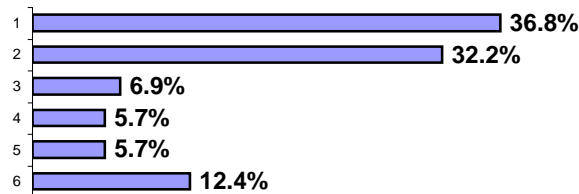
Proportion of serviced population that is Native American

- 1. 0 - 24%
- 2. Don't know



Highest academic degree that has been awarded to your Microbiology Laboratory Director

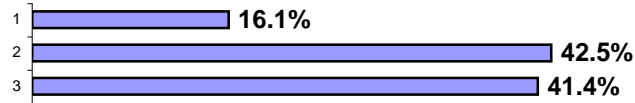
- 1. B.A./B.S. (MT/CLS)
- 2. M.D.
- 3. Ph.D. and ABMM certified
- 4. A.A./A.S. (MLT/CLT)
- 5. M.A./M.S. (MT/CLS)
- 6. Other



2007 AST Practices Survey from 87 Wisconsin Clinical Laboratories
 Response Rate = 83% (112/135) Labs Performing AST = 78% (87/112)

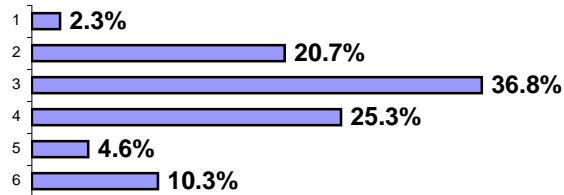
Number of staff trained to perform antimicrobial susceptibility testing (AST) in your laboratory

1. 2-3 FTEs
2. 4-5 FTEs
3. 6 or more FTEs



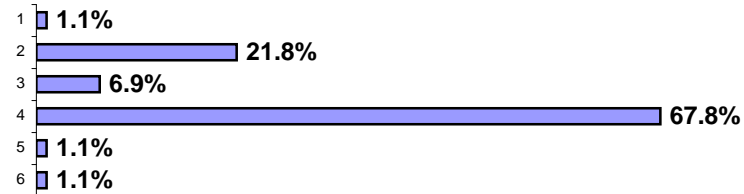
Number of FTEs routinely performing laboratory testing in addition to Microbiology (cross-trained)

1. 1 FTE
2. 2-3 FTEs
3. 4-5 FTEs
4. 6 or more FTEs
5. Less than 1 full-time equivalent (FTE) (part-time)
6. no FTEs perform testing outside of microbiology



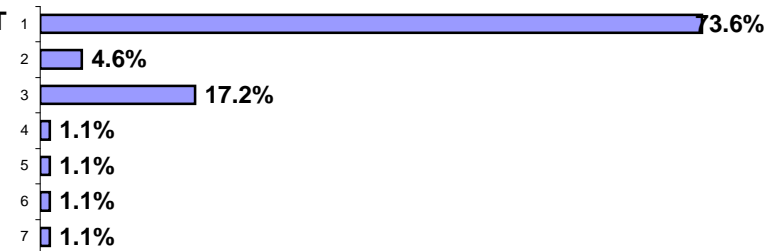
Highest educational background of the majority of your staff who typically perform AST

1. 50% AA/AS (MLT) 50% BS (MT)
2. A.A./A.S. (MLT/CLT)
3. B.A./B.S.
4. B.A./B.S. (MT/CLS)
5. M.A./M.S. (MT/CLS)
6. MLT (ASCP), CLT (HEW) ASCP



Minimum educational background required of staff who perform AST

1. A.A./A.S. (MLT/CLT)
2. B.A./B.S.
3. B.A./B.S. (MT/CLS)
4. B.S./MT (ASCP)
5. High school or GED (on-the-job training)
6. M.A./M.S. (MT/CLS)
7. MLT (ASCP)

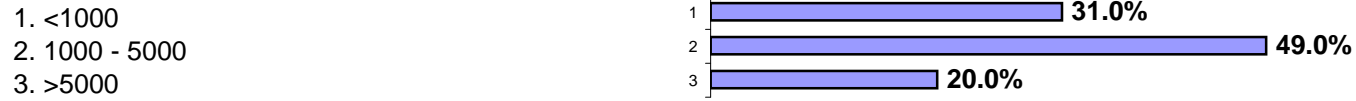


2007 AST Practices Survey Results from 87 Wisconsin Clinical Laboratories

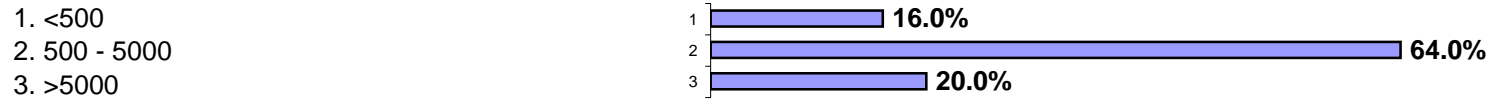
Response rate = 83% (112/135) Labs Performing AST = 78% (87/112)

Table 2. Total Yearly Antimicrobial Susceptibility Testing

Total number of AST performed per year



Total number of AST performed per year



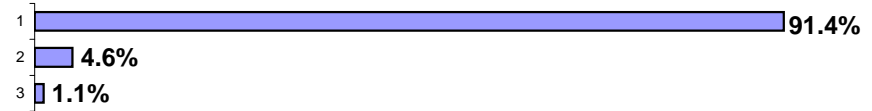
2007 AST Practices Survey Results from 87 Wisconsin Clinical Laboratories

Response Rate = 83% (112/135) Labs Performing AST = 78% (87/112)

Table 3. Antimicrobial Susceptibility Testing Practices

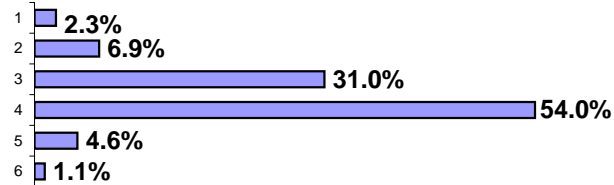
Laboratories that follow CLSI M100 performance standards for AST

- 1. Yes
- 2. No
- 3. Don't know



Version of CLSI performance standards used

- 1. M100-S14
- 2. M100-S15
- 3. M100-S16
- 4. M100-S17
- 5. None
- 6. Don't know



Means of acquiring CLSI performance standards documents

- 1. Institution purchases for lab
- 2. Provided by drug/sales representatives
- 3. Do not obtain documents yearly
- 4. Other
- 5. Don't know
- 6. No answer



Frequency of acquiring CLSI performance standards documents

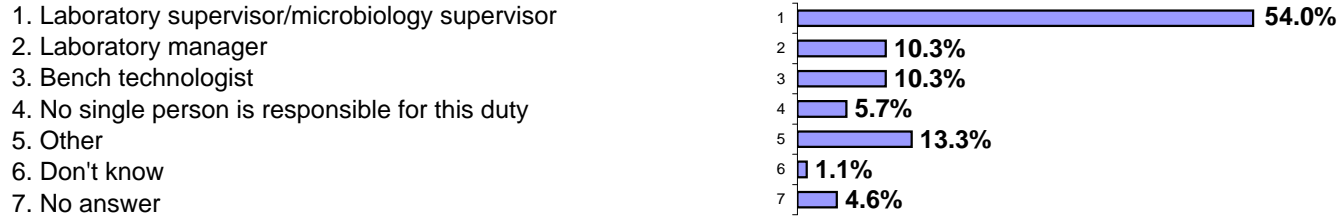
- 1. Yearly
- 2. Every 2 years
- 3. Every 3 years
- 4. Do not obtain documents
- 5. Other
- 6. Don't know
- 7. No answer



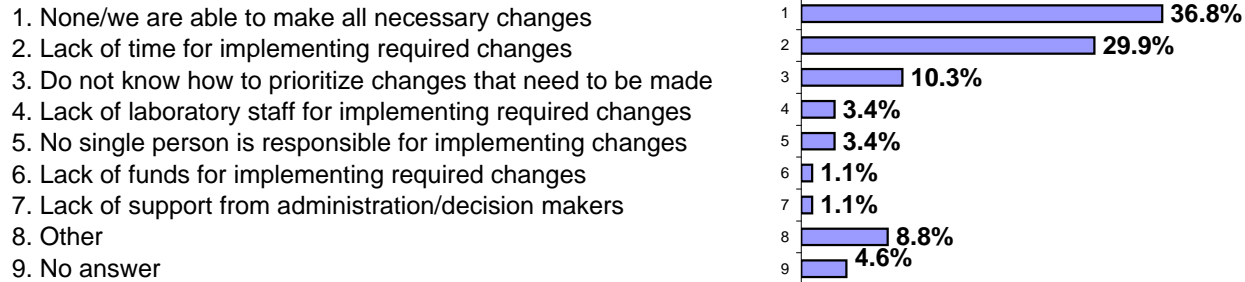
2007 AST Practices Survey Results from 87 Wisconsin Clinical Laboratories

Response Rate = 83% (112/135) Labs Performing AST = 78% (87/112)

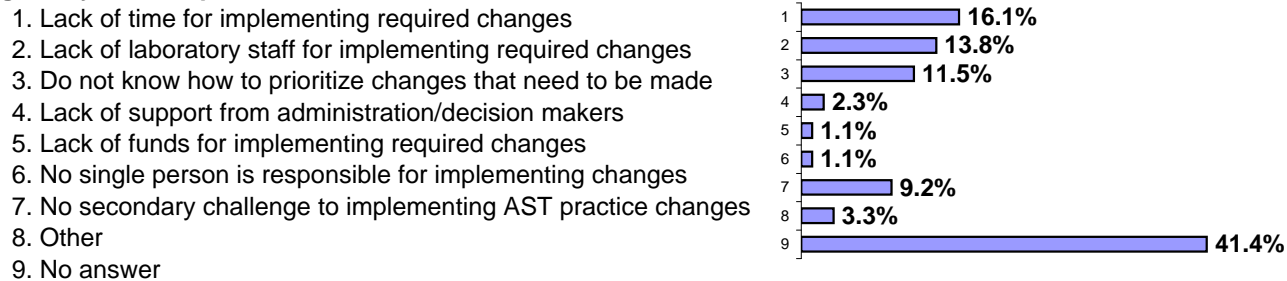
Responsible party for integrating CLSI guidelines into AST practices



Top challenge to implementing CLSI-suggested changes in your AST practice



Next most important challenge to implementing CLSI-suggested changes in your AST practice

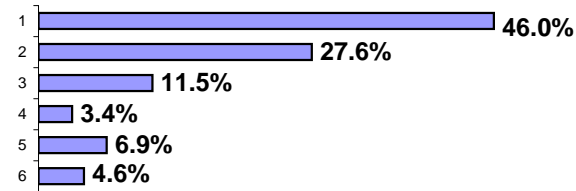


2007 AST Practices Survey Results from 87 Wisconsin Clinical Laboratories

Response Rate = 83% (112/135) Labs Performing AST = 78% (87/112)

Last time you made CLSI-suggested change(s) in your AST practice

1. Within 6 months
2. Within the last calendar year
3. Within the last 2 years
4. More than 2 years ago
5. Unknown
6. No answer



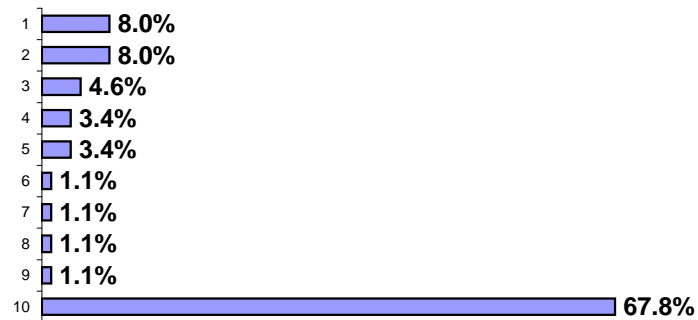
Main factor preventing yearly acquisition of CLSI performance standards documents

1. None, documents obtained yearly
2. Guidelines don't change enough to spending the money
3. Lack of funds for purchasing CLSI guidelines
4. Did not realize that CLSI guidelines came out yearly
5. Lack of time for reviewing and implementing updated guidelines
6. Lack of support
7. Too complex/doesn't apply to my laboratory's workload
8. Other - Lack of contact with drug/sales representative



Next most important factor preventing yearly acquisition of CLSI performance standards documents

1. Do not not have a secondary factor
2. Lack of time for reviewing and implementing updated guidelines
3. Guidelines don't change enough to spending the money
4. Lack of funds for purchasing CLSI guidelines
5. Too complex/doesn't apply to my laboratory's workload
6. Lack of support
7. Did not realize that CLSI guidelines came out yearly
8. No one is in charge of ordering CLSI documents
9. Other
- 10.No answer

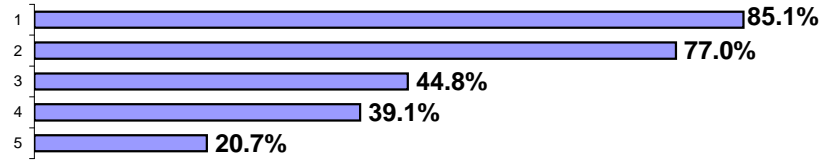


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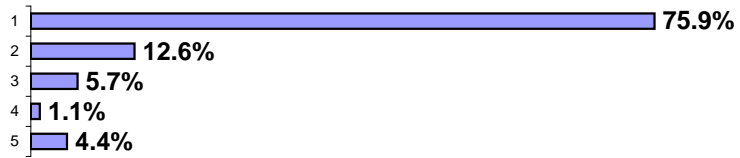
Influences determining which antibiotics your laboratory tests and reports*

- 1. CLSI guidelines
- 2. Pharmacy
- 3. Local infectious disease physicians
- 4. Local physicians
- 5. Other



Most important factor influencing implemented changes in AST practices in your laboratory

- 1. CLSI guidelines
- 2. Expert opinion outside the laboratory
- 3. Expertise in your laboratory
- 4. Financial constraints
- 5. Other



*(survey respondents could list more than one answer)

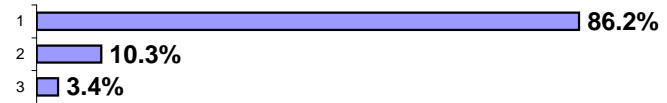
2007 AST Practices Survey Results from 87 Wisconsin Clinical Laboratories

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Table 4. Antibiogram Practices

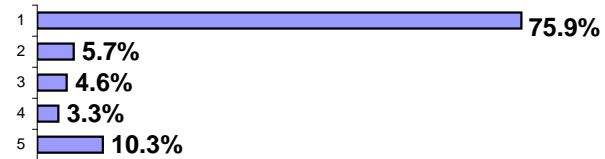
Facilities that create and distribute cumulative antibiograms for select organism/drug combinations

- 1. Yes
- 2. No
- 3. No, but another entity in the facility is responsible for creating the antibiogram



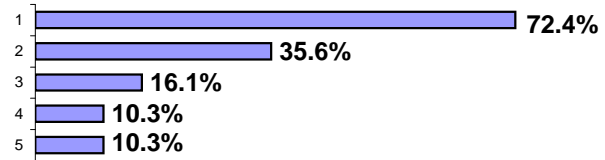
Entity responsible for generating cumulative antibiograms for select organism/drug combinations

- 1. Laboratory
- 2. Infection control
- 3. Pharmacy
- 4. Other
- 5. No answer



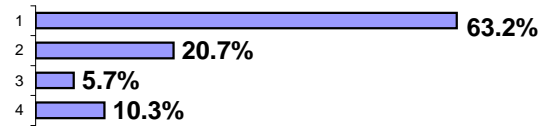
Resources used to generate cumulative antibiograms*

- 1. Automated instrument printout
- 2. CLSI guidelines (i.e. M39)
- 3. Expert opinion
- 4. Other
- 5. No answer



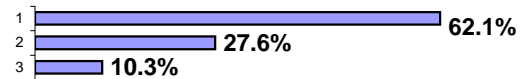
Laboratories that remove surveillance isolates from cumulative antibiograms

- 1. Yes
- 2. No
- 3. Don't know
- 4. No answer



Laboratories that remove multiple isolates from the same patient from cumulative antibiograms

- 1. Yes
- 2. No
- 3. No answer



2007 AST Practices Survey Results from 87 Wisconsin Clinical Laboratories

Response Rate = 83% (112/135) Labs Performing AST = 78% (87/112)

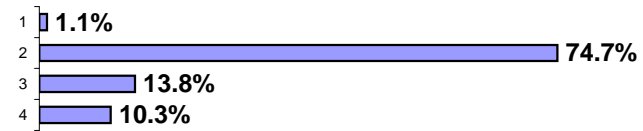
Frequency of compiling cumulative antibiograms

- 1. Yearly
- 2. Quarterly
- 3. Monthly
- 4. Other
- 5. Don't know
- 6. No answer



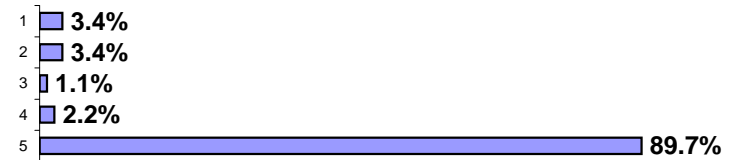
Laboratories that share their cumulative antibiograms with their state public health laboratory

- 1. Yes
- 2. No
- 3. Don't know
- 4. No answer



Main barrier to creating an antibiogram for your facility

- 1. Lack of electronic data collection
- 2. Test too few specimens
- 3. Lack of laboratory staff
- 4. Other
- 5. No answer



Second main barrier to creating an antibiogram for your facility

- 1. Lack of time
- 2. Lack of expertise
- 3. Other
- 4. No answer



*(survey respondents could list more than one answer)

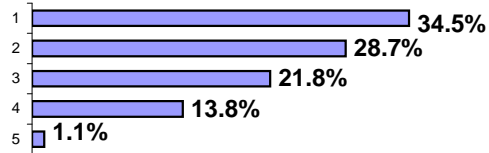
2007 AST Practices Survey Results from 87 Wisconsin Clinical Laboratories

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Table 5. Antimicrobial Susceptibility Testing Training

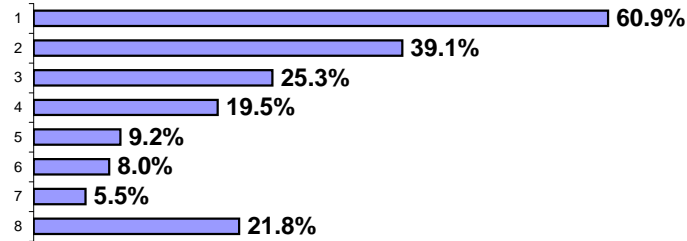
Frequency your laboratory staff receives AST training

1. At least once a year
2. When new members are trained
3. We do not receive specific AST training
4. Less than once per year
5. Don't know



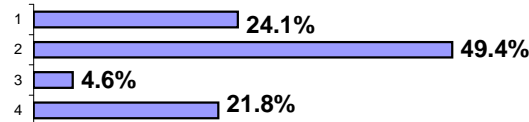
Method by which AST training is typically received*

1. Teleconference
2. On-site training in you laboratory
3. Self study (paper or web-based)
4. Workshop at an off-site location
5. Webinar
6. Lectures on CD-ROM
7. Other
8. No answer



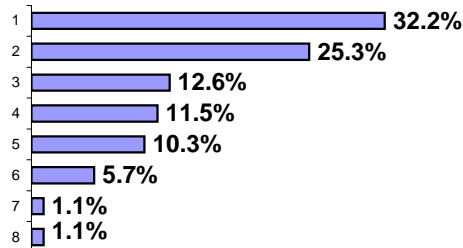
Laboratories receiving AST training from their state public health laboratory

1. Yes
2. No
3. Don't know
4. No answer



Preferred method for future AST training

1. Teleconference
2. Workshop at an off-site location
3. Lectures on CD-ROM
4. Webinar
5. On-site training in your laboratory
6. Self study (paper or web-based)
7. Web-based modules
8. Videotaped lectures

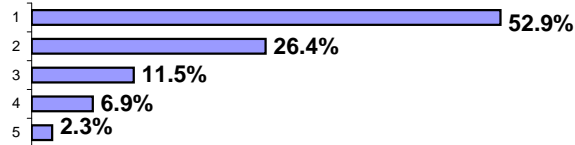


2007 AST Practices Survey Results from 87 Wisconsin Clinical Laboratories

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Time willing to travel to attend an AST training session

- 1. 2 hours
- 2. 1 hour
- 3. Less than 1 hour
- 4. 3 hours
- 5. More than 4 hours



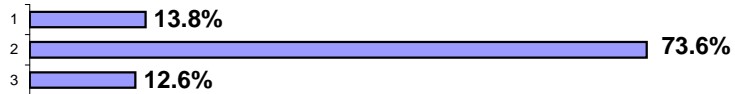
Able/willing to attend weekend AST training

- 1. Yes
- 2. No



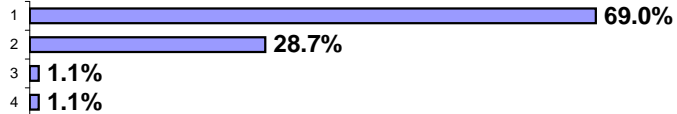
Laboratories for which the state requires Continuing Education Units (CEUs)

- 1. Yes
- 2. No
- 3. Don't know



Laboratories providing time off for attending off-site continuing education

- 1. Yes
- 2. Sometimes
- 3. No
- 4. Don't know

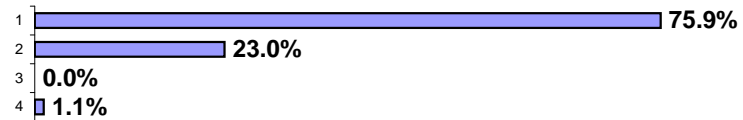


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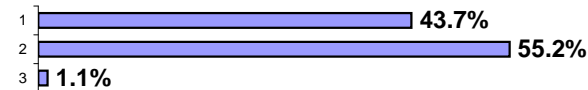
Laboratories providing time away from the bench to participate in on-site continuing education

- 1. Yes
- 2. Sometimes
- 3. No
- 4. Don't know



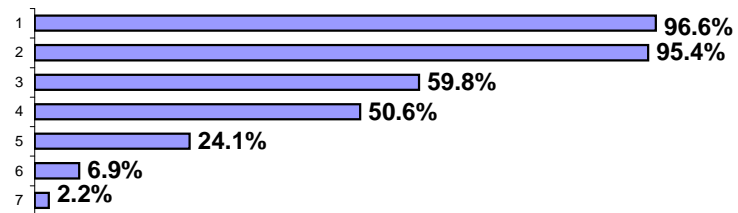
Laboratories/institutions with designated person(s) responsible for providing AST staff training

- 1. Yes
- 2. No
- 3. Don't know



Technology available for receiving continuing education for your laboratory*

- 1. CD-ROM
- 2. Teleconference (telephone only)
- 3. Webinar
- 4. Video conference
- 5. Media-Site live presentations
- 6. Microsoft Meeting
- 7. Other



*(survey respondents could list more than one answer)

2007 AST Practices Survey Results from 87 Wisconsin Clinical Laboratories

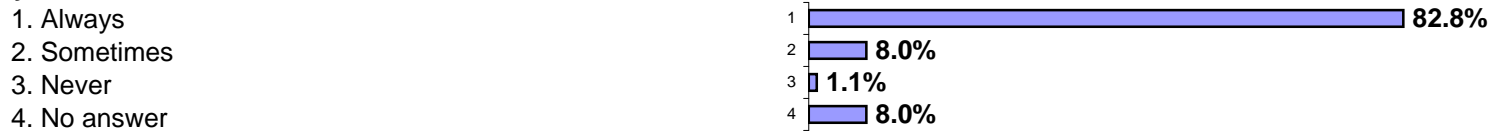
Response Rate = 83% (112/135) Labs Performing AST = 78% (87/112)

Table 6. Antimicrobial Susceptibility Testing Methodology

Laboratories that use MIC (broth, commercial panels) methodology to perform AST



Laboratories that routinely include a purity plate when performing AST by MIC



Method used for reporting MIC results



Laboratories that use disk diffusion methodology to perform AST



Laboratories that routinely include a purity plate when performing AST by disk

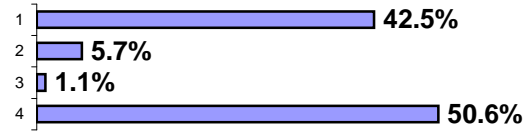


2007 AST Practices Survey Results from 87 Wisconsin Clinical Laboratories

Response Rate = 83% (112/135) Labs Performing AST = 78% (87/112)

Method used for reporting disk diffusion results

- 1. CLSI interpretation only
- 2. Diameter of zone of inhibition and CLSI interpretation
- 3. Diameter of zone of inhibition only
- 4. No answer



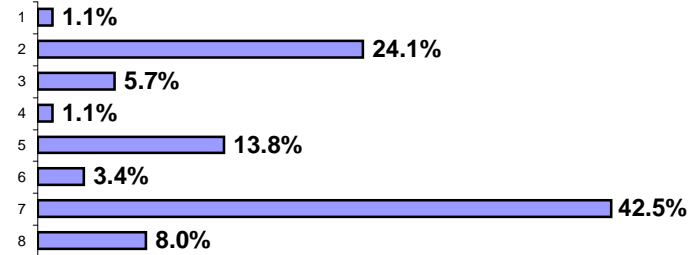
2007 AST Practices Survey results from 87 Wisconsin Clinical Laboratories

Response Rate = 83% (112/135) Lab Performing AST = 78% (87/112)

Table 7. Summary Antimicrobial Susceptibility Testing

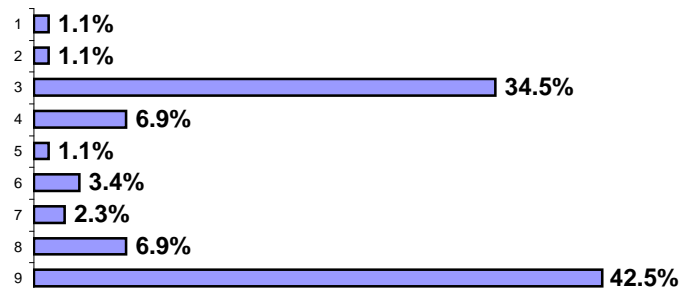
Antimicrobials reported by your laboratory report when testing fecal isolates of *Salmonella* and *Shigella* spp. from a pediatric (child less than 12 years of age) case

1. Ampicillin, quinolone, 3rd generation cephalosporin
2. Ampicillin, quinolone, Trim-Sulfa
3. Ampicillin, quinolone, Trim-Sulfa, 3rd gen cephalosporin
4. Ampicillin, quinolone, Trim-Sulfa, Chloramphen, 3rd gen ceph
5. Ampicillin, Trim-Sulfa
6. Ampicillin, Trim-Sulfa, 3rd gen cephalosporin
7. We don't test any fecal isolates
8. Don't Know



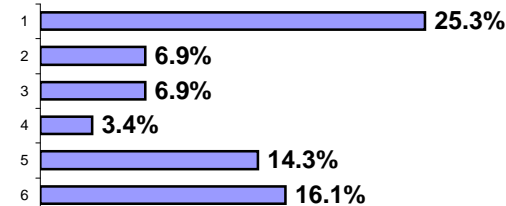
Antimicrobials reported by your laboratory report when testing fecal isolates of *Salmonella* and *Shigella* spp. from an adult case

1. Quinolone, Trim-Sulfa
2. Ampicillin, quinolone, 3rd gen cephalosporin
3. Ampicillin, quinolone, Trim-Sulfa
4. Ampicillin, quinolone, Trim-Sulfa, 3rd gen cephalosporin
5. Ampicillin, quinolone, Trim-Sulfa, Chloramphen, 3rd gen ceph
6. Ampicillin, Trim-Sulfa
7. Ampicillin, trim-Sulfa, 3rd gen cephalosporin
8. We don't test any fecal isolates
9. Don't Know



Antimicrobials your laboratory reports as resistant when reporting a confirmed clavulanic-based extended spectrum beta-lactamase (ESBL)-producing strain of *Klebsiella* spp., *Escherichia coli* or *Proteus mirabilis*

1. Cefepime, Aztreonam, All 3rd generation cephalosporin
2. Aztreonam
3. Pip-Tazo, Amp-Sulb, Aztreonam, All 3rd gen cephalosporin
4. Pip-Tazo, Amp-Sulb, Cefepime, Aztreonam, All 3rd gen cephs
5. Other
6. Don't know

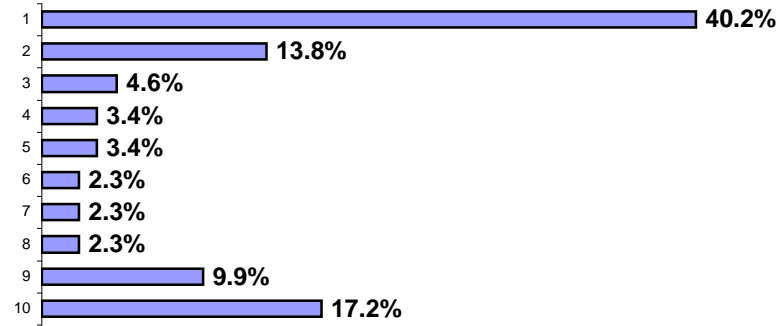


2007 AST Practices Survey results from 87 Wisconsin Clinical Laboratories

Response Rate = 83% (112/135) Lab Performing AST = 78% (87/112)

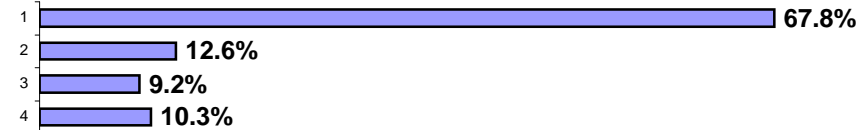
Antimicrobials your laboratory reports as resistant when testing a community-associated methicillin resistant *Staphylococcus aureus* (CA-MRSA) strain that is resistant to penicillin and oxacillin

1. Amp-Sulb, Amox-Clav, Cefazolin, Ceftriaxone, Imipenem
2. Amp-Sulb, Amox-Clav, Cefazolin, Ceftriaxone
3. Cefazolin, Ceftriaxone
4. Amp-Sulb, Amox-Clav
5. Amp-Sulb, Cefazolin
6. Amp-Sulb, Amox-Clav, Cefazolin
7. Amp-Sulb, Amox-Clav, Erythro, Cefazolin, Ceftriaxone, Imipenem
8. Cefazolin
9. Other
10. Don't know



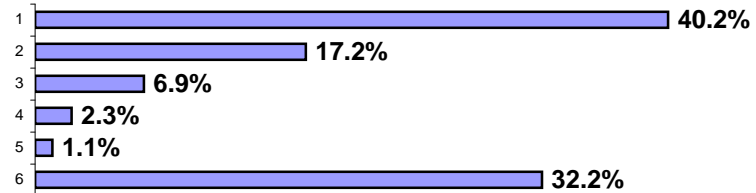
Action taken by your laboratory when testing a *Staphylococcus aureus* isolate that is erythromycin resistant and clindamcin susceptible?

1. Perform D zone test
2. No additional testing - overwrite clindamycin to resistant
3. No additional testing - report clindamycin as susceptible
4. Don't know



Action taken by your laboratory when testing a rectal surveillance culture for VRE that reveals an *Enterococcus* spp. With a vancomycin MIC of 8 mcg/ml

1. Identify species or rule out motility before reporting as resistant
2. Set up a BHI-vancomycin (6 mcg/ml) screen plate
3. Repeat susceptibility tests using disk diffusion method
4. Report this to infection control as VRE
5. Report results as "no VRE isolated"
6. Don't Know

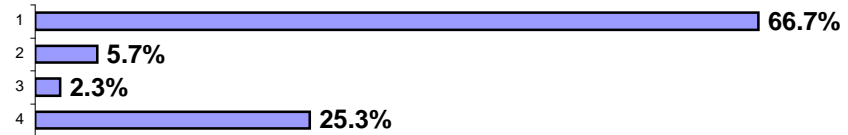


2007 AST Practices Survey results from 87 Wisconsin Clinical Laboratories

Response Rate = 83% (112/135) Lab Performing AST = 78% (87/112)

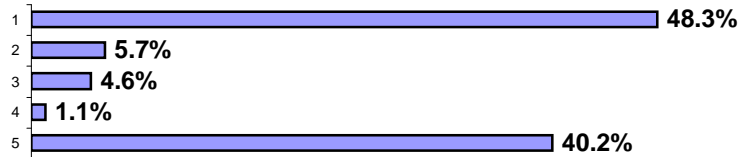
Action taken by your laboratory in the following situation: Your infectious disease clinician informs you that a dialysis patient with nosocomial bacteremia due to MRSA has been referred to your hospital and you have been told the the isolate is susceptible to vancomycin by a disk diffusion test, but the patient is not doing well on vancomycin

1. Perform a vancomycin MIC on the isolate
2. Repeat the disk diffusion test for vancomycin
3. Perform an oxacillin salt agar screening test on the isolate
4. Don't Know



Action taken by your laboratory in the following situation: You note that a CSF culture is growing an organism that appears to be *Streptococcus pneumoniae*, based on colony morphology and the direct CSF Gram stain demonstrating gram positive diplococci

1. Commerical MIC for cefotaxime/ceftriaxone and penicillin
2. Disk diffusion test with oxacillin
3. Commerical MIC for cefotaxime/ceftriaxone and oxacillin
4. Disk diffusion test with cefotaxime/ceftriaxone and oxacillin
5. We do not perform susceptibility testing on *S. pneumoniae*



Isolates, or presumptive isolates your laboratory refers to a reference laboratory for additional testing/confirmation

1. VISA or VRSA
2. VISA or VRSA, *S. pneumoniae* (sterile site)
3. VISA or VRSA, *S. pneumoniae* (sterile site), VRE, ESBL
4. VISA or VRSA, *S. pneumoniae* (sterile site), VRE
5. VISA or VRSA, VRE, ESBL
6. *S. pneumoniae* (sterile site)
7. VISA or VRSA, *S. pneumoniae* (sterile site), VRE, MRSA, ESBL
8. VISA or VRSA, VRE
9. Other
10. None

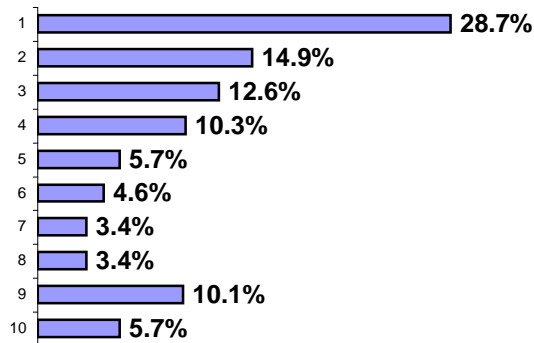
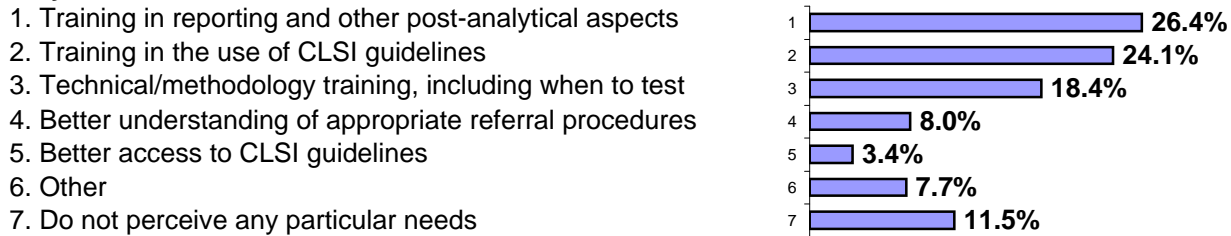
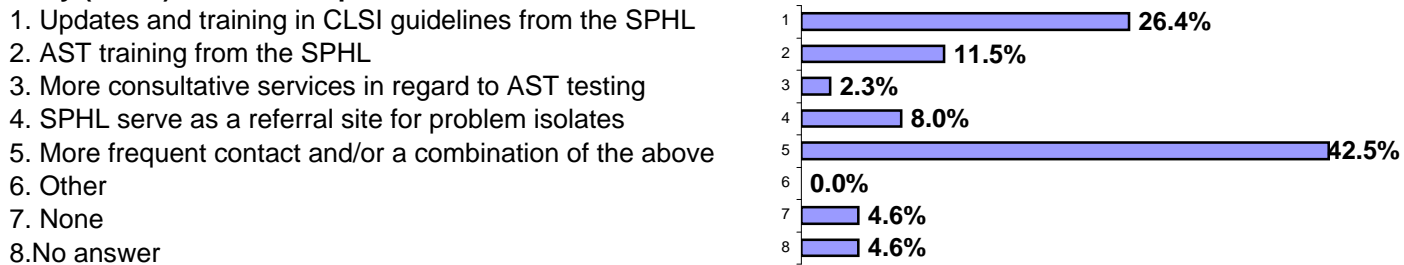


Table 8. Antimicrobial Susceptibility Testing Evaluation

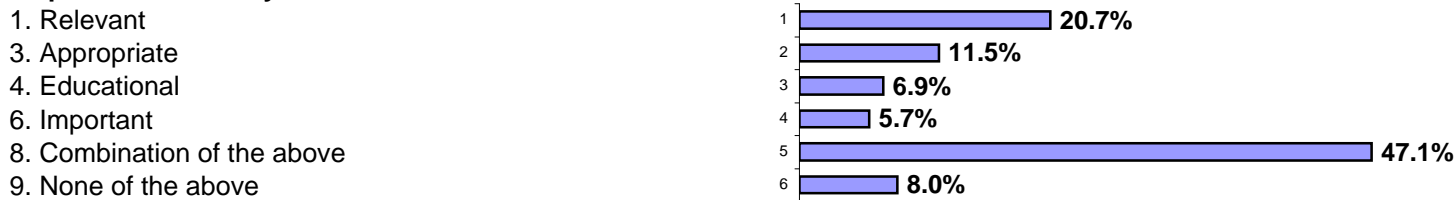
Your perceived primary need for improving AST testing in your laboratory



Your perceived areas for improvement with regard to the interaction between your laboratory and the State Public Health Laboratory (SPHL) or Health Department



In your opinion this survey was:



2007 AST Practices Survey from 87 Wisconsin Clinical Laboratories
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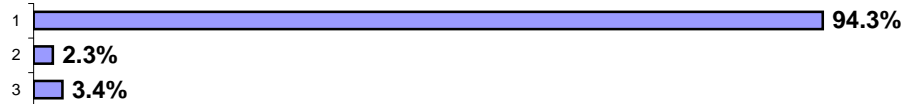
Laboratories able to complete a similar survey online (web-based survey) in the future

- 1. Yes
- 2. No



Were the questions in this survey clear?

- 1. Yes
- 2. No, no comment
- 3. No, with comment*



* #53 was confusing, or questions that don't have "we don't do it"