

COMPLIMENTARY GLOBAL WEBINAR

Group A Strep Pharyngitis: Expert Perspectives on Rapid Testing and Antimicrobial Stewardship



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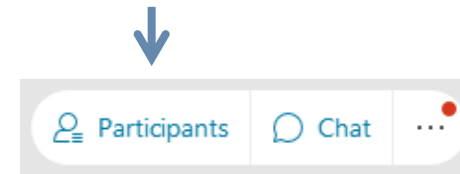
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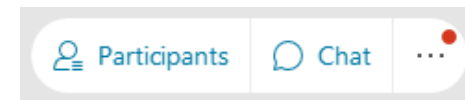
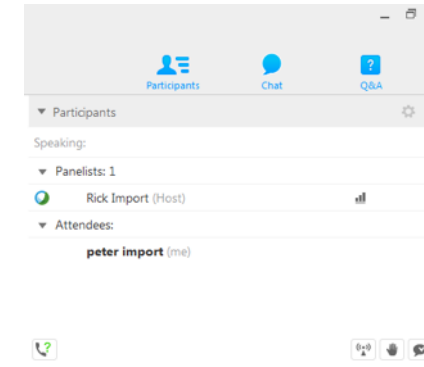
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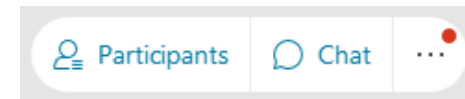
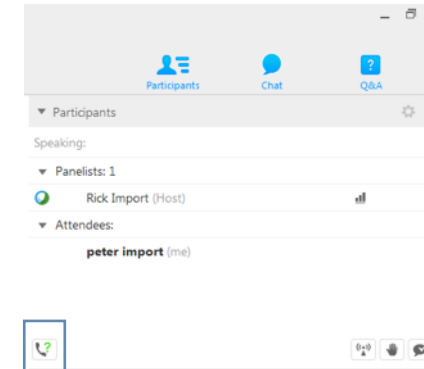
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Group A Strep Pharyngitis: Expert Perspectives on Rapid Testing and Antimicrobial Stewardship

Live Event: Thursday, September 15, 2022 | 11:00 AM - 12:00 PM Eastern Time

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Join this panel discussion on Group A Strep (GAS) pharyngitis. Hear the latest updates on key topics, including clinical testing guidelines, perspectives on test methodologies, and practical testing protocols. Recommendations aimed at improving quality of care, workflow efficiencies, and antibiotic stewardship will be shared.

The webinar will:

- Discuss the latest diagnostic guidelines for GAS pharyngitis
- Assess clinical challenges of GAS pharyngitis diagnosis and antimicrobial stewardship
- Review rapid test methods (antigen and molecular tests) and practical utility
- Examine evidence when results are received in time for clinical decision making and prompt patient care

RECORDING

SLIDES

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Disclosures

DR. SHULMAN:

- Speaker honorarium, Abbott
- CDC grant support for group A strep pharyngitis studies

DR. TANZ

- Speaker honorarium, Abbott
- CDC grant support for group A strep pharyngitis studies

DR. COHEN

- French Ministry of Health grant support for group A strep pharyngitis studies

Today's Panel Discussion

- Diagnostic Guidelines
- Patient Selection
- Test performance
- Antibiotic Stewardship

Learning Objectives

- Discuss the latest U.S. and European diagnostic guidelines for GAS pharyngitis
- Assess clinical challenges of GAS pharyngitis diagnosis and antimicrobial stewardship
- Review rapid test methods (antigen and molecular tests) and practical utility
- Examine evidence when results are received in time for clinical decision making

GROUP A STREP PHARYNGITIS

Diagnostic Guidelines

Group A Strep (GAS) Pharyngitis

“STREP THROAT” - TYPICALLY PRESENTS CLINICALLY AS:

- Fever, headache, red swollen tonsils +/- uvula, with or without exudates, tender/swollen anterior cervical nodes ¹

#1 bacterial cause of tonsillopharyngitis in children (3-15 years) and adults²

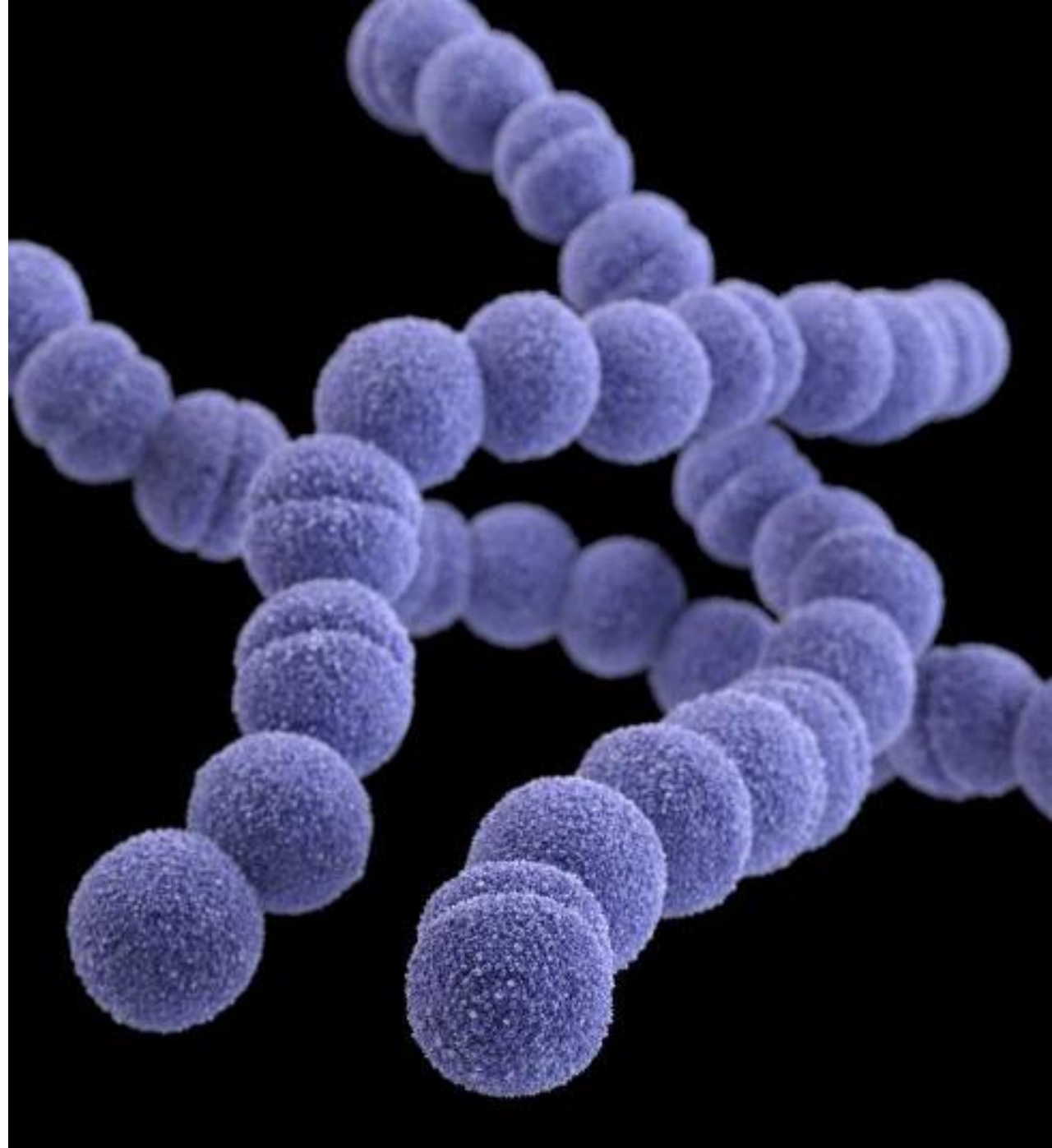
Peak season - Winter and early Spring¹ with lower frequency during pandemic, due to masking, etc.

TYPICALLY SELF-LIMITING...SO WHY DO WE TEST AND TREAT?

GAS DIAGNOSIS AND TREATMENT ARE PRIMARILY PREVENTATIVE^{1,2}

- Acute rheumatic fever (ARF) (arthritis, **CARDITIS**, chorea)
- Peritonsillar / retropharyngeal abscess
- Streptococcal toxic shock syndrome
- Necrotizing fasciitis
- Invasive GAS infection (Sepsis, pneumonia, countless others)
- Post-streptococcal glomerulonephritis - preventable?
- Spread of GAS to others (e.g., household, classroom)

1. CDC. Group A Streptococcal (GAS) Disease. <https://www.cdc.gov/groupastrep/diseases-hcp/strep-throat.html>, updated Jun 27, 2022.
2. Red Book, 2021-2024. Report of the Committee on Infectious Diseases. GAS Infections. <https://publications.aap.org/redbook/book/347/Red-Book-2021-2024-Report-of-the-Committee-on>



Guidelines: American Academy of Pediatrics/Redbook

- **DO NOT DIAGNOSE STREP THROAT WITHOUT LAB TEST CONFIRMATION**
- **DO NOT TEST...**
 - Children < 3 years old, unless known GAS contact
 - Those with viral signs/symptoms: cough, rhinorrhea, hoarseness, oral ulcers, diarrhea
 - Patients without bona fide clinical suspicion of GAS, i.e., Centor or McIsaac Score < 2
 - Tonsillar exudate and/or swelling, fever, tender anterior cervical nodes, absence of cough, age 3 – 15 years
- **DO NOT TREAT WITH ANTIBIOTIC WITHOUT TEST CONFIRMATION OF GAS PHARYNGITIS INFECTION**

Testing Methods for GAS Pharyngitis

CURRENT DIAGNOSTIC GUIDELINES AND CLINICAL PERSPECTIVES

CULTURE

18-36 hours¹

Not practical

“Gold standard”

RADTs (RAPID ANTIGEN DETECTION TESTS)

Much faster than culture (~10-20 mins)

High specificity¹ (~95%)

Variable sensitivity (80% - 85%)¹

If POS, TREAT ALL; confirmatory testing not necessary¹

If NEG:¹

Children = use confirmatory test,
traditionally culture/now NAAT possible

Adults = no confirmatory test recommended
(very low risk of ARF or other GAS complications)

NAATs

(NUCLEIC ACID AMPLIFICATION TESTS)

Potentially even more rapid than RADTs
(2 – 24 mins)^{2,3}

Very high specificity¹ (~93 - 97%)

Very high sensitivity¹ (~96 - 99%)

Confirmatory test likely not necessary (unless indicated in test labeling)

More costly than other tests

Too complicated for some POC?

“Some studies suggest that in addition to providing more timely results, [rapid molecular] tests may be more sensitive than standard throat swab cultures...”¹

NAAT, nucleic acid amplification test

1. Red Book, 2021-2024. Report of the Committee on Infectious Diseases. Group A Streptococcal Infections. <https://publications.aap.org/redbook/book/347/Red-Book-2021-2024-Report-of-the-Committee-on>
2. Jaggi P, Leber A. Molecular Testing for GAS Pharyngitis: To Test or Not To Test, That Is the Question, *Journal of the Pediatric Infectious Diseases Society*, Volume 10, Issue 2, February 2021, Pages 65–67.
3. Xpert® Xpress Strep A Package Insert, 301-9326 Rev A.

Group A Strep Pharyngitis Guideline Updates

2012

2018

Infectious Disease Society of America (IDSA) and the AAP

Diagnostic studies are not indicated
in children <3 years old or those
with viral type symptoms¹
(as previously discussed,
SELECTIVE SCREENING)

Recurrent strep pharyngitis infection does not automatically indicate need for T&A

Limited mention of molecular assays

2018 IDSA and American Society for Microbiology (ASM)

Joint Update on Lab Guidelines state:²

*“Rapid, CLIA–waived methods for
molecular group A Streptococcus testing
provide improved sensitivity and may not
require culture confirmation, though they
have not yet been incorporated into
consensus guidelines.”*

T&A, tonsillectomy and adenoidectomy; CLIA, clinical laboratory improvement amendments

1. Shulman ST, et al. Clinical Practice Guideline for the Diagnosis and Management of Group A Streptococcal Pharyngitis: 2012 Update by the Infectious Diseases Society of America. *Clinical Infectious Diseases* 2012;55(10):e86–102.
2. Miller JA, et al. A Guide to Utilization of the Microbiology Laboratory for Diagnosis of Infectious Diseases: 2018 Update by the Infectious Diseases Society of America and the American Society for Microbiology. *Clin Infect Dis*. 2018 Aug 31;67(6):e1–e94.

Change at a Glacial Pace

2022

Increasing evidence regarding rapid molecular tests may contribute to guideline update:

IDSA
reconstituted committee
to update GAS
pharyngitis guidelines
likely including
molecular testing

- Weinzierl EP, et al. Comparison of rapid antigen tests for group A streptococcal pharyngitis. [published online ahead of print 2018 Oct 15].

- Banerjee D, et al. Utility of rapid antigen tests for diagnosis of group A streptococcal pharyngitis. JAMA. 2018;319(12):1269-1270.

- Newcastle University. Leeds: NIHR Health Research Board; 2018.

- Elf S, et al. Invasive pneumococcal pneumonia. Oct;22(10):10025.

- National Institute for Health Research. Final Scope. Leeds: NIHR Health Research Board; 2018. doi:10.10025/documents/10025.

- Banerjee D, Selvarangan R. The Evolution of Group A Streptococcus Pharyngitis Testing, Sep 2018. <https://www.aacc.org/cln/articles/2018/september/the-evolution-of-group-a-streptococcus-pharyngitis-testing>

- Bird C, et al. Test to detect group A streptococcus: impact of reduced antibiotic use on the online availability of rapid antigen tests. JAMA. 2018;319(12):1271-1272.

- Ferrieri P, et al. PCR assay for group A streptococcus: culture. JAMA. 2018;319(12):1273-1274.

- Lathia N, et al. Cost-mirrored testing for group A streptococcus. BMC Pediatr. 2018;18(1):24. Published 2019 Jan 16. doi:10.1186/s12887-019-1393-y

- Bilir SP, et al. US cost-effectiveness and budget impact of point-of-care NAAT for streptococcus. Am J Manag Care. 2021 May 1;27(5):e157-e163.

- Tanz RR, et al. Highly Sensitive Molecular Assay for Group A Streptococci Over-identifies Carriers and May Impact Outpatient Antimicrobial Stewardship. Pediatr Infect Dis J. 2019 Aug;38(8):769-774.

- Rao A, et al. Diagnosis and antibiotic treatment of group a streptococcal pharyngitis in children in a primary care setting: impact of point-of-care polymerase chain reaction. BMC Pediatr. 2019;19(1):24. Published 2019 Jan 16. doi:10.1186/s12887-019-1393-y

- Berry GJ, et al. Comparison of the Alere i [ID NOW] Strep A Test and the BD Veritor System in the detection of group A Streptococcus and the hypothetical impact of results on antibiotic utilization. J Clin Microbiol. 2018;56:e01310-17.

European Guidelines for GAS Pharyngitis

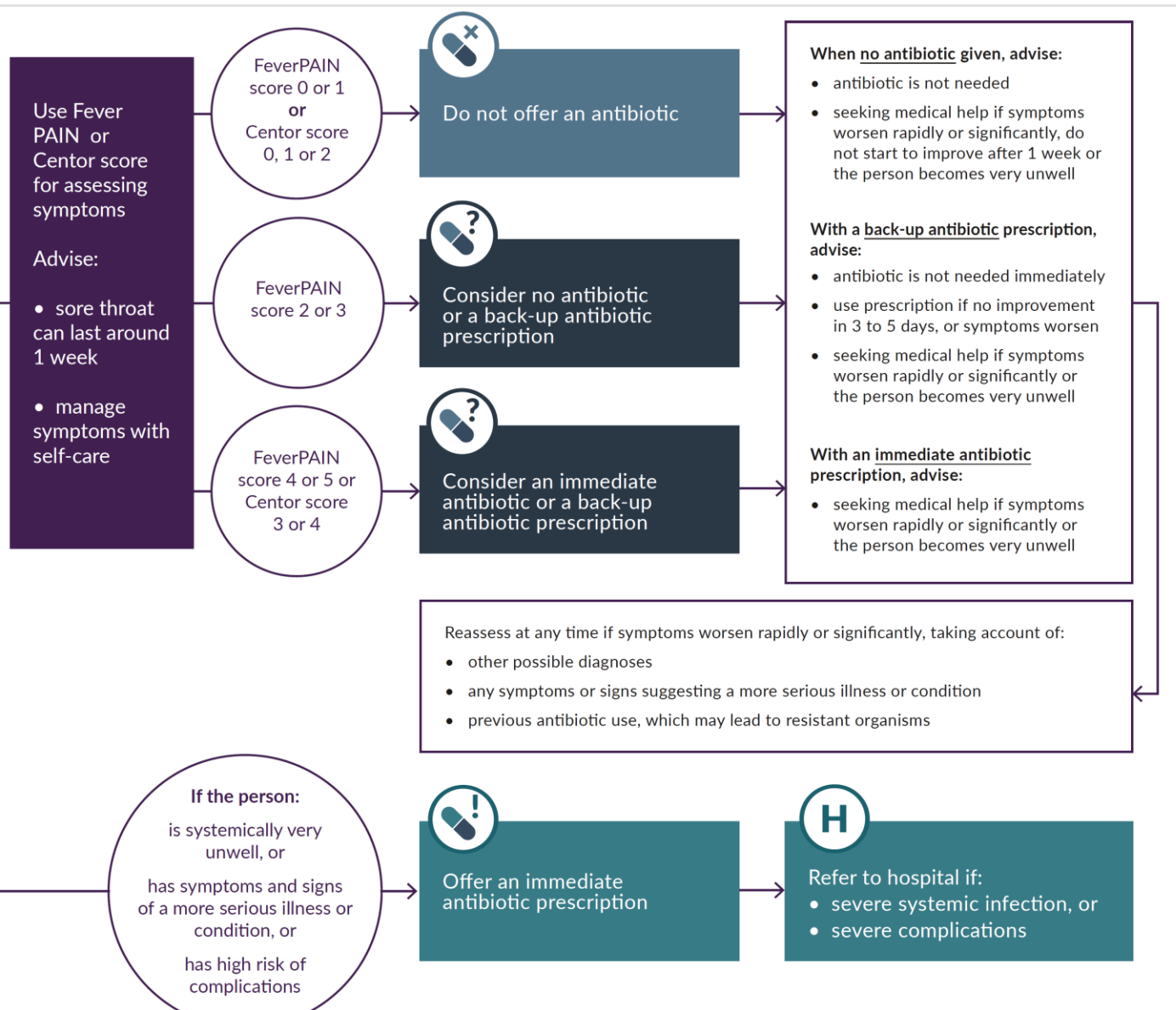
Diagnosis and Treatment	Belgium ⁴⁴ BE01	The Netherlands ⁴⁵ NL02	France ⁴⁶ FR03	Finland ⁴⁷ FI04	England ⁴⁸ E05	Scotland ⁴⁹ SC06
Diagnosis						
History	+	+	+	+	+	+
Clinical examination	+	+	+	+	+	+
Centor criteria	-	-	-	-	-	-
GABHS (rapid antigen or strep) test	-	-	+	+	-	-
Culture	-	-	-	+	-	-
Treatment						
Prescribe antibiotics						
High-risk and very ill patients	+	+	+	-	+	+
Centor criteria	-	-	-	-	-	-
GABHS test result positive	-	-	+	+	-	-

IMPORTANT DIFFERENCES:

Several countries (UK, Belgium, Netherlands) do not follow “test and treat”.

UK Guidelines for GAS Pharyngitis (2018)

Acute sore throat



NICE National Institute for Health and Care Excellence

FeverPAIN CRITERIA:

- Fever (during previous 24 hours)
- Purulence (pus on tonsils)
- Attend rapidly (≤ 3 days after symptoms onset)
- Severely inflamed tonsils
- No cough or coryza

“Based on evidence and experience, the committee agreed that acute sore throat is a self-limiting infection, and most people will get better within a week without antibiotic treatment.”

“The additional use of rapid antigen tests for GABHS in people with a high FeverPAIN score had no clear advantage over using FeverPAIN score alone.”

Diagnosis of GAS Pharyngitis in France

CURRENT GUIDELINES

- Perform RADT on all 3 – 15 y.o. with acute pharyngitis
 - No scoring system is utilized in children
 - Treat those who are positive, no backup culture is performed for those with negative RADT
 - Based on great rarity of ARF, it is acknowledged that a small number of GAS pharyngitis will be missed
 - Assumes those missed are probable GAS carriers
 - RADTs (Exacto Pro Streptatest, Biosynex) are provided free to all requesting French clinicians
- No guidelines regarding molecular assays
 - Cost exceeds free RADTs
 - French regulations require trained lab personnel to perform and validate molecular tests; hence, not feasible for clinicians at POC

GROUP A STREP PHARYNGITIS

Patient Selection for Testing

Guide for Patient Selection for Testing in the U.S.

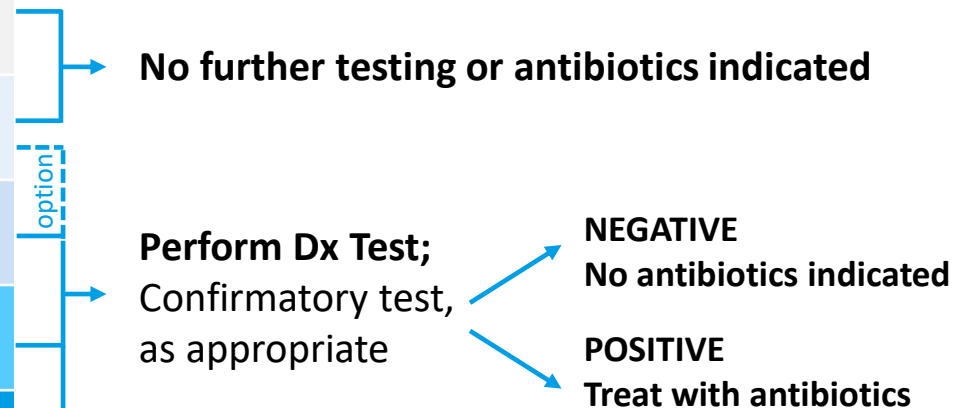
SORE THROAT

PRE-TEST PROBABILITY SCORING SYSTEMS¹

CRITERIA	POINTS
Absence of cough	1
Swollen, tender anterior cervical nodes	1
Temperature > 100.4°F (38°C)	1
Tonsillar exudates or swelling	1
Age	
3 to 14 years	1
15 to 44 years	0
45 years or older	-1
CUMULATIVE SCORE:	

CENTOR OR MODIFIED CENTOR (AKA MCISAAC)

SCORE	RISK OF GABHS PHARYNGITIS
≤ 0	1% - 2.5%
1	5% - 10%
2	11% - 17%
3	28% - 35%
≥ 4	51% - 53%



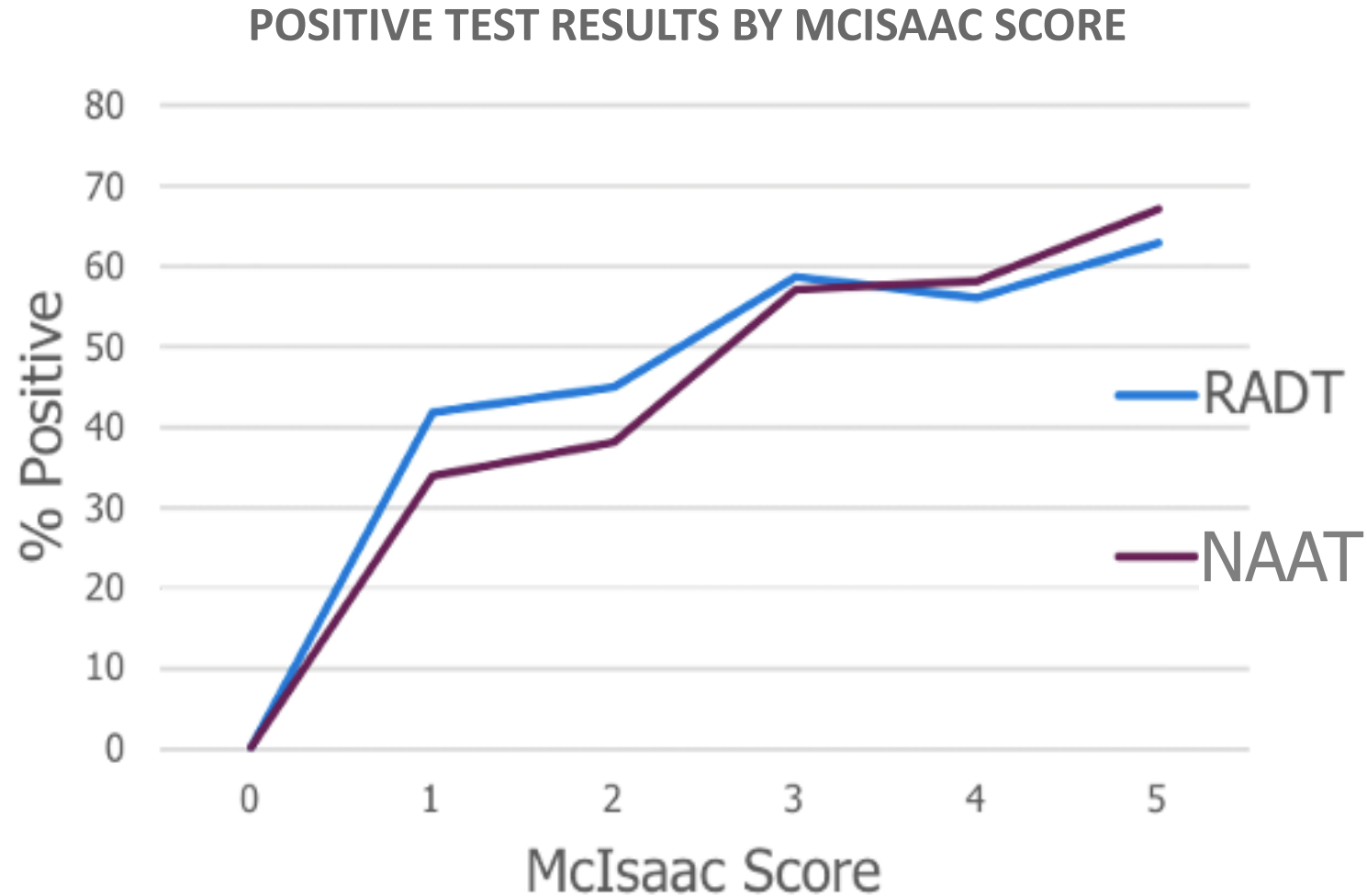
≤ 2: unlikely to have GAS pharyngitis ≥ 3: more probable to have positive GAS test

GABHS, group A beta-hemolytic streptococcal

¹ Adapted from Kalra MG, Higgins KE, Perez ED. Common Questions About Streptococcal Pharyngitis. Am Fam Physician. 2016 Jul 1;94(1):24-31. Erratum in: Am Fam Physician. 2017 Apr 1;95(7):414.

² Adapted from Fine AM, Nizet V, Mandl KD. Large-Scale Validation of the Centor and McIsaac Scores to Predict Group A Streptococcal Pharyngitis. Arch Intern Med. 2012 June 11; 172(11): 847-852.

Test Positivity Rates Increase with Higher Pre-Test Probability Scores



Test Performance is Affected by Disease Presentation

TEST SENSITIVITY SPECTRUM BIAS

1848 patients
3-18 years old

MCISAAC CRITERIA

Tonsillar exudates, anterior cervical adenitis, history of fever, no cough, age <15 years
(score 1 point for each)

PPV OF EACH SCORE FOR POSITIVE CULTURE

SCORE	PPV POSITIVE CULTURE
0-1	16%
2	20%
3	29%
4	45%
5	62%

Higher McIsaac Scores are associated with greater pretest probability of GAS as the cause of the pharyngitis (positive throat culture)

<u>SENSITIVITY</u>	<u>0-2</u>	<u>3-5</u>
Office RADT	49%	78%
Office Throat Culture	65%	87%

PPV, positive predictive value; RADT, rapid antigen detection test

Tanz RR, Gerber MA, Kabat W, Rippe J, Seshadri R, Shulman ST. Performance of a rapid antigen-detection test and throat culture in community pediatric offices: implications for management of pharyngitis. Pediatrics. 2009 Feb;123(2):437-44. Erratum in: Pediatrics. 2009 Aug;124(2):846.

GROUP A STREP PHARYNGITIS

Panel Discussion: Diagnostic Guidelines and Patient Selection for Testing

GROUP A STREP PHARYNGITIS

Test Performance

Detection: Antigen vs Molecular

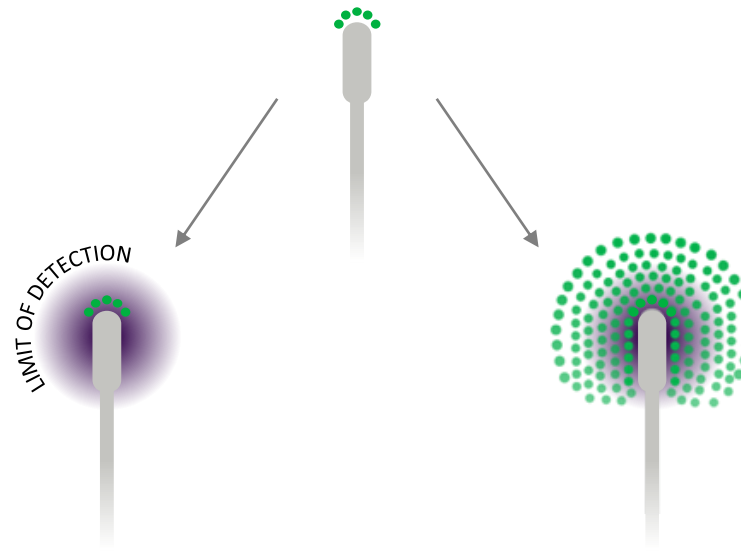
POSITIVE PATIENT
Sample Containing Antigen/RNA

ANTIGEN TESTS

Rapid Antigen
Detection Tests (RADTs)¹

NO AMPLIFICATION

Detects the presence of
available pathogens
(virus or bacteria)



MOLECULAR TESTS

Nucleic Acid
Amplification Tests (NAATs)²

AMPLIFICATION

Amplifies the sample
millions of times for easier
pathogen detection

GAS Antigen:
Group A carbohydrate
Cell wall component

Lower levels of pathogen are
less likely to be detected

Lower levels of pathogen are
more likely to be detected

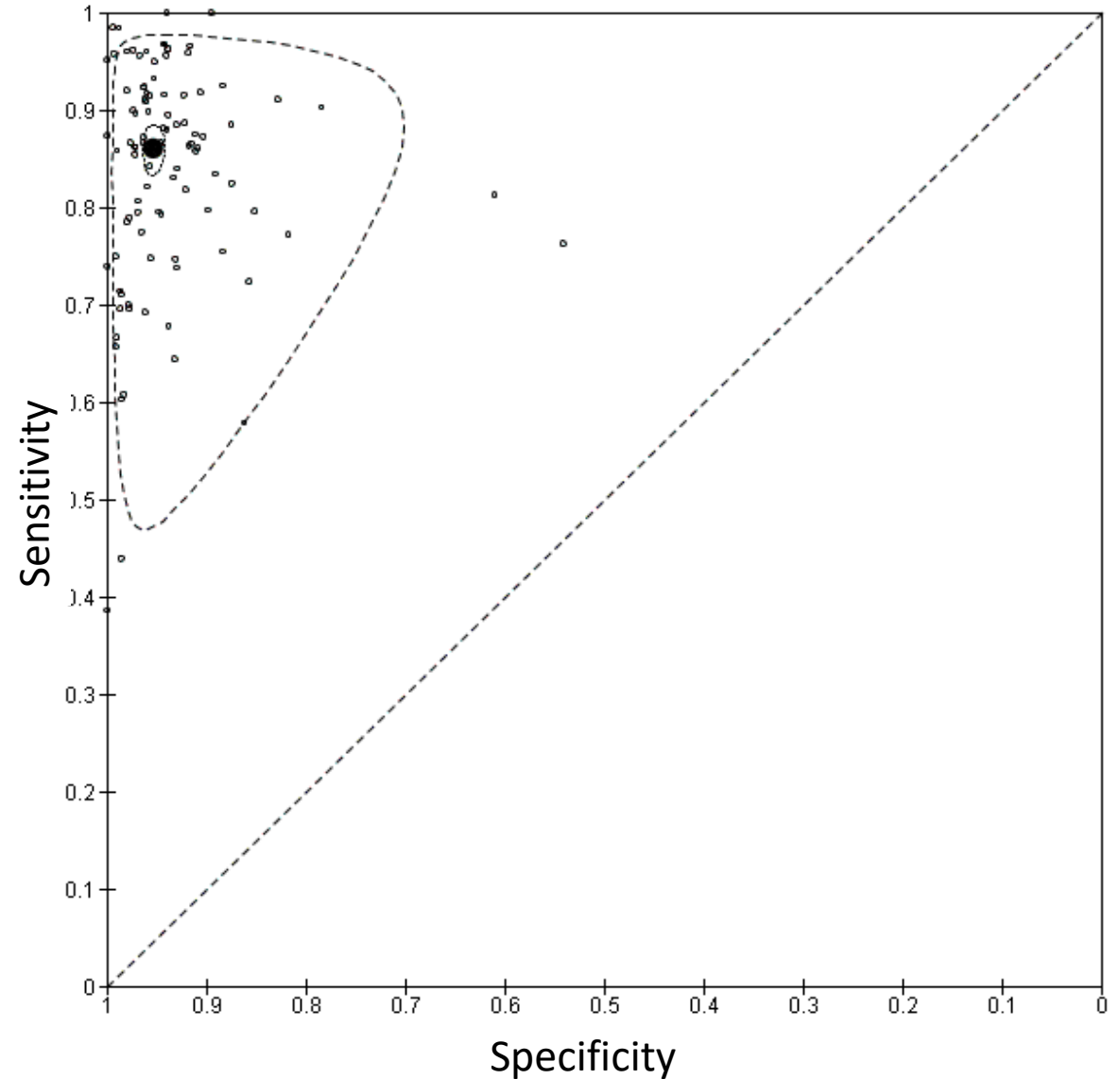
GAS Gene:
e.g., *SpeB*
Major toxin

SELECT TEST BASED ON HEALTHCARE NEEDS FOR RAPID RESULT AND TEST UTILITY

1. Cohen JF, et al. Rapid antigen detection test for group A streptococcus in children with pharyngitis. Cochrane Database of Systematic Reviews 2016, Issue 7.
2. CDC. Nucleic Acid Amplification Tests (NAATs). <https://www.cdc.gov/coronavirus/2019-ncov/lab/naats.html>, updated June 14, 2021.

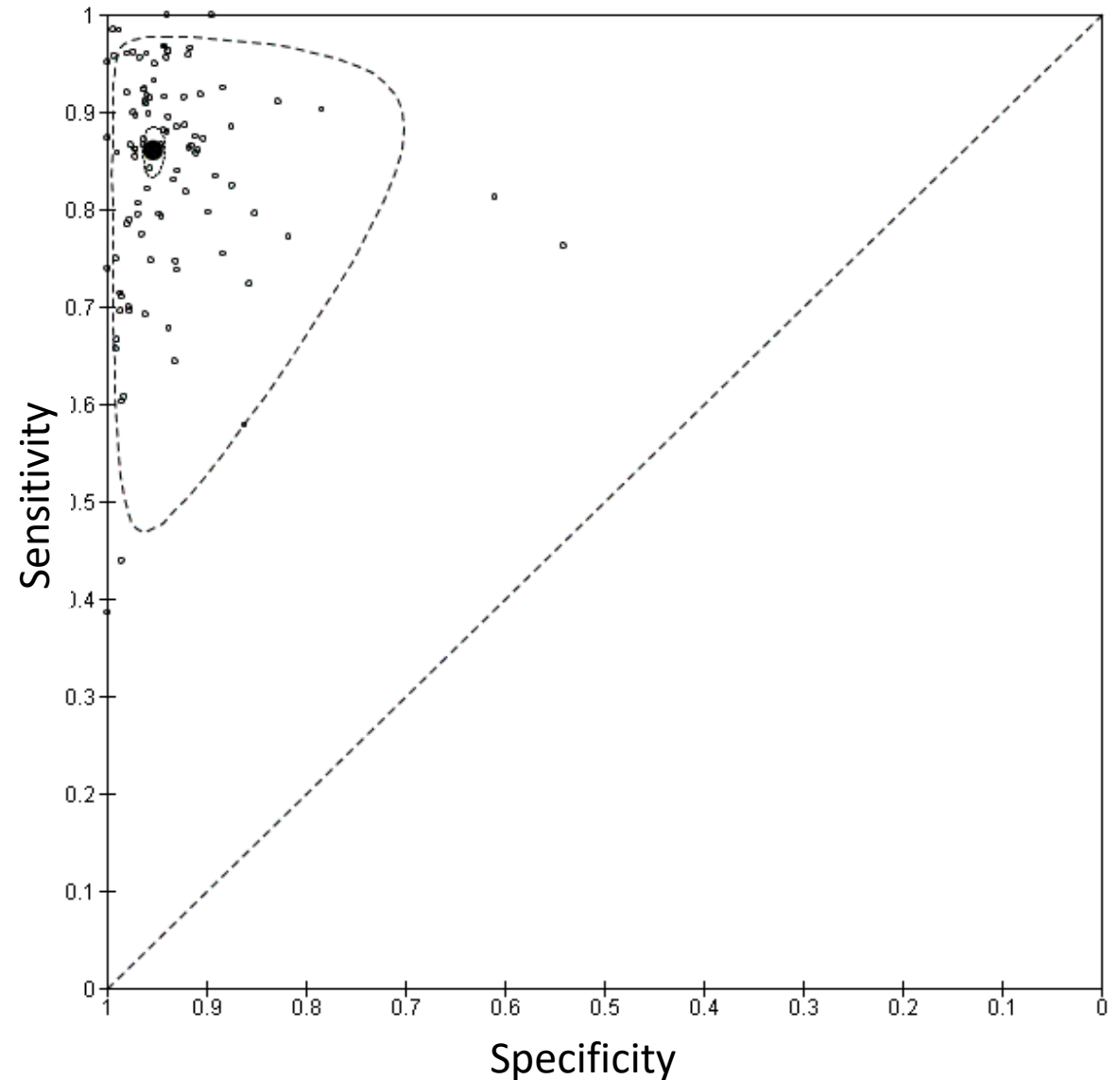
Accuracy of RADTs (Cochrane meta-analysis)

- Systematic review of literature
- 98 studies, > 100,000 children



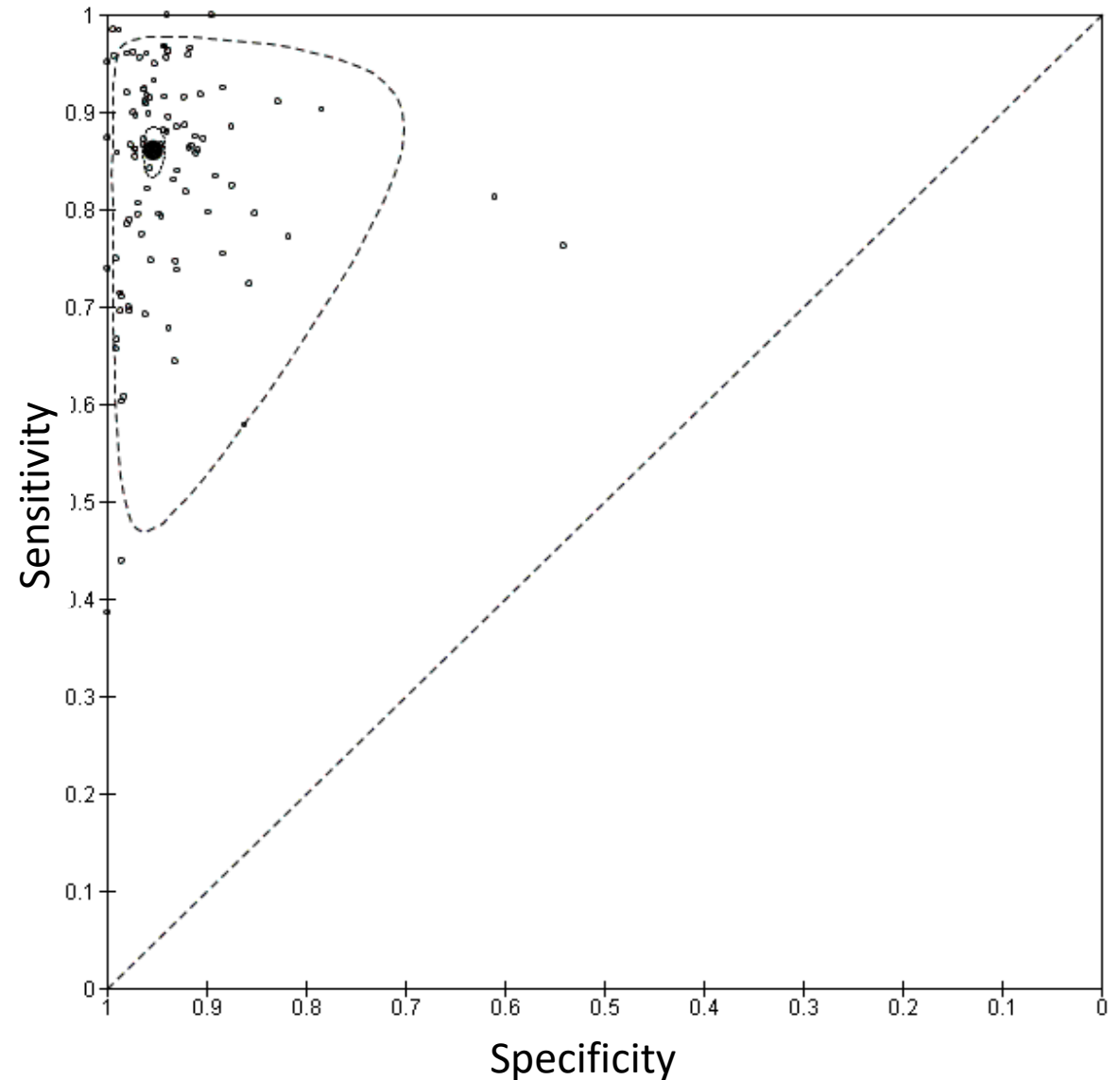
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- Substantial variability in sensitivity across studies, less in specificity - graph



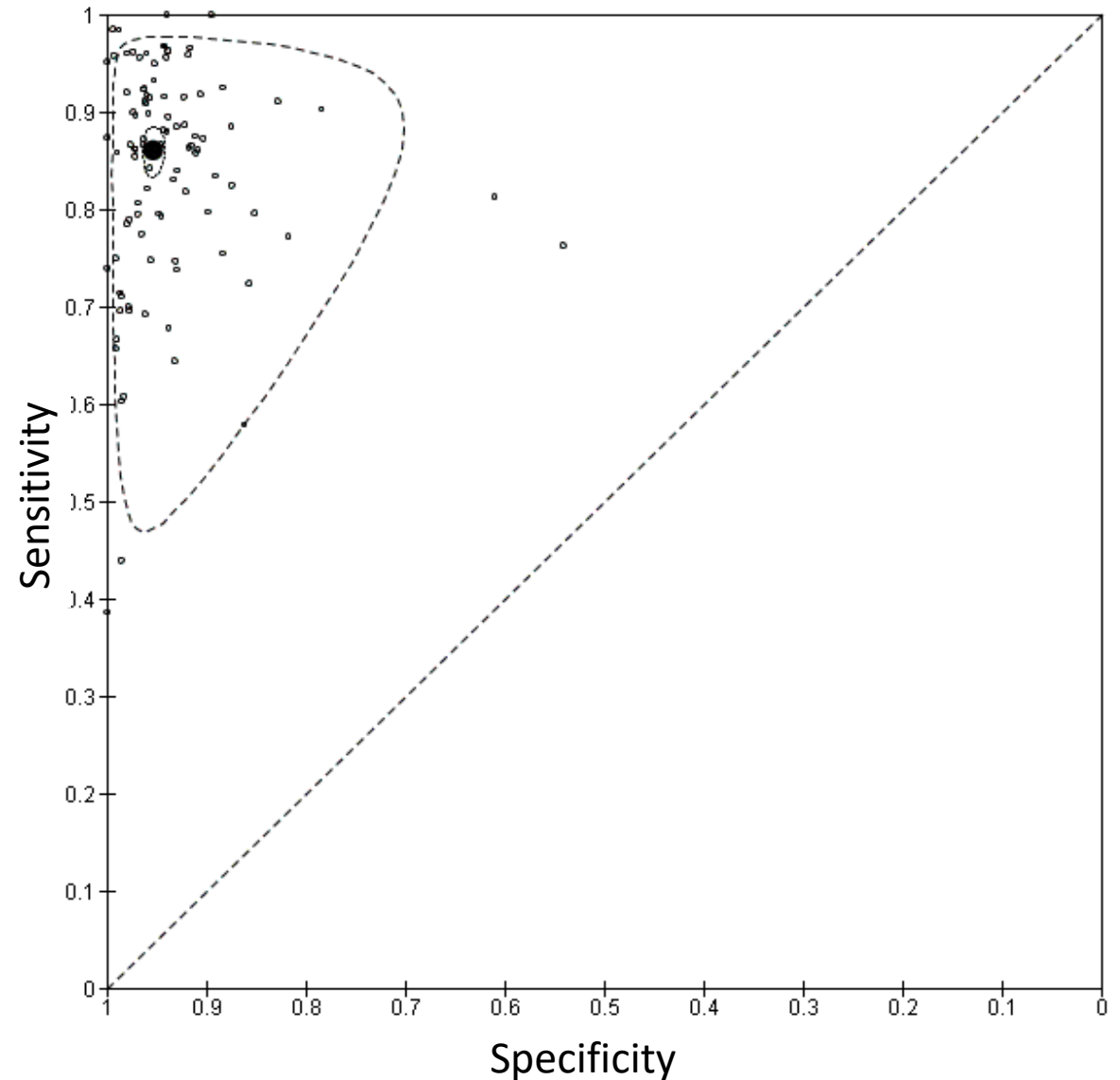
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- Random-effects bivariate meta-analysis:



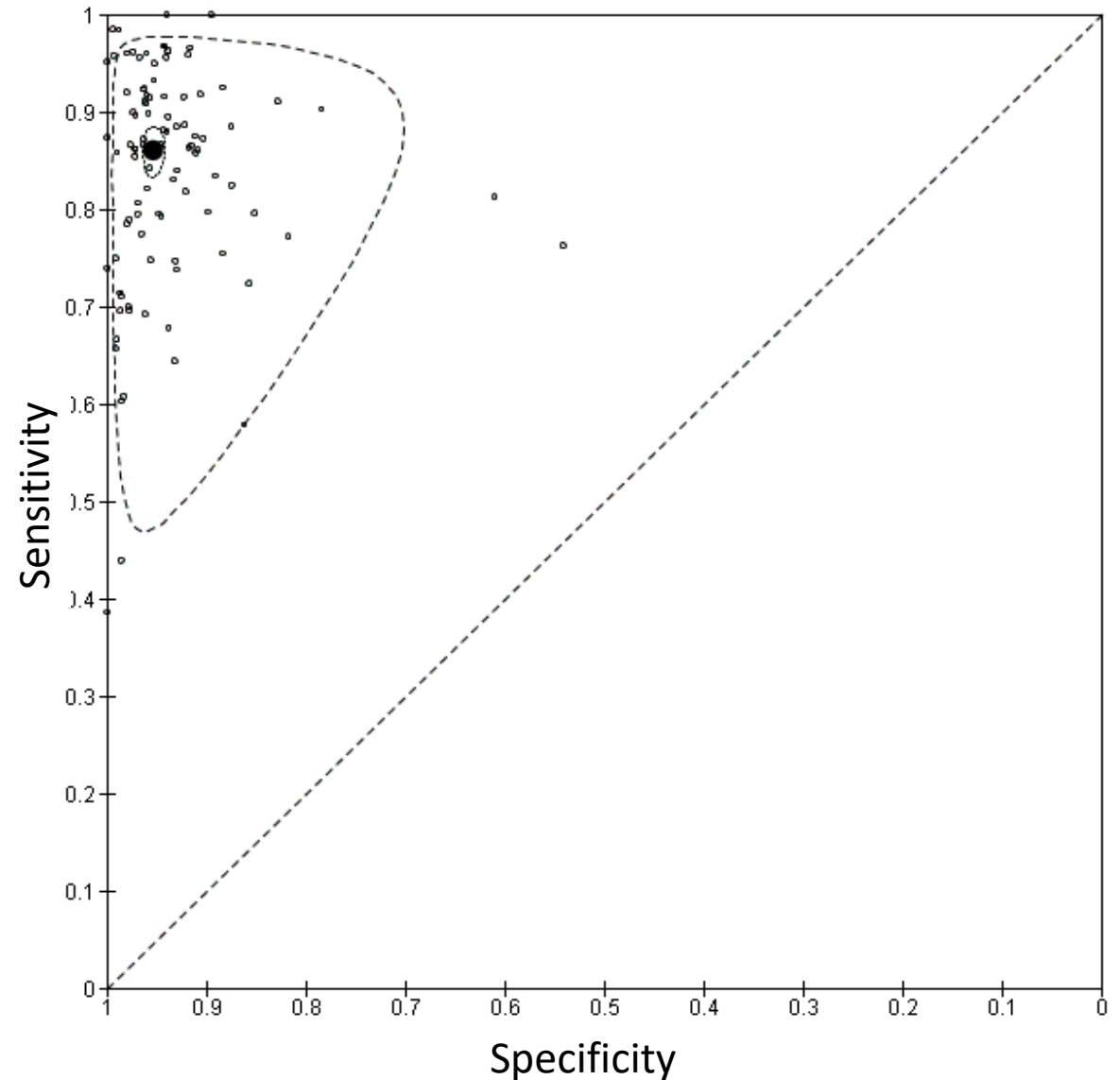
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- Random-effects bivariate meta-analysis:
 - Sensitivity: 85.6% (83.3 – 87.6)
 - Specificity: 95.4% (94.5 – 96.2)



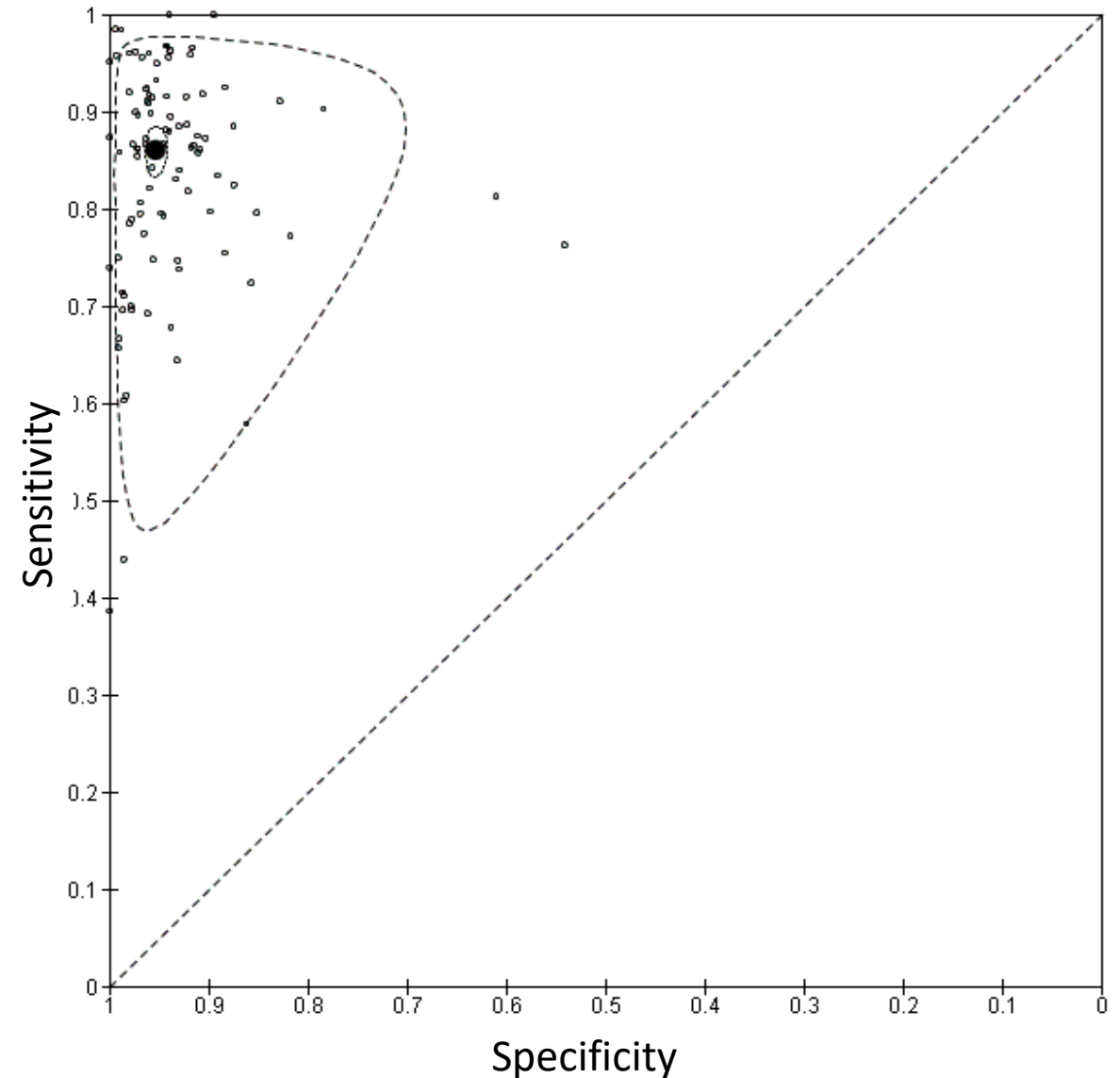
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- No significant difference between EIA and OIA



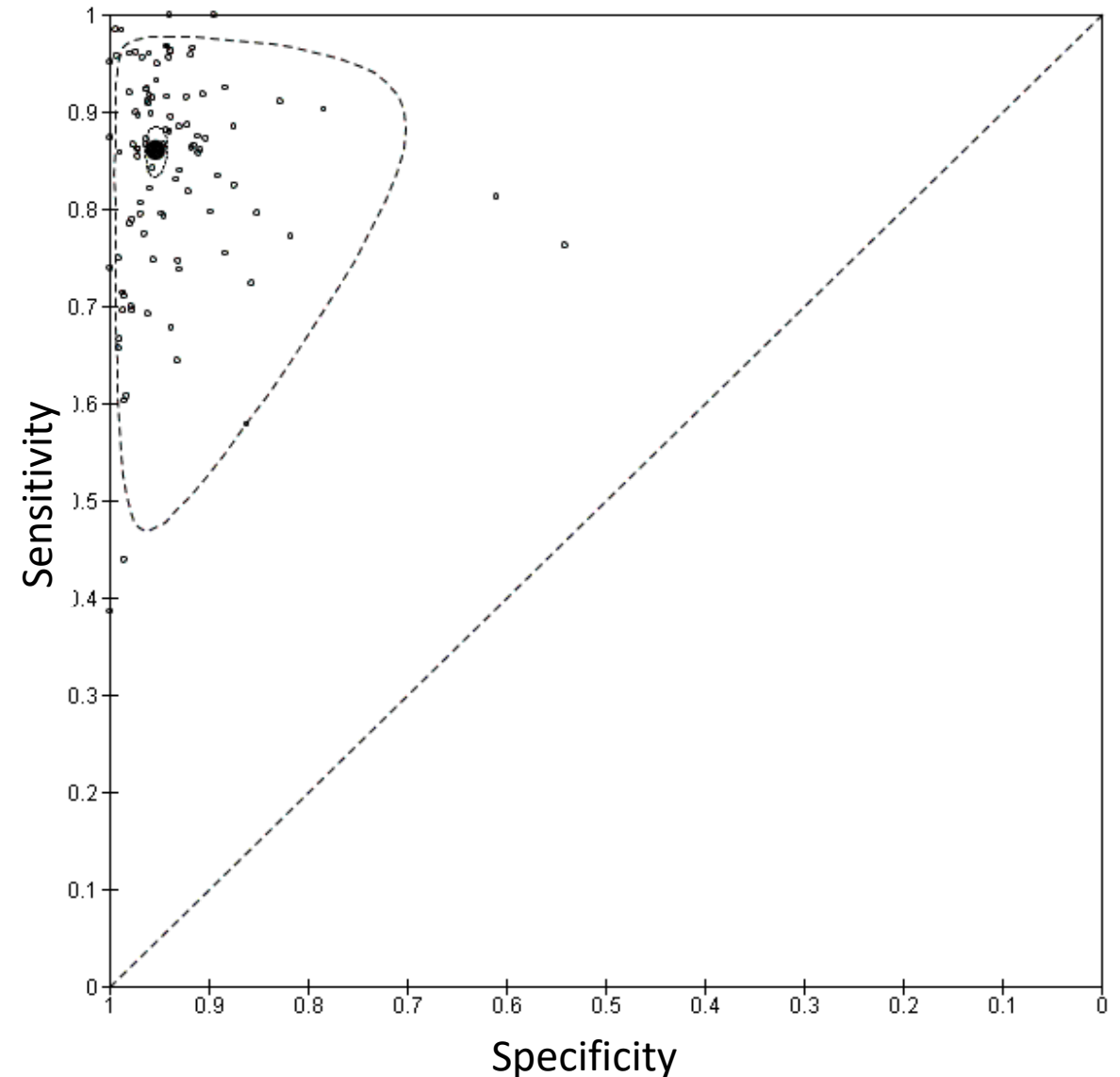
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- No significant difference between EIA and OIA
- No difference across age groups

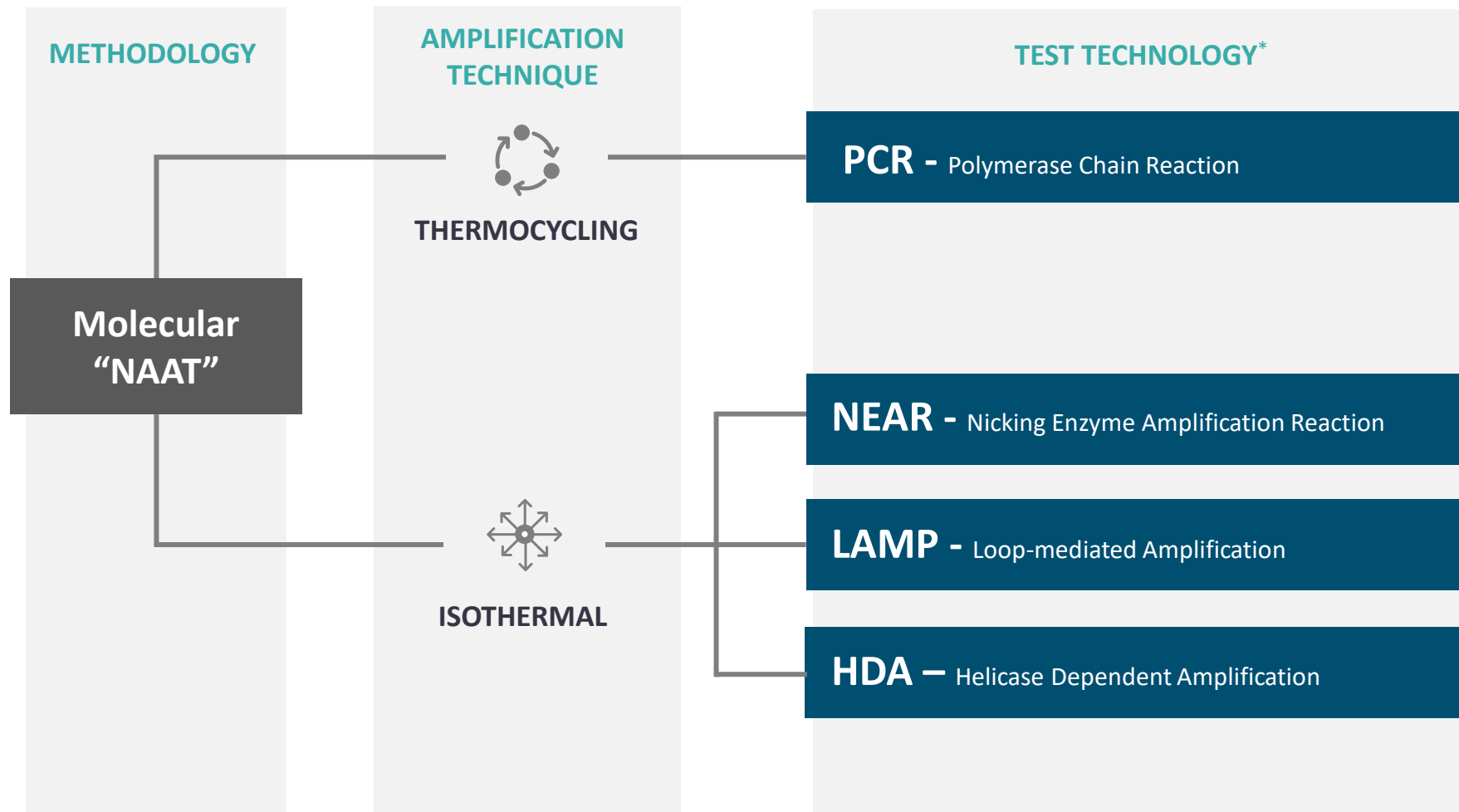


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- Substantial variability in sensitivity across studies, less in specificity - graph
- Random-effects bivariate meta-analysis:
 - Sensitivity: 85.6% (83.3 – 87.6)
 - Specificity: 95.4% (94.5 – 96.2)
- No significant difference between EIA and OIA
- No difference across age groups
- No difference according to McIsaac score



Molecular (NAAT) Test Technologies for GAS



NAAT, nucleic acid amplification test.

*Multiple NAAT technologies amplify nucleic acids, not a comprehensive list.

CDC, [Nucleic Acid Amplification Tests \(NAATs\)](#), updated June 14, 2021. List narrowed to technologies with associated rapid NAAT for GAS.

Rapid molecular tests (NAATs) for Group A Strep

LISTED IN ORDER OF EASE OF USE (CLIA STATUS, U.S. ONLY) AND TIME TO RESULT

CLIA WAIVED	DEVICE	AMPLIFICATION METHOD	TEST TECHNOLOGY	TIME TO POSITIVE RESULT (MIN)	TIME TO NEGATIVE RESULT (MIN)
YES	Abbott ID NOW™ 1	Isothermal	NEAR	≥ 2	6
YES	Roche cobas® LIAT® 2	Thermocycle	PCR	~15	~15
YES	Cepheid GeneXpert® Xpress 3	Thermocycle	PCR	≥ 18	24
NO	Quidel Solana® 4	Isothermal	HDA	~35	~35
NO	Diasorin Simplexa™ 5	Thermocycle	PCR	~60	~60
NO	Meridian Biosciences® Alethia™6 (formerly illumigene™)	Isothermal	LAMP	~60	~60

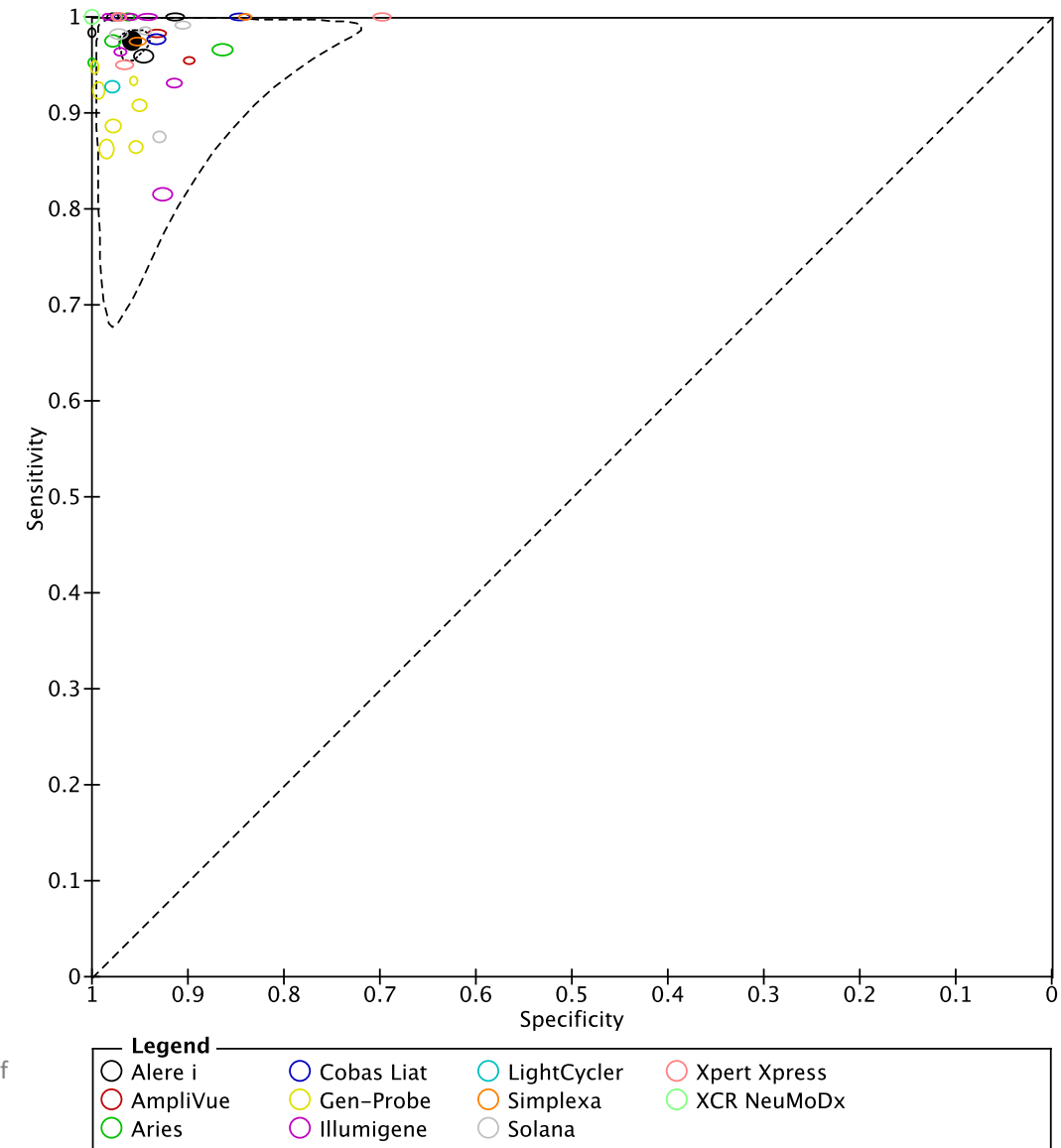
CLIA, Clinical Laboratory Improvement Amendments (U.S.); NEAR, Nicking Enzyme Amplification Reaction; PCR, Polymerase Chain Reaction, HDA, Helicase Dependent Amplification; LAMP, Loop-mediated Amplification. Commercially available rapid GAS NAATs (≤60 mins); refer to FDA site for current list and CLIA status:

https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfClia/analyteswaived.cfm?start_search=S. Check manufacturer sites for product availability.

1. ID NOW Strep A 2 Package Insert, IN734000 Rev.5. 2. cobas® Strep A Package Insert, 34-04030 Rev 4. 3. Xpert® Xpress Strep A Package Insert, 301-9326 Rev A. 4. Solana® GAS Assay, Instructions for Use, PIM301005EN00 (08/18). 5. Diasorin Simplexa™ Group A Strep Direct, Instructions for Use, Rev C. 6. Alethia™ Group A Strep DNA Amplification Assay, SN11022, REV. 05/20.

Accuracy of NAATs (meta-analysis)

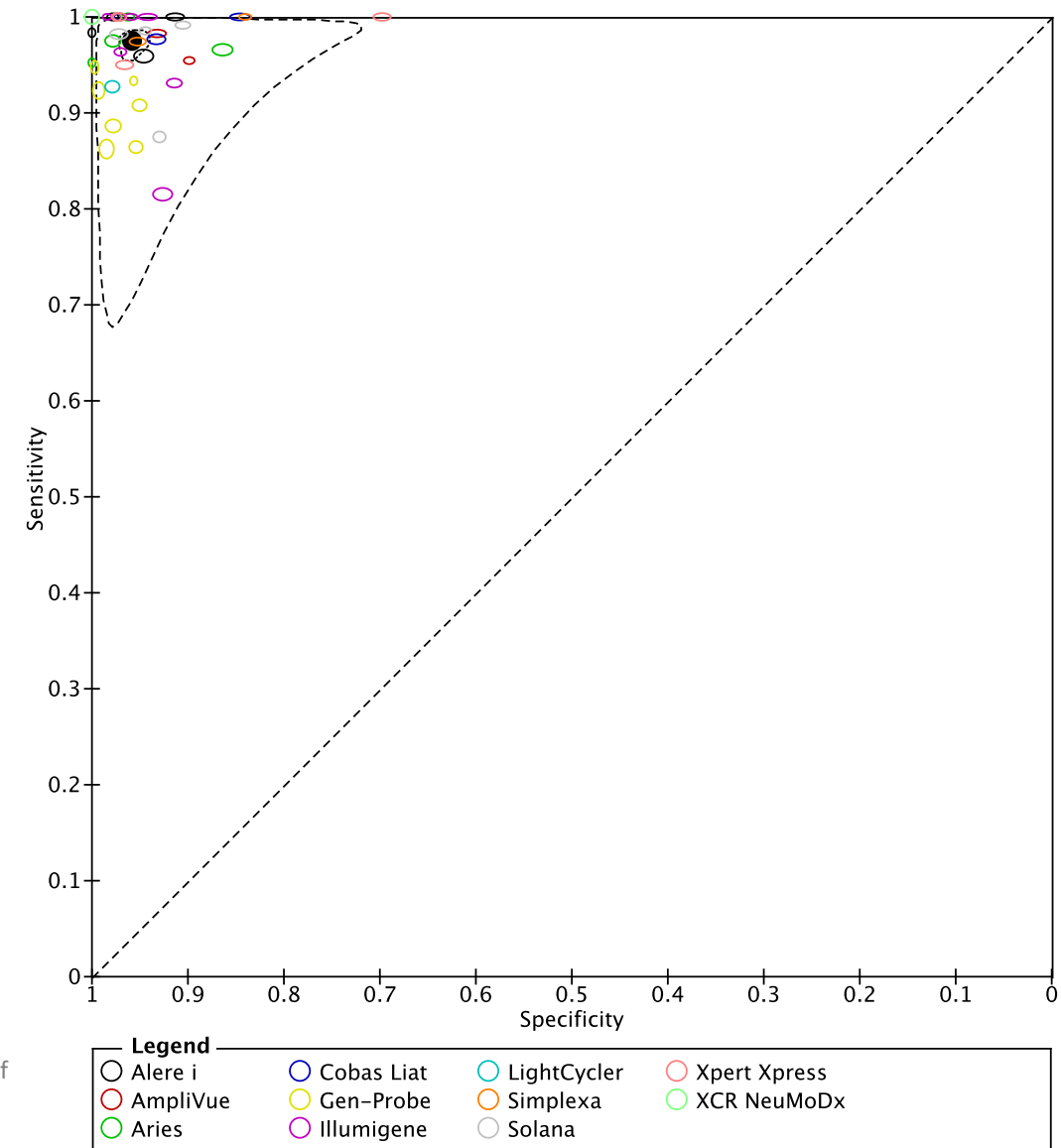
- Systematic review of literature
- 39 studies, > 16,000 patients



Dubois C, Smeesters PR, Refes Y, Levy C, Bidet P, Cohen R, Chalumeau M, Toubiana J, Cohen JF. Diagnostic accuracy of rapid nucleic acid tests for group A streptococcal pharyngitis: systematic review and meta-analysis. Clin Microbiol Infect. 2021 Dec;27(12):1736-1745.

Accuracy of NAATs (meta-analysis)

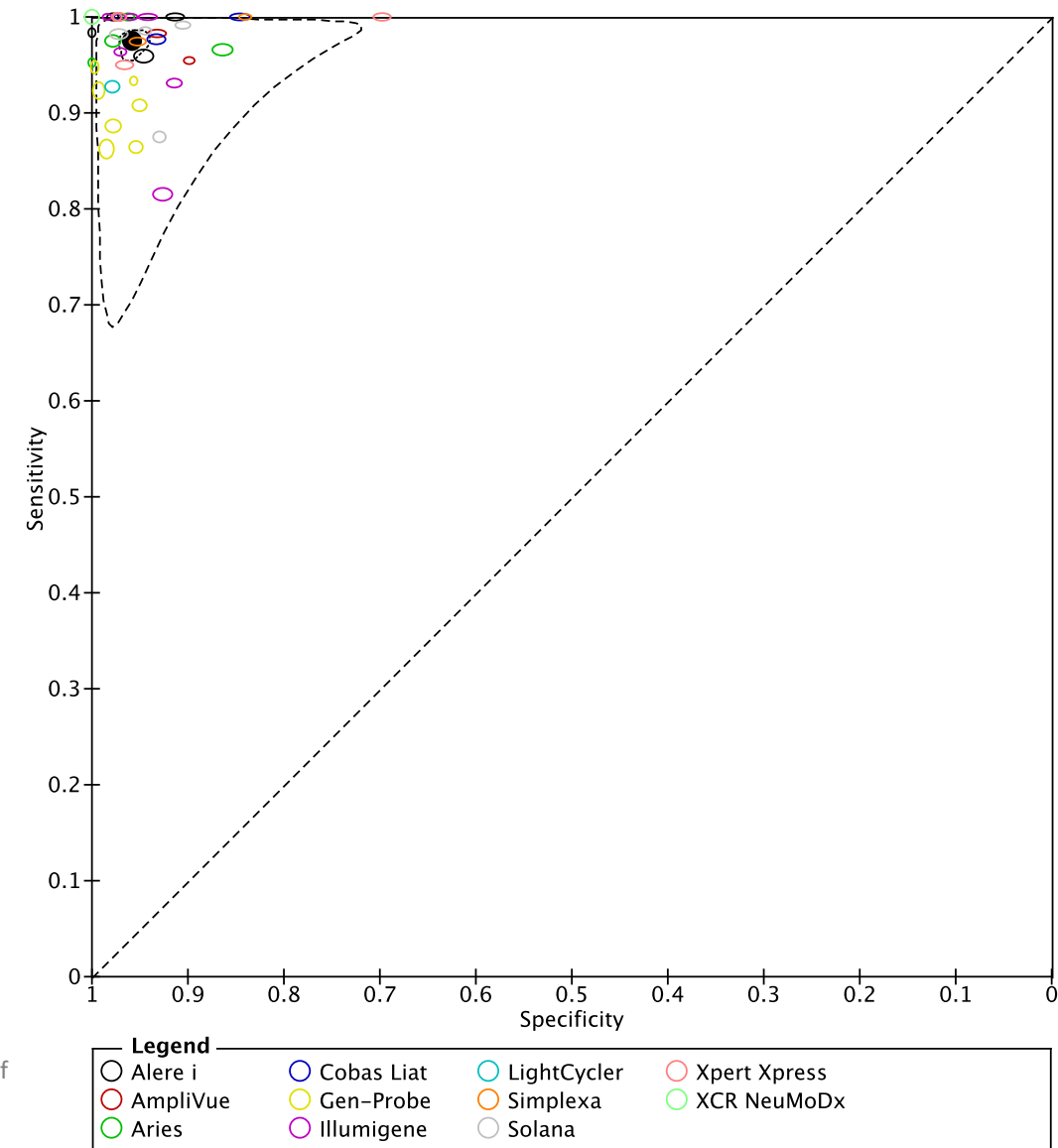
- Systematic review of literature
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- Random-effects bivariate meta-analysis:
 - Sensitivity: 97.5% (96.0-98.5)
 - Specificity: 95.8% (94.4-96.9)



Dubois C, Smeesters PR, Refes Y, Levy C, Bidet P, Cohen R, Chalumeau M, Toubiana J, Cohen JF. Diagnostic accuracy of rapid nucleic acid tests for group A streptococcal pharyngitis: systematic review and meta-analysis. Clin Microbiol Infect. 2021 Dec;27(12):1736-1745.

Accuracy of NAATs (meta-analysis)

- Systematic review of literature
- 39 studies, > 16,000 patients
- Random-effects bivariate meta-analysis:
 - Sensitivity: 97.5% (96.0-98.5)
 - Specificity: 95.8% (94.4-96.9)
- Direct comparison of NAATs vs RADTs (10 studies):
 - Higher sensitivity (97% vs. 80%, $p=0.007$)
 - Comparable specificity (97% vs. 98% , $p=0.69$)
- Limitations:
 - Risk of Bias: uncertain because of incomplete reporting
 - Applicability: major concern regarding patient selection
 - Most studies conducted in lab, not at POC





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Commentary

Here to stay: rapid nucleic acid tests for group A streptococcus pharyngitis

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²) Northwestern University Feinberg School of Medicine, Chicago, IL, USA

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“RNATs are here to stay [in the U.S.]. They are being used now and they will be used more frequently as clinicians become comfortable with molecular testing for GAS and many other infectious diseases. Published data for the diagnostic accuracy of these tests is growing...”

“...it is important that the appropriate clinical context and setting to perform these tests be considered and evaluated, especially in the POC setting where the majority of these tests are likely to be used.”

“As with other tests for GAS, clinicians should be mindful of clinical presentation and **limit testing only to those with GAS-compatible pharyngitis**; in this way, positive tests are associated with greater likelihood of bona fide infection and less likely to identify carriers with an intercurrent non-GAS (most often viral) illness” and thus avoid unnecessary antibiotic treatment.

Prevalence of Positive Tests – Culture vs. Rapid NAAT

~**3,600** children with sore throat and **RADT negative** presenting to the **ED**:

PREVALENCE OF POSITIVE TESTS

APRIL THROUGH SEPTEMBER, 2012-2015

CULTURE	TESTS	# POSITIVE	% POSITIVE
2012	884	62	7.0
2013	997	96	9.6
COMBINED*	1881	158	8.4*
RAPID NAAT	TESTS	# POSITIVE	% POSITIVE
2014	894	152	17.0
2015	859	132	16.1
COMBINED*	1753	290	16.5*

*p<.00001

Is molecular more sensitive than culture,
or overly sensitive?

The Potential Impact of Highly Sensitive NAATs

~**380** asymptomatic children ≥ 3 years old presenting in **Primary Care**
(immunization/well-child care)

12.5% culture positive

- Probably carriers harboring GAS in respiratory tract, consistent with known carrier rate (can be $>20\%$)

20.3% molecular positive ($p < 0.0035$)

The **8%** difference may represent:

- false positives or carriers
- molecular testing is better at detecting GAS in the pharynx than other forms of testing

	ENROLLED	CULTURE POSITIVE	MOLECULAR POSITIVE
NUMBER	385	48 (12.5%)*	78 (20.3%)**
MEAN AGE (YRS)	10	9.6	9.6
SEX			
MALE	195 (51%)	23 (48%)	39 (50%)
FEMALE	188 (48%)	25 (52%)	39 (50%)
REASON FOR VISIT			
WELL CHILD CARE	264 (69%)		
FOLLOW-UP	99 (26%)		
ADHD	17 (4%)		
OTHER	1 (<1%)		

* 385 enrolled; 382 valid paired samples, 3 molecular tests were indeterminate.
Missing data: sex (2), reason for visit (4)

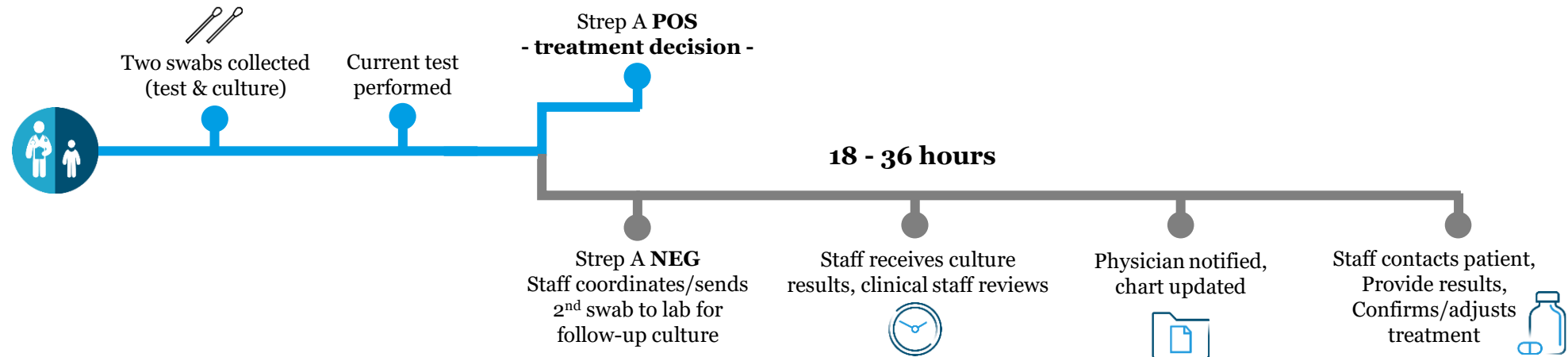
** Proportion culture-positive vs molecular-positive: **Chi square test, $p = 0.0035$**

Identification of Carriers

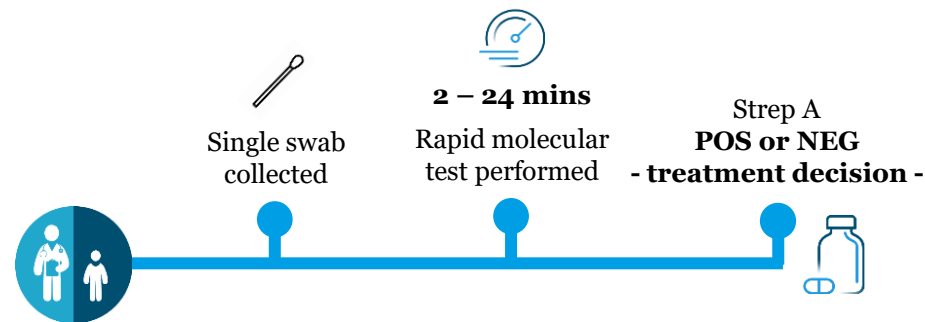
- **32/382** pairs (8.4%) were discordant
- **31/32** discordant pairs (97%) were NAAT-positive/culture-negative
 - McNemar test, $p < .00001$

Workflow Comparison – Rapid Antigen vs. Rapid NAAT

STREP A RAPID ANTIGEN TEST (RADT) WITH CONFIRMATION OF NEGATIVE TEST



RAPID STREP A MOLECULAR TEST WITH NO CONFIRMATION OF NEGATIVE TESTS



GROUP A STREP PHARYNGITIS

Antibiotic Stewardship

Rapid Testing and Impact on Antibiotic Use (Cochrane)

Different Questions

- Are rapid test results *valid*? Diagnostic accuracy – see previous slides
- Are rapid tests *useful*? Clinical utility

2020 Cochrane Review

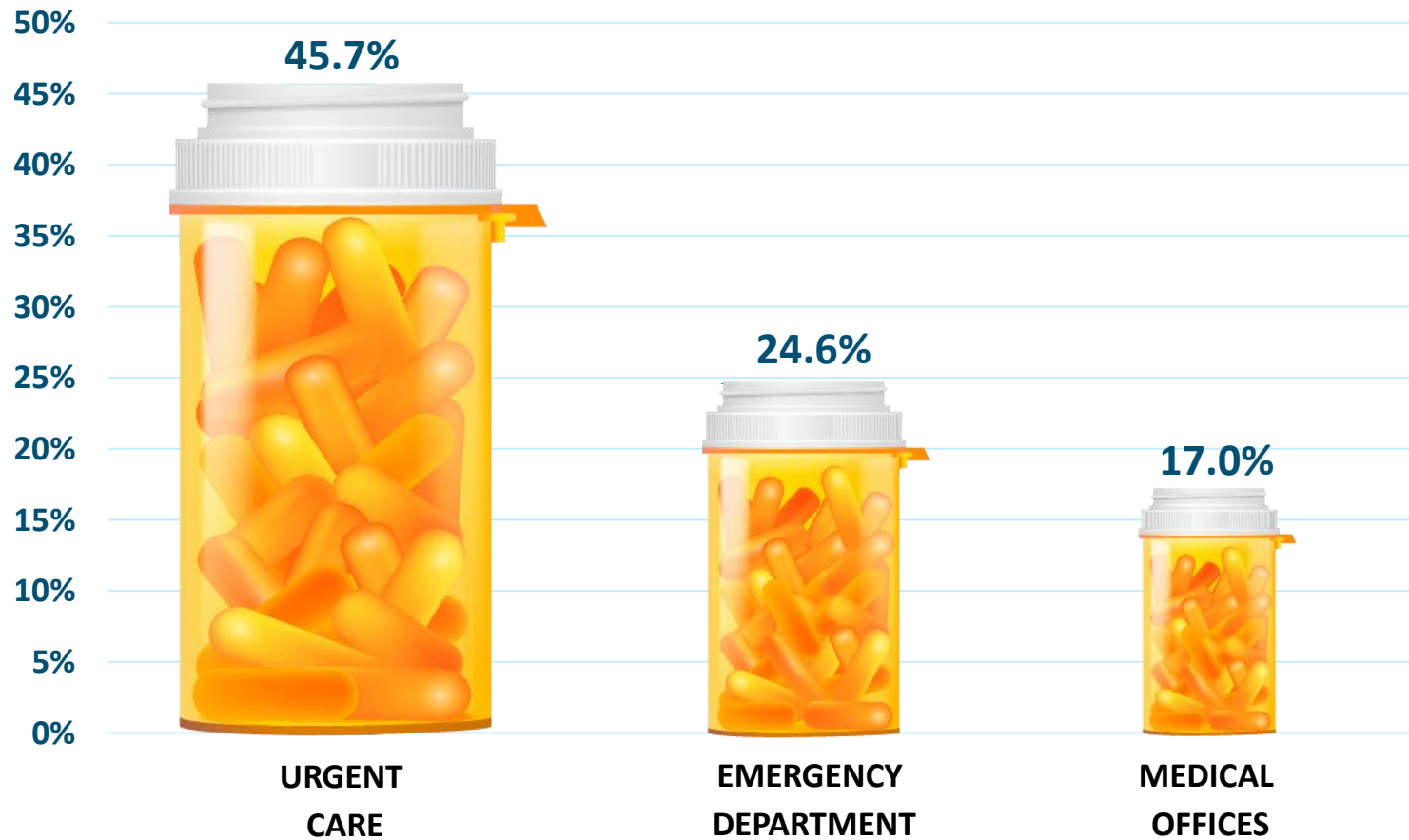
- 5 RCTs evaluating the impact of using RADTs on antibiotic use (2,545 children and adults)
- Various interventions:
 - RADTs used in combination with a clinical scoring system: 3 trials
 - Some physicians asked to use RADTs alone, while others asked to use RADTs with scoring system: 1 trial
 - RADTs alone (for all): 1 trial

Conclusions with Use of Rapid Testing:

Potential to reduce antibiotic prescription rates by **25** percentage points (e.g., from 60% to 35%)

Areas Most Prone to Inappropriate Antibiotic Use

AVG INAPPROPRIATE ANTIBIOTIC USE BY CARE SETTING¹

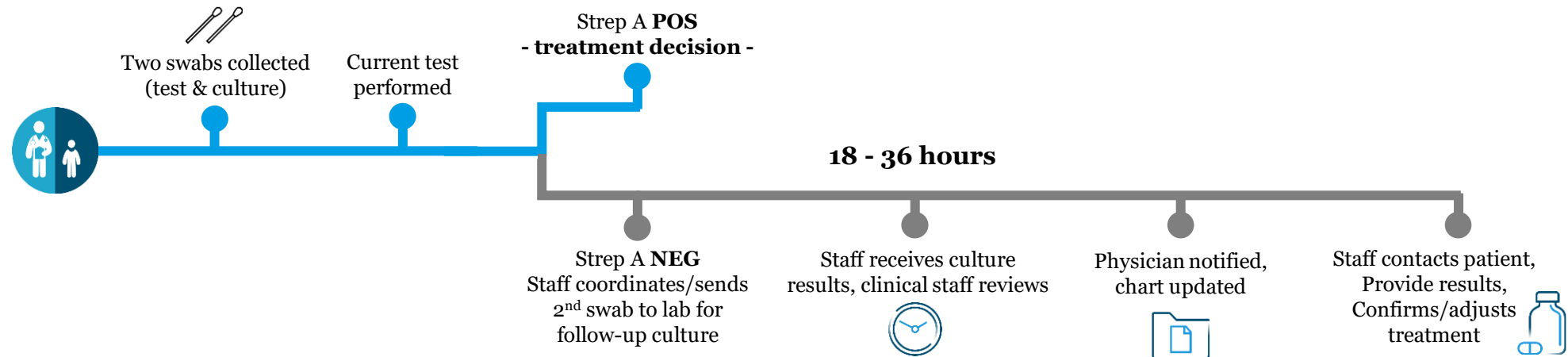


38%
patients prescribed
antibiotics for
pharyngitis tested
negative for group A
streptococcus²

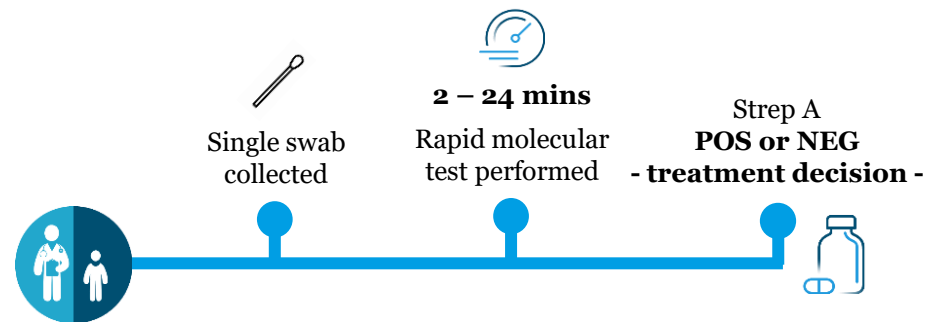
1. Palms DL, et al. Comparison of Antibiotic Prescribing in Retail Clinics, Urgent Care Centers, Emergency Departments, and Traditional Ambulatory Care Settings in the U.S. JAMA Intern Med. 2018;178(9):1267–1269.
2. Havers FP, et al. Outpatient Antibiotic Prescribing for Acute Respiratory Infections During Influenza Seasons. JAMA Netw Open. 2018 Jun 1;1(2):e180243.

Workflow Comparison – Rapid Antigen vs. Rapid NAAT

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RAPID STREP A MOLECULAR TEST WITH NO CONFIRMATION OF NEGATIVE TESTS



GROUP A STREP PHARYNGITIS

Panel Discussion: Test Performance and Antibiotic Stewardship

Closing Remarks

- Rapid GAS molecular testing is increasingly being utilized in the diagnostic workup of acute pharyngitis in the U.S.
- Patient selection should be based on clinical features that suggest bacterial (streptococcal) rather than viral infection to avoid antibiotic over treatment
- U.S. guidelines regarding diagnostic testing for GAS pharyngitis will be likely reassessed by the reconstituted IDSA guidelines committee
- Guidelines need to acknowledge the importance of antibiotic stewardship in the context of other factors - financial impact, timeliness of results, and test performance (sensitivity/specificity) for rapid antigen and molecular tests

Thank you!

Questions



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 - Must complete Eval to receive Certificate link via email
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- Evaluation won't appear automatically, but...
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Group A Strep Pharyngitis: Expert Perspectives on Rapid Testing and Antimicrobial Stewardship

Live Event: Thursday, September 15, 2022 | 11:00 AM - 12:00 PM Eastern Time

P.A.C.E.® credit available until September 15, 2023

Florida Laboratory CE Credit available

Join this panel discussion on Group A Strep (GAS) pharyngitis. Hear the latest updates on key topics, including clinical testing guidelines, perspectives on test methodologies, and practical testing protocols. Recommendations aimed at improving quality of care, workflow efficiencies, and antibiotic stewardship will be shared.

The webinar will:

- Discuss the latest diagnostic guidelines for GAS pharyngitis
- Assess clinical challenges of GAS pharyngitis diagnosis and antimicrobial stewardship
- Review rapid test methods (antigen and molecular tests) and practical utility
- Examine evidence when results are received in time for clinical decision making and prompt patient care

RECORDING

SLIDES

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Paris

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local Abbott representative

Group A Strep Pharyngitis: Expert Perspectives on Rapid Testing and Antimicrobial Stewardship

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