Survey of Physician Practices in Laboratory Test Ordering and Result Interpretation

The Centers for Disease Control and Prevention (CDC), with the assistance of Altarum Institute, is conducting important research regarding the use of laboratory services in patient care. We are requesting that you help by completing this questionnaire. The questions cover laboratory test selection and result reporting/interpretation. We estimate that it will take approximately 15 minutes to complete the questionnaire.

The findings from the survey will help guide CDC initiatives to improve the efficiency and effectiveness of clinical laboratory medicine in serving the needs of primary care physicians.

Your answers will be kept confidential, and your name will not be associated with any results.

As a token of our appreciation for your assistance, we will contribute $10.00 in your name to your choice of one of the charitable organizations listed at the end of the questionnaire.

If you have questions about this research project, please contact Tom Wilkinson, Altarum Institute, toll free at (800) 879-6505 x4725 or via email to tom.wilkinson@altarum.org.

Click to Begin

Practices in Laboratory Test Ordering and Result Interpretation

PLEASE NOTE:

This research project focuses on **clinical laboratory testing** for **diagnostic purposes**.

When we refer to laboratory tests, we are **not** referring to tissue pathology, imaging, testing for screening purposes, for monitoring chronic disease, or for monitoring drug utilization.

When answering the following questions, please **think only about clinical laboratory testing** for **diagnostic purposes**.

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Practices in Laboratory Test Ordering and Result Interpretation

1. About Your Practice

▶ Approximately how many patients do you personally see in a typical week? *(Required)* (Screen 1 of 6)

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Practices in Laboratory Test Ordering and Result Interpretation

1. About Your Practice

▶You indicated that, in a typical week, you personally see 80 patients. Is this correct?
(Required) (Screen 2 of 6)
- ◉ Yes
- ○ No

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Practices in Laboratory Test Ordering and Result Interpretation

1. About Your Practice

▶ Of the 80 patients you see in a typical week, for approximately how many patients do you order tests for a <u>new complaint</u> (NOT including patients for whom you order only screening tests, tests for chronic disease monitoring, or drug utilization monitoring)? *(Required)* (Screen 3 of 6)

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Practices in Laboratory Test Ordering and Result Interpretation

1. About Your Practice

▶ Of the 50 patients for whom you order diagnostic tests for a new complaint, for how many patients are these <u>clinical laboratory tests</u> (excluding imaging, EKGs, tissue pathology, etc.)? *(Required)*
(Screen 4 of 6)

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Practices in Laboratory Test Ordering and Result Interpretation

1. About Your Practice

Sometimes physicians are uncertain what would be the best clinical laboratory test(s) for diagnosing a patient's problem. For approximately how many patients per **week**, **month**, <u>or</u> **year** are you <u>uncertain</u> about what would be the best test(s) to <u>order</u>? (Screen 5 of 6)

Select the most appropriate timeframe then enter a number in the box associated with that timeframe below.

▶Patients per **week** for whom you are <u>uncertain</u> about the best test(s) to <u>order</u>:

▶Patients per **month** for whom you are <u>uncertain</u> about the best test(s) to <u>order</u>:

▶Patients per **year** for whom you are <u>uncertain</u> about the best test(s) to <u>order</u>:

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Practices in Laboratory Test Ordering and Result Interpretation

1. About Your Practice

Sometimes after receiving results of laboratory tests for diagnosis, physicians are uncertain how to interpret the results. For approximately how many patients per **week, month,** <u>or</u> **year** are you <u>uncertain</u> how to <u>interpret</u> clinical laboratory test results? (Screen 6 of 6)

Select the most appropriate timeframe then enter a number in the box associated with that timeframe below.

▶Patients per **week** for whom you are <u>uncertain</u> how to <u>interpret</u> clinical laboratory test results:

▶Patients per **month** for whom you are <u>uncertain</u> how to <u>interpret</u> clinical laboratory test results:

▶Patients per **year** for whom you are <u>uncertain</u> how to <u>interpret</u> clinical laboratory test results:

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Practices in Laboratory Test Ordering and Result Interpretation
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2. Ordering Uncertainty

When uncertain what clinical laboratory tests to order for <u>diagnostic</u> (NOT for *screening* or *monitoring*) purposes, how often do you do the following? (Screen 1 of 2)

Please select one best answer for each of the below ->	Daily	At least <u>once</u> per <u>week</u>	At least <u>once</u> per <u>month</u>	At least <u>six</u> times per <u>year</u>	At least <u>once</u> per <u>year</u>	Less than <u>once</u> per <u>year</u>	Never
Ask another primary care physician for advice	◉	○	○	○	○	○	○
Ask a specialist for advice but without referring the patient (curbside consult)	◉	○	○	○	○	○	○
Refer the patient to a specialist	◉	○	○	○	○	○	○
Review <u>electronic</u> reference(s): professional articles, journals, newsletters	◉	○	○	○	○	○	○
Review <u>paper</u> reference(s): professional articles, journals, newsletters	◉	○	○	○	○	○	○

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Practices in Laboratory Test Ordering and Result Interpretation

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2. Ordering Uncertainty

When uncertain what clinical laboratory tests to order for <u>diagnostic</u> (NOT for *screening* or *monitoring*) purposes, how often do you do the following? (Screen 2 of 2)

Please select one best answer for each of the below ->	Daily	At least <u>once</u> per <u>week</u>	At least <u>once</u> per <u>month</u>	At least <u>six</u> times per <u>year</u>	At least <u>once</u> per <u>year</u>	Less than <u>once</u> per <u>year</u>	Never
Ask a laboratory professional (e.g., pathologist, laboratory technologist, etc.) for advice	◉	○	○	○	○	○	○
Review a practice guideline	◉	○	○	○	○	○	○
Wait to see how the patient's presentation evolves	◉	○	○	○	○	○	○
Another tactic *(You will be asked to specify this tactic on the next screen, after indicating frequency of use.)*	◉	○	○	○	○	○	○

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Practices in Laboratory Test Ordering and Result Interpretation

2. Ordering Uncertainty - Specify

▷ Please specify another tactic you use when you are uncertain what clinical laboratory tests to order for <u>diagnostic</u> (NOT for *screening* or *monitoring*) purposes.

Example Tactic for Open Text

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Practices in Laboratory Test Ordering and Result Interpretation

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3. Ordering Uncertainty

Please rate the <u>helpfulness</u> of each of the following. (Screen 1 of 2)

Please select one best answer for each of the below ->	Extremely Helpful	Very Helpful	Somewhat Helpful	Slightly Helpful	Not at All Helpful
Ask another primary care physician for advice	○	○	○	○	○
Ask a specialist for advice but without referring the patient (curbside consult)	○	○	○	○	○
Refer the patient to a specialist	○	○	○	○	○
Review <u>electronic</u> reference(s): professional articles, journals, newsletters	○	○	○	○	○
Review <u>paper</u> reference(s): professional articles, journals, newsletters	○	○	○	○	○

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Practices in Laboratory Test Ordering and Result Interpretation

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3. Ordering Uncertainty

Please rate the <u>helpfulness</u> of each of the following. (Screen 2 of 2)

Please select one best answer for each of the below ->	Extremely Helpful	Very Helpful	Somewhat Helpful	Slightly Helpful	Not at All Helpful
Ask a laboratory professional (e.g., pathologist, laboratory technologist, etc.) for advice	○	○	○	○	○
Review a practice guideline	○	○	○	○	○
Wait to see how the patient's presentation evolves	○	○	○	○	○
Example Tactic for Open Text	○	○	○	○	○

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Practices in Laboratory Test Ordering and Result Interpretation

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4. Ordering Influences

In a diagnostic situation, physicians first make the decision to order tests and then they select which tests to order. How important are the following factors in your <u>decision to order</u> diagnostic clinical laboratory tests, before making specific test selections? (Screen 1 of 1)

Please select one best answer for each of the below ->	Extremely Important	Very Important	Somewhat Important	Slightly Important	Not at All Important
Patient's insurance coverage	○	○	○	○	○
Patient's out of pocket costs	○	○	○	○	○
Patient's request	○	○	○	○	○
Practice guidelines (e.g., published by specialty organizations/societies)	○	○	○	○	○
Clinical pathways developed within you local practice/institution	○	○	○	○	○
Concerns about potential malpractice liability	○	○	○	○	○
Speed of getting results	○	○	○	○	○
Another factor *(You will be asked to specify this factor on the next screen, after indicating level of importance.)*	○	○	○	○	○

Practices in Laboratory Test Ordering and Result Interpretation

4. Ordering Influences - Specify

▶Please specify another factor that is important in your <u>decision to order</u> diagnostic clinical laboratory tests.

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Practices in Laboratory Test Ordering and Result Interpretation

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5. Ordering Influences

After you have made the decision to order tests, how important are the following factors in your **selection of which** diagnostic clinical laboratory tests to order? (Screen 1 of 1)

Please select one best answer for each of the below ->	Extremely Important	Very Important	Somewhat Important	Slightly Important	Not at All Important
Patient's insurance coverage	○	○	○	○	○
Patient's out of pocket costs	○	○	○	○	○
Patient's requests	○	○	○	○	○
Practice guidelines (e.g., published by specialty organizations/societies)	○	○	○	○	○
Clinical pathways developed within your local practice/institution	○	○	○	○	○
Concerns about potential malpractice liability	○	○	○	○	○
Speed of getting results	○	○	○	○	○
Another influence *(You will be asked to specify this influence on the next screen, after indicating level of importance.)*	○	○	○	○	○

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Practices in Laboratory Test Ordering and Result Interpretation

5. Ordering Influences - Specify

▶Please specify another factor that is important in your <u>selection of which</u> diagnostic clinical laboratory tests to order.

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Practices in Laboratory Test Ordering and Result Interpretation

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6. Ordering Challenges

Thinking about potential <u>challenges in ordering</u> clinical laboratory tests for diagnostic purposes, please indicate how often each of the following is problematic? (Screen 1 of 2)

Please select one best answer for each of the below ->	Daily	At least <u>once</u> per <u>week</u>	At least <u>once</u> per <u>month</u>	At least <u>six</u> times per <u>year</u>	At least <u>once</u> per <u>year</u>	Less than <u>once</u> per <u>year</u>	Never
Different names among laboratories for the same test or test panels	○	○	○	○	○	○	○
Different tests among laboratories included in test panels with the same name	○	○	○	○	○	○	○
Desired tests not available except as part of a panel	○	○	○	○	○	○	○
Difficulty in communicating with laboratory professionals	○	○	○	○	○	○	○
Different recommendations among relevant practice guidelines	○	○	○	○	○	○	○

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Practices in Laboratory Test Ordering and Result Interpretation

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6. Ordering Challenges

Thinking about potential <u>challenges in ordering</u> clinical laboratory tests for diagnostic purposes, please indicate how often each of the following is problematic? (Screen 2 of 2)

Please select one best answer for each of the below ->	Daily	At least <u>once</u> per <u>week</u>	At least <u>once</u> per <u>month</u>	At least <u>six</u> times per <u>year</u>	At least <u>once</u> per <u>year</u>	Less than <u>once</u> per <u>year</u>	Never
Lack of comparative cost information about alternative tests	○	○	○	○	○	○	○
Insurance policies that mandate use of specific laboratories	○	○	○	○	○	○	○
Insurance policies that dictate test usage	○	○	○	○	○	○	○
Patient's out of pocket costs	○	○	○	○	○	○	○
Another challenge *(You will be asked to specify this challenge on the next screen, after indicating how often it is problematic.)*	○	○	○	○	○	○	○

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Practices in Laboratory Test Ordering and Result Interpretation

6. Ordering Challenges - Specify

▶Please specify another <u>challenge in ordering</u> clinical laboratory tests for diagnostic purposes.

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Practices in Laboratory Test Ordering and Result Interpretation

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7. Ordering Challenges

Please rate how <u>problematic</u> each of the following is? (Screen 1 of 2)

Please select one best answer for each of the below ->	Extremely Problematic	Very Problematic	Somewhat Problematic	Slightly Problematic	Not at All Problematic
Different names among laboratories for the same test or test panels	○	○	○	○	○
Different tests among laboratories included in test panels with the same name	○	○	○	○	○
Desired test(s) not available except as part of a panel	○	○	○	○	○
Difficulty in communicating with laboratory professionals	○	○	○	○	○
Different recommendations among relevant practice guidelines	○	○	○	○	○

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Practices in Laboratory Test Ordering and Result Interpretation

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7. Ordering Challenges

Please rate how **problematic** each of the following is? (Screen 2 of 2)

Please select one best answer for each of the below ->	Extremely Problematic	Very Problematic	Somewhat Problematic	Slightly Problematic	Not at All Problematic
Lack of comparative cost information about alternative tests	○	○	○	○	○
Insurance policies that mandate use of specific laboratories	○	○	○	○	○
Insurance policies that dictate test usage	○	○	○	○	○
Patient's out of pocket costs	○	○	○	○	○
Example Challenge for Open Text	○	○	○	○	○

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Practices in Laboratory Test Ordering and Result Interpretation
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8. Interpretation Uncertainty

When you are uncertain about the interpretation of a clinical laboratory test(s) or the test results are inconsistent with your pretest suspected diagnosis, how often do you use the following tactics to resolve the uncertainty? (Screen 1 of 2)

Please select one best answer for each of the below ->	Daily	At least once per week	At least once per month	At least six times per year	At least once per year	Less than once per year	Never
Review electronic reference(s): professional articles, journals, newsletters	○	○	○	○	○	○	○
Review paper reference(s): professional articles, journals, newsletters	○	○	○	○	○	○	○
Check practice guidelines	○	○	○	○	○	○	○
Review patient's history and physical findings	○	○	○	○	○	○	○
Wait to see how the patient's presentation evolves	○	○	○	○	○	○	○

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Practices in Laboratory Test Ordering and Result Interpretation
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8. Interpretation Uncertainty

When you are uncertain about the interpretation of a clinical laboratory test(s) or the test results are inconsistent with your pretest suspected diagnosis, how often do you use the following tactics to resolve the uncertainty? (Screen 2 of 2)

Please select one best answer for each of the below ->	Daily	At least once per week	At least once per month	At least six times per year	At least once per year	Less than once per year	Never
Discuss the case with another primary care physician	⦿	○	○	○	○	○	○
Discuss the case with a specialist (curbside consult)	⦿	○	○	○	○	○	○
Refer the patient to a specialist	⦿	○	○	○	○	○	○
Contact a laboratory professional (e.g., pathologist, laboratory technologist, etc.)	⦿	○	○	○	○	○	○
Order additional test(s)	⦿	○	○	○	○	○	○
Repeat the test(s)	⦿	○	○	○	○	○	○
Reconsider the appropriateness of the original test(s) ordered	⦿	○	○	○	○	○	○
Another tactic *(You will be asked to specify this tactic on the next screen, after indicating frequency of use.)*	⦿	○	○	○	○	○	○

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Practices in Laboratory Test Ordering and Result Interpretation

8. Interpretation Uncertainty - Specify

▶ Please specify another tactic you use when you are uncertain about the interpretation of a clinical laboratory test(s) or the test results are inconsistent with your pretest suspected diagnosis.

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Practices in Laboratory Test Ordering and Result Interpretation

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9. Interpretation Uncertainty

Please rate the <u>usefulness</u> of each of the following? (Screen 1 of 2)

Please select one best answer for each of the below ->	Extremely Useful	Very Useful	Somewhat Useful	Slightly Useful	Not at All Useful
Review <u>electronic</u> reference(s): professional articles, journals, newsletters	○	○	○	○	○
Review <u>paper</u> reference(s): professional articles, journals, newsletters	○	○	○	○	○
Check practice guidelines	○	○	○	○	○
Review patient's history and physical findings	○	○	○	○	○
Wait to see how the patient's presentation evolves	○	○	○	○	○

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Practices in Laboratory Test Ordering and Result Interpretation

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9. Interpretation Uncertainty

Please rate the <u>usefulness</u> of each of the following? (Screen 2 of 2)

Please select one best answer for each of the below ->	Extremely Useful	Very Useful	Somewhat Useful	Slightly Useful	Not at All Useful
Discuss the case with another primary care physician	○	○	○	○	○
Discuss the case with a specialist (curbside consult)	○	○	○	○	○
Refer the patient to a specialist	○	○	○	○	○
Contact a laboratory professional (e.g., pathologist, laboratory technologist, etc.)	○	○	○	○	○
Order additional test(s)	○	○	○	○	○
Repeat the test(s)	○	○	○	○	○
Reconsider the appropriateness of the original test(s) ordered	○	○	○	○	○
Sample Tactic for Open Text	○	○	○	○	○

Practices in Laboratory Test Ordering and Result Interpretation

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10. Interpretation Challenges

Thinking about potential <u>challenges in interpreting</u> laboratory test results, please indicate how often each of the following is problematic? (Screen 1 of 2)

Please select one best answer for each of the below ->	Daily	At least <u>once</u> per <u>week</u>	At least <u>once</u> per <u>month</u>	At least <u>six</u> times per <u>year</u>	At least <u>once</u> per <u>year</u>	Less than <u>once</u> per <u>year</u>	Never
Not enough information in the laboratory report	○	○	○	○	○	○	○
Too much information in the laboratory report	○	○	○	○	○	○	○
Laboratory report formats difficult to understand	○	○	○	○	○	○	○
Laboratory-to-laboratory variation in reporting formats	○	○	○	○	○	○	○
Laboratory-to-laboratory variation in normal value ranges	○	○	○	○	○	○	○
Difficulty in communicating with laboratory professionals	○	○	○	○	○	○	○

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Practices in Laboratory Test Ordering and Result Interpretation

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10. Interpretation Challenges

Thinking about potential <u>challenges in interpreting</u> laboratory test results, please indicate how often each of the following is problematic? (Screen 2 of 2)

Please select one best answer for each of the below - >	Daily	At least <u>once</u> per <u>week</u>	At least <u>once</u> per <u>month</u>	At least <u>six</u> times per <u>year</u>	At least <u>once</u> per <u>year</u>	Less than <u>once</u> per <u>year</u>	Never
Not receiving results in a timely manner	○	○	○	○	○	○	○
Suspected errors in laboratory results	○	○	○	○	○	○	○
Previous tests results not easily available	○	○	○	○	○	○	○
Results inconsistent with the patient's symptoms and history	○	○	○	○	○	○	○
Another challenge *(You will be asked to specify this challenge on the next screen, after indicating frequency.)*	○	○	○	○	○	○	○

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Practices in Laboratory Test Ordering and Result Interpretation

10. Interpretation Challenges - Specify

▶Please specify another <u>challenge in interpreting</u> laboratory test results.

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Practices in Laboratory Test Ordering and Result Interpretation

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11. Interpretation Challenges

Please rate how <u>problematic</u> each of the following is. (Screen 1 of 2)

Please select one best answer for each of the below ->	Extremely Problematic	Very Problematic	Somewhat Problematic	Slightly Problematic	Not at All Problematic
Not enough information in the laboratory report	○	○	○	○	○
Too much information in the laboratory report	○	○	○	○	○
Laboratory report formats difficult to understand	○	○	○	○	○
Laboratory-to-laboratory variation in reporting formats	○	○	○	○	○
Laboratory-to-laboratory variation in normal value ranges	○	○	○	○	○
Difficulty in communicating with laboratory professionals	○	○	○	○	○

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Practices in Laboratory Test Ordering and Result Interpretation

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11. Interpretation Challenges

Please rate how <u>problematic</u> each of the following is. (Screen 2 of 2)

Please select one best answer for each of the below ->	Extremely Problematic	Very Problematic	Somewhat Problematic	Slightly Problematic	Not at All Problematic
Not receiving results in a timely manner	○	○	○	○	○
Suspected errors in laboratory results	○	○	○	○	○
Previous tests results not easily available	○	○	○	○	○
Results inconsistent with the patient's symptoms and history	○	○	○	○	○
Example Challenge for Open Text	○	○	○	○	○

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Practices in Laboratory Test Ordering and Result Interpretation

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12. Test Utilization Enablers

Methods have been developed to assist physicians in more effective use of diagnostic laboratory testing. Please indicate which of these methods is available to you. Depending on your practice environment, there may be overlap in the definition of some of these methods. (Screen 1 of 2)

Please check the box to the right of each method that is available to you ->	
Structured Requisitions: test ordering is guided by organizing tests into panels based on medical specialty or condition	☐
Clinical Algorithms/Clinical Pathways: test ordering is guided, based on the patient's presentation, by decision trees within your local practice/institution	☐
Guidelines: test ordering is guided, based on the patient's presentation, by decision trees published by specialty organizations/societies	☐
Reflex Testing: pre-authorized follow-up testing that depends on results of initial tests	☐
Electronic Prompts: pop-up messages about the appropriate test(s) for the patient's complaint or suspected diagnosis	☐
Computerized Physician Order Entry (CPOE) which incorporates guides for physicians on appropriate test(s) to order based on the patient's presentation	☐
Computerized Physician Order Entry (CPOE) without guidance for physicians on appropriate test(s) to order based on the patient's presentation	☐

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Practices in Laboratory Test Ordering and Result Interpretation

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12. Test Utilization Enablers

Please indicate which of these methods is available to you. Depending on your practice environment, there may be overlap in the definition of some of these methods. (Screen 2 of 2)

Please check the box to the right of each method that is available to you ->	
Trending of Laboratory Results: graphical presentation of results over time	☐
Interpretative Comments: written documentation included with test results that provides additional information on the meaning and/or follow-up for the results	☐
Laboratory Hotline for physician questions	☐
Information about Test Performance Characteristics: sensitivity, specificity, likelihood ratios	☐
Another method *(You will be asked to specify this method on the next screen.)*	☐

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Practices in Laboratory Test Ordering and Result Interpretation

12. Test Utilization Enablers - Specify

▶ Please specify another method available to you to assist in more effective use of diagnostic laboratory testing.

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13. Test Utilization Enablers

How <u>often</u> do you use each of the following? (Screen 1 of 2)

Please select one best answer for each of the below ->	Daily	At least <u>once</u> per <u>week</u>	At least <u>once</u> per <u>month</u>	At least <u>six</u> times per <u>year</u>	At least <u>once</u> per <u>year</u>	Less than <u>once</u> per <u>year</u>	Never
Structured Requisitions: test ordering is guided by organizing tests into panels based on medical specialty or condition	○	○	○	○	○	○	○
Clinical Algorithms/Clinical Pathways: test ordering is guided, based on the patient's presentation, by decision trees within your local practice/institution	○	○	○	○	○	○	○
Guidelines: test ordering is guided, based on the patient's presentation, by decision trees published by specialty organizations/societies	○	○	○	○	○	○	○
Reflex Testing: pre-authorized follow-up testing that depends on results of initial tests	○	○	○	○	○	○	○
Electronic Prompts: pop-up messages about the appropriate test(s) for the patient's complaint or suspected diagnosis	○	○	○	○	○	○	○
Computerized Physician Order Entry (CPOE) <u>which incorporates guides</u> for physicians on appropriate test(s) to order based on the patient's presentation	○	○	○	○	○	○	○
Computerized Physician Order Entry (CPOE) <u>without guidance</u> for physicians on appropriate test(s) to order based on the patient's presentation	○	○	○	○	○	○	○

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Practices in Laboratory Test Ordering and Result Interpretation

▶

13. Test Utilization Enablers

How <u>often</u> do you use each of the following? (Screen 2 of 2)

Please select one best answer for each of the below ->	Daily	At least <u>once</u> per <u>week</u>	At least <u>once</u> per <u>month</u>	At least <u>six</u> times per <u>year</u>	At least <u>once</u> per <u>year</u>	Less than <u>once</u> per <u>year</u>	Never
Trending of Laboratory Results: graphical presentation of results over time	○	○	○	○	○	○	○
Interpretative Comments: written documentation included with test results that provides additional information on the meaning and/or follow-up for the results	○	○	○	○	○	○	○
Laboratory Hotline for physician questions	○	○	○	○	○	○	○
Information about Test Performance Characteristics: sensitivity, specificity, likelihood ratios	○	○	○	○	○	○	○
Example Method for Open Text	○	○	○	○	○	○	○

Practices in Laboratory Test Ordering and Result Interpretation

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14. Test Utilization Enablers

Please rate the <u>usefulness</u> of each of the following. (Screen 1 of 2)

Please select one best answer for each of the below ->	Extremely Useful	Very Useful	Somewhat Useful	Slightly Useful	Not at All Useful
Structured Requisitions: test ordering is guided by organizing tests into panels based on medical specialty or condition	○	○	○	○	○
Clinical Algorithms/Clinical Pathways: test ordering is guided, based on the patient's presentation, by decision trees within your local practice/institution	○	○	○	○	○
Guidelines: test ordering is guided, based on the patient's presentation, by decision trees published by specialty organizations/societies	○	○	○	○	○
Reflex Testing: pre-authorized follow-up testing that depends on results of initial tests	○	○	○	○	○
Electronic Prompts: pop-up messages about the appropriate test(s) for the patient's complaint or suspected diagnosis	○	○	○	○	○
Computerized Physician Order Entry (CPOE) <u>which incorporates guides</u> for physicians on appropriate test(s) to order based on the patient's presentation	○	○	○	○	○
Computerized Physician Order Entry (CPOE) <u>without guidance</u> for physicians on appropriate test(s) to order based on the patient's presentation	○	○	○	○	○

Practices in Laboratory Test Ordering and Result Interpretation

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14. Test Utilization Enablers

Please rate the <u>usefulness</u> of each of the following. (Screen 2 of 2)

Please select one best answer for each of the below ->	Extremely Useful	Very Useful	Somewhat Useful	Slightly Useful	Not at All Useful
Trending of Laboratory Results: graphical presentation of results over time	○	○	○	○	○
Interpretative Comments: written documentation included with test results that provides additional information on the meaning and/or follow-up for the results	○	○	○	○	○
Laboratory Hotline for physician questions	○	○	○	○	○
Information about Test Performance Characteristics: sensitivity, specificity, likelihood ratios	○	○	○	○	○
Example Method for Open Text	○	○	○	○	○

Practices in Laboratory Test Ordering and Result Interpretation

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15. Laboratory Consultation

How <u>often</u> do you initiate communication with laboratory professionals concerning each of the following? (Screen 1 of 2)

Please select one best answer for each of the below ->	Daily	At least <u>once</u> per <u>week</u>	At least <u>once</u> per <u>month</u>	At least <u>six</u> times per <u>year</u>	At least <u>once</u> per <u>year</u>	Less than <u>once</u> per <u>year</u>	Never
Assistance with appropriate test ordering based on patient's symptoms and history	◉	○	○	○	○	○	○
Technical assistance regarding sample collection or submission	◉	○	○	○	○	○	○
Location of desired test(s) within a laboratory's test menu	◉	○	○	○	○	○	○
Preliminary information when test result cycle is prolonged	◉	○	○	○	○	○	○

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Practices in Laboratory Test Ordering and Result Interpretation

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15. Laboratory Consultation

How <u>often</u> do you initiate communication with laboratory professionals concerning each of the following? (Screen 2 of 2)

Please select one best answer for each of the below ->	Daily	At least <u>once</u> per <u>week</u>	At least <u>once</u> per <u>month</u>	At least <u>six</u> times per <u>year</u>	At least <u>once</u> per <u>year</u>	Less than <u>once</u> per <u>year</u>	Never
Status of missing results	○	○	○	○	○	○	○
Accuracy of test results	○	○	○	○	○	○	○
Medical or scientific opinion of significance of results	○	○	○	○	○	○	○
Assistance with follow-up testing	○	○	○	○	○	○	○
Another reason *(You will be asked to specify this reason on the next screen, after indicating frequency.)*	○	○	○	○	○	○	○

Practices in Laboratory Test Ordering and Result Interpretation

15. Laboratory Consultation - Specify

▶Please specify another reason you initiate communication with laboratory professionals.

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Practices in Laboratory Test Ordering and Result Interpretation
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16. Laboratory Consultation

Please rate the <u>helpfulness</u> of communication with laboratory professionals regarding each of the following. (Screen 1 of 2)

Please select one best answer for each of the below ->	Extremely Helpful	Very Helpful	Somewhat Helpful	Slightly Helpful	Not at All Helpful
Assistance with appropriate test ordering based on patient's symptoms and history	○	○	○	○	○
Technical assistance regarding sample collection or submission	○	○	○	○	○
Location of desired test(s) within a laboratory's test menu	○	○	○	○	○
Preliminary information when test result cycle is prolonged	○	○	○	○	○

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Practices in Laboratory Test Ordering and Result Interpretation

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16. Laboratory Consultation

Please rate the <u>helpfulness</u> of communication with laboratory professionals regarding each of the following. (Screen 2 of 2)

Please select one best answer for each of the below ->	Extremely Helpful	Very Helpful	Somewhat Helpful	Slightly Helpful	Not at All Helpful
Status of missing results	○	○	○	○	○
Accuracy of test results	○	○	○	○	○
Medical or scientific opinion of significance of results	○	○	○	○	○
Assistance with follow-up testing	○	○	○	○	○
Example Reason for Open Text	○	○	○	○	○

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Practices in Laboratory Test Ordering and Result Interpretation

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17. Laboratory Consultation

There can be numerous reasons why physicians <u>do not consult</u> frequently with laboratory professionals. Please indicate the importance of each of the following reasons within your own experience. (Screen 1 of 1)

Please select one best answer for each of the below ->	Extremely Important Reason	Very Important Reason	Somewhat Important Reason	Slightly Important Reason	Not an Important Reason at All
Do not know whom to contact	⦿	○	○	○	○
Too difficult to get through to laboratory	⦿	○	○	○	○
Do not know if the laboratory has a person who can answer my questions	⦿	○	○	○	○
Too difficult to contact person who can answer my questions	⦿	○	○	○	○
Do not have a working relationship with laboratory professionals	⦿	○	○	○	○
Previous experience suggests unreliable information	⦿	○	○	○	○
Another reason *(You will be asked to specify this reason on the next screen, after indicating importance.)*	⦿	○	○	○	○

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Practices in Laboratory Test Ordering and Result Interpretation

17. Laboratory Consultation - Specify

▶ Please specify another reason why physicians <u>do not consult</u> frequently with laboratory professionals.

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Practices in Laboratory Test Ordering and Result Interpretation

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18. New Test Awareness

New diagnostic clinical laboratory tests emerge from research frequently, adding to the thousands of tests available. What sources of information about new tests are most useful to you? (Screen 1 of 1)

Please select one best answer for each of the below ->	Extremely Useful	Very Useful	Somewhat Useful	Slightly Useful	Not at All Useful
Laboratory sales representatives	○	○	○	○	○
Laboratory pathologists or scientists	○	○	○	○	○
Colleagues	○	○	○	○	○
Continuing medical education	○	○	○	○	○
<u>Printed</u> professional articles, journals, and newsletters	○	○	○	○	○
<u>Electronic</u> professional articles, journals, newsletters, and e-mail notification	○	○	○	○	○
Another source *(You will be asked to specify this source on the next screen, after indicating its usefulness.)*	○	○	○	○	○

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Practices in Laboratory Test Ordering and Result Interpretation

18. New Test Awareness - Specify

▶ Please specify another source of information about new diagnostic clinical laboratory tests that is useful to you.

◀◀ Previous Next ▶▶ Save

Practices in Laboratory Test Ordering and Result Interpretation

▶

19. About My Diagnostic Evaluation Processes

When faced with diagnostic uncertainty (difficult or unusual case), please indicate the frequency with which you use each of the following approaches. Rank the approach you use most often "1", rank the approach you use second most often "2", rank the approach you use third most often "3", and rank the approach you use least often "4". (Screen 1 of 1)

Please rank each of the four approaches below.
*   1 = my most frequently used approach*
*   2 = my second most frequently used approach*
*   3 = my third most frequently used approach*
*   4 = my least frequently used approach*

Order a battery of standard tests	☐
Review reference materials before ordering tests	☐
Ask a colleague before ordering tests	☐
Refer the patient to a specialist	☐

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Practices in Laboratory Test Ordering and Result Interpretation

▶

20. About My Diagnostic Evaluation Process

For each of the following statements, please indicate how accurately it describes <u>you</u>. (Screen 1 of 2)

Please select one best answer for each of the below ->	Extremely Well	Very Well	Somewhat Well	Slightly Well	Not at All
I am concerned about over-testing my patients	○	○	○	○	○
I am concerned about under-testing my patients	○	○	○	○	○
I typically use a core set of 20 or fewer clinical laboratory diagnostic tests	○	○	○	○	○
I am always looking for information on new tests and how to incorporate them into my practice	○	○	○	○	○
I use electronic resources (e.g., *UpToDate, Dynamed, WebMD,* etc.)	○	○	○	○	○
I always double-check with my resources or with another physician if I have any doubts about my decision	○	○	○	○	○
I have worked out an effective way to access and utilize laboratory pathologists and scientists as a resource	○	○	○	○	○

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Practices in Laboratory Test Ordering and Result Interpretation

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20. About My Diagnostic Evaluation Process

For each of the following statements, please indicate how accurately it describes <u>you</u>. (Screen 2 of 2)

Please select one best answer for each of the below - >	Extremely Well	Very Well	Somewhat Well	Slightly Well	Not at All
I feel stress when I am uncertain which test(s) to order or when I have difficulty interpreting tests	⦿	○	○	○	○
I would be reluctant to disclose my uncertainty about test ordering and/or interpretation to others	⦿	○	○	○	○
I think it would be a weakness to seek help in making decisions about test ordering or result interpretation	⦿	○	○	○	○
Even when I am confident in my pretest diagnosis, I keep thinking "what else could it be"	⦿	○	○	○	○
Another statement *(You will be asked to specify this statement on the next screen, after indicating how accurately it describes you.)*	⦿	○	○	○	○

« Previous   **Next »**   **Save**

Practices in Laboratory Test Ordering and Result Interpretation

20. About My Diagnostic Evaluation Processes - Specify

▶Please specify another statement that describes your diagnostic evaluation process.

```
[                                    ]
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Practices in Laboratory Test Ordering and Result Interpretation

21. Practice Characteristics

How many different laboratories does your office use, in each of the following categories? (Screen 1 of 1)

(Please enter the appropriate number in each box below.)

▶ Number of commercial laboratories used by my office

▶ Number of physician office laboratories used by my office

▶ Number of hospital laboratories used by my office

▶ Number of another type of laboratory used by your office *(You will be asked to specify this other type on the next screen after entering the number.)*

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Practices in Laboratory Test Ordering and Result Interpretation

21. Practice Characteristics - Specify

▶ Please specify another type of laboratory your office uses.

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Practices in Laboratory Test Ordering and Result Interpretation

Demographic Information

▶ What is your gender?
- ○ Male
- ○ Female

▶ In what year were you born?

19 [____]

▶ What is the zip code of your primary practice location?

[_____]

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Practices in Laboratory Test Ordering and Result Interpretation

Demographic Information

▶How many years have you been in practice?

▶What is your medical specialty?
- ○ Internal Medicine
- ○ Family Practice
- ○ Other specialty *(You will be asked to specify this specialty on the next screen.)*

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Practices in Laboratory Test Ordering and Result Interpretation

Demographic Information - Specify

▶ Please specify your medical specialty.

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Practices in Laboratory Test Ordering and Result Interpretation

Demographic Information

▶ **What professional organizations do you belong to?**

Please click the box to the right of each professional organization to which you belong.->	
Society of General Internal Medicine (SGIM)	☐
American Academy of Family Practice (AAFP)	☐
American Medical Association (AMA)	☐
Another professional organization *(You will be asked to specify this professional organization on the next screen.)*	☐

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Practices in Laboratory Test Ordering and Result Interpretation

Demographic Information - Specify

▶Please specify another professional organization to which you belong.

Practices in Laboratory Test Ordering and Result Interpretation

Demographic Information

▶Does your medical group have more than one practice site?
- ○ Yes
- ○ No

▶What is the total number of family practice or internal medicine physicians at your practice site?

[   ]

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Practices in Laboratory Test Ordering and Result Interpretation

Demographic Information

▶ What is the total number of family practice or internal medicine physicians in your medical group?

[   ]

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Practices in Laboratory Test Ordering and Result Interpretation

Demographic Information

▶ What is the total number of specialists at your practice site?

[ ]

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Practices in Laboratory Test Ordering and Result Interpretation

Demographic Information

▶ What is the total number of specialists in your medical group?

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Practices in Laboratory Test Ordering and Result Interpretation

Demographic Information

▶ **What is your practice ownership?**

○ Physician or group of physicians
○ Hospital
○ Healthcare organization larger than one hospital
○ Academic institution
○ Another type of ownership *(You will be asked to specify this type of ownership on the next screen.)*

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Practices in Laboratory Test Ordering and Result Interpretation

Demographic Information - Specify

▶Please specify your practice ownership type.

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Practices in Laboratory Test Ordering and Result Interpretation

Demographic Information

▶ **Of all the tests that you order, what is the percentage breakdown?** *(Must add to 100%)*

Diagnostic	
Routine screening	
Chronic disease monitoring	
Drug utilization monitoring	
Another type *(You will be asked to specify this type of test on the next screen.)*	
Total: **0%**	

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Practices in Laboratory Test Ordering and Result Interpretation

Demographic Information - Specify

▶Please specify another type of test that you order.

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Practices in Laboratory Test Ordering and Result Interpretation

Demographic Information

▶ **What is the insurance status of your patient population?** *(Must add to 100%)*

Private insurance	
Medicare	
Medicaid	
Uninsured	
Another status *(You will be asked to specify this status on the next screen.)*	
Total: **0%**	

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Practices in Laboratory Test Ordering and Result Interpretation

Demographic Information - Specify

▶ Please specify another insurance status of your patient population.

[text box]

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Practices in Laboratory Test Ordering and Result Interpretation

General Comments

▶ Please share any other comments you have about your challenges in clinical laboratory test ordering and/or result interpretation, in addition to processes that have been helpful to you in managing these challenges.

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Practices in Laboratory Test Ordering and Result Interpretation

We are grateful for your participation.

The Centers for Disease Control and Prevention thank you for your cooperation in completing this important survey. As a gesture of appreciation, we would like to contribute $10.00 in your name to your choice of one of the charitable organizations listed below.   Please indicate your selection. If you wish the donation to be made anonymously, check the additional box below.

▶ Please select one organization to receive a $10.00 donation in your name.

- ○ Charitable Organization #1
- ○ Charitable Organization #2
- ○ Charitable Organization #3
- ○ Charitable Organization #4
- ○ Charitable Organization #5

▶ If you wish the donation to be made anonymously, please check the box below.
☐

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Practices in Laboratory Test Ordering and Result Interpretation

Please click the button below to close the questionnaire window.

Thank you.