Section 1: Introduction

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The College of American Pathologists (CAP) and the Centers for Disease Control and Prevention (CDC) are collaborating on a cooperative agreement “Improving the Impact of Laboratory Practice Guidelines: A New Paradigm for Metrics.” We invite you to assist our goal of examining the current state of the workup of acute leukemia by completing this important survey.

The purpose of the information collection is to obtain baseline data for the various ways individuals work up acute leukemia. The survey will be reissued after development of the CAP and the American Society of Hematology (ASH) guideline, “Algorithm for the Workup of Acute Leukemia.” The survey results will be published in the future as part of the CAP and CDC Cooperative agreement. You may be contacted in the future to participate in a post survey or focus group.

Public reporting burden of this collection of information varies from 20 to 45 minutes with an estimated average of 25 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to the CDC/ATSDR Information Collection Review Office, 1600 Clifton Road NE, MS D-74, Atlanta, Georgia 30333; ATTN: PRA (0920-XXXX).

All answers will remain anonymous and will not be used to identify any individual or laboratory. Response to the survey is completely voluntary. All information collected in this survey will be kept in a secure manner. No individual answers will be shared with CDC. Additionally, no IP addresses will be shared with CDC.

If you have any questions, please email the CAP Pathology and Laboratory Quality Center at center@cap.org.

Section 2: Survey

***1. Do you examine bone marrow specimens and issue reports for the initial diagnosis of acute leukemia?**

- ◯ Yes, for the initial diagnosis;subsequent testing is sent to another laboratory
- ◯ Yes, for the initial diagnosis and subsequent testing
- ◯ No

***2. What clinical information do you routinely include, or always include when known, in the pathology report for the initial diagnosis of acute leukemia? (Select all that apply.)**

- [ ] CBC
- [ ] Leukocyte differential
- [ ] Coagulation study results, when appropriate
- [ ] History of prior malignancy
- [ ] Family history
- [ ] Predisposing conditions (eg, Down syndrome, bone marrow failure syndrome, chronic hematologic disorders)
- [ ] Confounding factors (eg, B12 or folate deficiency, growth factor therapy)
- [ ] History of predisposing therapies (eg, chemotherapy and radiation)
- [ ] Current medication
- [ ] Key physical findings

Other (please specify)

***3. In the initial report of the first diagnosis of acute leukemia (ie, not reported in an addendum after the initial report is signed out), please indicate the frequency that each sample/test is evaluated:**

	Never	1-25% of the time	26-75% of the time	76-99% of the time	Always
Peripheral blood smear	◯	◯	◯	◯	◯
Bone marrow aspirate smear	◯	◯	◯	◯	◯
Core touch imprints	◯	◯	◯	◯	◯
Core biopsy (trephine)	◯	◯	◯	◯	◯
Clot section	◯	◯	◯	◯	◯
Flow cytometry	◯	◯	◯	◯	◯
FISH	◯	◯	◯	◯	◯
Molecular testing	◯	◯	◯	◯	◯

***4. What tests are typically performed on acute myeloid leukemia (AML) specimens in the majority of cases? (Select all that apply.)**

- [ ] Morphologic assessment
- [ ] Conventional cytogenetics (karyotype)
- [ ] FISH studies for unique translocations
- [ ] Cytochemical studies (MPO, Sudan black, NSE)
- [ ] Flow cytometric analysis
- [ ] Immunohistochemistry
- [ ] Iron stain
- [ ] Reticulin stain
- [ ] PAS stain
- [ ] Molecular testing
- [ ] Other (please specify)

***5. What tests are typically performed on acute lymphoblastic leukemia (ALL) specimens in the majority of cases? (Select all that apply.)**

- [ ] Morphologic assessment
- [ ] Conventional cytogenetics (karyotype)
- [ ] FISH studies for unique translocations
- [ ] Cytochemical studies (MPO, Sudan black, NSE)
- [ ] Flow cytometric analysis
- [ ] Immunohistochemistry
- [ ] Iron stain
- [ ] Reticulin stain
- [ ] PAS stain
- [ ] Molecular testing
- [ ] Other (please specify)

***6. What do you typically include in your morphologic assessment of acute leukemia? (Select all that apply.)**

- [ ] Adequacy of aspirate/touch preparation
- [ ] Blast percentage from aspirate/touch preparation
- [ ] Presence of dysplasia, if any, in hematopoietic lineages
- [ ] Specific/unique morphologic features of leukemia (Auer rods, abnormal eosinophils)
- [ ] Bone marrow cellularity
- [ ] Ring sideroblasts
- [ ] The presence of any additional findings of importance (necrosis, fibrosis, hemophagocytosis, co-existing tumor)

***7. What is the primary method used to determine the blast percentage in a bone marrow for acute leukemia?**

- ◯ Manual count on aspirate smear/touch preparation
- ◯ Estimated percentage on aspirate smear/touch preparation
- ◯ Estimate percentage by immunohistochemistry on core biopsy or clot sections
- ◯ Flow cytometry data
- ◯ Not applicable (N/A) - do not include blast percentage in the morphologic assessment

*8. How many cells are typically counted in the bone marrow aspirate?

- ◯ 100
- ◯ 200
- ◯ 500
- ◯ 1,000
- ◯ Other (please specify)

*9. How do you evaluate dysplasia in your morphologic assessment?

- ◯ Percentage
- ◯ Semi-quantitative with < or > values (eg, >50%)
- ◯ Qualitative description
- ◯ N/A - do not evaluate dysplasia in morphologic assessment

***10. How are ancillary tests typically ordered in your bone marrow assessment for initial diagnosis of acute leukemia?**

	Always	Sometimes	Never
Our laboratory employs a standard testing algorithm	◯	◯	◯
Testing is at the discretion of individual pathologists	◯	◯	◯
Testing is at the discretion/request of individual clinicians	◯	◯	◯
Testing is ordered after discussion with the clinician	◯	◯	◯

***11. For pediatric patients with ALL, other than a karyotype, which of the following are typically evaluated? (Select all that apply.)**

- [ ] t(12;21)(p13;q22); ETV6-RUNX1
- [ ] t(9;22)(q34;q11.2); BCR-ABL1
- [ ] Q-PCR for patients with confirmed BCR-ABL1 B-ALL
- [ ] MLL translocations
- [ ] iAMP 21
- [ ] Trisomy 4 and 10 (FISH or CGH/SNP microarray)
- [ ] IKZF1 deletions
- [ ] CRLF2 translocations
- [ ] N/A - our institution does not evaluate pediatric bone marrows
- [ ] Other (please specify)

***12. For adult patients with ALL, other than a karyotype, which of the following are typically evaluated? (Select all that apply.)**

- [ ] t(12;21)(p13;q22); ETV6-RUNX1
- [ ] t(9;22)(q34;q11.2); BCR-ABL1
- [ ] Q-PCR for patients with confirmed BCR-ABL1 B-ALL
- [ ] MLL translocations
- [ ] iAMP 21
- [ ] Trisomy 4 and 10 (FISH or CGH/SNP microarray)
- [ ] IKZF1 deletions
- [ ] CRLF2 translocations
- [ ] N/A - our institution does not evaluate adult bone marrows
- [ ] Other (please specify)

***13. For patients with suspected AML, which tests are typically ordered? (Select all that apply.)**

	Performed on all patients	Performed on selected patients	Not performed
PML-RARA if acute promyelocytic leukemia suspected	◯	◯	◯
KIT mutation	◯	◯	◯
FLT3-ITD mutation	◯	◯	◯
NPM1 mutation	◯	◯	◯
CEPBA mutation	◯	◯	◯

For patients with suspected acute myeloid lymphoma:

***14. Do you perform ancillary tests other than PML-RARA, KIT mutation, FLT3-ITD, NPM1 mutation or CEPBA mutation for AML?**

- ◯ Yes
- ◯ No

***15. Other than PLM-RARA, KIT mutation, FLT3-ITD, NPM1 mutation or CEPBA mutation for AML, what is the name of the most frequently performed ancillary test ?**

16. What is the frequency this other ancillary test is performed for AML?

- ◯ Always
- ◯ Usually
- ◯ Sometimes
- ◯ Rarely

*17. Which best describes how your institution reports acute leukemia cases:

- ◯ A preliminary diagnosis of acute leukemia is issued; a final report is issued after all ancillary testing is completed.
- ◯ An initial diagnosis of acute leukemia is issued; addendum reports are issued as test results are received.
- ◯ An initial diagnosis of acute leukemia is issued; no additional report is issued because ancillary testing is reported separately.

***18. Which results are included in the final bone marrow report after all addenda have been issue? (Select all that apply.)**

- [ ] CBC with differential
- [ ] Peripheral blood smear morphology
- [ ] Bone marrow morphologic assessment
- [ ] Bone marrow aspirate/touch preparation differential
- [ ] Flow cytometry results
- [ ] Cytogenetics
- [ ] FISH
- [ ] Molecular genetic studies
- [ ] Other (please specify)

***19. Does your final report include a summary statement as to the prognostic and/or treatment implications of the ancillary testing?**

- ◯ Always
- ◯ Sometimes
- ◯ Never

DEMOGRAPHIC QUESTIONS

*20. What is your specialty?

- ◯ Pathology
- ◯ Hematopathology
- ◯ Hematology and/or oncology

***21. Are you board-certified in hematopathology?**

- ◯ Yes
- ◯ No

*22. Which of the following best describes your practice setting? (Select one.)

- ◯ University hospital/academic medical center
- ◯ Voluntary, non-profit hospital
- ◯ For-profit hospital
- ◯ City/County/State hospital
- ◯ Veterans hospital
- ◯ Army/Air Force/Navy hospital
- ◯ National/corporate/reference laboratory
- ◯ Regional/local independent laboratory (except clinic or group practice and not owned by a national corporation(s))
- ◯ Public Health, non-hospital
- ◯ Office laboratory
- ◯ N/A – industry or vendor
- ◯ Other (please specify)

23. Please provide any other additional information or comments on AL practices.

Thank You For Completing The Survey!