

## Three NA Recipes\*

### Basic NA

	<b>1</b>	Medical literature review
	<b>2</b>	Practitioner survey(s)
	<b>3</b>	Reference to clinical practice guidelines
	<b>4</b>	Key opinion leader interview(s)
	<b>5</b>	Alignment chart with columns labelled <ul style="list-style-type: none"> <li>• “Learning Objective”</li> <li>• “Practice Gap”</li> <li>• “Desired Outcome”</li> </ul>

### Better NA

	<b>6</b>	Perspective from a patient or patient advocacy group regarding patient-level gaps
	<b>7</b>	Text or chart(s) showing learning outcomes data **
	<b>8</b>	Evaluation reports from participants in previous activities **

### Deluxe NA

	<b>9</b>	Reference(s) to national health care quality standards***
	<b>10</b>	Evidence of change measured against a validated quality benchmark***

### Leftovers (if any)


\* Recipes are cumulative.

\*\* Some practitioners consider these to be part of a basic NA.

\*\*\*Published by an agency such as the National Quality Forum, the Agency for Healthcare Research and Quality, or the Patient-Centered Outcomes Research Institute.

## Instructions

**Your group needs to designate a spokesperson to speak at the end, and a scribe to take notes. Imagine everyone in your group works for Med-U-Cate LLC, a small private medical education company. Your goal is to justify funding for a \$250,000 educational grant aimed at community-based hematology/oncology specialists in the United States.**

**Part I.** As a group, take the jumbled paragraphs below, plus your recipe handouts, and decide which paragraphs belong in the basic NA, which ones belong in the better NA, and which belong in the deluxe NA. Are any left over? Write your answers in the far left column.

**Part II.** Write one competence-based learning objective supported by these data.

**Part III.** Imagine Med-U-Cate only has enough time and money to include 6 of the ingredients shown. Which ingredients will your group include? Are any ingredients still missing?

### Data Jumble on Acute Myeloid Leukemia

**A.** Guidelines published by the National Comprehensive Cancer Network in 2017 state that acute myeloid leukemia patients with normal chromosomes may harbor molecular mutations that greatly affect outcomes, and the only way to detect these is to test for them. Guidelines also state that physicians should reserve sufficient tissue during a bone marrow biopsy to provide for follow-up testing.

**B.** Beth Ganz, age 67, had breast cancer 20 years ago. The resident of Mason City, Iowa (pop. 28,000) was treated successfully with chemotherapy and surgery. Today she lacks energy, suffers from easy bruising, persistent infections. Doctors suspect her symptoms may be signs of a secondary malignancy, related to genetic damage inflicted decades ago by harsh chemo.

**C.** Due to the importance of baseline molecular testing, the National Quality Forum in 2013 published a standard. The standard consists of a fraction where the numerator is the number of patients who had baseline molecular testing, while the denominator is the number of patients 18 and older with a diagnosis of an acute leukemia.

**D.** Practice guidelines published in 2017 by the National Comprehensive Cancer Network (NCCN) state: "The importance of obtaining adequate samples of marrow or peripheral blood at diagnosis for full karyotyping and FISH cytogenetic analysis for the most common abnormalities cannot be overemphasized."

**E.** An article published by Siegel et al in the 2017 issue of *CA: A Cancer Journal for Clinicians* states that an estimated 21,380 new AML cases will be diagnosed this year, and an estimated 10,590 patients will die.

**F.** The attending physician for Beth Ganz ordered a biopsy but the laboratory technician at Mason City General Hospital did not remove enough tissue to perform more than one test. A chromosome test was performed, but not a molecular mutation test.

**G.**

<b>Practice Gaps</b>	<b>Learning Objectives</b>	<b>Desired Outcomes</b>
Many community-based hematology/oncology specialists are not ordering testing for molecular abnormalities at baseline in AML patients.	Participants will be able to describe best practices when ordering tests at baseline for newly diagnosed AML patients	Participants will demonstrate an increase in clinical knowledge about best practices for ordering baseline test for newly diagnosed AML patients when presented with multiple-choice questions.
Many community-based hematology/oncology specialists are not removing and reserving adequate bone marrow tissue at biopsy to perform follow-up molecular testing.	Participants will be able to remove and reserve adequate amounts of bone marrow tissue at baseline for follow-up molecular testing.	Participants will demonstrate an increase in clinical competence in reserving adequate tissue at biopsy for newly diagnosed AML patients when presented with a case vignette followed by multiple-choice questions.

**H.** Dr. Mikkael Sekeres of the Cleveland Clinic, a noted expert on AML, tells you in a telephone interview that many community hematologists treating acute leukemia patients are not ordering adequate extra tissue at biopsy to provide sufficient bone marrow for molecular testing in addition to cytogenetic testing.

**I.** Beth Ganz was interviewed during a webcast hosted by the Leukemia and Lymphoma Society. Ganz says she’s uncertain whether to authorize her physicians to proceed with a second bone marrow biopsy. She can’t sleep, is losing weight, suffering anxiety, maybe she should find another doctor, not sure whether to risk dying from a marrow transplant, or risk dying from not having a transplant.

**J.** Two years ago, an abstract presented at the American Society of Hematology published results of a survey of practice patterns among clinicians at 21 community cancer centers in America. These results showed that only 34% of community-based hematology/oncology specialists ordered molecular tests, and only 46% of those tests involved reserving adequate tissue for follow-up testing.

**K.** Hand-written evaluation reports from physicians who participated in Med-U-Cate’s 2016 live CME workshop on AML contained a variety of requests for topics for future meetings. Suggestions included side effect profiles of newly approved agents, diagnostic testing guideline updates, molecular biomarkers with prognostic significance, and monitoring for minimal residual disease.

**L.**

<b>Outcomes data from Meducate’s 2015 CME module for community hematologists on AML</b>	
“On a scale of 1 to 5, indicate the extent to which you agree with this statement: “I feel confident in my ability to implement best practices when ordering molecular testing at baseline for newly diagnosed AML patients.”	
5 very confident	30%
4 confident	12%
3 moderately confident	10%
2 somewhat confident	20%
1 low confidence	28%