



Intravenous literature: Grimm, E., Friedberg, R.C., Wilkinson, D.S., AuBuchon, J.P., Souers, R.J. and Lehman, C.M. (2010) Blood bank safety practices: mislabeled samples and wrong blood in tube—a Q-Probes analysis of 122 clinical laboratories. *Archives of Pathology & Laboratory Medicine*. 134(8), p.1108-15.

Abstract:

CONTEXT: Although a rare occurrence, ABO incompatible transfusions can cause patient morbidity and mortality. Up to 20% of all mistransfusions are traced to patient misidentification and/or sample mislabeling errors that occur before a sample arrives in the laboratory. Laboratories play a significant role in preventing mistransfusion by identifying wrong blood in tube and rejecting mislabeled samples.

OBJECTIVES: To determine the rates of mislabeled samples and wrong blood in tube for samples submitted for ABO typing and to survey patient identification and sample labeling practices and sample acceptance policies for ABO typing samples across a variety of US institutions.

DESIGN: One hundred twenty-two institutions prospectively reviewed inpatient and outpatient samples submitted for ABO typing for 30 days. Labeling error rates were calculated for each participant and tested for associations with institutional demographic and practice variable information. Wrong-blood-in-tube rates were calculated for the 30-day period and for a retrospective 12-month period. A concurrent survey collected institution-

specific sample labeling requirements and institutional policies regarding the fate of mislabeled samples.

RESULTS: For all institutions combined, the aggregate mislabeled sample rate was 1.12%. The annual and 30-day wrong-blood-in-tube aggregate rates were both 0.04%. Patient first name, last name, and unique identification number were required on the sample by more than 90% of participating institutions; however, other requirements varied more widely.

CONCLUSIONS: The rates of mislabeled samples and wrong blood in tube for US participants in this study were comparable to those reported for most European countries. The survey of patient identification and sample labeling practices and sample acceptance policies for ABO typing samples revealed both practice uniformity and variability as well as significant opportunity for improvement.

