Effect of Positive Patient Identification on Wrong Blood in Tube Errors: A single Center experience

Faisal M. Huq Ronny, MD, PhD, Mary Harach, BS, MT(ASCP), CQA(ASQ), SSGB and Jay H. Herman, MD, FCAP

Department of Pathology, Anatomy and Cell Biology, Thomas Jefferson University Hospital, Philadelphia, PA

CONTEXT

Wrong blood in tube' (WBIT) errors where the blood in the tube is not from the actual patient may lead to often catastrophic outcomes from incompatible transfusion. This retrospective study of WBIT errors was performed after our institution adopted a new patient EMS (Electronic Matching system) in second quarter 2017 that requires bar code of patient and sample identification through EPIC (1979 Milky Way, Verona, WI 53593, 2016 Epic Systems Corporation) to determine and compare the incidence of WBIT. Previously patient and specimen identification were performed manually.

RESULTS

In that study period, type and screen testing was performed on 126487 specimens before EPIC went live March 31, 2017. As per QP reports a total of 41 confirmed and 98 suspected WBIT were identified. The estimated WBIT rate was 1 in 3085 samples, comparable to 1 in 2262 for confirmed cases in the WBIT literature. Since April 2017, type and screens were performed on 41,808 specimens. Only 1 confirmed and 25 suspected WBIT were identified. The estimated WBIT rate was 1: 41808 for confirmed cases.

WBIT by Quarter
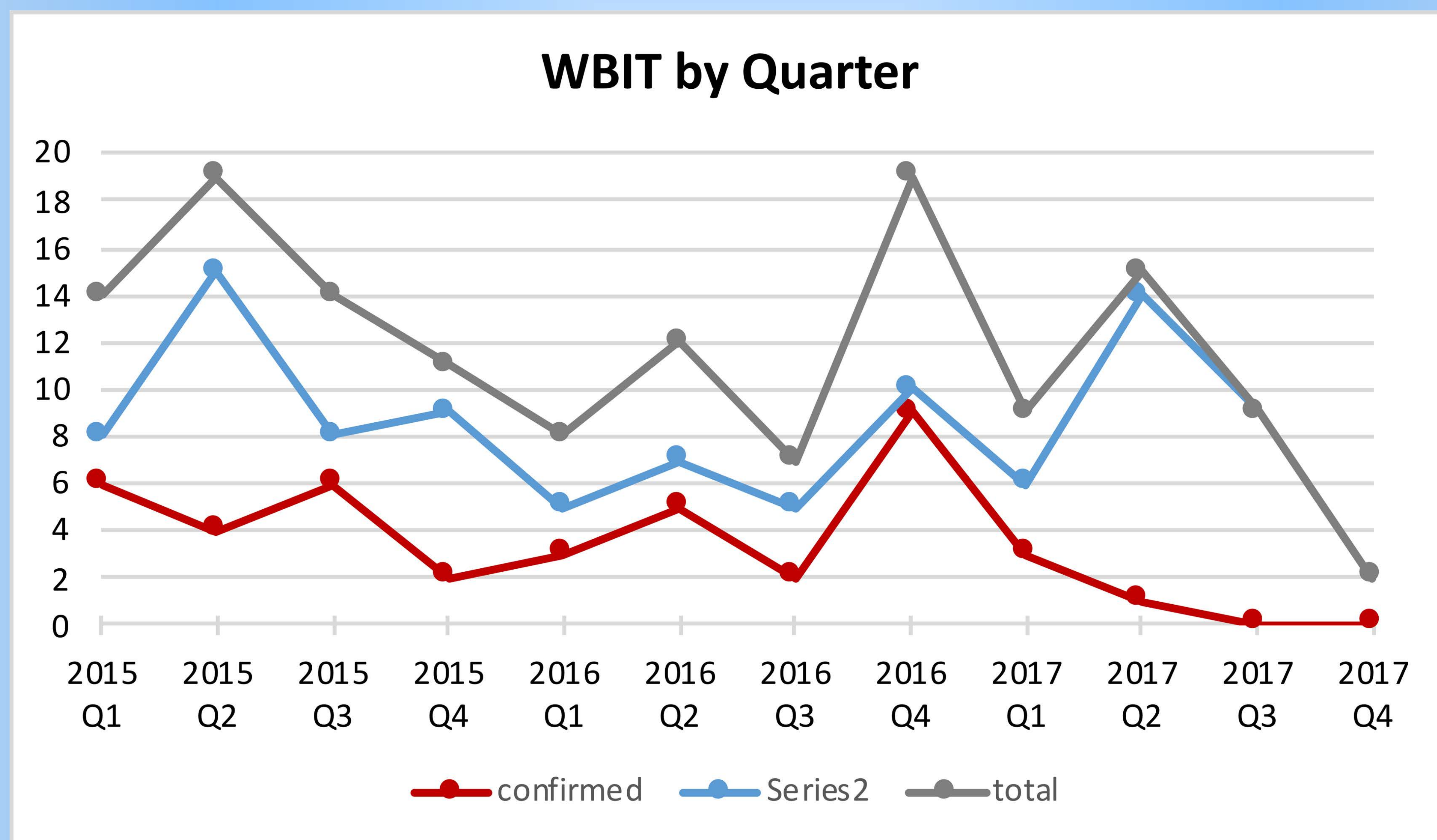
DESIGN

Our blood bank Quality Plan (QP) mandates that all reports of mislabeled and miscollected specimens be continuously monitored and analyzed. Three years of data (2015 through 2017) were reviewed. WBIT errors are categorized as suspected (with no discrepant blood typing history and/or second draw specimen) and confirmed (discrepant typing).

CONCLUSION

We conclude that implementing positive patient/sample identification through barcode labeling at the bedside reduced WBIT errors, especially of the confirmed category.

References

1. Aileen P. Morrison et al. Reduction in Specimen Labeling Errors After Implementation of a Positive Patient Identification System in Phlebotomy. American Journal of Clinical Pathology, Volume 133, Issue 6, 1 June 2010, Pages 870–877,