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Custodes invicem custodiunt (the watchmen can watch each other)

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The editorial by Dodd and Katz, "Qui custodiet ipsos custodes?" often translated as "Who will watch the watchmen?" in response to our recent summary of National Healthcare Safety Network (NHSN) Hemovigilance Module results raises good points, but some comments are misleading and would benefit from additional clarification.[1,2]

Dodd and Katz assert that participating facilities in the NHSN Hemovigilance Module do not comprise a "legitimate sample," because we did not apply statistical tests for rate comparisons. Statistical tests for comparison are used to allow one to extrapolate conclusions about a larger population based on data collected from a smaller, representative sample. Participation in the NHSN hemovigilance module is voluntary, and the participating health care facilities comprise a "convenience" sample of module participants, not a statistically representative sample. Moreover, these facilities report data on all transfusions, not just a sample of transfusions and/or blood components. Therefore, the adverse reaction rates and differences that are observed (e.g., among apheresis and whole blood–derived components) are reported from actual transfusion cohorts and are not representative of all facilities or transfused blood units nationally. As pointed out by Dodd and Katz, although not from a nationally representative sample, the validity of our findings are supported by their similarity to rates reported by other major hemovigilance systems world-wide.[1] Specifically, higher rates of adverse reactions among apheresis platelets (PLTs) have been reported by the French hemovigilance system and are biologically plausible.[3] While we acknowledge that differences in adverse reaction rates observed between apheresis and whole blood–derived PLTs may be attributable to variations in denominator reporting or other methodologic factors, further studies are needed before suggesting that this entirely explains these observations.

Second, in critiquing our findings, Dodd and Katz rely on two other data sources, an article by AuBuchon and colleagues[4] and unpublished findings of an AABB working group. The

CONFLICT OF INTEREST

The authors have disclosed no conflicts of interest.

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study by AuBuchon and colleagues describes discordance in assigning case definitions, severity, and imputability by participants evaluating hypothetical reactions.[4] Notably, these hypothetical cases resulted in misclassification by the experts who wrote the case examples for the study. While insightful, the applicability of these hypothetical cases to actual transfusion-related reactions routinely reported to NHSN is open to interpretation. Additionally, it is difficult to comment on the AABB working group findings as they are unpublished. We would be interested in commenting further once we are able to evaluate the entire study.

Despite these differences, we agree with Dodd and Katz in some areas. To enhance the representativeness of the hemovigilance module, the US Centers for Disease Control and Prevention (CDC) is working with partners, including state and local health departments, to increase enrollment. Comprehensive surveillance system evaluations are warranted to not only validate data but also describe and evaluate the performance of other aspects of this public health surveillance system.[5] CDC is currently working to evaluate data reported to the hemovigilance module. Periodic NHSN protocol updates for reporting health care–associated infections have included modifications to data reporting frameworks, including electronic linking of medical records to the Web-based system. Similar efforts to allow for automated numerator and denominator reporting to the hemovigilance module are planned. Case definitions, severity, and imputability criteria were revised for some reactions in 2011 to improve data quality. Reporting requirements were further modified in 2013 to reduce data entry burden.[2] CDC will continue to work with external subject matter experts, including blood center representatives, to improve surveillance accuracy, including respiratory reactions, through the NHSN Hemovigilance Stakeholder Group.

Blood transfusion adverse reaction reporting programs, including those operated by blood collection centers, predate the launch of the NHSN hemovigilance module and have served an important role. Through the NHSN group function, facilities can share hemovigilance data with their supplying blood centers and other organizations upon report submission. Thus, NHSN and blood center hemovigilance findings can be compared; hence, our answer to the editorial title's question: the many watchmen of hemovigilance can keep an eye on each other's findings, a good approach for more rapid response.

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