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Peter Marks, M.D., Ph.D., Director
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Food and Drug Administration
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Food and Drug Administration
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Re: Withdrawal of Guidance: "Revised Recommendations for Reducing the Risk of Zika Virus Transmission by Blood and Blood Components, July 2018."

Dear Drs. Marks and Verdun:

On behalf of America's Blood Centers (ABC) and our member blood centers, we applaud your efforts to maintain a safe and robust blood supply by ensuring that testing requirements and donor deferrals are evidence-based.

The determination that Zika virus (ZIKV) is no longer a relevant transfusion-transmitted infection (RTTI) recognizes the evolving knowledge surrounding the virus, which currently indicates a "low reported incidence and prevalence in the potential blood donor population." From the time FDA and blood centers quickly acted to respond to an evolving Zika outbreak in the U.S. until today, when the data highlights that ZIKV is no longer a RTTI, the FDA's willingness to continue to examine the evidence and modify recommendations based on the current best data is laudable. We believe such a model of consistent review based on the most current data is applicable for all RTTI's and encourage FDA to continue such a process, next with blood donor screening for Hepatitis B Surface Antigen (see attached).

As ABC member blood centers continue to meet the challenges of the pandemic, this change will positively impact blood center operations by saving time and resources while continuing to ensure a safe blood supply.

We appreciate the efforts of FDA to work collaboratively with blood centers to ensure testing requirements are aligned with evidence-based medical and scientific data.

Sincerely yours,

Kate Fry, MBA, CAE
Chief Executive Officer

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# Hepatitis B surface antigen testing does not increase safety of the blood supply and should be eliminated

## Background

Hepatitis B is a liver infection that can result in acute or chronic disease potentially leading to cirrhosis and liver cancer. Symptoms include pain, jaundice, and vomiting. It is caused by the hepatitis B virus (HBV) and can be spread through bodily fluids, including blood.

In 1970, to protect the blood supply and avoid transfusion transmission, the United States (U.S.) began testing donated blood for hepatitis B surface antigen (HBsAg), which is produced during active HBV infection. Testing for antibody to hepatitis B core antigen (anti-HBc) was voluntarily implemented in 1987, with licensed anti-HBc testing mandated in 1991. FDA Guidance requiring HBV nucleic acid testing (NAT) was finalized in October 2012.

Testing to reduce or eliminate the transfusion transmission of HBV is important and must be continued. While the HBsAg test was the best available screening tool when introduced, current testing technology has rendered this test duplicative. Thus, the continuing inclusion of the HBsAg test does not further increase safety over the two remaining HBV blood donor tests and should be eliminated.

## Improved blood safety following implementation of HBV-NAT testing in the U.S.

HBV-NAT can detect infection up to 11 days sooner than when only HBsAg and anti-HBc had been used for this purpose.[1] Accordingly, the residual risk of HBV transfusion transmission has dropped from approximately 1 in 200,000 units prior to the use of HBV-NAT testing to around 1 in 3 million units at this time.[2]

In 2013, Stramer *et al.*'s analysis of HBV testing data from almost 13 million U.S.-based donations demonstrated no confirmed HBV-infectious units containing HBsAg that would have been "missed" by routine testing for HBV-NAT and anti-HBc alone.[3] Dodd *et al.*'s extension of this analysis, performed on an additional 22.4 million donations and published in 2018, revealed that the elimination of HBsAg screening would have a negligible deleterious impact – i.e., an increased risk of new HBV transfusion-transmissions of less than 1 per 4 million donations.[4] More recently, a study from the Netherlands further supports the view that HBsAg testing no longer enhances blood safety.[5]

## Cost of HBsAg testing in the U.S.

A study of the incremental cost-utility of NAT after implementation of serology screening has prompted the need for reevaluation of the current HBV testing strategy.[6] At an estimated cost of $1.00 to $1.50 per HBsAg test, this represents a cost of approximately $15 to $22.5 million annually.[7] *Given current testing methods, HBsAg testing has become redundant and is no longer cost-effective.*

## Recommendations:

The testing requirement adds unnecessary financial burdens without commensurate benefit and therefore **HBsAg should no longer be a required donor screening test.**

References


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7. Katz LM and Sayers M. Donor screening for hepatitis B: hepatitis B surface antigen – a belt, suspenders, and another belt? *Transfusion* 2018; 58:2087-2091.