

## **Safe Supplies: Data in context**

### **Joint working between NHS Blood and Transplant and Public Health England**

### **Undetected HBV, HCV and HIV – the Risk in the UK Blood Supply, 2019**

#### Residual risk

- is the risk that very recently acquired viral infections in blood donations may not be picked up on testing if they are in the window period of the test
  - is estimated based on number of recent infections and length of the window period
- In 2018 an increase in recent HBV led to a rise in the HBV residual risk for 2016-2018. The 7 recent infections picked up were not associated with the change to a 3-month sex deferral in November 2017

#### In the UK (2017-2019)

##### **HBV:**

- 10 recent infections in repeat donors
- 30-day window period
- 0.87 estimated residual risk per million
- 1 positive donation not detected every 6 months

##### **HCV:**

- 1 recent infection in repeat donors
- 4-day window period
- <0.01 estimated residual risk per million
- 1 positive donation not detected every 76 years

##### **HIV:**

- 5 recent infections in repeat donors
- 9-day window period
- 0.04 estimated residual risk per million
- 1 positive donation not detected every 12 years

- Estimated risks were used to monitor the impact of the changes in donor selection for sex between men in 2011 and 2017
- November 2011 - 12-month deferral - HIV and HCV risk decline, HBV risk remains stable
  - November 2017 - 3-month deferral - Initial increase in HBV risk not sustained

### **Transfusion transmitted infections (TTI)**

- Observed transfusion transmitted HBV, HCV and HIV infections are lower than expected from the estimated risks
- 13 suspected viral TTI investigations
- 1 confirmed HEV
    - 2nd confirmed HEV TTI since universal screening began in 2017, both apheresis platelets
    - 12 HEV TTIs have been confirmed through routine surveillance since 1996
    - HEV increasing in the general population but no specific deferral for HEV risk since diet is the main source
  - 1 probable HBV

- HBV TTI from red cells not confirmed as it wasn't possible to genotype the virus from the donor's blood
- 12 HBV TTIs have been confirmed through routine surveillance since 1996
- Low incidence in the general population and deferrals are in place that reduce TTI risk

For more details see the annual SHOT report: [www.shotuk.org](http://www.shotuk.org)

Data source – data supplied to the NHSBT/PHE Epidemiology Unit by NHSBT, WBS, NIBTS & SNBTS