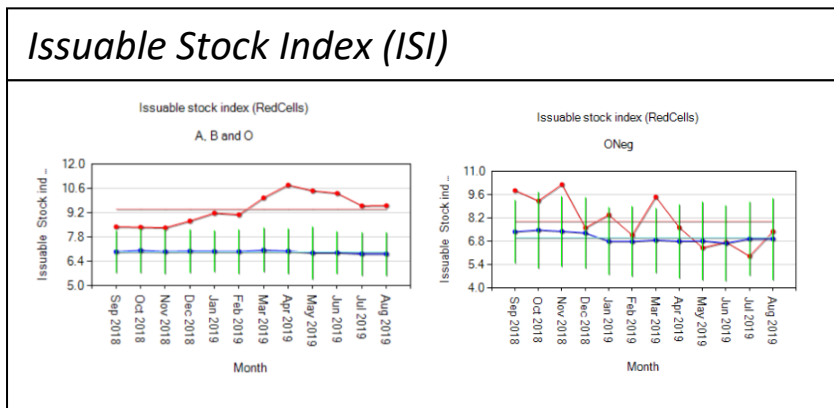


## Using the Issuable Stock Index (ISI) in Blood Stocks Management Scheme (BSMS) to help reduce wastage of O D Negative red cells.

- It is the responsibility of all blood transfusion laboratories to ensure that donated blood is used efficiently and effectively and to minimise waste while maintaining sufficient stock available to deal with unexpected life-threatening emergencies. <sup>(1)</sup>
- Blood wastage can be caused by many factors, some of which are out of laboratory control. The largest single reason for wastage in all hospital groups is time expiry in the laboratory. <sup>(3)</sup>
- There is a strong correlation found between the Issuable Stock Index (ISI) and Wastage as a Percentage of Issue (WAPI), indicating that hospital blood transfusion laboratories may reduce wastage by monitoring and managing the ISI. <sup>(2)</sup>
- The 2018 NCA Survey of O D Negative Red Cell Use highlighted that 12.6% of O D Negative red cell units were transfused to non-O D Negative recipients to prevent time expiry. <sup>(4)</sup> Effective use of the Issuable Stock Index (ISI) within BSMS can help hospital transfusion laboratories to manage their stock levels and in turn reduce the wastage and issue to non-O D Negative patients.

**The Issuable Stock index is the estimation of the number of day's stock held in your laboratory based on current usage**



The target ISI for hospitals to aim for should be based on the clinical specialities within the hospital e.g. a large obstetric or trauma centre may mean your hospital will have a higher ISI target than other hospitals in your trust/region.

The 2018 Survey of Group O D Negative Red Cell Use recommends an ISI of 3-4 days for O D Negative red cells.

**Reduction and management of ISI = Reduction in wastage due to time expiry**

### **Issuable Stock - Entered by the Hospital**

An issuable stock field is provided for each of the ABO & D group combinations issued. Issuable Stock is the number of unreserved ADULT units available for cross matching. This parameter is entered by the laboratory.

### **Ideal Stock - Determined by the Hospital**

A Hospital's ideal stock level. This was set at the levels given in the registration questionnaire; this can be changed on request, by emailing amended details to [BSMS@nhsbt.nhs.uk](mailto:BSMS@nhsbt.nhs.uk).

### **Nominal Stock - Calculated by BSMS**

Approximately one day's worth of hospital stock. It is calculated from the previous 6 months' issue data and recalculated every month.

### **Issuable Stock Index (ISI) - Calculated by BSMS**

Derived by dividing the issuable stock by the nominal stock, for example issuable stock = 60, nominal stock = 20, ISI =  $60/20 = 3.0$ . This can be seen on the stock entry screen when daily stock levels are entered.

### **References**

1. Perera, G et al. Transfusion Medicine, 2009; 19: 99-104.
2. Chapman, J. Transfusion, 2007, 47: 190s-196s.
3. BSMS Annual Reports. <https://www.bloodstocks.co.uk/resources/annual-reports/>
4. 2018 Survey of Group O D Negative Red Cell Use <https://nhsbtde.blob.core.windows.net/umbraco-assets-corp/16578/o-neg-survey-2018-final2.pdf>