ANNEX

The Annex to Decision 2002/364/EC is amended as follows:

1. Section 2 is amended as follows:

   (a) the following definition of 'First line assay' is inserted between the definition of 'Whole system failure rate' and the definition of 'Confirmation assay':

   First-line assay

   First-line assay means an assay used to detect a marker or analyte, and which may be followed by a confirmatory assay. Devices intended solely to be used to monitor a previously determined marker or analyte are not considered first-line assays.;

   (b) the definition of 'Confirmation assay' is replaced by the following:

   Confirmatory assay

   Confirmatory assay means an assay used for the confirmation of a reactive result from a first-line assay.;

2. Section 3 is amended as follows:

   (a) Sub-section 3.1.1 is replaced by the following:

   3.1.1. Devices which detect virus infections shall meet the requirements for sensitivity and specificity set out in Table 1, Table 3, Table 4 and Table 5, which apply to them taking account of the intended purpose of the devices concerned, virus type and entities to be detected (antigen and/or antibody). See also principle 3.1.11 for first-line assays.;

   (b) Sub-section 3.1.3 is replaced by the following:

   3.1.3. Devices for self-testing shall meet the same CTS requirements for sensitivity and specificity as respective devices for professional use. Relevant parts of the performance evaluation shall be carried out (or repeated) by appropriate lay users to validate the operation of the device and the instructions for use. The lay users selected for the performance evaluation shall be representative of the intended users groups.

   Performance evaluation of a device for self-testing shall include, for each body fluid claimed for use with the device, e.g. whole blood, urine, saliva, etc., at least 200 lay users that are known positive for the infection and at least 400 lay users that do not know their status, of which at least 200 are at high risk of acquiring the infection. The sensitivity and specificity of the device for self-testing in the hands of lay users shall be defined against the confirmed patient infectious status.;

   (c) Sub-section 3.1.9 is replaced by the following:

   3.1.9. Performance evaluation of first line assays shall include 25 positive (if available in the case of rare infections) 'same day' fresh serum samples (≤ 1 day after sampling).;

(d) Sub-section 3.1.11 is replaced by the following:

3.1.11. For performance evaluations for first line assays (Table 1 and Table 3) blood donor populations shall be investigated from at least two blood donation centers and consist of consecutive blood donations, which have not been selected to exclude first time donors.;

(e) Sub-section 3.4.2 is replaced by the following:

3.4.2. The manufacturer's batch release testing for first line assays shall include at least 100 specimens negative for the relevant analyte..

3. Table 1 is replaced by the following:

TABLE 1

First-line assays, excluding rapid tests: anti-HIV 1/2, HIV 1/2 Ag/Ab, anti-HTLV I/II, anti-HCV, HCV Ag/Ab, HBsAg, anti-HBc

		anti-HIV 1/2, HIV 1/2 Ag/Ab	**Anti-HTLV-I/II**	**anti-HCV, HCV Ag/Ab**	**HBsAg**	**Anti-HBc**
Diagnostic sensitivity	Positive specimens	400 HIV-1 100 HIV-2 including 40 non-B-subtypes, all available HIV/1 subtypes shall be represented by at least 3 samples per subtype	300 HTLV-I 100 HTLV-II	400 (positive samples) Including samples from different stages of infection and reflecting different antibody patterns. Genotype 1-4: > 20 samples per genotype (including non-a subtypes of genotype 4); 5: > 5 samples; 6: if available	400 including subtype-consideration	400 including evaluation of other HBV-markers

	Sero-conversion panels	20 panels 10 further panels (at notified body or manufacturer)	To be defined when available	20 panels 10 further panels (at notified body or manufacturer)	20 panels 10 further panels (at notified body or manufacturer)	To be defined when available
Analytical sensitivity	Standards				0,130 IU/ml (WHO International Standard: Third International Standard for HBsAg, subtypes ayw1/ adw2, HBV genotype B4, NIBSC code: 12/226)	
Specificity	Unselected donors (including first-time donors)	5 000	5 000	5 000	5 000	5 000
	Hospitalized patients	200	200	200	200	200
	Potentially cross-reacting blood-specimens (RF+, related viruses, pregnant women, etc)	100	100	100	100	100

4. Table 3 is replaced by the following:

TABLE 3

Rapid tests: anti-HIV 1/2, HIV 1/2 Ag/Ab, anti-HCV, HCV Ag/Ab, HBsAg, anti-HBc, anti-HTLV I and II

		anti-HIV 1/2, HIV 1/2 Ag/Ab	**anti-HCV, HCV Ag/Ab**	**HBsAg**	**anti-HBc**	**anti-HTLV I and II**	**Acceptance criteria**
Diagnostic sensitivity	Positive specimens	Same criteria as in Table 1	Same criteria as in Table 1	Same criteria as in Table 1	Same criteria as in Table 1	Same criteria as in Table 1	Same criteria as in Table 1
	Sero-conversion panels	Same criteria as in Table 1	Same criteria as in Table 1	Same criteria as in Table 1	Same criteria as in Table 1	Same criteria as in Table 1	Same criteria as in Table 1
Diagnostic specificity	Negative specimens	[2]1 000 blood donations	1 000 blood donations	1 000 blood donations	1 000 blood donations	1 000 blood donations	≥ 99 % (anti-HBc: ≥ 96 %)
		200 clinical specimens	200 clinical specimens	200 clinical specimens	200 clinical specimens	200 clinical specimens	
		200 samples from pregnant women	200 samples from pregnant women	200 samples from pregnant women		200 samples from pregnant women	
		100 potentially interfering samples	100 potentially interfering samples	100 potentially interfering samples	100 potentially interfering samples	100 potentially interfering samples	

5. Table 4 is replaced by the following:

TABLE 4

Confirmatory and supplementary assays for anti-HIV 1/ 2, HIV 1/2 Ag/Ab, anti-HTLV I and II, anti-HCV, HCV Ag/Ab, HBsAg

		anti-HIV 1/2, HIV 1/2 Ag/Ab confirmatory assays	**anti-HTLV I and II confirmatory assays**	**anti-HCV, HCV Ag/Ab supplementary assays**	**HBsAg confirmatory assays**	**Acceptance criteria**
Diagnostic sensitivity	Positive specimens	200 HIV-1 and 100 HIV-2	200 HTLV-I and 100 HTLV-II	300 HCV (positive samples) Including samples	300 HBsAg Including samples from	Correct identification as positive (or indeterminate),

a Acceptance criteria: no neutralisation for HBsAg confirmatory assay.

		Including samples from different stages of infection and reflecting different antibody patterns		from different stages of infection and reflecting different antibody patterns. Genotypes 1 – 4: > 20 samples (including non-a subtypes of genotype 4; Genotype 5: > 5 samples; Genotype 6: if available	different stages of infection 20 ‘high pos’ samples (>26 IU/ml); 20 samples in the cut-off range	not negative
	Sero-conversion panels	15 sero-conversion panels/ low titre panels		15 sero-conversion panels/ low titre panels	15 sero-conversion panels/ low titre panels	
Analytical sensitivity	Standards				Third International Standard for HBsAg, subtypes ayw1/ adw2, HBV genotype B4, NIBSC code: 12/226	
Diagnostic specificity	Negative specimens	200 blood donations	200 blood donations	200 blood donations	10 false positives as available from the performance	No false-positive results/[a] no neutralisation
		200 clinical samples	200 clinical samples	200 clinical samples		

a Acceptance criteria: no neutralisation for HBsAg confirmatory assay.

		including pregnant women	including pregnant women	including pregnant women	evaluation of the first line assay[a].	
		50 potentially interfering samples, including samples with indeterminate results in other confirmatory assays	50 potentially interfering samples, including samples with indeterminate results in other confirmatory assays	50 potentially interfering samples, including samples with indeterminate results in other supplementary assays	50 potentially interfering samples	

a Acceptance criteria: no neutralisation for HBsAg confirmatory assay.

Changes to legislation:
There are currently no known outstanding effects for the Commission Implementing Decision (EU) 2020/350, ANNEX.