WMDA Key Performance Indicators for Registries			
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Key performance indicators for registry operations

Introduction:
The Working Group Quality and Regulation has defined key performance indicators (KPI) for hematopoietic stem cell donor registries. These KPIs are based on the WMDA annual report and the HLA discrepancy report. They will be assessed every year. From 2017 on the KPIs will be calculated directly from the data provided through the online WMDA annual questionnaire. The defined key performance indicators represent a quantitative assessment of key activities of a hematopoietic stem cell donor registry. Anonymous graphic representations will be made available only to each individual organisation, revealing solely the registry's own position in comparison to other organisations. The objective is to incite organisations to improve their processes by providing target values that should be achievable for their organisation. Improving the performance of a hematopoietic stem cell donor registry means faster services for recipients and insures continuous high quality in the search for a suitable match and the collection of hematopoietic stem cell products.

Representation and distribution of KPIs:
WMDA regular members vary significantly in size of donor file and volume of patient-related requests per year (high resolution typing, verification and extended typing and work-up requests). Therefore, organisations are classified in four categories according to the number of requests considered in the respective KPI.

The following categories are defined:
1. Less than or equal to 10 requests per year (N ≤ 10)
2. More than 10 but less than or equal to 100 requests per year (10 < N ≤ 100)
3. More than 100 but less than or equal to 1,000 requests per year (100 < N ≤ 1,000)
4. More than 1,000 requests per year (N > 1,000)

Definition of key performance indicators for registry operations:
The group has retained a set of 5 KPIs.

The following definitions explain how each KPI is defined and calculated. The target values for each individual KPI are calculated from the data received by registries participating in the annual report project. By choice, target values were set rather close to the median performance per category (see above). Target values may be increased over time as registries improve their performance.

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1.   % of high resolution typings performed within 14 days

This KPI refers to the questions in section "**Extended typing requests from your donors during …"** in the WMDA annual questionnaire. It is calculated as the sum of 'How many requests have been reported within 7 calendar days?' and 'How many requests have been reported within 8 and 14 calendar days?' divided by 'Total number of HLA-typing requests for donors from your registry performed during …' times 100.

The proposed target value for this KPI is 75% (or more). From 2017 on the target value will be automatically calculated from the data of that year at the 75% level (3rd quartile) of the values of all organisations combined.

2.   % of blood samples for verification (confirmatory) typing shipped within 14 days of request

This KPI refers to questions in section "**Blood samples requested from your donors for verification/confirmatory typing during…"** in the WMDA annual questionnaire. It is calculated as the sum of 'How many requests have been shipped within 7 calendar days?' and 'How many requests have been shipped within 8 and 14 calendar days?' divided by 'Total number of blood samples effectively shipped to requesting transplant units during…' times 100.

The proposed target value for this KPI is 75% (or more in 14 days). From 2017 on the target value will be automatically calculated from the data of that year at the 75% level (3rd quartile) of the values of all organisations combined.

Footnote in the WMDA annual questionnaire "Please calculate from the date that the request arrived at your registry till the date that the blood sample was sent to the transplant centre."
As the definition in the WMDA annual questionnaire does not take into account shipment durations, this KPI does not discriminate against international vs. local shipment.

3.   % donor availability at verification (confirmatory) typing stage

This KPI refers to questions in section '**Blood samples requested from your donors for verification/confirmatory typing during**…' in the WMDA annual questionnaire. It is calculated as 1 minus 'Donor related reasons of blood sample cancellation' divided by 'Total number of blood samples requested for shipment during…' times 100.

The proposed target value for this KPI is 79% (or more). From 2017 on the target value will be automatically calculated from the data of that year at the 75% level (3rd quartile) of the values of all organisations combined.

Remark: There may be inconsistent handling of cancellation of blood sample shipments due to donor related reasons. E.g. donors might be set temporarily unavailable "TU" when unavailable for 4 weeks in one registry while this might not lead to cancellation of blood shipment in another registry. Definitions might be helpful.

4.   % donor availability at WU stage

This KPI refers to Questions in section '**Work-ups requested from your donors during**…' in the WMDA annual questionnaire. It is calculated as 1 minus 'Number of work-up cancellations of your donors (*the reasons for the work-up cancellations must be related to the donors themselves*)' divided by "Total number of work-up requests of your donors during 2016 (*no DLIs*) (*count all work-up requests from your donors for unrelated patients that are requested by transplant units*)" times 100.

The proposed target value for this KPI is 92% (or more). From 2017 on the target value will be automatically calculated from the data of that year at the 75% level (3rd quartile) of the values of all organisations combined.

5. % of discrepant typing results (technical or clerical error at registry)

This KPI refers to the HLA discrepancy report. It is calculated as the sum of all registry related discrepancies (clerical error at donor center + technical error at donor center + others) divided by the number of confirmatory typing HLA results received.

The proposed target value for this KPI is 1% (or less).

Examples of graphic representations of KPIs 5 is represented on the following pages. All data is from 2011. Numbers are arbitrarily assigned to registries.

KPI #5: Discrepancy rate

2011: Discrepancy rates for registries with <10 CTs

Discrepancy Rate: 0.0%
Median Discrepancy Rate: 0.0%
All registry discrepancy rate: 2.39%
All registry median discrepancy rate: 0.86%
Note: Registries 1 - 4 sent 0 CT samples

2011: Discrepancy rates for registries with > 10 - < 100 CTs

Discrepancy Rate: 4.21%
Median Discrepancy Rate: 2.56%
All registry discrepancy rate: 2.39%
All registry median discrepancy rate: 0.86%

2011: Discrepancy rates for registries with > 100 - <1000 CTs

Discrepancy Rate: 1.68%
Median Discrepancy Rate: 1.06%
All registry discrepancy rate: 2.39%
All registry median discrepancy rate: 0.86%

2011: Discrepancy rates for registries with >1000 CTs

Discrepancy Rate: 2.98%
Median Discrepancy Rate: 1.24%
All registry discrepancy rate: 2.39%
All registry median discrepancy rate: 0.86%