International Society of Blood Transfusion

ISBT WORKING PARTY ON QUALITY MANAGEMENT (WP-QM)

SURVEY ON QUALITY INDICATORS IN BLOOD ESTABLISHMENTS

Report

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Introduction

This survey was conducted in 2016 by the Working Party on Quality Management (WP-QM) of the International Society for Blood Transfusion (ISBT) to assess the degree of implementation of quality indicators in blood establishments around the world, principles of their monitoring and use, and to assist blood establishments with the proposal of quality indicators that can be monitored in their activities.

Methods

Data were collected through a questionnaire on the use of quality indicators (QI) in blood establishments. The SurveyMonkey platform was used for data collection. Initially, the survey was sent to 129 addresses, and subsequently to another 36. A total of 97 responses were registered in the system, but 29 of them were excluded from the analysis, due to duplicate entries and incomplete responses. A total of 68 questionnaires were accepted for further analysis. Countries from all 6 WHO regions were represented among the eligible questionnaires. Most of the respondents were from the European region (25), followed by African region (15), Eastern Mediterranean Region (14), South-East Asian Region (6), Western Pacific Region (6) and Region of the Americas (2).

Results

From the total of 68 participants, 53 (77.9%) had an established quality system, 14 (20.6%) of them stated that the system was in the process of implementation, while only one (1.5%) answered that they did not have an established system.

An equal number of participants (33 or 48.5%) answered affirmatively and negatively to the question about the established national program of QI in transfusion medicine, while two (2,9%) did not answer this question.

Most of the 57 (83.8%) respondents who confirmed the use of quality indicators in their institutions had defined quality objectives for their monitoring: 28 (49.1%) for all indicators, and 9 (15.8%) for some of them. The number of participants who established control limits in QI monitoring was somewhat smaller: upper or lower limits were established by 16 (28.1%) respondents for all indicators and 18 (31.6%) respondents for some of the indicators. The overall results are presented in Figures 1 and 2.

Figure 1: Establishment of quality objectives for monitoring QIs

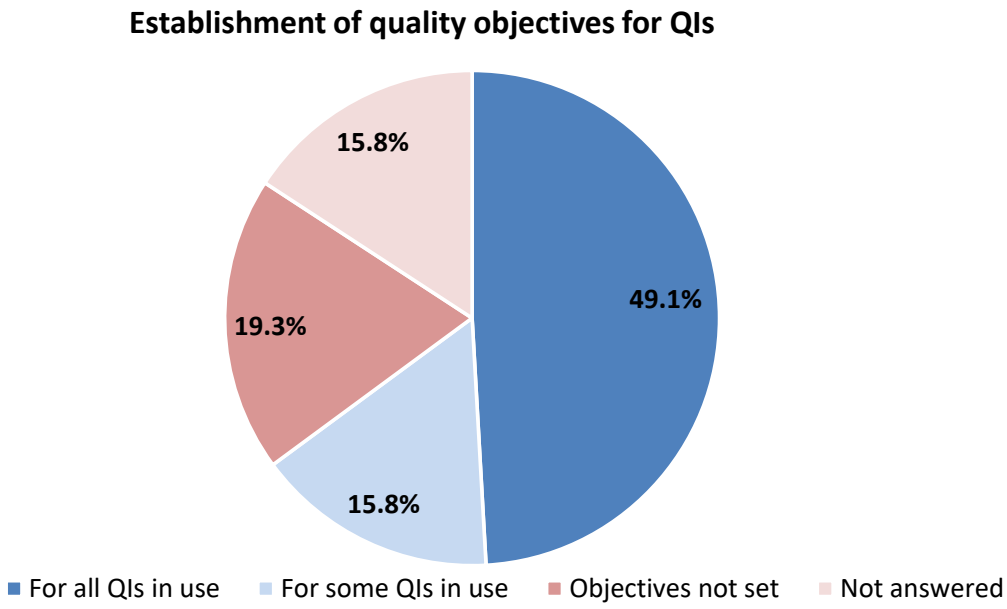
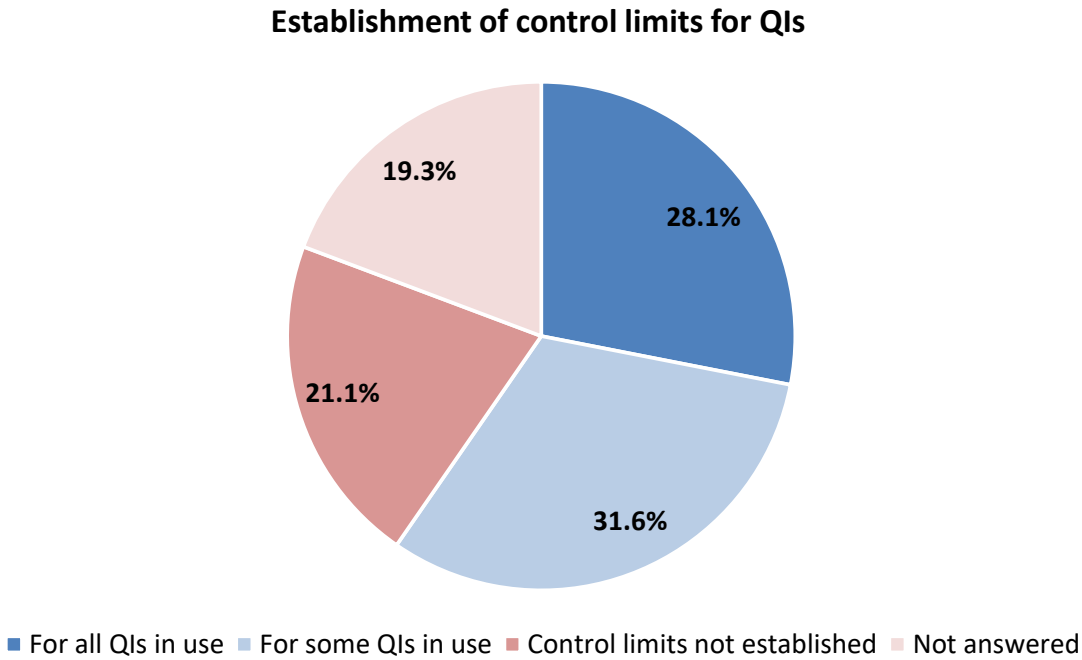


Figure 2: Establishment of control limits for monitoring QIs



Figures 3 and 4 show the percentage of participants who implemented quality indicators for monitoring their realization processes (Figure 3) and management processes (Figure 4). As expected, quality indicators are most often implemented for basic processes, such as blood component preparation, donor

testing and blood collection. Implementation of corrective and preventive actions (CAPA) and complaint management are the most common management processes monitored by quality indicators.

Figure 3: Level of implementation of quality indicators in monitoring realization processes

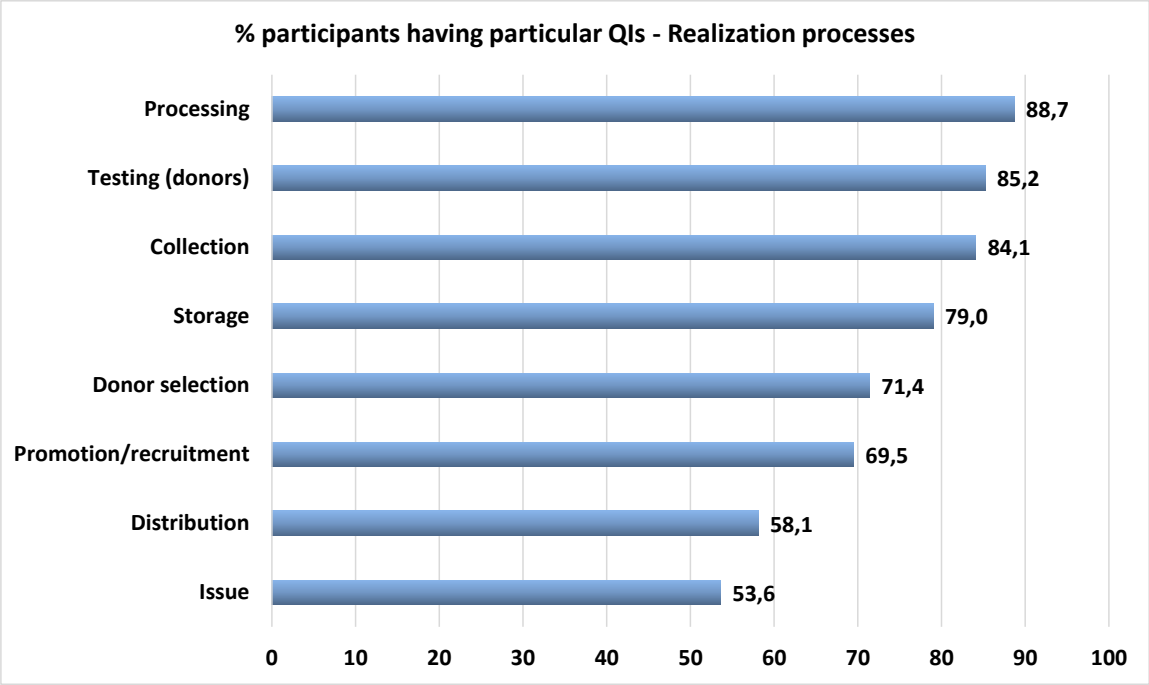
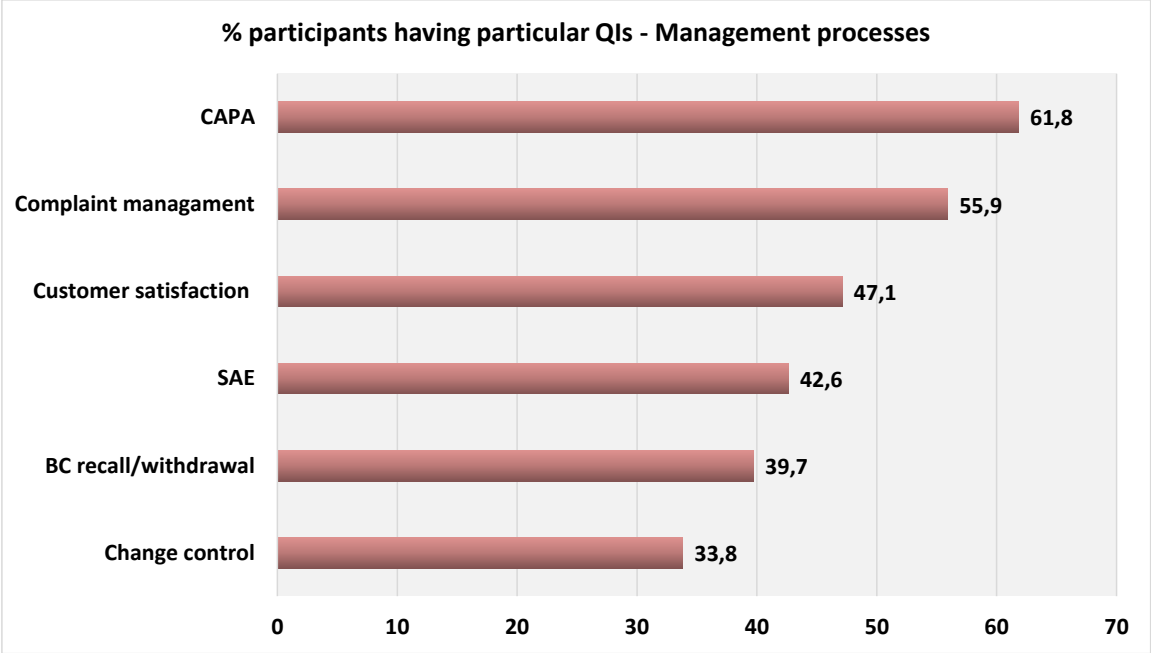


Figure 4: Level of implementation of quality indicators in monitoring management processes



Most participants reported having an SOP for QI monitoring (33/57 or 57.9%), 16 (28.1%) did not have an SOP, while 8 (14.0%) did not answer this question.

The median number of indicators used to monitor different realization processes ranges from 1.5 for blood component issue to 3.0 for "Processing" and "Donor testing" activities. For all other realization processes, the median number of indicators was 2.0. Fewer indicators were used for management processes (at least for those selected for the survey). With the exception of CAPA whose median number of indicators was 2.0, for all other processes the median number of indicators was 1.0. A more detailed presentation of data on the number of quality indicators used in monitoring various processes can be found in Figures 5 and 6.

Figure 5: Number of quality indicators used for monitoring of different realization processes

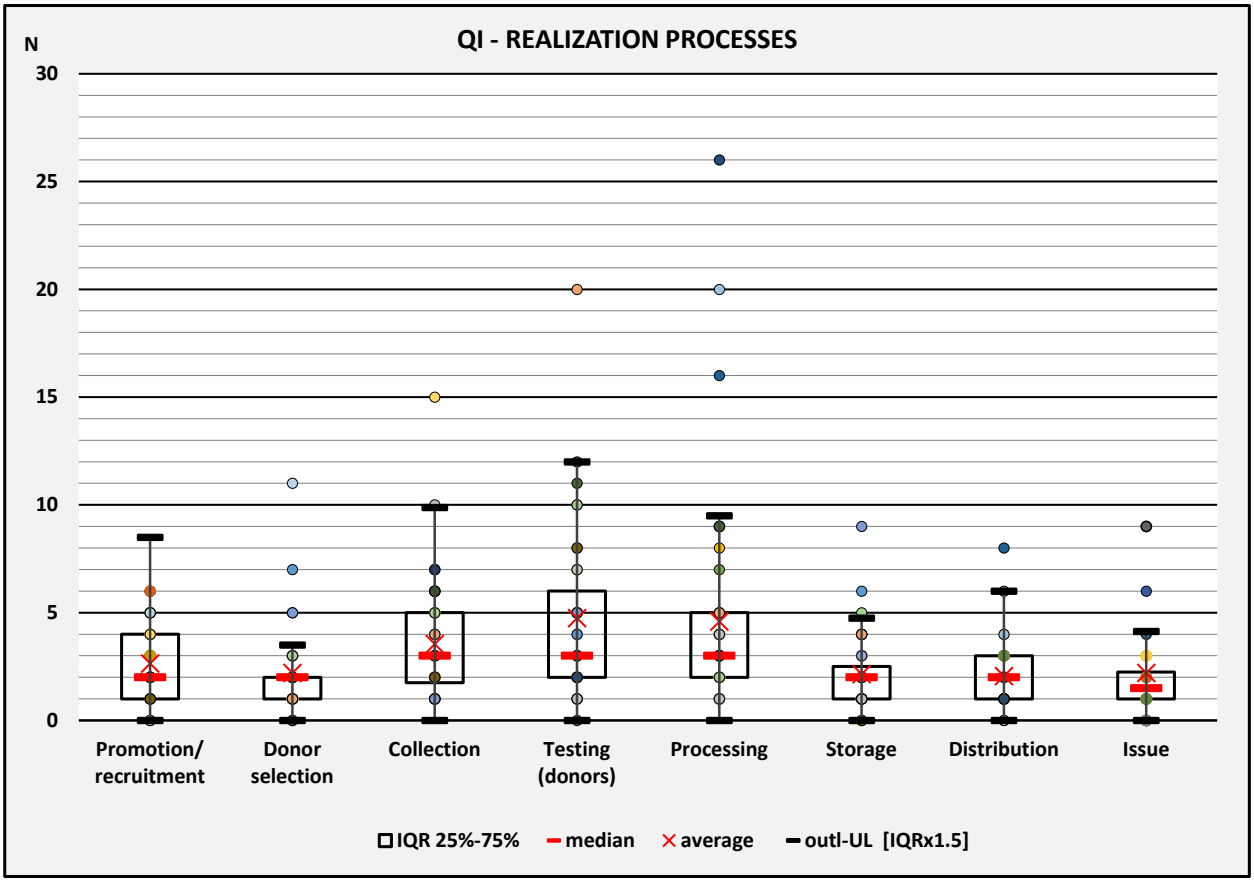
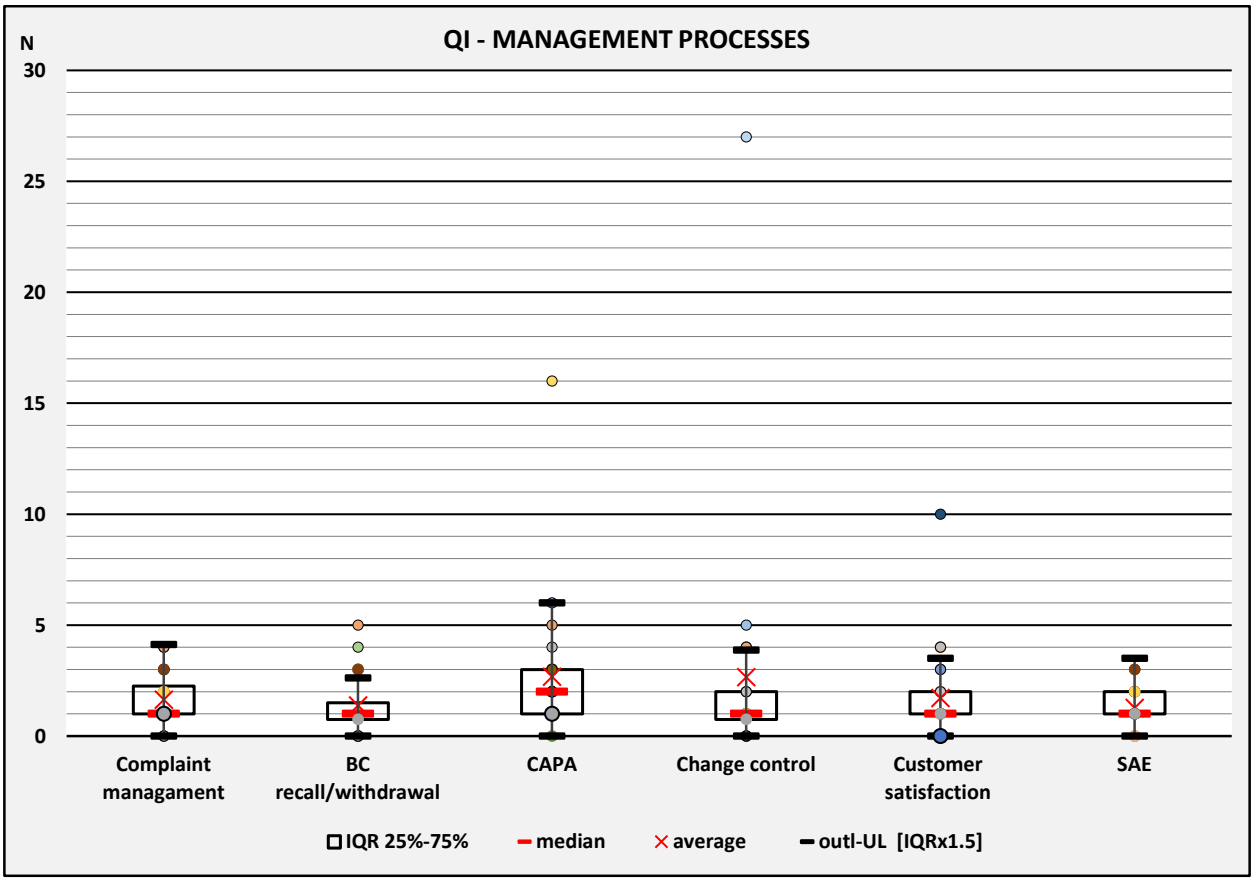


Figure 6: Number of quality indicators used for monitoring of different management processes



Conclusion

Thanks to the commitment of a large number of colleagues around the world in the promotion of this survey, the response rate was high. This can partly be explained by the significant interest in this topic. Most of the participants in this survey have quality indicators established, mostly at the institutional level, and to a lesser extent as a national program. It is important to improve the process of QI monitoring by wider implementation of quality objectives and control limits.

There is great interest of colleagues in comparing the results of QI monitoring at the international level. A prerequisite for achieving this goal is the unambiguous definition of numerators and denominators and agreement on how the obtained results will be presented.

Acknowledgment

We thank all the participants of this survey for the submitted data, which enabled insight into the implementation of quality indicators in blood establishments globally.