


UK NEQAS MOLECULAR PATHOLOGY MANAGEMENT PROCEDURE

Performance monitoring and poor performance criteria to be used in Molecular Pathology EQA schemes

REFERENCE	MP-MHE-PerformMolPath
VERSION	1.0
DATE OF ISSUE	01 April 2012
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COPIES	2 Master Copies – UK NEQAS for Molecular Genetics – UK NEQAS for ICC & ISH
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Document history			
Version	Date	Reviewed by	Signature

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1 Introduction

This procedure details the process involved in determining the performance standard of each laboratory participating in UK NEQAS Molecular Pathology EQAs, maintaining a record of participant performance and monitoring the performance year to year. It is the responsibility of the Scheme Organiser to monitor the performance of all participants and to take appropriate action in the event of poor performance or persistent poor performance. Following UK Joint Working Group (JWG) for Quality Assurance recommendations (October 2010) the subsequent categories will be applied:

- Laboratories operating at an acceptable level of performance are classed as “green”.
- Laboratories deemed to be poor performing laboratories, as defined in this document, are classed as “amber”.
- Laboratories deemed to be persistent poor performing laboratories, as defined in this document, are classed as “red”.
- Persistent poor performing laboratories not responding appropriately to NQAAP/Joint Working Group for Quality Assurance (JWG) action as defined by the JWG are classed as “black”.

The UK NEQAS Molecular Pathology EQAs are provided as a collaboration between UK NEQAS for Molecular Genetics and UK NEQAS for Immunocytochemistry and In situ Hybridisation (ICC & ISH).

The UK JWG for Quality Assurance decided that performance issues arising from the Molecular Pathology EQAs should be dealt with by National Quality Assessment Advisory Panel (NQAAP) - Genetics.

2 Data Monitoring

Performance data of each participant are stored on the UK NEQAS for Molecular Genetics scheme website. Participants can access their own performance data via their own password protected account. They can only access their own laboratory score reports.

Performance data is monitored by the Scheme Organiser and an appropriate other individual i.e. Deputy Scheme Organiser. The EQA returns submitted by each laboratory for all Molecular Pathology EQAs and individual laboratory scores are stored on the scheme website and are password protected. Only the Scheme Organiser and an appropriate other individual i.e. Deputy Scheme Organiser has access to the identity of all laboratories and their performance data.

A comparison of performance data between EQA rounds as well as a year-on-year comparison is performed by the Scheme Organiser using the Poor Performers file which is stored in the secure NEQAS for Molecular Genetics filing cabinet (MF-NEQAS-PPChecklist and MF-NEQAS-PPOverview). This includes performance within the same Molecular Pathology EQA scheme (e.g. between KRAS EQA runs) and between Molecular Pathology EQA schemes (e.g. between KRAS and EGFR runs). This ensures that any poor performance trends are identified promptly and action can be taken if deemed appropriate by the Scheme Organiser and the Chairs of both scheme Steering Committees (UK NEQAS for Molecular Genetics and UK NEQAS Cellular Pathology Techniques).

3 Ratification of Criteria

The criteria for identifying poor performers and persistent poor performers detected by UK NEQAS Molecular Pathology EQAs are ratified by the UK NEQAS for Molecular Pathology Specialist Advisory Group, UK NEQAS for Molecular Genetics Steering Committee and UK NEQAS for Cellular Pathology Techniques Steering Committee. This document was ratified by the Steering Committees on 17th January 2012.

The criteria are approved by the UK National Quality Assurance Advisory Panel - Genetics. This document was approved by the panel on 26th March 2012.

4 Criteria for identifying Poor Performers (Amber status)

4.1 Criteria

The criteria for poor performance and the action taken when this arises have been established and are as follows:

The central purpose of external quality assurance is to ensure that laboratories are delivering a service of the highest possible quality. The Molecular Pathology Scheme maintains the principle of assessment by professional consensus and attempts to improve standards by education and peer group review rather than by censure or penalty. Performance criteria are necessary to allow an individual laboratory's performance to be measured against national standards/other participant standards and to identify any laboratory, which is failing to meet these criteria. Participants who fall below the standards set out here are deemed to be performing poorly. These laboratories will be classed as "amber" whilst the poor performance status stands.

Poor performance will be determined at the level each EQA module rather than on the basis of the participant's average score across all EQAs run by UK NEQAS for Molecular Genetics. Thus it will be possible, for example, to be a poor performer for KRAS while performing well for all other EQA modules. However, the Scheme Organiser will review the laboratory's performance in all schemes when poor performance is detected and if concerned about the standard of the laboratory's service then will discuss with the Chairs of both Steering Committees if further action should be taken.

When a serious genotyping error is identified, the Scheme Organiser will contact the participant as soon as the error comes to light. In this way it is intended that any consequences of the laboratory error will be rectified without delay.

Three clinical case scenarios with appropriate samples are distributed per each round of EQA.

Poor performance (amber status) is defined as follows:

Genotyping	Scoring less than 1.6 as a mean Genotyping score for each round of EQA. Any one critical genotyping error will result in poor performance.
Interpretation	Scoring less than 0.7 times the mean score for the EQA round. Mean scores will be calculated to two decimal places. Individual participant's scores will be calculated precisely.
Clerical Accuracy	This category of marking will not contribute towards poor performance.

Interpretation and Clerical Accuracy are not assessed in Genotyping only EQAs. Poor performance in these schemes is determined by scoring less than a mean of 1.6 for Genotyping for an EQA run.

Genotyping is not assessed in web-based interpretation EQAs. Poor performance in these schemes is determined by the criteria outlined above.

4.2 Incorrect advice given, correct advice not given

Where a report contains advice which is considered by the scheme assessors to be dangerously erroneous, or when a report does not contain advice considered by the scheme assessors to be essential, this will be sufficient to constitute Poor Performance, irrespective of the scores achieved in the categories above.

4.3 Non-participation

Participation in each round of EQA for all molecular pathology tests offered as a clinical service is a requirement of the Molecular Pathology EQA Scheme. EQA participation is also a requirement of CPA (UK) Ltd/UKAS Medical Laboratory accreditation.

If a UK laboratory has previously participated in an EQA module and there have been performance issues, and subsequently withdraws from the EQA, then this laboratory will be deemed Poor Performance for that EQA module.

If a laboratory registers for an EQA scheme but fails to participate without informing the Scheme Organiser of a suitable reason for non-participation, then it will be deemed a poor performer due to non-participation. This is applied to UK and non-UK laboratories.

4.4 Action following Genotyping Poor Performance

Once the scores for the EQA round have been finalised by all the scheme assessors, then the Scheme Organiser reviews the **genotyping** scores for each participating laboratory for all EQA runs. If any participant has fallen below the acceptable performance standard described in Section 4.1 for genotyping then the Scheme Organiser will contact the participant informing them of their error, their laboratory's poor performance/amber status and request that the cause of the genotyping error is investigated. Depending on the type of genotyping error made, this initial contact will be either by telephone, email or letter (determined by the Scheme Organiser, normally within 10 working days). The laboratory is given a defined period (determined as reasonable by the Scheme Organiser, normally 15 working days) in which to respond to the Scheme Organiser with the cause of the error. At this point the participant may feel confident about addressing the problem internally but help and advice will be made available on request. The Scheme Organiser will not reveal the identity of the participant to those providing such assistance unless the participant has specifically given permission to do so.

If no satisfactory response is obtained within the given time period then the Scheme Organiser will resend the letter by email with a further 15 working day period for a response. If the laboratory continues to fail to provide a satisfactory response then a second poor performance is designated.

If a serious genotyping error (e.g. a potential patient sample swap event) is made then the scheme assessors inform the Scheme Organiser as soon as possible. The Scheme Organiser then contacts the laboratory immediately. This ensures that the laboratory is informed of the critical genotyping error within a short time frame and an investigation into the cause of the error can be initiated.

This action will be followed for UK and non-UK participants.

An extra round of EQA will be provided for each genotyping poor performing laboratory if the frequency of EQA distribution is only once per year. The format of the extra round will be tailored to deal with the problematic issues in each laboratory. This extra round will take place before the next scheduled annual distribution. This extra round is classed as a consecutive round of EQA and will be included in calculating Persistent Poor Performance. If the laboratory fails to participate in this extra round of EQA then a second poor performance is designated. If the laboratory performs satisfactorily in the extra round of EQA for that test then their poor performance/amber status is removed but remains on record.

4.5 Action following Interpretation Poor Performance

If any participant has fallen below the acceptable performance standard described in Section 4.1 for **interpretation** then the Scheme Organiser will contact the participant by letter (posted and emailed) after the appeals process informing them of their laboratory's poor performance status. At this point the participant may feel confident about addressing the problem internally but help and advice will be made available on request. The Scheme Organiser will not reveal the identity of the participant to those providing such assistance unless the participant has specifically given permission to do so. The laboratory remains a poor performing laboratory (amber laboratory) until the laboratory performs satisfactorily in the next round of EQA for that test when their poor performance/amber status is removed. The poor performance remains on record.

This action will be followed for UK and non-UK participants.

5 Criteria for identifying Persistent Poor Performers (Red status)

5.1 Criteria

Persistent Poor Performers will be defined as either:

- those participants who perform poorly for a molecular pathology test EQA in **two** out of any **three** consecutive EQA rounds.

OR

- those participants who perform poorly for a molecular pathology test EQA in any **two** consecutive rounds of EQA.

Performing poorly in any **one** of these categories will count towards Persistent Poor Performance.

These laboratories will be classed as “red” whilst the persistent poor performance status stands.

Performing poorly on genotyping in one round of EQA and interpretation in the next two rounds will have the same consequences as performing poorly on genotyping for three rounds of EQA. If a participant performs poorly for more than one EQA run in more than one EQA module, that laboratory's results will be reviewed by the Scheme Organiser and that participant may, at the discretion of the Scheme Organiser and the Chairs of the Steering Committees, be referred for Persistent Poor Performance even if they have not met the criteria for Persistent Poor Performance in any individual EQA.

5.2 Action following identification of a Persistent Poor Performing UK laboratory

Once a UK laboratory reaches the criteria for Persistent Poor Performance the Scheme Organiser is obliged to notify the NQAAP - Genetics. The Scheme Organiser will obtain ratification of the persistent poor performance/red status by EQA assessors and the Chairs of the Steering Committees (either at the first Steering Committee meeting or by email). The Scheme Organiser will contact the Chairman of NQAAP - Genetics with details of the laboratory's performance. The identity of the laboratory will be revealed to the panel and subsequently the Joint Working Group for Quality Assurance (JWG). The Scheme Organiser will write to the laboratory informing them of the referral to NQAAP.

The Panel will consider the best approach to improve the situation and will contact the laboratory directly, requesting a response by a specific date. The NQAAP Chairman should agree in writing any remedial action to be taken and the timescale and responsibility for carrying this out. If appropriate, this letter will be copied to accreditation/regulatory bodies such as CPA (UK) Ltd and UKAS who may arrange an urgent visit to the laboratory. Advice is offered to the Head of the Laboratory in writing or, if appropriate, a visit to the Laboratory from a NQAAP member or appropriate agreed expert(s) may be arranged.

If persistent poor performance remains unresolved, the laboratory will be classed as “black” and the NQAAP Chairman will submit a report to the Chairman of the JWG giving details of the problem, its causes and the reasons for failure to achieve improvement. The Chairman of the JWG will consider the report and, if appropriate, seek specialist advice from a panel of experts from the appropriate professional bodies to advise him/her on this matter. The Chairman of the JWG will be empowered to arrange a site meeting of this panel of experts with the Head of the Department concerned. If such supportive action fails to resolve the problems and, with the agreement of the panel of experts, the Chairman of the JWG will inform the Chief Executive Officer, or nearest equivalent within the organisation of the Trust or Institution, of the problem, the steps which have been taken to rectify it and, if it has been identified, the cause of the problem. The Chairman of the JWG also has direct access and responsibility to the Professional Standards Unit of the Royal College of Pathologists. Should these measures fail to resolve the issues; the laboratory will be referred to the Care Quality Commission for further action.

The Chairman of NQAAP - Genetics will notify the Scheme Organiser when the persistent poor performance/red status of the laboratory can be removed. The persistent poor performance will remain on record.

5.3 Action following identification of a persistent poor performing non-UK laboratory

Once a non-UK laboratory reaches the criteria for Persistent Poor Performance the Scheme Organiser will obtain ratification of the persistent poor performance/red status by the EQA assessors and the Chairs of the Steering Committees (either at the first Steering Committee meeting or by email). The Scheme Organiser will write to the laboratory informing them of the laboratory's persistent poor performance status and offer help and advice in order to improve the service provided by the laboratory. The Scheme Organiser will not reveal the identity of the participant to those providing such assistance unless the participant has specifically given permission to do so.

The laboratory is given a defined period (appropriate to the situation) in which to respond to the Scheme Organiser. If no satisfactory response is obtained within the given time period then the Scheme Organiser will resend the letter by email and post (requiring a signature upon delivery) with a further 15 working day period for a response. If the laboratory continues to fail to provide a satisfactory response then the Scheme Organiser will telephone the primary contact of the laboratory to seek the required information. If contact is not successful then the Scheme Organiser will discuss the situation and suitable action with the Chairs of the Steering Committees at the next meeting (or by email if the next meeting is scheduled more than 2 calendar months time). The identity of the laboratory will not be disclosed to the Steering Committees.

The Chairs of the Steering Committees will decide when the persistent poor performance/red status of the laboratory can be removed. The persistent poor performance will remain on record.

6 Notes

Experience in the scheme suggests that referral to NQAAP will be very infrequent, since the majority of laboratories will correct any deficiencies before reaching that stage in the procedure. This is as it should be, since the consequences of a referral to NQAAP are serious, with implications for CPA (UK) Ltd/UKAS accreditation as well as the obvious doubts that must arise about the quality of service to patients.