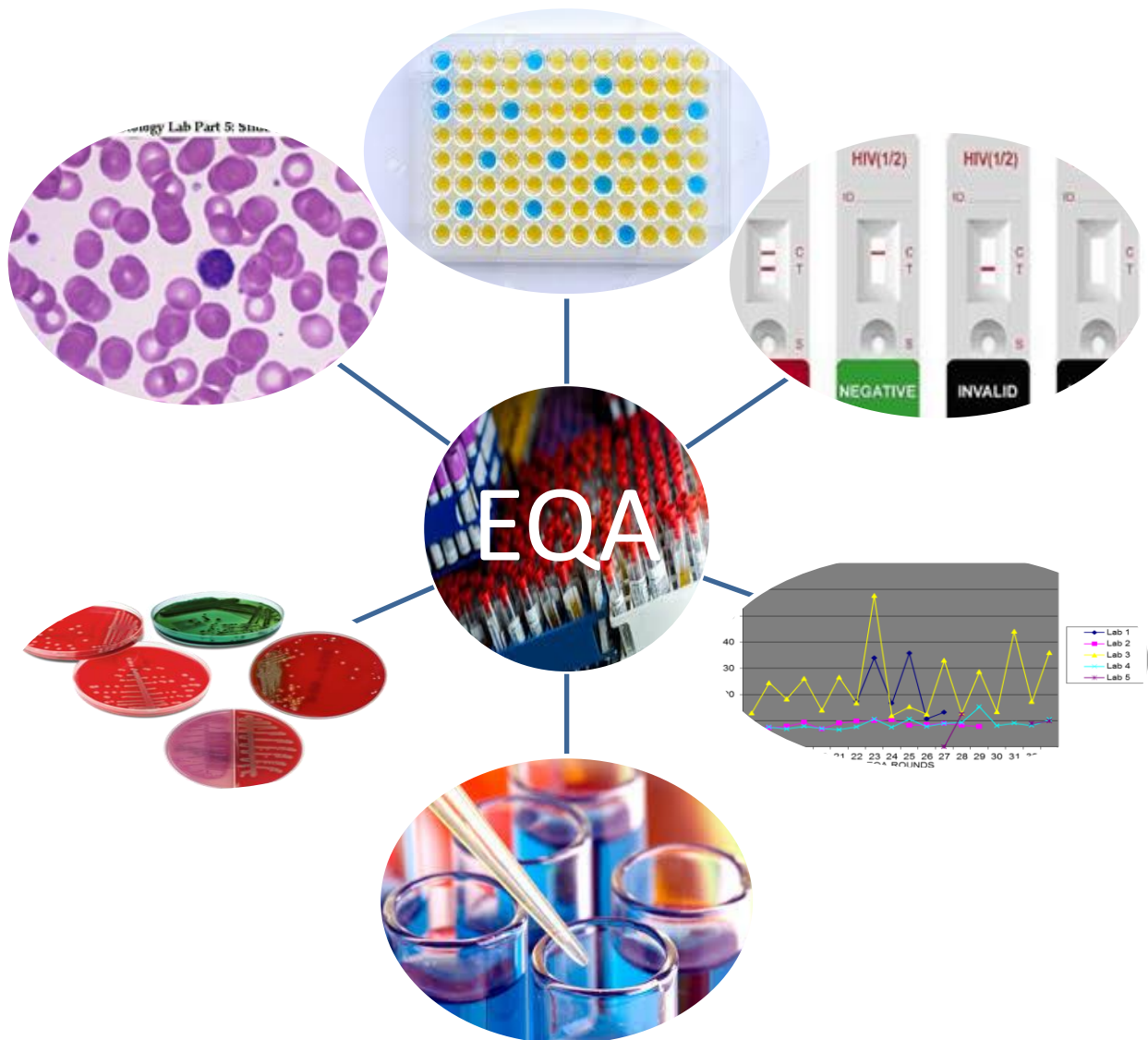




WHO manual for organizing a national external quality assessment programme for health laboratories and other testing sites



WHO PREQUALIFICATION TEAM:
DIAGNOSTICS



World Health
Organization

**WHO manual for organizing a national external
quality assessment programme for health
laboratories and other testing sites**

WHO Library Cataloguing-in-Publication Data

WHO manual for organizing a national external quality assessment programme for health laboratories and other testing sites.

1.Laboratories - standards. 2.Quality Assurance, Health Care. 3.Point-of-Care Systems.
4.Handbooks. I.World Health Organization.

ISBN 978 92 4 154967 7

(NLM classification: QY 25)

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Printed in France

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This document is available on the internet at: www.who.int/diagnostics_laboratory/en/

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Acronyms and abbreviations

ACD	Adenine citrate dextrose
AIDS	Acquired immunodeficiency syndrome
ASLO	Anti-streptolysin O
CPD	Citrate phosphate dextrose
CPDA	Citrate phosphate dextrose adenine
DBS	Dried blood spot (specimen)
DTS	Dried tube specimen
EDTA	Ethylene diamine tetra acetic acid
EIA	Enzyme immunoassay
ELISA	Enzyme-linked immunosorbent assay
EN	European norm
EQA	External quality assessment
FFPE	Formalin-fixed paraffin embedded
HBsAg	Hepatitis B surface antigen
HIV	Human immunodeficiency virus
IEC	International Electrotechnical Commission
INR	International normalized ratio
IUPAC	International Union of Pure and Applied Chemistry
ISO	International Organization for Standardization
IQC	Process control as per ISO15189
MOH	Ministry of health
MRSA	Methicillin resistant <i>Staphylococcus aureus</i>
NAT	Nucleic acid testing
<i>nIQR</i>	Normalized inter-quartile range
PBS	Phosphate buffered saline
PT	Proficiency testing
POC	Point of care
QC	Quality control
RDT	Rapid diagnostic test
R&D	Research and development
SD	Standard deviation
TPHA	<i>Treponema pallidum</i> heamagglutination
TPPA	<i>Treponema pallidum</i> particle agglutination
UK NEQAS	United Kingdom National External Quality Assessment Scheme
VDRL	Venereal disease research laboratory test
VIM	International vocabulary in metrology
WHO	World Health Organization

Glossary

Definitions in the glossary are from the *International vocabulary of metrology* (VIM) (1), the International Organization for Standardization (ISO) *Guide on vocabulary and symbols* (2), and the International Union of Pure and Applied Chemistry (IUPAC) *Compendium of analytical nomenclature* (3). Highest authority is given to the VIM definitions.

Accuracy (measurement accuracy) closeness of the agreement between a measured quantity value and a true quantity value of the measurand (VIM 2.13:2008).

Assigned value attributed to a particular property of a proficiency item (ISO/IEC 17043:2010).

Calibrator

measurement standard used in calibration (VIM 5.12:2008).

NOTE The term “calibrator” is only used in certain fields.

Consensus value

value derived from collection of results in an inter-laboratory comparison (ISO 13528:2015).

Coordinator

one or more individuals with the responsibility for organizing and managing all activities involved in the operation of a proficiency testing scheme (ISO/IEC 17043:2010).

Imprecision (imprecision of measurement)

the random dispersion of a set of replicate measurements and/or values expressed quantitatively by a statistic, such as standard deviation or coefficient of variation (the presence of random error, variability, or inconsistency) (ISO 3534-1:2006).

NOTE 1 It is defined in terms of repeatability and reproducibility.

NOTE 2 The words “imprecision” and “precision” are often inappropriately interchanged.

Interlaboratory comparison

organization, performance and evaluation of measurements or tests on the same or similar items by two or more laboratories in accordance with predetermined conditions (ISO/IEC 17043:2010).

Limit of detection

result of a measurement by a given measurement procedure for which the probability of an analytically false-negative result is B, given the probability of A of an analytically false-positive result (ISO 17025:2005).

Measurement bias (bias)

estimate of a systematic measurement error (VIM 2.18:2008).

Measurement error: Measured quantity value minus a reference quantity value (VIM 2.16:2008).

Measurement precision (precision)

closeness of agreement between indications or measured quantity values obtained by replicate measurements on the same or similar objects under specified conditions (VIM 2.15:2008).

NOTE 1 The measure of precision is usually expressed numerically by measures of imprecision, such as standard deviation, variance, or coefficient of variation under the specified conditions of measurements.

NOTE 2 The “specified conditions” can be, for example, repeatability conditions of measurements, intermediate precision conditions of measurement, or reproducibility conditions of measurements (see ISO 5725-5:1998/Cor 1:2005).

NOTE 3 Measurement precision is used to define measurement repeatability, intermediate measurement precision, and measurement reproducibility.

NOTE 4 Sometimes “measurement precision” is erroneously used to mean measurement accuracy.

Measurement reproducibility

measurement of precision under reproducibility conditions of measurements (VIM 2.25:2008).

NOTE Relevant statistical terms are given in ISO 5725-5:1998/Cor 1:2005.

Measurement uncertainty (uncertainty of measurement, uncertainty)

non-negative parameter characterizing the dispersion of the quantity values being attributed to a measurand, based on the information used (VIM 2.26:2008).

NOTE 1 Measurement uncertainty includes components arising from systematic effects, such as components associated with corrections and the assigned quantity values of measurement standards, as well as the definitional uncertainty. Sometimes estimated systematic effects are not corrected for but, instead, associated measurement uncertainty components are incorporated.

NOTE 2 The parameter may be, for example, a standard deviation called standard measurement uncertainty (or a specified multiple of it), or the half-width of an interval, having a stated coverage probability.

NOTE 3 Measurement uncertainty comprises, in general, many components. Some of these

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