



Quality Slide Program
Dedicated software for the evaluation
of Blood Cell Identification



#### Step 1 - Design Internal Quality Control for blood cell identification

The accreditation of the cytology bench requires the assessment of the staff skills.

The **chapters 5.1.2.d** (Skills Evaluation) of the norm **NF EN ISO 15189 indicates**.

«Laboratory management shall maintain records of the relevant educational and professional qualifications, training and experience, and competence of all laboratory personnel.

This information shall be readily available to relevant personnel, and may include:

d) records of continuing education and achievements»

#### To meet these requirements:

- The QSP program includes the annual download of 12 monthly campaigns of 6 different e-smear cases (normal or abnormal).
- The e-smear cases are existing cases from laboratories around the world and present a great diversity of pathologies.
- Identifications of cells have been validated by experts in blood cell morphology.
- Each laboratory manager establishes control protocol and chooses the slides to be analyzed by the team in charge of the slide review.
- The number of reviewers is unlimited.
- The QSP program issues customized reports to ensure a perfect traceability.





## Step 3 - Competency assessment& Staff Empowerment



| HORIBA  |  |
|---|--|
| Report of Examiner                                      | U3 P                                   |
| Approved on: 9/25/12 11:58 AM<br>Slide ID: 110403431502 | Qualify Stice Program  Expert  Assista |
| Pairwise comparison                                     |  |
| Mature leukocytes, Abnormal leukocytes                  |  |
| User ID   | Average sensit                         |
| Examiner  | 0.76                                   |
| Aurelie   | 0.68                                   |
| Chice   | 0.13                                   |
| Erythroblasts   |  |
| User ID   | Average sensit                         |
| Examiner  | 1.00                                   |
| Aurelie   | 1.00                                   |
| Chice   | 0.00                                   |
| Miscellaneous   |  |
| User ID   | Average sensit                         |
| Evaminer  |  |

Once the cases are examined by the laboratory personnel, a full report is generated to be reviewed by the manager. This report includes a summary of the responses from the different lab reviewers and the analysis of continuous improvement.



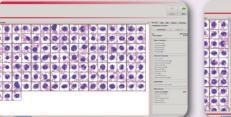
#### ► Step 2 - Blood Cell Identification

The laboratory manager receives the cases in digitalized slides, and must:

- Validate the pre classifed cells.
- Keep or remove cells in the pre classification.
- Choose the virtual slides to be released for laboratory personnel review.

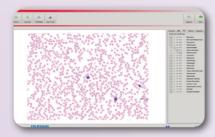
According to the laboratory process, the group of lab reviewers must:

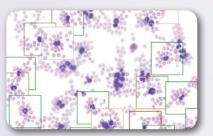
- Examine the selected cases supervised by the expert.
- Classify all the cells (100 cells minimum).





 Extend the examination of the entire blood film and add comments (RBC, WBC, PLT).





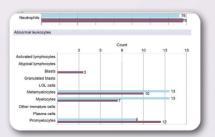
Validate the classification for an individual report.

#### ▶ Step 4 - Check evaluation



An individual report of classification is established and displays:

- An index of the average sensitivity of cells correctly classified in relation to the reference.
- An immediate classification of TP, TN, FP, FN and the associated calculations of sensitivity and precision ratio.
- Cell images which do not match the reference classification.
- The observations of the reader and the manager.
- The associated corrective actions.
- An Excel file with the sensitivity indices accessible to the laboratory manager to follow the evolution of the reviewers team.

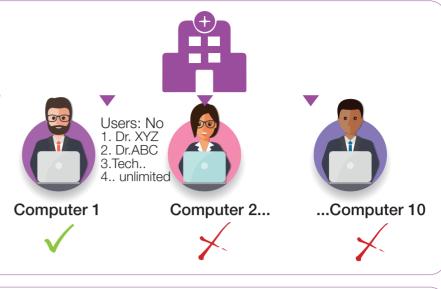


### Single License

#### Option 1

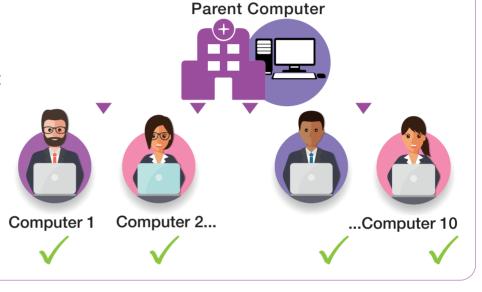
#### License for an individual computer

Single computer license bound to a specific computer via a license file (software dongle, no physical USB dongle) Local installation of QSP with slide packages and user reports.



# Option 2 License for up to 10 concurrent computers

Note for clarification: the site license is similar to individual QSP installations with the added flexibility that it can be used on several computers where QSP is installed and administrated. It is NOT a networked version of QSP, i.e. there is no shared database, integrated reports or automated installation of QSP installations on all computers in the network.





#### Clinical Cases & QSP2.0 Installer downloading

QSP2.0 installer: One time QSP2.0 software download Monthly:

Download 6 clinical cases on HORIBA Medical website:

https://rebrand.ly/hormed-gsp



## Internal Quality Control in Blood Cell Identification for Training and Competency skill assessment

The QSP software is an intuitive and didactic tool with high-definition imaging. Laboratory staff are able to examine digital blood films which have been pre-selected and reviewed.

It allows the laboratory to assess the ability of prospective examiners to correctly classify individual WBC populations and other identifiable elements in accordance with the requirements of ISO15189.















