Project of Laboratory Quality Improvement for Portuguese Speaking Countries Tasks during 2015-2019

Ljubljana, Slovenia
The Project is a cooperation within the framework of improving the Laboratory Quality, with respect to the proper diagnosis and treatment of patients, between representatives of the different countries where Portuguese is the official language.
The three major aspects of ProMeQuaLab:

- Education in Quality Control
- Training in Quality Control
- Monitoring quality analytical control results

The aim is to build capacity to implement and sustain good laboratory practices

Started in 2015

INSA - Portugal
SBAC/PNCQ - Brazil
ECAT- Netherlands
PROJECT STRUCTURE

Project Supervisor (turnover)

Project Oversight Group (Portugal / Brazil)

Angola
National Project Coordinator

Brazil
National Project Coordinator

Cape Verde
National Project Coordinator

Guinea
National Project Coordinator

Mozambique
National Project Coordinator

Portugal
National Project Coordinator

S. Tome and Principe
National Project Coordinator

Timor
National Project Coordinator

Pilot Project

Expert Consultants
During 1 week (20 - 27 July 2015), 14 laboratories (mainly in the capital city Maputo) were visited and a previously constructed Checklist/ProMeQuaLab Assessment Questionnaire was completed.

The purpose of this visit was to assess:
- the current level of organisation
- resources
- quality control tools implemented
- education and accreditation in laboratories, mainly in the medical field

It was found that proper education in quality-related issues is lacking in the training for many laboratory workers.
Tasks during 2015-2019

- Distribution and analysis of questionnaires
  - Portugal (33)
  - Mozambique (39)
  - S. Tomé and Príncipe (5)
  - Cape Verde (6)
  - Brazil (1)
  - Angola (1)
  - Guinea Bissau (1)

- Visits to laboratories
  - Mozambique (14)
  - Brazil (1)
  - S. Tomé and Príncipe (3)

- Education and training in Quality Control

- Monitoring QC results
  - Collection and analysis of QC results (internal and external)
  - CV%
  - Bias
  - Total Error
  - Uncertainty

EQALM symposium 2019
October 17 – 18, Ljubljana, Slovenia
Mini courses were organized on quality-related topics:
- internal quality control
- external quality control
- method validation
- total error and measurement uncertainty
- accreditation, quality management system, risk management, equipment management

ProMeQualab trainers
Invited trainers
In two work sessions, trainers and trainees from two laboratories in Maputo applied the statistical tools to quality control results of **HIV viral load** (2018).

Representative of Niassa’s Province Laboratory replicated the Courses done on the 3rd Congress.

Internal quality control results of **CD4** (2019) from Niassa’s Immunological Clinical Laboratory.
The most relevant critical points 2015-2019

- Great disparity in equipment, reagents and in the implementation of quality control

- A significant lack of knowledge about internal and external quality control

Develop effective training tools
NEXT STEPS - EDUCATION

- To provide simple tools quality-related topics (e.g. pre-analytical phase, internal quality control, external quality assurance, measurement uncertainty/total error, method validation, etc.), focus on the practical application in the laboratory.

- Start with a Train-the-Trainer program.

Diagram:

1. Practical Leaflets
   - Why
   - How
   - When
   - Internal Quality Control
   - External Quality Control
   - Method Validation
   - Uncertainty / Total Error
   - Disease-driven Lab Issues
   - Etc.

2. Train-to-Trainer
   - Focal Points Provincial network

3. Local training

4. Implementation

5. Continuous Training
   - Courses
   - Practical cases
   - Own results
   - Q/A sessions

   - Basic
   - Experienced
NEXT STEPS

- **Financial support** is essential. Possibilities should be further explored.

- Encourage other speaking Portuguese countries to be part of the oversight group and to be motivated to take place as supervisor of the project.

- 2021 the 4th Congress will be held in Cape Verde
• Institutions involved/support this project

- Instituto Nacional de Saúde Doutor Ricardo Jorge, I.P. (INSA), Lisbon, Portugal
- Sociedade Brasileira Análises Clínicas (SBAC), Brazil
- Instituto Nacional de Saúde (INS), Mozambique
- Laboratório de Referência da Tuberculose, S. Tome and Príncipe
- Instituto Nacional de Saúde Pública, Cape Verde
- ECAT Foundation, Netherlands

- Fundação Cauloust Gulbenkien, Portugal (congress financial support)
- Fundação Millenium, Portugal (congress financial support)