I-TECH
International
Training & Education
Center for Health

World Health
Organization

On-site Training at
Takeo Provincial Hospital
Laboratory
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Quality Control Overview

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Quality Control

Establish range for new lot:

- ✓At least 20 values
- ✓At least 2 weeks or 10 working days, and
- ✓Preferably over at least 4 weeks or 20 working days

QC range calculation

1. Calculate **mean** = 20 data results new QC lot.
2. Use your lab **historical** CV from old QC.
3. Calculate SD.

$$\text{(Historical) CV} = \frac{\text{SD} * 100}{\textbf{Mean}}$$

$$\text{SD} = \text{Mean} * \text{CV\%}$$

4. Set "temporary" QC range (new lot).
5. Set up LJ chart.

Practical 1

QC Handling process

- Preparation
- Storage
- Thawing

Handling process- Preparation

1. Take out QC bottle from a fridge.
2. Leave on table.
3. Take diluent or water place on the table.
4. Wait for 15 mins. Set timer.
5. Use pipette to re-constitute the QC.
6. Leave for 15 mins. Set timer.
7. Roll gently 15 mins. Set timer.
8. Ready for use.

Handling process- Storage

1. Prepare your aliquot tubes.
2. Calculate the number of aliquots.
3. Keep in freezer (master log for reagent)
4. Details on storage box: Labelling
    a. Content and quantity, concentration or titer (manufacture lot number, level)
    b. Storage requirements (temperature)
    c. Date prepared
    d. Expiry date
    e. Med Tech Initial
5. Fill in QC log book.
6. Fill in QC LJ chart.
7. Limit work to <1 hour.

Handling process- Thawing

1. Take out a frozen aliquot from a freezer
2. Leave on table.
3. Wait for 15 mins. Set timer.
4. Mix gently. Use a micropipette.
5. Limited to room temperature exposure to <1 hour

Questions?