



IMPLEMENTING OF TB WORK IN NCDC DIAGNOSTIC LAB FROM STANDPOINT OF BIOSAFETY IN GEORGIA



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Figure 1. Kutaisi Human Zonal Diagnostic Lab (ZDL)

INTRODUCTION

The Human Zonal Diagnostic Lab (ZDL) of NCDC Imereti Region was established under BTRP in 2005 with DTRA support (Figure 1). It is a BSL 2 laboratory and all work is done according to international standards of biosafety (Figure 3). The Lab works on extremely dangerous pathogens (EDPs) using bacteriological, serological and molecular biological methods. The challenge was to customize biosafety techniques and practices that would be used in our new TB laboratory. The Biosafety Committee (Figure 2) performed risk assessments of working with TB samples in bacteriological, Serological and PCR laboratories. Some additional BSL 2 practices needed to be implemented so new SOPs were written and implemented along with additional biosafety training for the lab staff.



Figure 2. The Biosafety Committee at work

METHODS

- Risk Assessment
- Writing SOPs
- Construction & equipping of new TB laboratory according to biosafety & biosecurity standards
- Trainings of personnel
- Implementation of Respiratory Protection Program



Figure 3. BSL 2 laboratory, working on TB

RESULTS

- TB laboratory was equipped with new instruments, equipment, computers and scanner .
- Use of heating block inside the BSC to dry slides was substituted for open flame.
- Staining of samples inside BSC was implemented.
- Working in pairs (buddy system) was established.
- Electronic communication between receiving, microscopy, bacteriological and PCR laboratories (Form TB04)
- According to risk assessment new transport containers were designed and implemented (Figures 4 and 4a).



Figure 4. Transport container



Figure 4a. Transport container

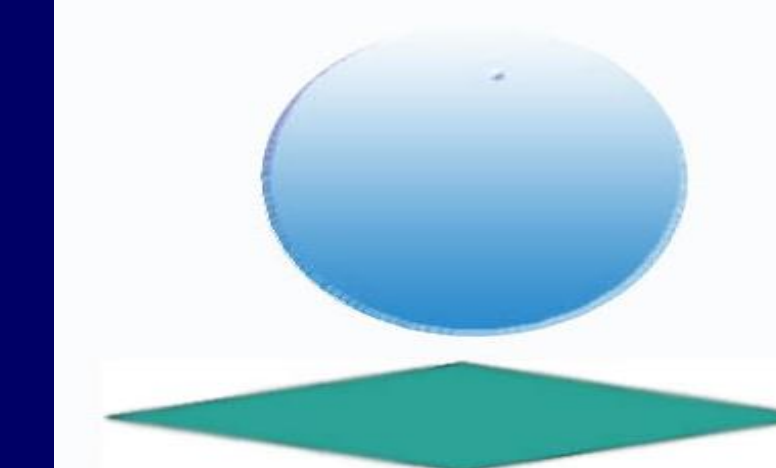
FUTURE PLANS

- Sustainment of routine monitoring of lab procedures
- Constant training of staffs
- Improvement of referral system
- Provide TB lab with new autoclave and a chemical fume hood
- Construction of double doors

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