THE ALERRT DATA MANAGEMENT EXPERIENCE

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Building research readiness for a future filovirus outbreak

ALERRT is part of the EDCTP2 Programme supported by the European Union under grant agreement RIA2016E-1612
ALERRT is also supported by the United Kingdom National Institute for Health Research
Background:

African coalition for Epidemic Research, Response and Training (ALERRT), a clinical research and response network for epidemic infections in sub-Saharan Africa funded by EDCTP since 2018.

The overall goal of ALERRT is to build a sustainable clinical and laboratory research preparedness and response network in Sub-Saharan Africa (SSA) to reduce the public health and socio-economic impact of (Re-) emerging and Epidemic-Prone Infectious Diseases (REPID) in SSA.

ALERRT consists of 19 partner organizations from 13 countries (9 African and 4 European)
ALERRT PLATFORMS

Platforms for Research, Preparedness, and Response (PRPR)

- **WPI:** Clinical Research Platform
- **WP2:** Laboratory Research Platform
- **WP3:** ICT & Data management

Impact and Operational Readiness Program (IOR)

- **WP4:** Operational Readiness and Resilience
- **WP5:** Training and Capacity Building
- **WP6:** Impact

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Objectives of ALERRT Data management Platform

- Development of systems and tools for clinical management of patients.
- Development of a library of ICT & data management processes and procedures (SOPs).
- Development of systems and tools to enable robust and standardized data collection, reporting, and sharing.
- Building capacity in data management and ICT support for public health and clinical research institutions.
Development of a library of ICT & data management processes and procedures (SOPs).

- Survey DM and ICT
- Survey preparation, follow-up with centers, and analysis
- Identification of key DM and ICT processes
- Development of DM and ICT SOPs and documentation
- Develop Data Management Plan
Data Capture & Management Systems

- Identification of Clinical Data Management System (CDMS) for resource-poor settings – REDCap identified as CDMS of choice
- Developed portable servers (Mobile Data Centres - MDCs) and central server systems
- Validation and deployment of the ALERRT Central REDCap Server at MRCG@LSHTM
- Development and validation of tools: Data Transfer Tool (DTT) and Query Management Tool (QMT)
- Full testing of wired and wireless connectivity options
Data Sharing

- Developed **Principles of Data Sharing** in collaboration with PANDORA through consultation with ALERRT EC.

- Designed the **governance, legal and technical frameworks for a Data Platform** through the Infectious Diseases Data Observatory (IDDO) - these developments have now been transferred to Health Data Research West Africa (HDR-WA).
Data Standards

• A **systematic review of Lassa fever** was conducted to inform the selection of outcome measures. Published in PLoS NTD in 2021.

• A **CDISC-compliant data dictionary** for the FISSA study eCRF was produced to support the use of data standards in emerging infections.
ICT & DM Support for Clinical Research Platform

- Configuration of Mobile DataCenter (MDC) for all study sites
- Training of Central Data Manager for FISSA Study
- Further training by CDM for other site data managers
- Study database development, hosting, and management
- Helpdesk support to ALERRT sites:
  - Has FAQs and common errors to support the teams
Example of Help Desk questions

- Brief Overview
- Detailed Overview
- Types of Projects
- Creating and managing surveys
- Data Entry Overview
- Introduction to Instrument Development
- Applications Overview
- REDCap Mobile App
- Multi-Language Management

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ICT & DM Support for Clinical Studies in ALERRT

• Input on core study protocol and CRF design

• Support to Africa CCP, CCP+, and Healthcare Worker Survey studies

• Support to Nested study, Long COVID, and ACE2 Polymorphisms studies
Challenges encountered

• Centralization of management of study documentation i.e. CRFs and XMLs
• SOPs – still no French versions

• Difficulties upgrading REDCap on Mobile Data Centers

• Slow internet speeds and connectivity challenges

• Re-validation of REDCap due to critical security vulnerabilities
Thank you