

Cloud-based Electronic Infrastructure in Support of Linac-based Radiotherapy in Challenging Environments

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Need to consider additional investments

- **Specialist manpower shortages**
- **Training of multidisciplinary team**
- **Quality control**
- **Data collection and research**

How can cloud-based electronic infrastructure help meet these challenges?

- **Specialist manpower shortages**
 - Cloud based peer review
 - On-demand treatment planning
 - Hub and spoke solutions
- **Training of multidisciplinary team**
 - Training modules in newer RT modalities
 - Guidelines for all involved in treatment pathway
 - Training partnerships with international partners

How can cloud-based electronic infrastructure help meet these challenges?

- **Quality control**
 - Facilitates standard operating procedures for QA
 - Links with Linac service training and fault learning
 - Securely backs up data
- **Data collection and research**
 - Aggregates data from several locations
 - Audit of service and identify gaps
 - Enables involvement with international research initiatives

Proposed Study

- Perform feasibility study for using the “Cloud”
- Visits in June 2018 – Kumasi and Dar es Salaam
- Preceded by detailed questionnaire regarding informatics capability
- Initial development of CEP in light of responses

Key objectives

1. Feasibility – Can it work
2. What are its potential uses given current workflow and infrastructure
3. How does the cloud platform need to be adapted for these countries in the short and medium term
4. Build international partnerships

Challenges

1. IT infrastructure not in place
2. Alternatives to cloud already exist
3. Concerns regarding data protection
4. Who accepts liability for decision making
5. Capacity building and mentorship – where does it fit with existing initiatives