### CHALLENGES AND PROFERRED SOLUTIONS TO DAY-TO-DAY ACTIVITIES AS A MEDICAL PHYSICISTS IN A POOR RESOURCE SETTING: PERSONAL EXPERIENCE

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### FAMOUS QUOTE:

 Radiotherapy is widely known to be one of the safest areas of modern medicine, yet, for some, this essential treatment can bring harm, personal tragedy and even death" - Sir Liam Donaldson (Chair WAPS)

### WHAT ARE THE ISSUES:

- INFRASTRUCTURE
- EQUIPMENT ACQUISITION
- TRAINING (INEXPERIENCE IN USING NEW EQUIPMENT AND TECHNOLOGY)
- COMMISSIONING, PLANNING, TREATMENT DELIVERY
- QA / QC
- EDUCATION AND TRAINING PROGRAMMES
- MANAGEMENT POLICIES

#### TRAINING

- INADEQUATE THEORETICAL BACKGROUND KNOWLEDGE
- INSUFFICIENT HANDS-ON OR ON-THE-JOB TRAINING (OJT)
- Managers of most government owned radiotherapy facilities are reluctant in training key radiotherapy personnel. Most personnel acquire clinical training through initial training packages that comes with the equipment installation contract, or perhaps training by the IAEA. There are institutions that can produce and accredit Radiation Oncologists, Radiation Therapists, as well as Oncology Nurses. Training of Medical Physicists as well as Linear Accelerator Engineers is a major challenge in Nigeria

## QUALITY ASSURANCE (QA/QC)

- LACK OF QUALITY ASSURANCE EQUIPMENT
- HIGH PATIENT THROUGHPUT

### SOLUTIONS

- MORE TRAINING AND RE-TRAINING
- APPROPRIATE ACCEPTANCE TEST AND COMMISSIONING
- IMPROVEMENT OF QA/QC (REVIEW OF QA SYSTEM)
- AUDIT AND PEER-REVIEW OF PROTOCOLS
- MULTI-LATERAL ASSISTANCE AND INTERNATIONAL LINKAGES

### SOLUTIONS TO CHALLENGES

 There is currently no any operational privately owned Linear Accelerator based radiotherapy facility in Nigeria. However, many companies have intended to establish the Linear Accelerator facilities, and many are under construction. The market potential in Nigeria is promising, and other Linear Accelerator manufacturing companies are currently selling their products in the country. This will create a competition, which will be beneficial towards reduction in spare parts price and service provision.

### SOLUTIONS TO CHALLENGES

- Establishment of Linear Accelerator manufacturer's country office in Nigeria for spare parts procurement and maintenance services.
- Engagement of Linear Accelerator manufacturer directly for preventive maintenance agreement when new Linear Accelerator is procured. Engagement of Third Party Company should be secondary.
- Public Private Partnership for the running of Radiotherapy facilities in Nigeria. One government owned facility is currently working towards Public Private Partnership.

# •THANK YOU ALL FOR LISTENING