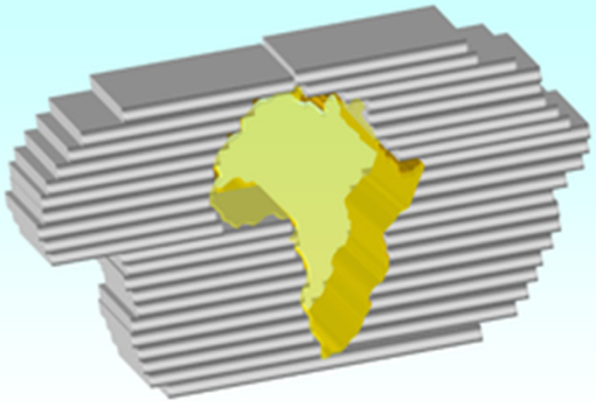
Mechanisms for introducing large medical devices into developing countries

Avoiding the pitfalls of the past and providing possible solutions for the future.

paRTner

A UK Africa Partnership for Radiotherapy



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Problem facing developing countries in expanding their cancer service

- The predicted emergence of cancer as a major NCD in developing countries has already prompted some governments to invest in cancer treatment.
- The large medical devices required to provide comprehensive radiotherapy are both expensive to purchase and to install.
- Radiotherapy is heavily technology driven
- Very limited expertise exists in procurement, commissioning, maintenance and operation.

Solutions???

- Is there a way to introduce developing countries to the procurement and installation processes involved with large medical devices?

- Can developing countries be provided with more appropriate devices at a fraction of the cost, which
  - don’t require such a huge jump in operational technique
  - when mastered provide comprehensive therapy,
  - are scalable to gradually upgrade treatment delivery?

Procurement

- Lack of experience of procurement procedures for large pieces of medical equipment.
- Underestimations in delivery, installation and commissioning time scales by the recipients.
- State of the art equipment not always suitable due to lack of education and experience.

Advice, education and assistance is essential for avoiding long delays between procurement and therapy

- **partner experienced teams with developing centres**

Recycling

- Within the UK the lifecycle of radiotherapy machines can often be ten years or less, which in most cases is well below the actual lifetime of the machines.
- Many machines are decommissioned to be scrapped well within the usable equipment lifetime.

Can we decommission to salvage the machine at relatively low cost?

Potential benefits of recycling

- Developing countries could increase their Radiotherapy provision for only the cost of decommissioning, servicing and installation.

- Older technology may be less of a step-up than the latest, high specification technology
  - less steep learning curve
  - more gradual change to clinical workflow
  - plenty of experience / support elsewhere that could be called upon

Conclusion

Assistance with the procurement process and small **changes to the decommissioning process** of large medical devices could allow developing countries to:

- Benefit from equipment, which otherwise would be scrapped.
- Attain a large number of life changing pieces of equipment within their tight budgetary constraints.
- Reduce education time to produce good quality therapy.
- Make a real impact on the predicted increase of cancer death toll.

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