Mechanisms for introducing large medical devices into developing countries
Avoiding the pitfalls of the past and providing possible solutions for the future.
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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