

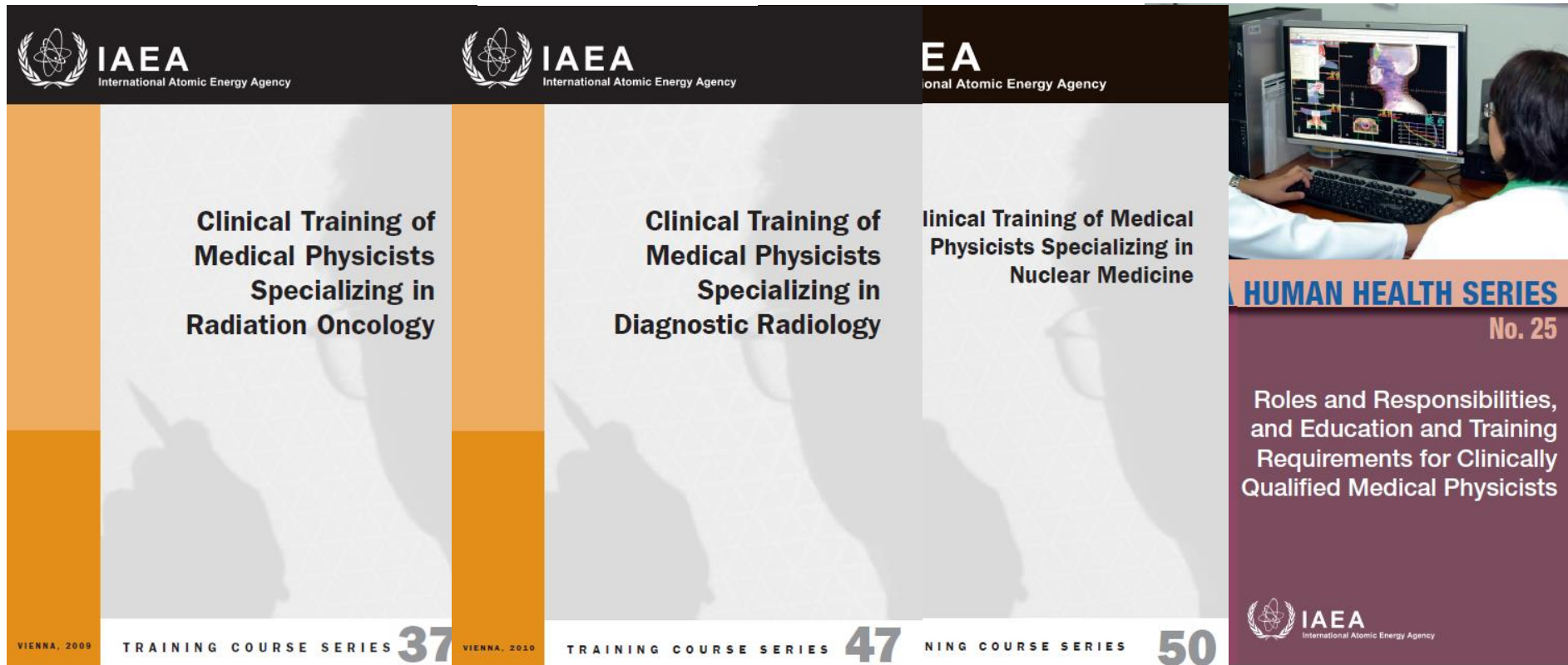
# **Establishing a National Medical Physics Training Programme in Zimbabwe**

Prof Godfrey Azangwe

National University of Science and Technology, Mpilo Central Hospital

# OBJECTIVE

- To provide academic and clinical training programme structured to meet the competencies described in IAEA TCS-37, IAEA-TCS-47, IAEA-TCS-50, HHS-25 and AFRA (TFM Report RAF6044)



RAF/6044

STRENGTHENING MEDICAL PHYSICS IN SUPPORT OF CANCER MANAGEMENT - PHASE II

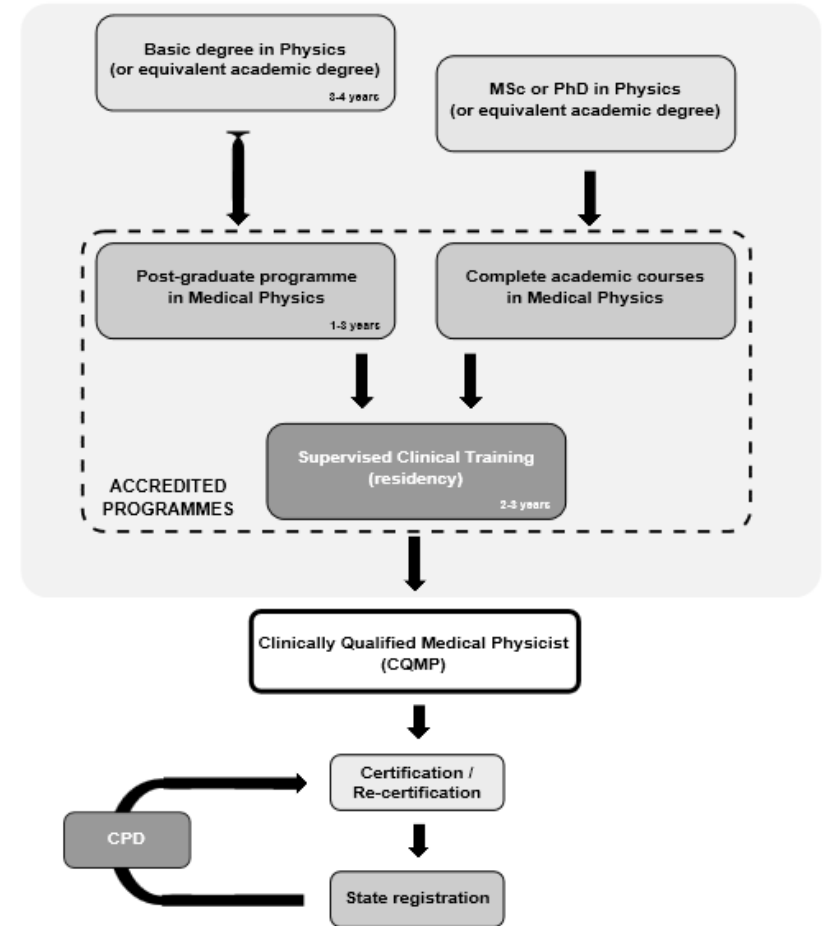
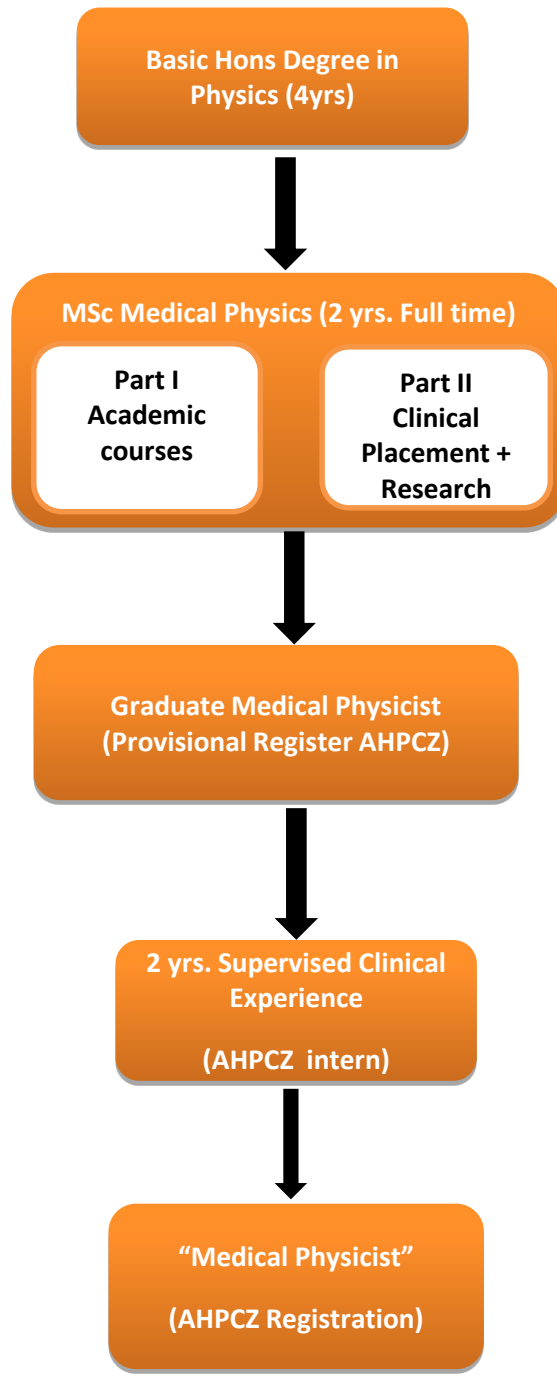
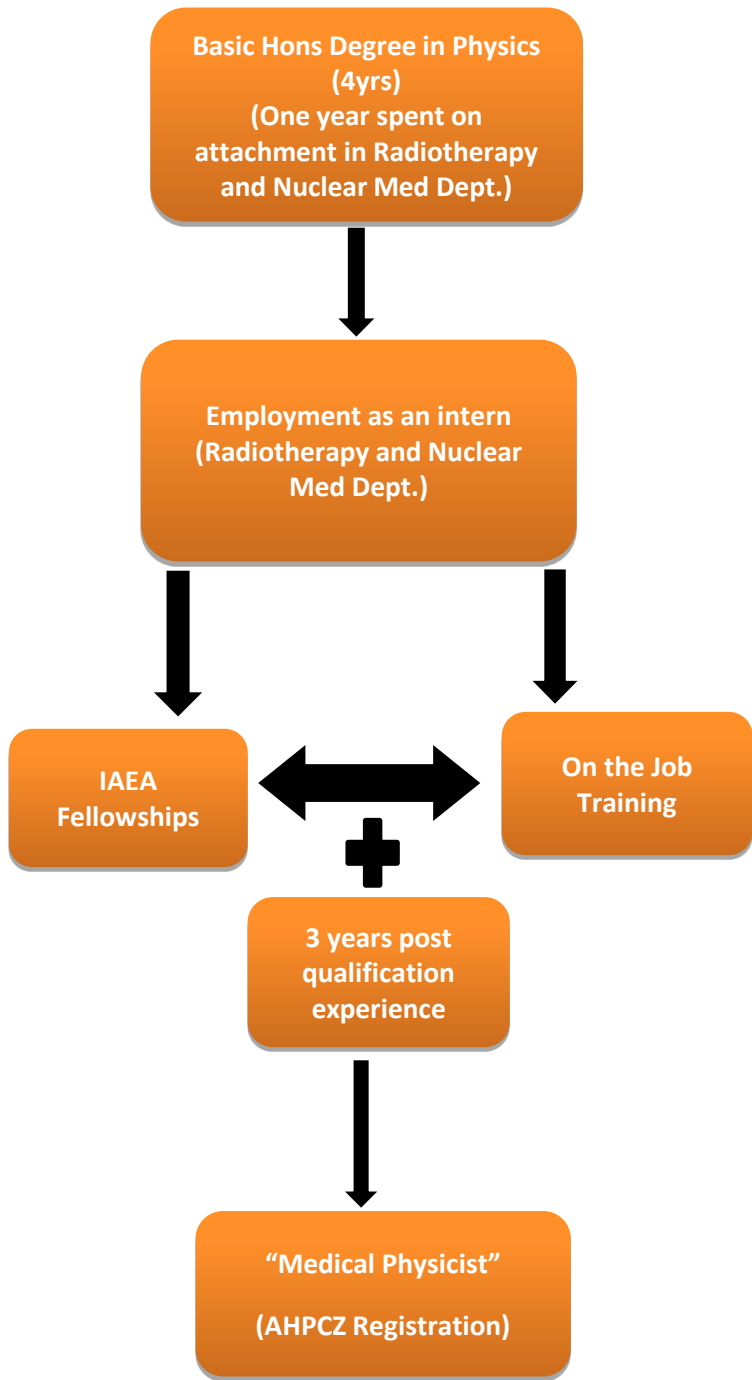
A REGIONAL CLINICAL TRAINING PROGRAMME FOR  
RADIOTHERAPY MEDICAL PHYSICS  
REPORT OF A TASK FORCE MEETING

2013

Recommendations for Medical Physics Education in AFRA Member States

This document is endorsed by the Federation of African Medical Physics Organizations





**AHPCZ**

**ALLIED HEALTH PRACTITIONERS COUNCIL OF ZIMBABWE**

Number 10, West Wing  
Strathaven Plaza,  
Strathaven, Harare  
Phone: +263 4 303027 or Cell: +263 771 056 413  
E-mail address: [registrar@ahpcz.co.zw](mailto:registrar@ahpcz.co.zw)  
Website: [www.ahpcz.co.zw](http://www.ahpcz.co.zw)

23 June 2016

The Chairperson  
Department of Applied Physics  
National University of Science and Technology  
P. O. Box AC939  
Ascut  
Bulawayo

**RE: RESUBMISSION OF MASTERS IN MEDICAL PHYSICISTS CURRICULUM PROGRAMME**

We would like to thank you for re-submitting the Master in Medical Physics Curriculum for assessment.

The curriculum was assessed and was approved for registration with the Council.

Yours sincerely,

  
T. T. Mateka (Miss)  
Acting Registrar



Council:

Mrs D. Machando(Chairperson), Ms T. P. Zata (Vice-Chairperson)  
Members: Dr. E. Heath, Ms E. Maguranyanga, Miss E. Makaka, Miss M. Manyasha, Mr B. Masango, Mr E. Nhaririro, Mr W. Nkatozo, Ms J. Rusakaniko, Ms G. Simbirewamwa, Mr M. K. Smythe, Mr A. Zanga

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Website: [www.ahpcz.co.zw](http://www.ahpcz.co.zw)

REPUBLIC POLICE  
POLICE POST  
13 JUL 2017  
P. O. BOX 2006  
BULAWAYO ZIMBABWE

Health Professions Act (Chapter 27:19)

**REGISTRATION CERTIFICATE**

This is to certify that

[Redacted Name]

is registered on the register of  
Medical Physicists  
kept by the Allied Health Practitioners Council of  
Zimbabwe  
in accordance with the provisions of the  
Health Professions Act (Chapter 27:19)

Registration Number: A/MP0315

Date: 20/12/2016

Acting Registrar   
Harare Zimbabwe

Council:

Mrs D. Machando(Chairperson), Ms T. P. Zata (Vice-Chairperson)  
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REPUBLIC POLICE  
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13 JUL 2017  
P. O. BOX 2006  
BULAWAYO ZIMBABWE

Health Professions Act (Chapter 27:19)

**PRACTISING CERTIFICATE**

This is to Certify that

[Redacted Name]

Registration Number A/MP0315

Is authorised to practise as a Medical Physicist

Conditions Nil

This certificate expired on 31 December 2017

Date 20 December 2016 Acting Registrar 

Receipt Number: RC104925/RC105023 Bank

Council:

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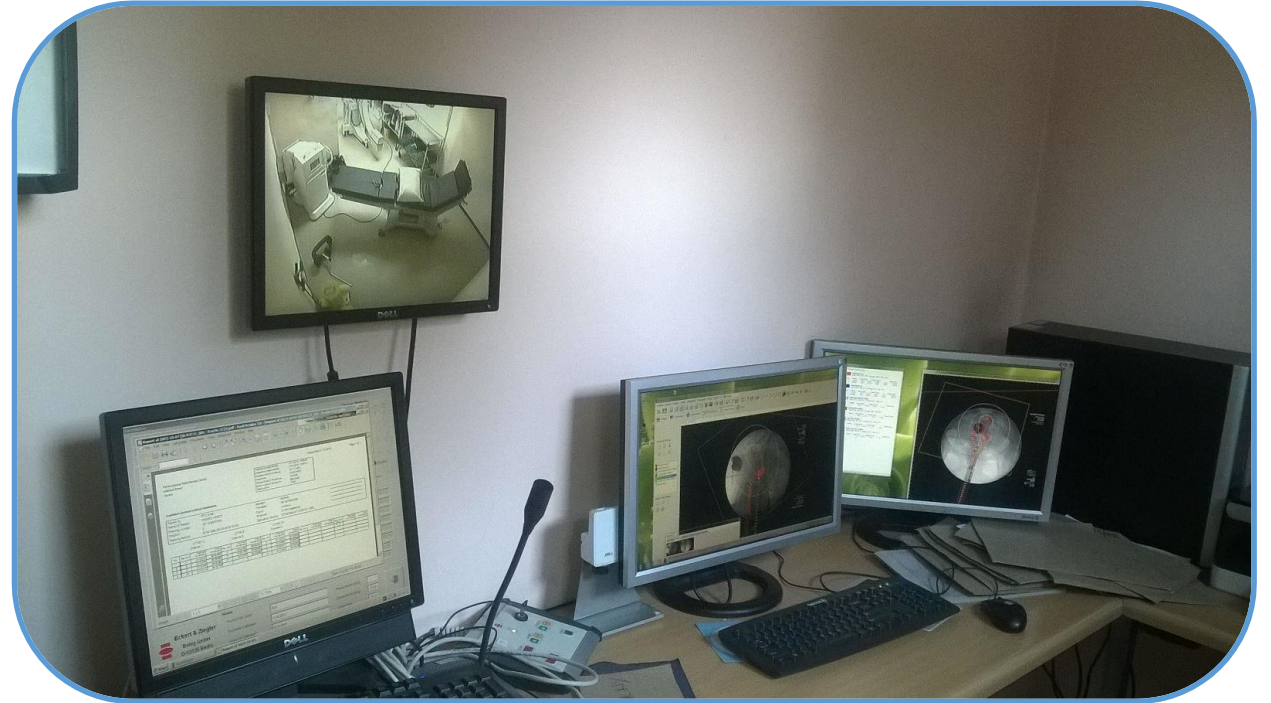
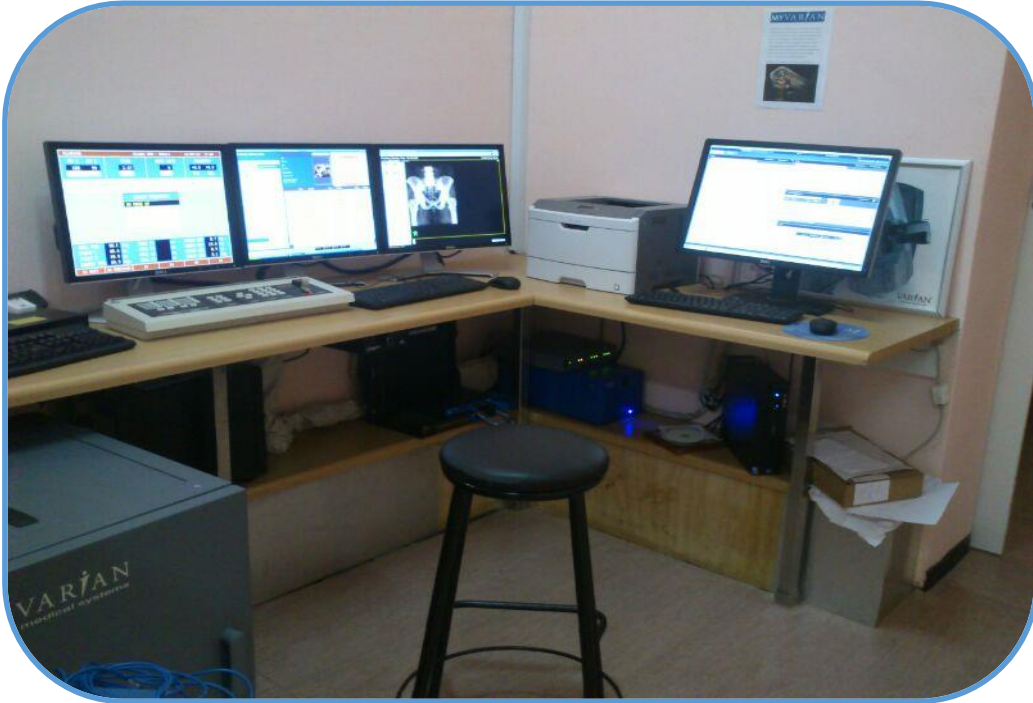
# EQUIPMENT



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- Water tank
- Ionisation chambers
- PTW Quickcheck device
- IMSURE independent TPS verification software

# CLINICAL TRAINING PROCESS

- Orientation
  - Aimed to familiarize the interns with procedures undertaken at different radiotherapy processes.
  - Observations of patient clinical workflow and radiotherapy activities
- Orientation is performed at different stations that include;
  - Conventional Simulation
  - CT-Scanner
  - Treatment planning
  - External beam treatment beam delivery
  - Brachytherapy.



# TRAINING PROCESS (cont..)

- Duties and activities ;
  - Interns/Fellows are assigned duties of periodical equipment checks such as daily machine output checks.
  - They will be simultaneously performing other activities to achieve the required competencies such as;
    - Equipment QC (mechanical, safety and dosimetry)
    - Relative and absolute dosimetry
    - Treatment planning
    - Brachytherapy
    - Radiation Protection

# TRAINING EVALUATIONS

- Continuous evaluations are carried by training supervisors to monitor the training progress.
- These are performed through;
  - Presentations of their training progress
  - Monthly reports
  - Practical demonstrations
- They are also assigned specific tasks problem solving clinical case tasks as mini projects

# TRAINING EVALUATIONS

- Interns also participate in;
  - Journal club presentations,
  - Weekly physics meetings and
  - Departmental QA meetings
- Interns will have portfolios at the end of the training programme

# CHALLENGES

- Machine downtime
- Limited capacity
- Low numbers of clinical supervisors
- Few lecturers to teach the academic component
- Poor remuneration (means we have been a training ground for others...USA, UK, Australia, New Zealand, Ireland, Botswana, Namibia, Caribbean Islands...)
- Unreliable power supply

# THE FUTURE

- Become centre of excellence
- Support region in academic and clinical training
- Participate in more regional training courses
- Establish a standardised formal national training scheme involving the three radiotherapy centres
- Government had decided to fund radiotherapy services through a national levy (service contracts and equipment replacement scheme)
- Advise colleagues wanting to start new training programmes

# THANK YOU

