

Measures to ensure appropriate use of new technology by the developing countries from a safe, economical and societal viewpoint

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Measures! to ensure
appropriate use of new
technology by the developing
countries from a safe,
economical and societal
viewpoint

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EX: RADIATION
ONCOLOGY

. PUBLIC
. ENVIRONMENT
. WORKER

LICENCING PROCEDURE BASED
ON IAEA BSS

ANNUAL INSPECTION

SAFE

PATIENT

STAFF TRAINING and
PROFESSIONAL ACREDITATION

CLINICAL PROCEDURES and QA WELL
ESTABLISHED

INDEPENDENT AUDITING

**SOCIETAL
POINT OF
VIEW**

**ARE ALL OUR
PATIENTS BEING
TREATED ??**

**ARE OUR
PATIENTS
TREATED
AS THEY
SHOULD??**

**STANDARDIZED CLINICAL
AND PHYSICAL
PROCEDURES**

**PATIENT FOLLOW-UP IS
EFFICIENT ??**

**DO WE HAVE
ADEQUATE STAFF
FOR THE EXISTING
TECHNOLOGY ?**

- The introduction of high technology requires a reflexion considering several aspects including

Cost-Benefit

SOME COST-BENEFIT CONSIDERATIONS !

HOW
MANY
PATIENTS
WILL
BENEFIT ??

MAINTENANCE
COSTS ??

INVESTMENT
COSTS ??

DO WE HAVE
ADEQUATE STAFF?

Basic Equipment	Equipment Cost US\$	Room Cost US\$	Maintenance & Parts (Yearly Costs) US\$
6-10 MV Dual Energy Linac with IMRT+ IGRT+ PORTAL IMAGING	3 00 000,00	400 000,00	Thyratron [1]: 5 000,00 Klystron: [4] 10.000,00 Ion chamber:[4] 2 000,00 Target: [4] 2 000,00 Wave guide:[10] 15 000,00 Others: 20 000,00 Maintenance 120 000,00 Depreciation[15] 200 000,00 Total: US\$ 355 000,00

Basic Equipment	Equipment Cost US\$	Room Cost US\$	Maintenance & Parts (Yearly Costs) US\$
Telecobalt	450 000,00	100.000,00	Total: 84.000,00
6 MV	600 000,00	150 000,00	Total: 119 000,00
6-10 MV Dual Energy Linac	1 000 000,00	200 000,00	Total: 154 000,00
6-10 MV Dual Energy Linac with IMRT+ IGRT+ PORTAL IMAGING	3 00 000,00	400 000,00	Total: US\$ 355 000,00

HIGH TECHNOLOGY MEANS:

2. HIGHER
INITIAL AND
OPERATIONAL
COSTS



3. SMALLER
NUMBER
OF
PATIENTS

- 1. Treatment techniques.
- 2. Q A Time
- 3. Maintenance Time



1. HIGHER
LEVEL
OF
STAFF
TRAINING



KEY ISSUE !!!!



CONCLUSION.

- **The Planning of High Tec Centres in Developing Countries must consider the social and economical aspects and the EVIDENCES of real benefits specific to the cancer scenario of each country.**

REFLEXION !.

- How much technology is needed to treat our patients ???

FINAL REMARK.

- Good pilots, well organized and consistent procedures **MIGHT BE** more important than sophisticated technology!!

A woman with long, wavy hair, blindfolded, stands behind a large scale of justice. She is holding the top of the scale with her right hand. In front of her is a globe of the Earth. The scene is set in a courtroom with bookshelves in the background.

Cost! Benefit!

Thank you !