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How to establish a new Proton Therapy Center

Opportunities, Challenges, Threats

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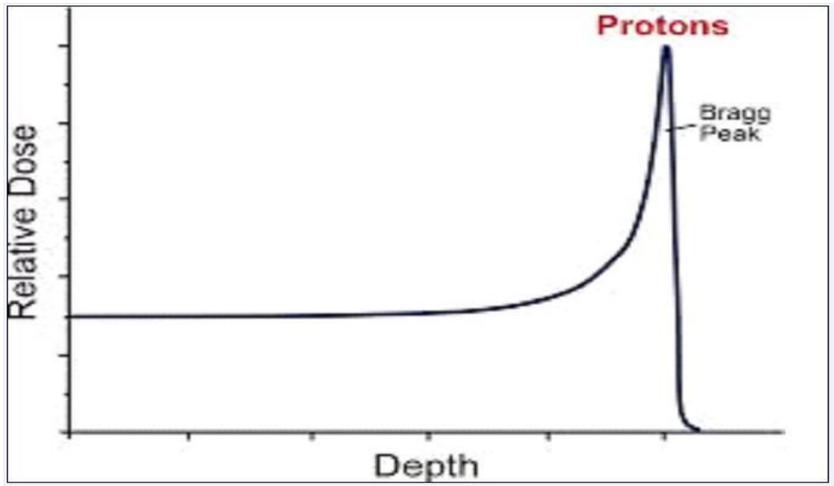
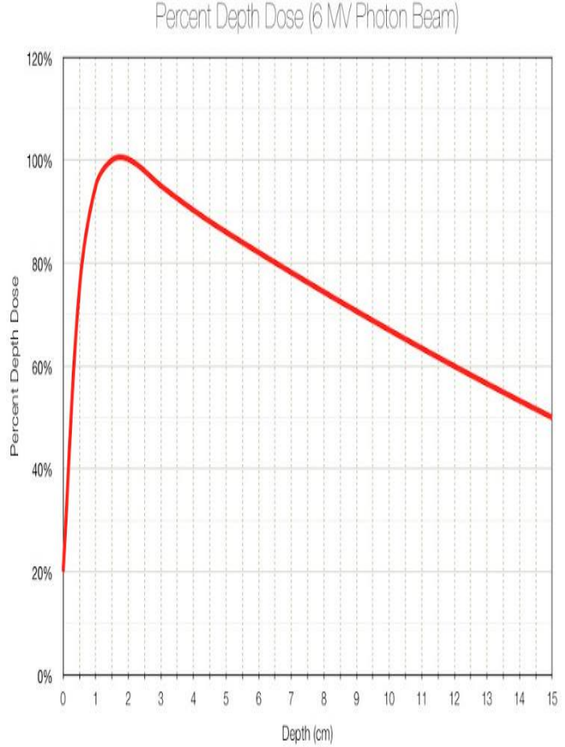
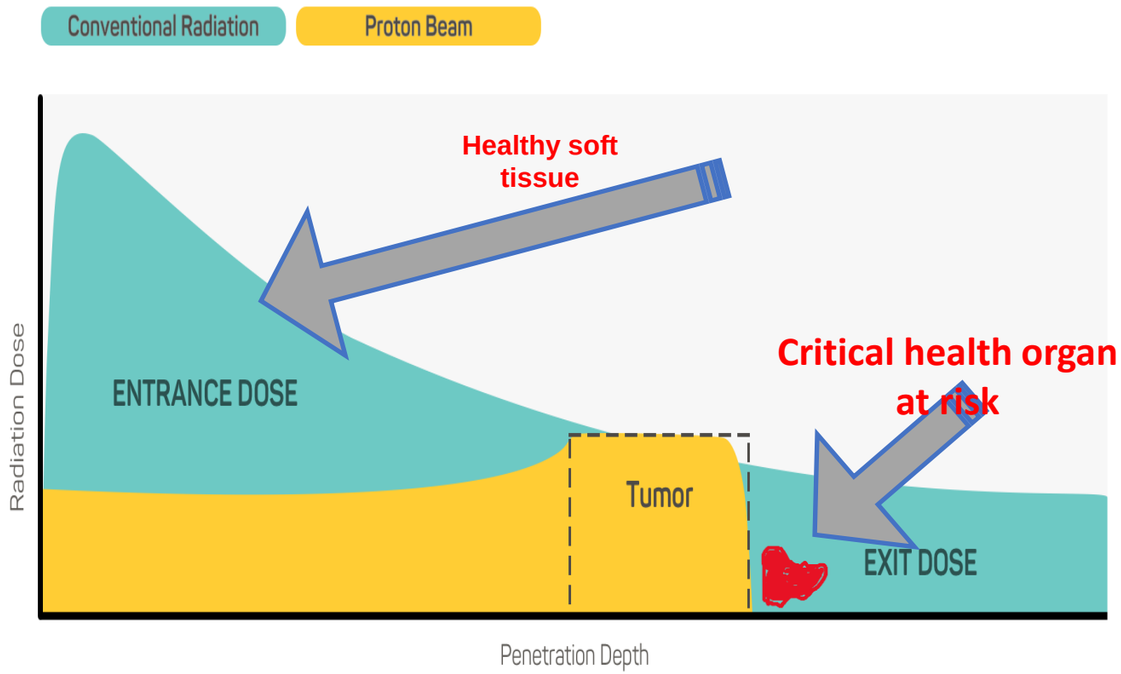
Proton Therapy – New promising techniques in Radiotherapy



Linac producing X-ray for medical treatment





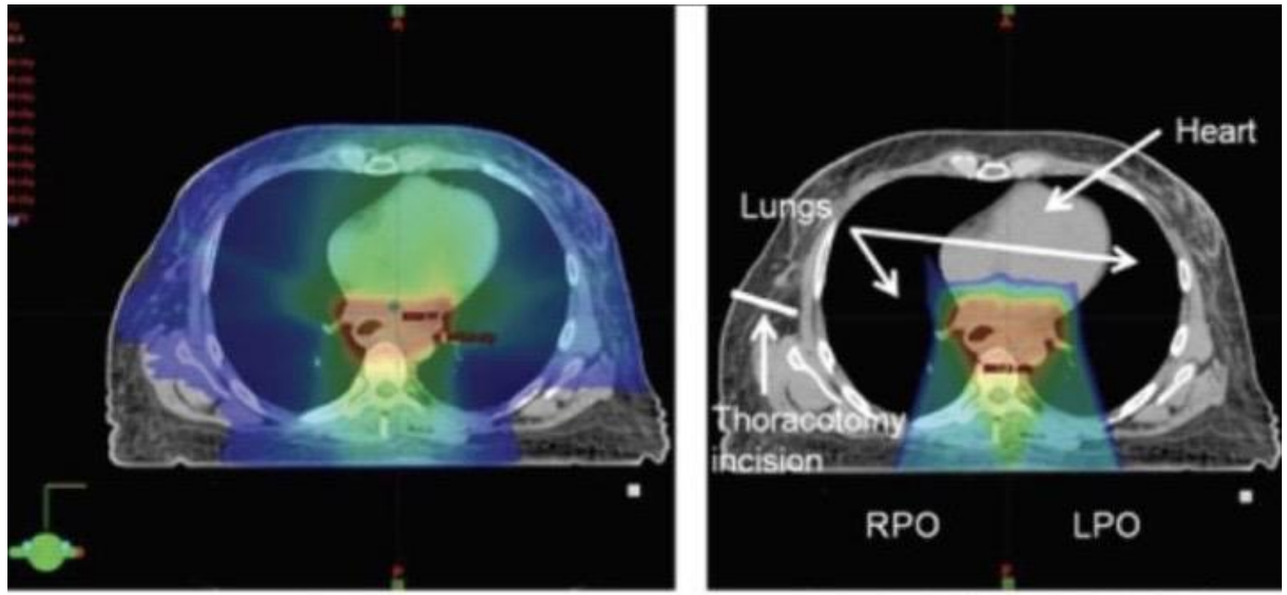
How much does it cost the excess of the unnecessary radiation delivered?

Around 50% of cancer patients will require Radiotherapy and 10-15% of them could be exigible for Proton Beam Radiotherapy.

Dosimetric and thus toxicity, advantages and results are undenible.

Establishing a new Proton Therapy Center is a multidiciplinary project with a quite big number of specialists involved.

The crucial moral question above, should be answered, as always should be answered when using Radiotherapy techniques and MUST be always favorable to the patient' benefit.



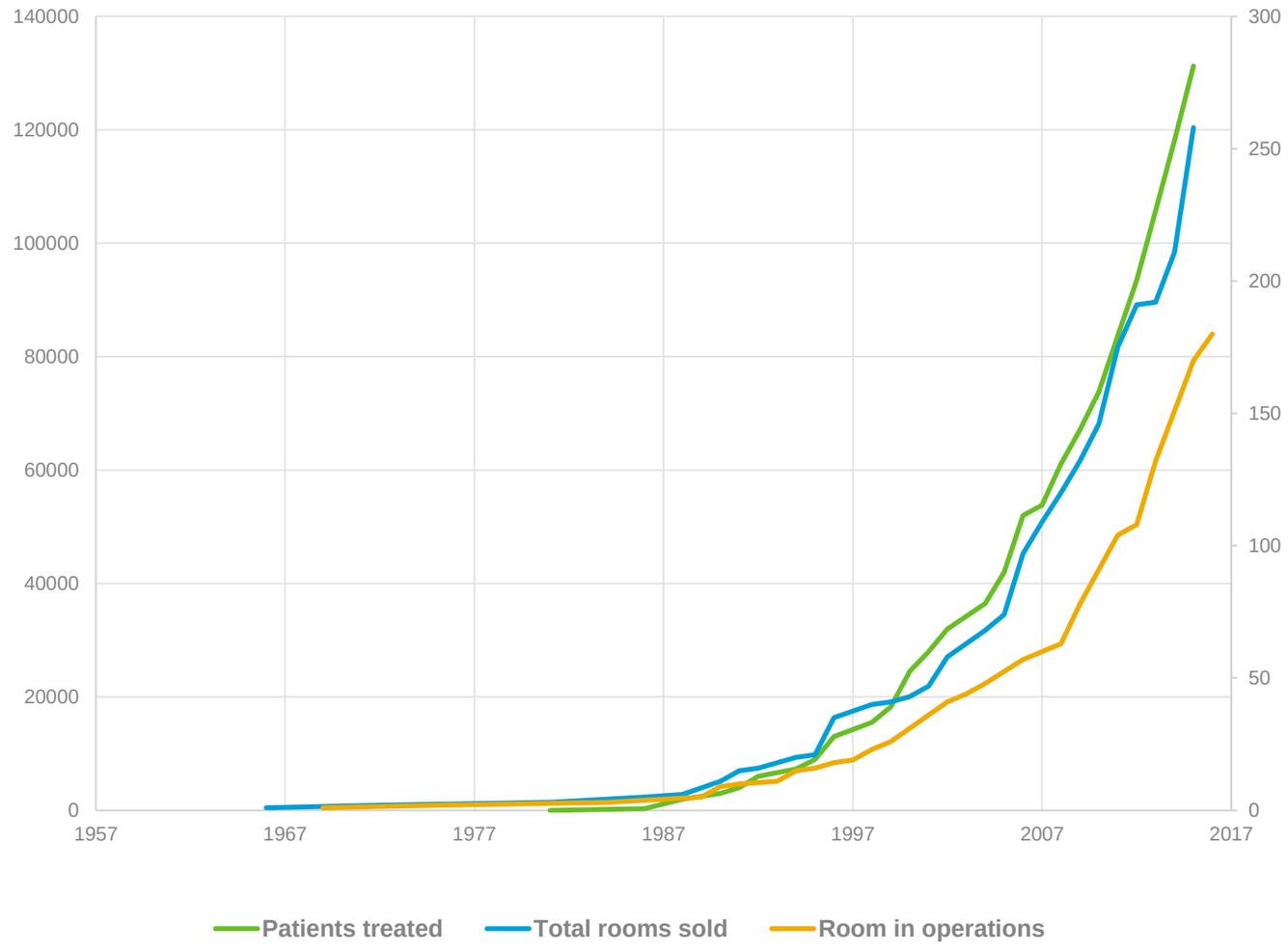
Eligible population for Proton Therapy

1%

of RT patients treated with Protons today

20%

Potential RT patients treated with Protons tomorrow



SWOT ANALYSIS in establishing a new Proton Therapy Center in the SE Mediterranean Region

STRENTH	WEAKNESES
• Be the first in the whole Southeast Mediterranean region • Reduce enormously the total social cost for Proton Therapy abroad • Cover needs of neighbour countries • Cover increasing Paediatric advanced treatment techniques where Proton Therapy is the “Gold Standard”	• High capital cost • Luck of reimbursement price • Limited land available nearby established Radiotherapy Departments • Limited number of educated stuff in the use of Proton Therapy Techniques as well as promoting it among the community.
OPPORTUNITIES	**THREATS**
• Increasing financial support from EU for Cancer • Synergies with major Proton Therapy Centres seeking recently for alliances in the EU • Be part of the FLASH technique work in progress by opening new advanced research posts	• To be considered as competitive to Conformal Radiotherapy (which is not true at all!) • To be considered as a “luxury therapy” and thus not to be reimbursed • Non-science-based obstacles by the private insurance companies to avoid include Proton Therapy in their Health insurance products.

Planning Parameters to take into consideration

- Identify Best Business Model looking at current healthcare system needs
- Confirm Financial Investment Plans and Treatment Reimbursement Price and Payers
- Technology Assessment
- Optimal Operating Model
- Project Planning and Implementation

What and who is needed to start

- Land
- Health System/ Cancer Center
- Radiation Oncology Department (nearby)
- Feasibility study
- Bank
- Investors
- Payers
- Physicians
- Physicists
- Community Support
- Government Support

RECOMMENDED STEPS TO BE FOLLOWED

Key to Success: Lessons Learnt from Past Projects

- **Communication**: Continuous and inclusive communication with key stakeholders based on clearly defined business plan

- **Accountability**: managing the contracts for operations and maintenance

- **Educate and Train Early:** create a timeline and cross-train as many people as possible

- **Quality and Safety Culture**: implement early

- **Marketing** : building referrals , start early, uninterrupted and built on patient engagement and shared success stories

- **Constant Performance Improvement in Action :** revisit current processes and innovate to gain efficiencies

Conclusions.

- According to National statistics data, an increasing number of eligible for proton therapy **Greek cancer patients**, is visiting European Proton Therapy Centers for their advanced treatment.
- The total cost per patient treatment is around 75.000 €, depending on the host Country and the Institute.
- There is enough expertise now in the Region to **plan, implement and function a Proton therapy Center in Greece,** covering a population of around 20M habitants in the country and neighbor ones.
- A detailed feasibility study should be performed before any decision to be taken
- Different financial models could be followed for the funding of the Project.
- The most flexible and affordable for our country is the **PPP (Public –Private Partnership)**
- Recognized Academic Institutions should be involved too (i.e.: ΕΚΠΑ, ΕΜΠ κ.α.)
- FLASH technique implemented on Proton Beam; will revolutionize the way we look Radiotherapy treatment in the very near future, mainly by reducing enormously the waiting for start treatment, period.
- A reimbursement price is necessary to be established prior the Project start.