

Lu¹⁷⁷

THERANOSTICS FROM VISION TO REALITY

Launching and Maintaining a High Quality Service
at a Tertiary Care Hospital in Lahore, Pakistan

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1. OBJECTIVE



To explore and highlight various challenges and successes faced in the process of setting up a comprehensive theranostics service focusing on Lu¹⁷⁷ therapy in Pakistan.

We will also discuss the challenges faced in maintaining high quality service and expanding indications.

Lu¹⁷⁷ PSMA
(PSMA PET)



Lu¹⁷⁷ DOTATATE
(DOTATATE PET)



Precision Medicine. Real Impact.

“Theranostics
isn't just a treatment,
it's a team effort.”



2. METHODS & MATERIALS



Jan 2023 – Jul 2026

Lu¹⁷⁷ PSMA

127 doses
39 patients

Lu¹⁷⁷ DOTATATE

81 doses
20 patients



Additional off-label Lu¹⁷⁷ therapies given with MD approval based on supporting literature.



Therapy administered in dedicated radiation protection rooms.



Automated dose injector to ensure accurate, safe protocol delivery.

WORKFLOW



High quality Lu¹⁷⁷ imported with rigorous quality control and supply chain management.



3. RESULTS



OUTCOMES

- Complicated/terminal cases: outcomes compare favorably to global survival.



SERVICE RECOGNITION

- SNMMI RadioPharmaceutical Therapy Center of Excellence – third outside USA and first in Asia.
- Complex case discussion in ACNM webinar and SNMMI tumor board – only center outside USA to be included.



EDUCATION & TRAINING

- Structured training, weekly patient communication.
- High patient satisfaction despite high cost and disease related mortality.



COST REDUCTION

- In-house radiopharmaceutical labelling.
- Reno-protective aminoacid preparation.



QUALITY IMPACT

- Import of highest quality Lu¹⁷⁷.
- Regular reassessment.
- Timely measures for international supply chain disruptions.



HOSPITAL ADMINISTRATION

- Escalating quota of free doses for indigent patients.



4. CHALLENGES & SOLUTIONS



Infrastructure

- Radiation safety, specialized rooms, trained staff
- Dedicated radiation protection rooms



Supply chain disruptions

- Global shortages, logistics
- Timely reassessment & alternative sourcing



High cost

- Import, manufacturing, patient affordability
- In-house labelling & reno-protective aminoacid preparation



Complex medical cases

- Advanced/terminal disease
- Multidisciplinary team & inter-departmental alliances



Close liaison with ordering physicians, inter-departmental alliances and strong hospital administration support were key to growth and good outcomes.



5. CONCLUSION

Establishment of a robust theranostic service was a result of departmental team-work, inter-departmental alliances for various medical issues, close liaison with ordering physicians, support by hospital administration to ensure growth and good outcomes.

