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A mathematical programming model for optimizing the staff allocation in radiotherapy under uncertain demand

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Highlights

- This is the first study to optimize the allocation of radiotherapy technologists.
- A hierarchical stochastic mixed integer programming framework is proposed.
- Our framework is tested with data from a major cancer institute in Amsterdam.
- The number of patients fulfilling the waiting time targets increases by 10%.
- The model can help managers find bottlenecks and slack/surplus of staff capacity.

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