

# Collaboration and Interdisciplinary Simulation Yields Inspiring Results

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## Background

High dose rate (HDR) brachytherapy combined with external beam radiation for prostate cancer reduces the treatment time frame and has been shown to be an effective treatment option. This complex treatment involves:

- Surgical placement of needles under anesthesia
- Anesthesia recovery
- Simulation of radiation treatment
- Treatment planning time
- Treatment
- Removal of needles
- Voiding trial before discharge

The patient is transferred between multiple departments and is cared for by many disciplines.

## Purpose

To coordinate education and preparation of staff to safely and effectively administer HDR brachytherapy to prostate cancer patients.



Poole, K. (2021). *Second Simulation* [Photograph]. Personal.

## Method

Principles of the NPD practice model were applied:

- Inputs – environmental scanning, learner needs
- Outputs – learning, change, professional role competence & growth, leading to optimal care
- Throughputs – collaborative partnerships, role development, education and best practices for simulation training for the interdisciplinary care team
- NPD roles – learning facilitator, champion for inquiry, leader, advocate for NPD specialty

**Initial simulation** – Operating room and radiation oncology teams to:

- Make critical decisions related to the treatment process
- Build relationships
- Introduce the radiation oncology team to the operating room environment

**Second simulation** – 36 interdisciplinary staff replicated the entire HDR brachytherapy process to:

- Practice communication during six times care is transferred between teams
- Identify gaps in planned process and additional education needs

## Findings

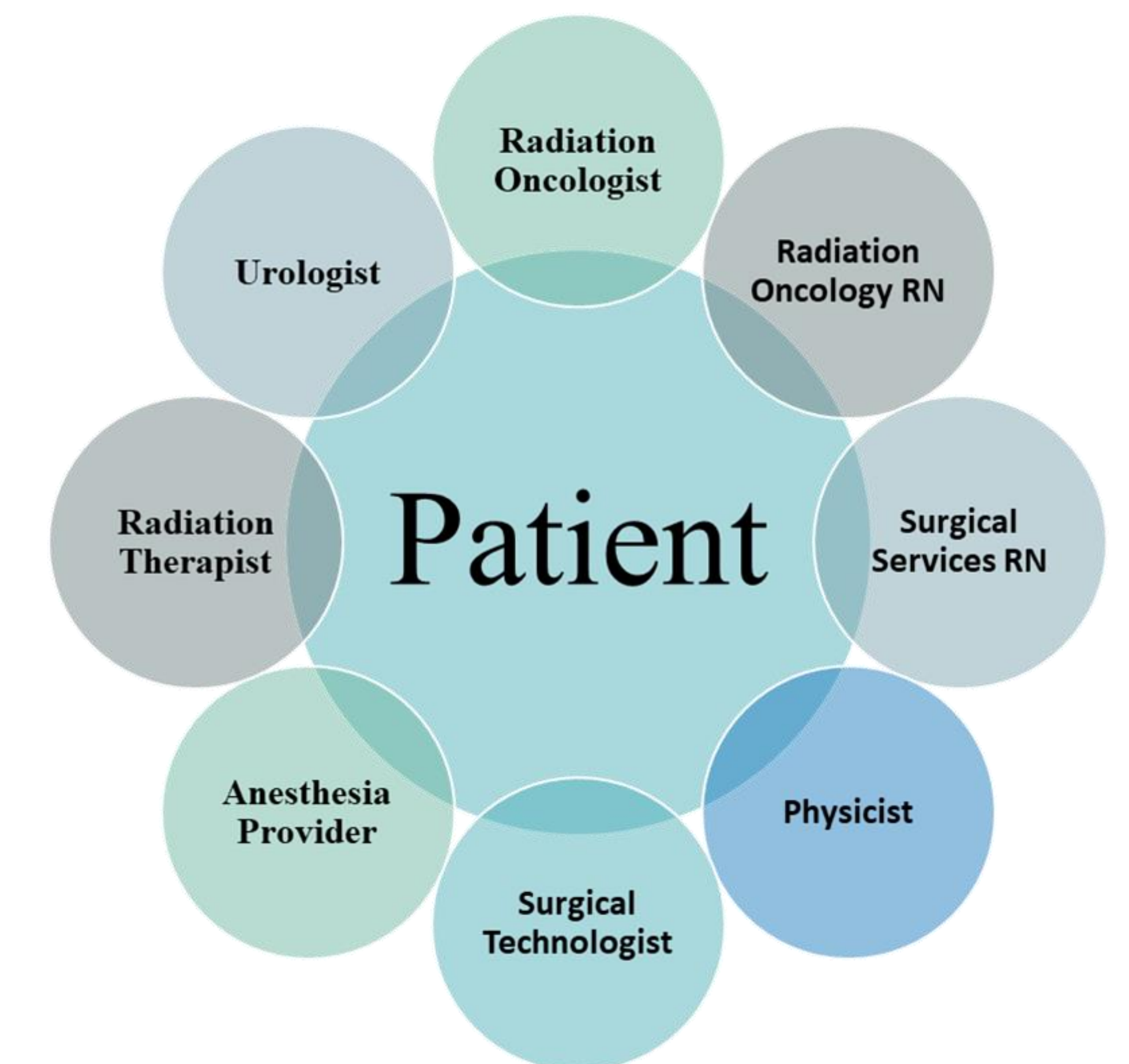
Outcomes were met as this project allowed participants to practice providing treatment safely and effectively in a simulated environment. The NPD team prepared and disseminated a summative report that provided actionable items which positively impacted the implementation of a new treatment modality.

Barriers identified included:

- Need for a standard communication tool for nursing
- Further education on surgical awareness for the radiation oncology team

Coordination by the NPD team utilized each practice area's expertise to bridge potential gaps between departmental cultures. Employing the NPD practice model as a framework for this project allowed the NPD team to facilitate interprofessional learning that enhanced collaboration and teamwork.

All findings and educational gaps were resolved prior to treating the first patient increasing staff confidence.



Quote from first patient:

*“As with all my treatment, everything, and I mean everything was extremely well coordinated.”*

## Implications

The dissemination of the summative report by the NPD team impacted how the organization implemented HDR brachytherapy for prostate cancer.

- NPD practitioners and teams should consider the use of summative reports, as they can provide a factual summary of any findings and recommendations
- Simulation should be used in high-risk low-volume procedures
- Further research on the impact of interprofessional simulations on patient care and teamwork would add to the current body of knowledge

## References

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