Targeted Radiation Therapy Patient Education Session, Utilizing 3-D Simulation, to Decrease Patient Anxiety and Increase Compliance

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ABSTRACT

Radiation therapy often causes anxiety for patients and their families, and targeted patient education can potentially decrease anxiety and increase compliance. The introduction of a targeted patient education session within the radiation oncology patient process, prior to the start of treatment, in the form of a patient education session provided by a radiation therapist can potentially decrease patient anxiety, and increase patient compliance. The targeted education session includes an introduction to radiation therapy and the interprofessional team, and the utilization of a 3-D simulation tool to provide an audio and visual experience of what to expect with radiation treatment.

Studies from the UK, Denmark and Australia have shown the benefit of an additional educational session utilizing a 3-D simulation tool, for patients with prostate cancer. We recently implemented a patient education session for every patient with prostate cancer at OHSU Tuality Cancer Center, and have received positive feedback from patients thus far. We plan to continue with other patient groups.

The sarcoma patient group could benefit greatly from an additional targeted education session, utilizing a 3-D tool. This group has not been included in previous studies and it is expected that patient anxiety will decrease, and treatment compliance will increase. An informal assessment of a session was completed in October 2017, with twenty patients from the sarcoma group. The feedback received identified a gap in patient education for this group, with regards to radiation therapy.

BACKGROUND

Soft Tissue Sarcoma is a rare cancer that affects both pediatric and adult patients. Sarcomas make up approximately 20% of all pediatric solid malignants cancers, and less than 1% of all adult solid malignants cancers.

Sarcomas can occur in any soft tissue of the body, such as fat, blood vessels, tendons, muscles, fibrous tissues and nerves, which means there is often not a standard treatment regime, rather a very individualized treatment plan dependent on age and area affected.

Patients with sarcoma represent a diverse population of ages and socioeconomic background, and the appropriate level and amount of patient education is critical. Because sarcoma affects so many parts of the body, and such a diverse group of people, it is difficult to develop general educational materials at the individual level and appropriate detail. Therefore, patients with soft tissue sarcoma struggle with understanding their complex treatment plan, and often have fear and anxiety associated with various elements of their treatment.

MATERIALS & METHODS

The targeted patient education module is made up of a PowerPoint presentation, utilizing clinical site specific images to explain radiation therapy and introduce the patient to the interprofessional team involved in radiation therapy treatment. In addition, a presenter was developed within the 3-D simulation tool for an audio and visual simulated treatment experience. The session takes 20 min. and is provided by a radiation therapist.

Currently all prostate patients receive the new targeted education session within the first two days of radiation treatment at OHSU Tuality Cancer Center. Data will be collected with a patient survey assessing the impact of the additional simulated session for each prostate patient.

Education modules will be developed for other cancer sites with the intent of offering this session to all patients receiving radiation therapy treatment. The goal is to have a template for the common treatment sites at OHSU Tuality Cancer Center.

Furthermore, development of patient education sessions for patients with sarcoma is planned at OHSU, in collaboration with the Radiation Therapy Program. As this patient group is more complex than prostate patients, planning with take more time, and patients will potentially be able to view their own treatment plan. This would be new for the field, as generic plans have typically been used. Members of the interprofessional team will be involved to provide context for other treatment modalities.

NEXT STEPS

The interprofessional team is critical in radiation oncology. I would like to assess communication and teamwork within the radiation oncology team. (ACE-15) Potential outcomes include increased quality and patient satisfaction.

Radiation therapy informational materials are overwhelming for patients, and sometime inaccurate. I would like to look into developing an mobile APP for patients and their families, in an effort to fill in the educational gap. Education provided will be similar to the targeted sessions. Information will be simple, relevant and available for everyone.

LITERATURE CITED

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