Category: Trial Recruitment and Study Conduct - Work in progress

Theranostics: One More Step to a Cancer Free Frontier

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1. Background

Huntsman Cancer Institute aims to deliver a cancer-free frontier through impactful discovery and innovation in cancer research, clinical care, access to and delivery of that care.

One strategy to reach this aim is through theranostics. Theranostics is the approach of integrating diagnostic and therapeutic radioactive agents to treat patients with precision medicine. This technique is being applied to a wide range of solid tumors both as standard of care and increasingly as a clinical trial option. From 2023 to present, we have seen a 78 percent increase in the number of active theranostics trials. Potential patients are identified and reviewed by a multidisciplinary theranostics team.

Personalized medicine and theranostic clinical trials bring challenges to cancer centers which include dedicated space requirements for individual care, long treatment days for patients, professional investigator expertise, specialized equipment and costs. Radiopharmaceutical drug orders, scheduling of patients within specific time frames and abiding by radiation safety procedures are also important considerations.

2. Goals

a. Streamline activation process and interdepartmental collaboration for theranostic trials.
b. Continue growth and development of theranostic trials for our patient population being cognizant of patients in multiple states, rural and frontier communities.

3. Solutions and Methods

a. Established a Theranositcs Clinical Trials Feasibility and Logistics Committee to connect key leaders in Nuclear Medicine, Radiology, Radiopharmacy, Medical Oncology, Radiation Oncology, Clinical Trials Office, Hospital Clinic Leadership, and Center for Quantitative Cancer Imaging to review trials for feasibility based on institutional and departmental capabilities.
b. Ongoing trials are discussed in the aforementioned committee to identify potential challenges, areas of success and implement process standardization.

4. Outcomes

a. With the increasing number of theranostics studies at our center, it was imperative to develop a process for tracking the Food and Drug Administration (FDA) and non-FDA approved therapies across standard treatments and clinical trials.
b. We appreciate a continued effort to communicate and streamline processes. This has allowed us to institute a more cohesive, collaborative and unified environment between all areas that care for patients enrolled to these complex trials.
c. Monthly committee meetings and adherence to the Theranostics Clinical Trials Activation Process workflow alleviates potential exacerbation of issues due to consistent communication between committee members.
d. Establishing a standard management system for clinical trial study patients to help with logistical planning across groups.

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5. Lessons Learned and Future Directions

a. Our site capabilities must account for growth in theranostic standard of care treatment along with assimilating theranostic clinical trials due to the highly integrated nature of these trials.
b. Consideration of dedicated space along with experienced clinical trial coordination for theranostic treatments.
c. Expand on our institutional outreach for theranostic clinical trials to inform and connect with our rural and frontier patient populations.
d. The theranostics field is growing and options for patients are perpetually changing with new radionuclides in development. Our center must forecast and prepare for the future based on current trends and our unique patient population.

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