Michigan Radiation Oncology Quality Consortium

Collaborating Partners: Radiation oncology physicians, physicists, administrators and clinical data abstractors from 27 hospitals and/or radiation treatment centers across the state of Michigan are collaborating partners with Blue Cross Blue Shield of Michigan; Blue Care Network in MROQC.

Project description and outcomes

The Michigan Radiation Oncology Quality Consortium (MROQC) was established in 2012. In this first-of-its-kind initiative, MROQC has created a comprehensive clinical data registry of patients receiving radiation treatment for breast and lung cancers, bone metastases, and coming in late 2019, prostate cancer. Our registry data includes both patient-reported outcomes and physician assessments of toxicity as well as data on radiation treatment delivery and dose.

Today, MROQC encompasses 24 hospital-based, 3 free-standing radiation oncology facilities, and over 75 Radiation Oncologists across the state of Michigan, working in collaboration to identify best practices in radiation therapy that minimize the side effects that patients may experience from radiation treatment.

The overall aims of the collaborative include, among others, to determine the most appropriate use of intensity modulated radiation therapy (IMRT) for breast and lung cancer patients as well to establish and disseminate best practice guidelines that enable radiation oncology practitioners to maximize the delivery of cost-effective care. These guidelines provide for reduction in radiation treatment times and costs of radiation treatment for breast, lung, prostate cancers and for cancer that has spread to the bones while enhancing the overall quality, value, and outcomes for patients receiving radiation in Michigan. MROQC practice guidelines also help members improve quality by facilitating the clinical implementation of recommendations from national organizations such as the National Comprehensive Cancer Network (NCCN), the American Society for Radiation Oncology (ASTRO), and the American Association of Physicists in Medicine (AAPM) across different technology platforms.

Participating sites submit data to a clinical registry maintained by the MROQC Coordinating Center and tri-annual consortium-wide meetings are held each year to discuss data, review measures of processes of care and patient outcomes, and identify strategies and best practices for quality improvement.

Currently 27 radiation treatment centers (24 hospital-based and 3 free-standing) and over 125 members participate in MROQC. The collaborative has formed working groups, each comprised of a subset of clinical champions (those radiation oncologists who agree to implement best practices identified by the consortium within their practices), participating physicians, radiation oncology residents, medical physicists and dosimetrists, administrators, and clinical data abstractors, to focus on each of the specific project aims

and corresponding Quality Improvement (QI) efforts. In terms of QI successes, the collaborative has already:

- Enrolled over 15,000 patients into the registry as of July 2019

- Achieved an increase in the use of accelerated whole breast irradiation (AWBI) in appropriate patients (consistent with the 2011 American Society of Radiation Oncology (ASTRO) Guidelines)

- Decreased the Mean Heart Dose (MHD) for left-sided breast cancer

MROQC has been a platform for both comparative effectiveness research and quality improvement. Our work has as allowed us to move the needle in a positive direction with clinically meaningful endpoints and our success in breast and lung cancers has allowed us to expand to other clinical indications (bone metastasis and prostate cancer).