

Exploring the Covid Response of Rural-Based Radiation Oncology Centers within the Midwest United States and the Greater Horn Region of Africa

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Abstract

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Abstract

Objective: The healthcare community's response to COVID-19 has varied globally (1,2). In this study, we aim to better understand COVID-19's effects on radiation oncology clinics (ROC) within the rural Midwestern United States (RMWUS) and the Greater Horn Region of Africa (GHRA).

Methods: 60 ROC in the RMWUS and 41 radiation/clinical oncologists in the GHRA (Ethiopia, Kenya, Rwanda, Tanzania, Uganda) were identified primarily using the North Carolina Rural Health Research Program Database and personal contacts, respectively (3,4). All were emailed a questionnaire based on the 2021 European Society for Radiotherapy and Oncology Practice Response Survey (COVID-19)-Follow-up. Supplemental questions based on the American Society for Radiation Oncology's (ASTRO) COVID-19 clinical guidance website (19CGW), were added to assess impact on radiation treatment.

Results: Sixteen surveys were completed - 7/60 (11.7%) from RMWUS and 9/41 (22%) from the GHRA. From 2021 to 2022, Uganda reported an average of 2,500 new cancer cases, treating around 215 patients daily. RMWUS on the other hand, documented 275 new cases, treating an average of 22 patients daily. The majority of these clinics do not offer telemedicine (RMWUS-5, GHRA-8). During 2021, all RMWUS ROCs reported either no change or an increase in patient volume due to COVID-19. In the GHRA, 5 reported a decrease, 2 no change, and 3 an increase in patient volume. 10 (RMWUS-5, GHRA-5) reported patients presenting with more advanced disease compared to before the pandemic. Guidelines from ASTRO's 19CGW were used by ROC in RMWUS (6) and in GHRA (4), largely for breast (n=3) and prostate (n=4) cancer. 2 ROCs in GHRA treated breast cancer with 40-42.5 Gy in 15-16 fractions. One started treating prostate cancer with 60 Gy/20 fractions. Treatment guidelines were also used for head and neck (US-1), lung (US-1), palliative (Kenya-1, Uganda-1), gastrointestinal (Rwanda-1), and lymphoma (US-1, Tanzania-1).

Conclusion: We see similarities and differences in how ROCs in these regions were impacted by COVID-19; further study is indicated to understand how radiation therapy may have changed in response to COVID-19.

Citations

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