



Title	Telemedicine and Radiation Oncology: State of the Evidence
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Aim

To examine telemedicine applications in radiation oncology and their potential modes of operation.

Results and conclusions

Two major findings emerge from the literature consulted on radiation therapy. First, cancer incidence is increasing in the industrialized world, including Canada and Québec, and the need for treatment, specifically radiotherapy, will continue to increase as a result. Second, oncology centers are generally concentrated in large cities, while treatment needs are geographically dispersed over a vast area. This situation leads to suboptimal delivery of radiotherapy services. Although strong steps have been taken over the past few years, the dispersion of Québec's population over a large territory still imposes major burdens and inconvenience on patients who live in remote areas. In this context, telemedicine can be viewed as a possible solution. Finally, the literature review shows that the main application of telemedicine in radiation oncology is remote treatment planning. It can assist in networking various centers and decentralizing radiotherapy services by providing satellite centers with access to expertise not available on-site. However, the success of such an initiative depends on implementing a stringent quality assurance process.

Methods

A scientific literature review was undertaken for the purpose of preparing this technical note.

Further research/reviews required

The literature barely addressed the medico-legal liability issues raised by remote treatment planning and simulation and the economic issues surrounding this therapeutic modality. These issues will require further study.