

Chair Resource

From: Michael W. McDermott <MWMCD@baptisthealth.net>
Sent: Tuesday, April 30, 2024 9:09 AM
To: Chair Resource
Subject: [External_Sender] Gamma Knife "Jail"

Christopher T. Hanson
Chair, US Nuclear Regulatory Commission
Mail Stop O-16 B33
Washington, DC 20555-0001

Dear Mr. Hanson:

I am a neurosurgeon who is been practicing radiosurgery since 1992 with the Leksell Gamma Knife machine and I moved from the University of California, San Francisco after 28 years to the Miami Neuroscience Institute in February 2020.

Here at the Miami Cancer Institute we are privileged to have every radiosurgery delivery platform available. All of these but 1 are linear accelerator based energy sources.

The Leksell Gamma Knife is our workhorse for cranial radiosurgery and we treat over 300 patients a year on that machine. We treat a small number of patients on the other radiosurgery systems including True Beam, Tomotherapy, CyberKnife, Zap and MR LINAC.

It is my understanding that it is a federal regulation that when the Gamma Knife is in use, because the energy source is radioactive cobalt 60, that a radiation oncologist has to sit outside the treatment room during the treatment, hence the term "Gamma Knife jail", and that this regulation is not up for consideration of renewal/revision until 2028. The other radiosurgery delivery systems being linear accelerator based do not require the presence of a radiation oncologist at the treatment site during patient treatment. They must however be immediately available and within the department and building.

In that time Department of Radiation Oncology will incur considerable expense with having to have a part-time radiation oncologist sit outside the room during patient treatment.

I believe the concern is that some accident may occur putting the patient, technicians, nurses, physicians in the public at risk because of the radioactive cobalt that is used as the energy source and the Gamma Knife. In my 28-year experience at UCSF there was only 1 episode of a power failure where the patient had to be removed from the device manually. At UCSF we treated 350-425 patients per year.

It is impossible for anybody but the manufacturer to gain access to the cobalt and it is contained entirely within the cast iron shell of the device. Homeland Security also controls and monitors who opens the door to the Gamma Knife and who closes it every single time.

I am the neurosurgical co-director of the clinical radiosurgery program here at Miami Neuroscience Institute and I held the same position at UCSF for 26 years.

I would love to have a discussion with you about the practical issues surrounding what seemed to me to be an unnecessary, restrictive, and expensive regulation.

Sincerely,

Michael

Michael W. McDermott, M.D.

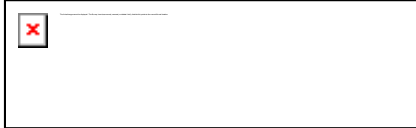
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