

CURRICULUM VITAE

Edward C. Pennington, M.S.

I. EDUCATIONAL AND PROFESSIONAL HISTORY

A. List of institutions attended, board certification, licensure

9/1974-5/1978	B.S. University of Nebraska	Lincoln NE
9/1978-5/1980	M.S. University of Texas	Arlington TX and University of Texas Health Science Center Dallas TX

Board certification:

May 1999 The American Board of Radiology – Radiological Physics

Licensure

- Iowa

B. Professional and Academic Positions

9/1976-5/1978	Research Assistant, Partical Track Physics University of Nebraska	Lincoln NE
6/1979-8/1979	Radiation Safety Program Aide, University of Texas Health Science Center	Dallas TX
1/1980-5/1980	Radiological Physics Assistant, Department of Radiology Parkland Memorial Hospital	Dallas TX
5/1980-9/1985	Medical Physicist, Department of Radiation Oncology St. Paul Medical Center	Dallas TX
9/1985-8/2001	Medical Physicist, Department of Radiation Oncology The University of Iowa	Iowa City IA
8/2001-current	Associate, Department of Radiology The University of Iowa	Iowa City IA

C. Honors and Awards

1978	Honor Society, University of Nebraska
1978	Radiation Research Travel Award, University of Nebraska
1978	Sigma Xi Research Award, University of Nebraska
1978	Graduation with Distinction, University of Nebraska

8. Pennington EC, Jani SK, Wen BC. Leakage radiation from electron applicators on a medical accelerator. *Med. Phys.* 1988;15:763-765.
9. Jani SK, Pennington EC, Knosp BM. Dose anisotropy around an Au-198 seed source. *Med. Phys.* 1989;16:632-636.
10. Jani SK, Pennington EC, Knosp BM, Doornbos JF. Analysis of relative dose distribution around iridium-192 endobronchial implants. *Endocurieth/Hyperth Onc* 1989;5.
11. Pennington EC, Staples JS, Jani SK. A simple method for reducing ovarian dose during megavoltage irradiation of the breast. *Med. Dosim.* 1989.
12. Wen BC, Pennington EC, Hussey DH, Jani SK. Alopecia associated with unexpected leakage from electron cone. *Int. J. Radiat. Oncol. Biol. Phys.* 1989;16:1637-1641.
13. Jani SK, Pennington EC. Tissue compensators with use of vinyl lead sheets for head and neck portals on 4-mv x-rays. *Med. Phys.* 1990;17:481-482.
14. Ross CS, Hussey DH, Pennington EC, Stanford W, Doornbos JF. Analysis of movement of intrathoracic neoplasms using ultrafast computerized-tomography. *Int. J. Radiat. Oncol. Biol. Phys.* 1990;18:671-677.
15. Jani SK, Pennington EC. Depth dose characteristics of 24-mv x-ray-beams at extended SSD. *Med. Phys.* 1991;18:292-294.
16. Hussey DH, Pennington EC, Neeranjum WS, Wen BC, Doornbos JF, Mayr NA. "Experience with CT-simulation at the University of Iowa," International Symposium Proceedings: 3D Radiation Treatment Planning and Conformal Therapy, St. Louis, MO, 1993.
17. Pennington EC. Quality assurance aspects of a CT simulator system. In: Jani SK, editor. *CT Simulation for Radiotherapy: Medical Physics Publishing*; 1993.
18. Wen BC, Jani SK, Pennington EC. "Clinical Applications of a CT Simulator in Unconventional Radiation Therapy Techniques," Symposium on Current Perspectives in CT Simulation for Radiotherapy Treatment Planning, 1993.
19. Mellenberg DE, Pennington EC, Duhl RA. TBI diode cobalt reaction factors for the calculation of midline dose from surface readings. *Med. Phys.* 1994;21:974.
20. Mayr NA, Riggs CE, Saag KG, Wen BC, Pennington EC, Hussey DH. Mixed connective tissue disease and radiation toxicity - A case report. *Cancer* 1997;79:612-618.
21. Mellenberg DE, Pennington EC, Wen BC, Hitchon PW, Saw CB, Hussey DH. Measured accuracy of a replaceable stereotactic radiotherapy headframe system using sequential CT scanning. *Med. Phys.* 1997;24:1044.

22. Saw CB, Wen BC, Anderson KA, Pennington EC, Hussey DH. Dosimetric evaluation of water-bolus for irradiation of extremities in the management of Kaposi's sarcoma. *Med. Phys.* 1998;25:1577.
23. Mellenberg DE, Pennington EC. Pd103 loaded cartridge air KERMA strength verification. *Med. Dosim.* 1999;24:73-75.
24. Kaiser HK, Mayr NA, Adli M, Skwarchuk M, Paulino AC, Meeks SL, Pennington EC, Pelland D, Buatti JM. Usefulness of conformal radiation therapy with prone positioning in postoperative pelvic radiation for gynecologic malignancies. *Int. J. Radiat. Oncol. Biol. Phys.* 2001;51:219-220.
25. Ryken TC, Meeks SL, Pennington EC, Hitchon P, Traynelis V, Mayr NA, Bova FJ, Friedman WA, Buatti JM. Initial clinical experience with frameless stereotactic radiosurgery: analysis of accuracy and feasibility. *Int. J. Radiat. Oncol. Biol. Phys.* 2001;51:1152-1158.
26. Ryken TC, Meeks SL, Traynelis V, Haller J, Bouchet LG, Bova FJ, Pennington EC, Buatti JM. Ultrasonographic guidance for spinal extracranial radiosurgery: technique and applicaiton for metastatic spinal lesions. *Neurosurg. Focus* 2001;11:1-6.
27. Lopez J, Wahle A, Pennington EC, Meeks SL, Buatti JM, Braddy KC, Fox JM, Brennan TMH, Rossen JD, Sonka M. Is target dosing attained with intracoronary brachytherapy? An IVUS 3D reconstruction analysis. *Circulation suppl.* 2002.
28. Meeks SL, Buatti JM, Bova FJ, Friedman WA, Pennington EC, Wagner TH. Stereotactic radiosurgery with the Linac Scalpel. In: Schulder M, editor. *Handbook of stereotactic neurosurgery*. New York: Marcel Dekker, Inc.; 2002. pp. 191-215.
29. Meeks SL, Paulino AC, Pennington EC, Simon JH, Skwarchuk MW, Buatti JM. In vivo determination of extra-target doses received from serial tomotherapy. *Radiother. Oncol.* 2002;63:217-222.
30. Meeks SL, Ryken TC, Pennington EC, Bova FJ, Friedman WA, Buatti JM. Testing and initial experience with an image-guided system for frameless stereotactic radiosurgery. *Radiosurgery* 2002;4:251-261.
31. Meeks SL, Buatti JM, Bouchet LG, Bova FJ, Ryken TC, Pennington EC, Anderson KM, Friedman WA. Ultrasound-guided extracranial radiosurgery: technique and application. *Int. J. Radiat. Oncol. Biol. Phys.* 2003;55:1092-1101.
32. Wahle A, Lopez JJ, Pennington EC, Meeks SL, Braddy KC, Fox JM, Brennan TMH, Buatti JM, Rossen JD, Sonka M. Effects of vessel geometry and catheter position on dose delivery in intracoronary brachytherapy. *IEEE Trans. Biomed. Eng.* 2003;50:1286-1295.

33. Wahle A, Lopez JJ, Pennington EC, Meeks SL, Braddy KC, Fox JM, Brennan TMH, Buatti JM, Rossen JD, Sonka M. "Estimating the actual dose delivered by intravascular coronary brachytherapy using geometrically correct 3-D modeling," Medical Imaging 2003: Visualization, Image-Guided Procedures and Display, Feb 16-18 2003, San Diego, CA, United States, 2003.
34. Kamath R, Ryken TC, Meeks SL, Pennington EC, Ritchie J, Buatti JM. Initial clinical experience with frameless radiosurgery for patients with intracranial metastases. *International Journal Of Radiation Oncology Biology Physics* 2005;61:1467-1472.

B. Areas of Research Interest and Current Projects

C. Published reviews of Scholarship

D. Grants Received

E. Invited Lectures, Conference Presentations, Visiting Professorships

1. Pennington EC. "Hyperthermia Course," Association of Educators in Radiological Sciences, Minneapolis, Minnesota, March 15, 1991.
2. Pennington EC. "3-Dimensional Treatment Planning," Radiation Therapy Technology Symposium, Iowa City, Iowa, May 4, 1991.
3. Pennington EC. "Quality Assurance Aspects of a CT-Simulator," Symposium: Current Perspectives in CT-Simulation for Radiotherapy Treatment Planning, Iowa City, Iowa, September 16, 1991.
4. Pennington EC. "CT Simulation," American Association of Medical Dosimetrists, Region III, Houston, Texas, April 2-3, 1993.
5. Pennington EC. "CT Simulation," RADONC94, Des Moines, Iowa, October 15, 1994.
6. Pennington EC. "CT Simulation," Illinois State Society of Radiologic Technologists, 60th Annual Conference, Rock Island, Illinois, October 7, 1995.
7. Pennington EC. "Math Matters, A Reckoning Review," Multi-Modality Symposium, sponsored by the Iowa Society of Radiologic Technologists, Cedar Rapids, Iowa, April 20, 1996.

F. Pending Decisions

IV. SERVICE

A. Memberships in Professional Organizations

<i>1997</i>	Reviewer for <i>Medical Physics</i>
<i>1995</i>	Reviewer for <i>Medical Dosimetry</i>
<i>1995-current</i>	Radiation Therapy Student Advisory Committee
<i>1999</i>	AAPM MRV Chapter: Member, Iowa Regulatory Review Committee
<i>1985-current</i>	American Association of Physicists in Medicine
<i>1985-current</i>	Iowa Chapter of AAPM

B. Clinical assignments since last promotion