

1951

World's first calibrated Cobalt-60 cancer therapy unit established at the University of Saskatchewan; installed at University Hospital (G Wing) as construction continued. The calibration work was done by Sylvia Fedoruk through rigorous depth dose measurements (the subject of her M.A. thesis).

After 11 weeks of calibration, world's first patient treated on 8 November 1951. Cured of her apparently incurable cancer, she would live to the age of 90, forty-seven years later.

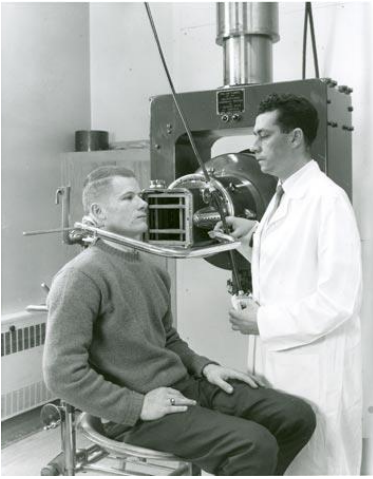
https://scaa.sk.ca/gallery/uofs_events/articles/1951.php

The Saskatoon Star-Phoenix runs an editorial on March 7th, 1951 entitled *The Cobalt "Bomb"*.

"We hope Messrs. Truman, Stalin, Peron et al won't think someone is trying to steal their thunder, but we think they ought to know theirs is not the only atomic race going on in the world. Another has been declared by the London Free Press which claims editorially 'the world's first cobalt bomb for ... the Ontario city.

"With all due respect to the preservation of national peace and goodwill, that is a boast which this newspaper cannot allow to go unchallenged – especially since the Free Press is brazen enough to remark that a cobalt bomb 'is also being installed at Saskatoon, Sask.' One is indeed. Or, to be more accurate, one has been installed."

– Saskatoon Star-Phoenix, editorial, 7 November 1951 (quoted in *Steps on the Road to Medicare*, p. 120)



A technician and patient with the Cobalt-60 unit [Credit: University Archives, Photograph Collection, A-3519]



Installation of the Cobalt-60 unit in the G Wing of the University Hospital [Credit: University Archives, Harold Johns Collection]



Sylvia Fedoruk treating a patient [Credit: University Archives, Harold Johns Collection]

Betatron Building constructed next to Physics Building; betatron relocated.

First publication on cobalt unit measurements appears in the prestigious journal *Nature*, by Harold Johns, Lloyd Bates, Ed Epp, Douglas Cormack, Sylvia Fedoruk (all from Saskatchewan), with three USask physics graduates A. Morrison, W.R. Dixon and C. Garrett working at the National Research Council in Ottawa.



Moving the betatron into the new Betatron Building [Credit: University Archives, Harold Johns Collection]

"The most notable accomplishment was a table of X-ray dosage rates at various depths in human tissues, ranging from x-radiation by conventional hospital machines to those by the cobalt 60 unit and the betatron. It was accepted by the British Institute of Radiology as the standard reference table for radiation dosimetry. It is still basic to all subsequent dosage tables."

– Balfour Currie, USask physics department 1910-1976