



Office of Health Care Access Certificate of Need Application

Final Decision

Hospital: John Dempsey Hospital

Docket Number: 01-531

Project Title: Acquisition of a Linear Accelerator with IMRT Capability

Statutory Reference: Section 19a-639, Connecticut General Statutes

Filing Date: June 3, 2002

Hearing: Waived

Decision Date: June 25, 2002

Default Date: September 1, 2002

Staff: Steve Lazarus
Sandra Czunas

Project Description: John Dempsey Hospital (“Hospital”) proposes to acquire a linear accelerator. The proposed project has a total capital cost of \$2,432,383, which includes a capital expenditure of \$1,081,923, fair market value of equipment of \$1,195,791 and capitalized financing costs of \$154,669.

Nature of Proceedings: On June 3, 2002, the Office of Health Care Access (“OHCA”) received the Certificate of Need (“CON”) application of John Dempsey Hospital, seeking authorization to replace its existing linear accelerator with a new linear accelerator for a total proposed capital cost of \$2,432,383. The Hospital is a health care facility or institution as defined by Section 19a-630 of the Connecticut General Statutes (“C.G.S.”).

The Hospital requested a waiver of public hearing for the CON application pursuant to Section 19a-643-45 of OHCA's Regulations and claimed that the proposal was non-substantive as defined in Section 19a-643(3) of OHCA's Regulations. On June 5, 2002, the Hospital was informed that the CON application was eligible for consideration of waiver of public hearing. Notice to the public was published in the *Hartford Courant* and the *Northeast Minority News*. OHCA received no comments concerning the Hospital's request for waiver of public hearing during the public comment period and therefore, on June 21, 2002, OHCA granted the Hospital's request for waiver of public hearing.

OHCA's authority to review and approve, modify or deny this proposal is established by Section 19a-639, C.G.S. The provisions of this section as well as the principles and guidelines set forth in Section 19a-637, C.G.S., were fully considered by OHCA in its review.

Findings of Fact

Each finding of fact included in this Final Decision has been taken from the CON application and related CON filings, or from other external sources. A source reference is included with each finding of fact. All CON applicants must attest to the accuracy and correctness of the information submitted to OHCA as part of the CON application process.

Clear Public Need
Impact on the Hospital's Current Utilization Statistics
Contribution of the Proposal to the Accessibility and Quality
of Health Care Delivery in the Region
Impact of the Proposal on the Interests of Consumers of Health Care
Services and Payers for Such Services

1. The University of Connecticut Health Center ("UCHC"), located in Farmington, Connecticut, is composed of John Dempsey Hospital, the School of Medicine, School of Dental Medicine, the UConn Medical Group, UConn Health Partners and University Dentists. (*January 28, 2002, www.uchc.edu/hc/info.html*)
2. John Dempsey Hospital ("Hospital") is an acute care hospital licensed for 204 beds and is the teaching hospital for the UCHC. (*January 28, 2002, www.uchc.edu/hc/info.html*)
3. The Hospital presently has a linear accelerator and cobalt unit for use in the treatment of cancer. Cobalt technology, however, is outdated and the cobalt unit is no longer in service. (*Response to Completeness Letter, June 3, 2002, page 2*)

4. The Hospital plans to replace its existing cobalt unit with a state of the art Intensity Modulated Radiation Therapy (“IMRT”) capable dual energy Elekta Precise linear accelerator. *(Response to Completeness Letter, June 3, 2002, page 2)*
5. IMRT technology is preferred because it has the potential to result in both improved efficacy and reduced radiation side effects. *(Response to Completeness Letter, June 3, 2002, page 9)*
6. Using a multileaf collimator and an electronic portal imaging device, the radiation dose distribution of IMRT technology can be modified to allow for increased dose delivery to the tumor while minimizing exposure to adjacent critical normal structures. *(Response to Completeness Letter, June 3, 2002, page 5)*
7. The existing accelerator is not suitable as a state of the art IMRT delivery device, even with cost-prohibitive retrofitting. *(Response to Completeness Letter, June 3, 2002, page 5)*
8. No hospitals in Connecticut are currently capable of offering IMRT as a standard treatment for the most common tumor types and locations applicable for IMRT technology. Under Docket Number 01-571, however, Hartford Hospital, received CON authorization from OHCA to acquire and operate an IMRT capable linear accelerator. *(Response to Completeness Letter, June 3, 2002, page 8 and CON Final Decision, DN: 01-571)*
9. The UCHC has adopted a strategic plan that will allow the Health Center to develop four “Centers of Excellence” – Connecticut Health, Brain and Human Behavior, Cancer and Musculoskeletal. *(February 1, 2002, CON Application, page 3)*
10. The Cancer Signature Program includes:
 - A. Building linkages between cancer/immunology/genetics research and clinical programs;
 - B. Identifying one to three clinical programs to build the reputation of differentiation and excellence;
 - C. Creating a presence throughout the state/region via medical oncology outreach;
 - D. Recruiting a Cancer Program Director and team as a joint effort of basic and clinical sciences, with the intention to build on sub-specialty expertise of director and team; and
 - E. Publicize diagnostic capabilities and clinical trial opportunities.*(Nov. 26, 2001, CON Application, Appendix A)*
11. Expansion of clinical technologies is needed to further develop the clinical component of the Cancer Signature Program. *(Response to Completeness Letter, June 3, 2002, page 3)*
12. The Hospital projects a 5% increase annually over the next five years in the number of procedures provided and attributes this growth to the development of the Cancer Signature Program, the increasing and aging population of the primary service area,

and the availability of the advanced IMRT technology. *(Response to Completeness Letter, June 3, 2002, page 6)*

13. The Hospital's projected procedure volume for FYs 2003 through 2004 are as follows:

Outpatient Volume Projections				
	FY2003	FY2004	FY2005	FY2006
Projected Incremental	200	626	1,076	1,555
Projected with Project	8,057	8,483	8,933	9,413

(Response to Completeness Letter, June 3, 2002, page 51)

14. The Applicant is one of only two area hospitals that offer stereotactic radiosurgery ("SRS") and stereotactic radiotherapy ("SRT"). *(Response to Completeness Letter, June 3, 2002, page 8)*
15. In FY 2001, JDH Radiology Oncology Department treated 338 patients with 8,253 conventional radiation treatments (procedures) and 20 patients with 105 SRT procedures. *(Response to Completeness Letter, June 3, 2002, page 6)*
16. The existing linear accelerator has a life expectancy of ten to fifteen years and is expected to remain operational for two to seven years. It will continue as a platform for the Hospital's SRS/SRT program and will be used for less complex cases to enable program expansion. *(Response to Completeness Letter, June 3, 2002, page 2)*
17. The existing linear accelerator must be specially retrofitted to provide SRT and must then be converted back for conventional use. The retrofitting process takes several hours and is a critical scheduling issue. Treatments last about 60 to 90 minutes. *(Response to Completeness Letter, June 3, 2002, page 7)*
18. The advantage to keeping the existing unit set up for stereotactic treatment is to avoid the significant downtime required when changing from conventional delivery to stereotactic. *(Response to Completeness Letter, June 3, 2002, page 2)*
19. According to the Hospital, because there is greater demand for conventional radiation treatment stereotactic treatments are only performed in the late afternoon or early evening hours. This results in staff overtime and patient inconvenience. *(Response to Completeness Letter, June 3, 2002, page 7)*
20. There is typically a two-week delay for patients to begin their stereotactic treatment at the Hospital. *(Response to Completeness Letter, June 3, 2002, page 6)*
21. Radiation treatments are provided from 7:30 a.m. until 5:00 p.m.. The Applicant's radiation department often extends its schedule to meet current patient demand for conventional radiation treatments. *(Response to Completeness Letter, June 3, 2002, page 7)*

Financial Feasibility of the Proposal and its Impact on the Hospital's Rates and Financial Condition

22. The proposal has a total capital cost of \$2,432,383, which consists of the following:

Total Capital Cost Breakdown	
Description	Amount
Renovation	\$1,081,923
FMV of Fixed Equipment	\$1,195,791
Capitalized Financing Costs	\$154,669
Total Capital Cost	\$2,432,383

(Response to Completeness Letter, June 3, 2002, page 14)

23. The Hospital plans to finance the renovations with Hospital equity and acquire the equipment with lease financing. *(Response to Completeness Letter, June 3, 2002, page 16)*
24. The Hospital attributes projected incremental losses from operations to the amortization of the renovation costs and financing costs. *(Response to Completeness Letter, June 3, 2002, page 18)*
25. The Hospital is projecting excess revenue with the project of \$678,394, \$741,041, \$464,752 and \$268,316 for FYs 2003, 2004, 2005 and 2006, respectively. *(Response to Completeness Letter, June 3, 2002, page 51)*

Consideration of Other Section 19a-637, C.G.S. Principles and Guidelines

The following findings are made based upon other principles and guidelines set forth in Section 19a-637, C.G.S.:

26. There is no State Health Plan in existence at this time. *(Response to Completeness Letter, June 3, 2002, page 3)*
27. The Hospital has adduced evidence that this proposal is consistent with the Hospital's long-range plan. *(Response to Completeness Letter, June 3, 2002, page 3 and CON Application, November 26, 2001, Exhibit A)*
28. The Hospital has improved productivity and contained costs through energy conservation, the application of technology, group purchasing and mercury removal. *(Response to Completeness Letter, June 3, 2002, page 11)*
29. This proposal will allow the Hospital to enhance its teaching and research responsibilities through the use of state-of-the-art technology. *(Response to Completeness Letter, June 3, 2002, page 12)*

30. The Hospital's proposal will not affect other providers of radiation therapy services as the project is intended to replace existing equipment. *(Response to Completeness Letter, June 3, 2002, page 8)*
31. The Hospital has unique characteristics of their patient/physician mix because of its association with the University of Connecticut Health Center and the School of Medicine and because of the subspecialty mix of the faculty of UCONN Health Center, their clinical research interest and their patient population. *(Response to Completeness Letter, June 3, 2002, page 13)*

Rationale

The University of Connecticut Health Center ("UHC") is located in Farmington, Connecticut, and is composed of John Dempsey Hospital ("Hospital"), the School of Medicine, the School of Dental Medicine, the UConn Medical Group and the UConn Health Partners and University Dentists. The Hospital proposes to acquire a state of the art dual energy Elekta Precise linear accelerator with Intensity Modulated Radiation Therapy ("IMRT") capability to replace its outdated cobalt unit.

IMRT technology is preferred because it has the potential to result in both improved efficacy and reduced radiation side effects. The radiation dose distribution of IMRT technology can be modified to allow for increased dose delivery to the tumor while minimizing exposure to adjacent critical normal structures. The Hospital presently has a linear accelerator and cobalt unit for use in the treatment of cancer. The existing accelerator is not suitable for retrofitting to a state of the art IMRT delivery device. The existing linear accelerator has a life expectancy of ten to fifteen years and is expected to remain operational for two to seven years. It will continue to be used for less complex cases.

The hours of operation of the Radiation Therapy Department are from 7:30 a.m. until 5:00 p.m. The Hospital's Radiation Therapy Department often extends its schedule to meet current patient demand for conventional radiation treatments. Additionally, the Hospital is one of only two area hospitals that offer stereotactic radiosurgery ("SRS") and stereotactic radiotherapy ("SRT"). In order to provide SRT, the current linear accelerator must be specially retrofitted and must then be converted back for conventional use. Due to the greater demand for conventional radiation treatment, stereotactic treatments are only performed in the late afternoon or early evening hours requiring staff overtime and causing patient inconvenience. The retrofitting process takes several hours and has become a critical scheduling issue. The advantage to keeping the existing unit fitted for stereotactic treatments is to avoid the significant downtime required when changing from conventional delivery to stereotactic delivery. There is currently a two-week delay for patients to begin their stereotactic treatment at the Hospital. The acquisition of the proposed linear accelerator will not only enhance the quality of care offered, but it will improve accessibility to state-of-the-art radiation therapy for the Hospital's patients.

In FY 2001, JDH Radiology Oncology Department treated 338 patients with 8,253 conventional radiation treatments and 20 patients with SRT treatments. The Hospital

projects a 5% annual increase over the next five years in the number of procedures it will provide. It attributes this projected growth to the development of the Cancer Signature Program, an increasing and aging population, and the availability of advanced IMRT technology. The projected increase appears to be reasonable and achievable.

The UCHC has adopted a strategic plan to allow the Health Center to develop four “Centers of Excellence” – Connecticut Health, Brain and Human Behavior, Cancer and Musculoskeletal. The Cancer Signature Program is one of four integral components in the Hospital’s strategic plan. Objectives of the plan include fostering linkages between cancer research and clinical practice, identifying one to three clinical programs to build a reputation of excellence, creating a system to provide medical oncology outreach throughout the state and the region, and publicizing the program’s diagnostic capabilities and clinical trial opportunities. The acquisition of the IMRT capable linear accelerator would be a significant addition to the educational and research opportunities of the UCHC.

Finally, the proposal is financially feasible. The total capital expenditure of \$1,081,923 for renovations will be financed entirely from Hospital equity and the equipment will be acquired with lease financing. The Hospital attributes projected incremental losses from operations due to the amortization of the renovation costs and financing costs. Despite these projected losses, the replacement is necessary in order to insure continuation of radiation oncology services at the Hospital and to support the Cancer Signature Program and strategic plan. It should be noted that the Hospital projects excess revenue \$678,394, \$741,041, \$464,752 and \$268,316 for FYs 2003, 2004, 2005 and 2006, respectively.

Based on the foregoing Findings and Rationale, the Certificate of Need application of John Dempsey Hospital to acquire an Intensity Modulated Radiation Therapy (“IMRT”) capable dual energy linear accelerator at a total capital expenditure of \$1,081,923, is hereby GRANTED.

ORDER

John Dempsey Hospital is hereby authorized to acquire a linear accelerator with IMRT capabilities at a total capital cost of \$2,432,383, which includes a capital expenditure of \$1,081,923, fair market value of the leased fixed equipment of \$1,195,791 and capitalized financing costs of \$154,669, subject to the following conditions:

1. This authorization shall expire June 25, 2003. Should the Hospital's project not be completed by that date, the Hospital must seek further approval from OHCA to complete the project beyond that date.
2. The Hospital shall not exceed the approved capital expenditure of \$2,432,383. In the event that the Hospital learns of potential cost increases or expects that the final project costs will exceed those approved, the Hospital shall file with OHCA a request for approval of the revised budget.

All of the foregoing constitutes the final order of the Office of Health Care Access in this matter.

By Order of the
Office of Health Care Access

Date signed:
June 25, 2002

Signed by:
Raymond J. Gorman
Commissioner

RJG/SL/sec