



**Department of Public Health
Office of Health Care Access
Certificate of Need Application**

Final Decision

Applicant: The Stamford Hospital
30 Shelburne Road
Stamford, CT 06907

Docket Number: 15-31990-CON

Project Title: Acquisition of a Computed Tomography Scanner

Project Description: The Stamford Hospital (“Hospital” or “Applicant”) is proposing to acquire and operate a new 320-slice computed tomography scanner to be located in the new emergency department on the hospital’s main campus at an associated capital cost of \$1,366,146.

Procedural History: The Applicant published notice of its intent to file a Certificate of Need (“CON”) application in *The Advocate* (Stamford) on January 29, 30 and 31, 2015. On April 13, 2015, the Office of Health Care Access (“OHCA”) received the CON application from the Applicant for the above-referenced project and deemed the application complete on July 29, 2015. OHCA received no responses from the public concerning the proposal and no hearing requests were received from the public per Connecticut General Statutes (“Conn. Gen. Stat.”) § 19a-639a(e). Deputy Commissioner Brancifort considered the entire record in this matter.

Findings of Fact and Conclusions of Law

To the extent the findings of fact actually represent conclusions of law, they should be so considered, and vice versa. *SAS Inst., Inc., v. S & H Computer Systems, Inc.*, 605 F.Supp. 816 (Md. Tenn. 1985).

1. The Stamford Hospital (“Hospital” or “Applicant”) is a 305-bed acute care hospital located in Stamford, Connecticut. Ex. A, p. 13
2. On February 9, 2010, the Applicant received OHCA approval (Docket Number 08-31284-CON) to proceed with its master facility plan that included the construction of a new main hospital building (“Specialty Building”) that would be connected to the existing main campus buildings and would house a modernized Emergency Department (“ED”), a replacement surgical suite with 12 operating rooms, a Heart and Vascular Institute with four invasive labs and a five-floor bed tower that would contain 180 replacement beds. Ex. A, p. 13
3. With the projected completion/occupancy date of the new Specialty Building anticipated for summer/fall 2016, the Hospital proposes to acquire a 320-slice computed tomography (“CT”) scanner to be located and operated within the new ED. Ex. A, p. 13
4. The Hospital is designated by the Connecticut Department of Public Health and the Joint Commission as a Primary Stroke Center and has been designated by the American College of Surgeons (“ACS”) as a Level II Trauma Center since 1993. Ex. A, pp. 15
5. The Hospital’s designation as a Level II Trauma Center requires continued verification from the ACS. During the last re-verification review, the Hospital was advised to have a CT scanner located closer to the ED. If not, the Hospital could face receiving a citation from the ACS and the likelihood of losing its Level II Trauma Center designation. Ex. A, p. 17
6. Research has shown that a CT scan is performed in up to 67% of patients presenting to emergency departments. Many EDs are equipped with a dedicated CT scanner to allow fast access for trauma patients and various medical emergencies, according to an article, *Evaluation of a 16-MDCT Scanner in an Emergency Department: Initial Clinical Experience and Workflow Analysis*. Ex. A, p. 131
7. According to an article, *The Impact on Trauma Patient Management of Installing a Computed Tomography Scanner in the Emergency Department*, CT scanners have the ability to quickly and accurately provide diagnostic imaging of serious medical conditions and potentially life threatening illnesses and accidents. CT is fast, accurate and cost effective in providing clinically useful information in a single examination and helps facilitate rapid therapeutic intervention. Ex. A, pp. 16-18, 21
8. Another article entitled, *New Aspects in the Emergency Room Management of Critically Injured Patient*, found that by integrating a CT scan into the trauma room, the time required for CT examination was reduced from 87 to 38 minutes and the mortality rate decreased from almost 15% to 8.6%. Ex. A, p. 16

9. A study on ED patients with blunt trauma, *Emergency Room Management of Patients with Blunt Major Trauma: Evaluation of The Multislice Computed Tomography Protocol Exemplified by an Urban Trauma Center*, concluded that immediate scans for patients with blunt major trauma leads to more accurate and faster diagnosis, and reduction in ER, ER-to-operating room and ER-to-intensive care unit times. The study also observed reduction in ventilation, ICU, hospital days and organ failure rates. Ex. A, pp. 16, 86-93
10. Time is critical for stroke patients who present at the ED. Both the American Heart and Stroke Associations state that the essential best practice is to initiate a CT scan within 25 minutes of arrival and to complete interpretation of the scan within 45 minutes to exclude intracranial hemorrhage. Ex. A, pp. 16-17, 36-43, 95-129
11. Based on the principle of the “golden hour in shock,” primary diagnostic procedures must be highly effective and focused, and the primary clinical and radiological survey should be completed within 30 minutes after admission of the patient in the emergency room, according to an article, *The Benefit of Multislice CT in the Emergency Room Management of Polytraumatized Patients*. Ex. A, pp. 15, 36-43
12. A delay in proper surgical care is a major cause of preventable deaths in trauma care, and the earliest possible identification of potential lethal injuries is critical, according to an article, *Whole-body multislice computed Tomography (MSCT) improves trauma care in patients requiring surgery after multiple trauma*. Ex. A, pp. 16, 45-49
13. Currently, patients at the existing ED that require a CT scan are transported to the Hospital’s radiology department. Patient transport time can range from three to seven minutes, depending on the transporter, patient, required ancillary equipment (e.g., IV poles, ventilator) and accompanying staff. Ex. A, pp. 13-14
14. The new ED is located farther from the radiology department than the existing ED. While the new ED will have a designated trauma elevator, the elevator from the basement to the existing building will be shared with other departments, making wait-time more variable. As a result, the time it will take to transport a patient from the new ED to the radiology department could surpass 10 minutes. Ex. A, p. 14
15. The 320-slice CT scanner provides high-resolution images in less time and will allow for faster, more accurate diagnoses with less radiation. Ex. A, p. 15
16. The proposed CT scanner would serve as an alternative in the event that the existing CT is offline due to malfunction or maintenance. It will also prevent delays for outpatients who may be forced to reschedule scans if emergency patients require scanning. Ex. A, pp. 17-18

17. The Hospital's primary service area consists of the following towns:

**TABLE 1
SERVICE AREA TOWNS**

Town	Scans	% Scans
Stamford	22,390	74%
Norwalk	1,138	5%

Ex. A, p. 23

18. The Hospital's ED patients receive approximately 15,000 CT scans each year, approximately half of all CT scans performed at the Hospital in the last three fiscal years. The table below shows the current and projected volume for all CT scanners operated by the Hospital:

**TABLE 2
HISTORICAL, CURRENT, AND PROJECTED VOLUME**

CT Scanner	Actual Volume			CFY Volume	Projected Volume			
	FY 2012	FY 2013	FY 2014	FY 2015***	FY 2016	FY 2017	FY 2018	FY 2019
Inpatient	9,853	9,414	9,099	9,444	9,099	9,399	9,399	9,399
Outpatient	7,686	6,731	6,111	6,674	6,358	6,485	6,615	6,747
ED*	13,184	15,408	15,060	15,602	15,248	-	-	-
Total	30,723	31,553	30,270	31,720	-	15,248	16,014	16,146
ED**	-	-	-	-	-	15,467	15,467	15,467
Total	31,353	31,553	30,270	31,720	30,705	31,351	31,481	31,613

Stamford Hospital's Fiscal Year is October 1- September 30

*CT scans performed on ED patients in the Radiology Department

** Proposed new CT

*** May YTD, annualized

Note: Volume decline from FY13 to FY14 is based on: a shift of O/P volume from the Hospital campus to the Hospital's ambulatory imaging sites, contract with a new radiology group that started in January 2013 and the ED's campaign to decrease the number of CT scans to limit radiation exposure.

Ex. A, pp. 20, 22 and Ex. C. pp. 203-205

19. The population to be served by the proposed CT scanner is the same population that is currently served by the existing scanners and therefore, there will be no impact on existing providers or duplication of services. Ex. A, p. 21

20. The Applicant's payor mix will remain unchanged as a result of this proposal.

**TABLE 3
APPLICANT'S CURRENT & PROJECTED PAYER MIX**

Payor	2014	2015	2016	2017	2018	2019
	%	%	%	%	%	%
Medicare*	27%	27%	27%	27%	27%	27%
Medicaid*	16%	16%	16%	16%	16%	16%
CHAMPUS & TriCare	0%	0%	0%	0%	0%	0%
Total Government	43%	43%	43%	43%	43%	43%
Commercial Insurers	51%	51%	51%	51%	51%	51%
Uninsured	5%	5%	5%	5%	5%	5%
Workers Compensation	1%	1%	1%	1%	1%	1%
Total Non-Government	57%	57%	57%	57%	57%	57%
Total Payer Mix	100%	100%	100%	100%	100%	100%

*Includes managed care activity.
Ex. C. p.207

21. The proposed CT scanner will provide services to all patient populations including Medicaid, Medicare, commercially insured and uninsured patients. Ex. A, p. 27

22. The proposed acquisition will be funded from the Applicant's cash from operations. Ex. A, p. 26

23. The proposal's total capital expenditure is shown below:

**TABLE 4
TOTAL PROPOSAL CAPITAL EXPENDITURE**

Purchase	Cost
Equipment	\$1,366,146
Total Project Cost	\$1,366,146

Ex. A, p. 26

24. The Hospital projects an incremental increase in operating expenses but overall gain from operations in each of the first three years following the proposed equipment acquisition (FY 2017-2019).

TABLE 5
THE HOSPITAL'S PROJECTED INCREMENTAL REVENUES AND EXPENSES

Description	FY 2017	FY 2018	FY 2019
Revenue from Operations	\$498,000	\$689,000	\$894,000
Total Operating Expenses*	\$386,000	\$407,000	\$430,000
Gain/(Loss) from Operations**	\$112,000	\$282,000	\$464,000

*Operating expenses include depreciation expenses and the cost of the new service contract

**Gain from operations based on volume resulting from the additional CT scanner
Ex. A, pp. 28, 198.

25. OHCA is currently in the process of establishing its policies and standards as regulations. Therefore, OHCA has not made any findings as to this proposal's relationship to any regulations not yet adopted by OHCA. (Conn. Gen. Stat. § 19a-639(a)(1))
26. This CON application is consistent with the overall goals of the Statewide Health Care Facilities and Service Plan. (Conn. Gen. Stat. § 19a-639(a)(2))
27. The Applicant has established that there is a clear public need for the proposal. (Conn. Gen. Stat. § 19a-639(a)(3))
28. The Applicant has demonstrated that the proposal is financially feasible. (Conn. Gen. Stat. § 19a-639(a)(4))
29. The Applicant has satisfactorily demonstrated that the proposal will improve quality and the accessibility of health care delivery in the region. (Conn. Gen. Stat. § 19a-639(a)(5))
30. The Applicant has shown that there would be no adverse change in the provision of health care services to the relevant populations and payer mix, including access to services by Medicaid recipients and indigent persons. (Conn. Gen. Stat. § 19a-639(a)(6))
31. The Applicant has satisfactorily identified the population to be affected by this proposal. (Conn. Gen. Stat. § 19a-639(a)(7))
32. The Applicant's historical provision of treatment in the service area supports this proposal. (Conn. Gen. Stat. § 19a-639(a)(8))
33. The Applicant has satisfactorily demonstrated that this proposal would not result in an unnecessary duplication of existing services in the area. (Conn. Gen. Stat. § 19a-639(a)(9))
34. The Applicant has demonstrated that there will be no reduction in access to services by Medicaid recipients or indigent persons. (Conn. Gen. Stat. § 19a-639(a)(10))

35. The Applicant has demonstrated that the proposal will not negatively impact the diversity of health care providers and patient choice in the region. (Conn. Gen. Stat. § 19a-639(a)(11))
36. The Applicant has satisfactorily demonstrated that the proposal will not result in any consolidation that would affect health care costs or access to care. (Conn. Gen. Stat. § 19a-639(a)(12))

DISCUSSION

CON applications are decided on a case by case basis and do not lend themselves to general applicability due to the uniqueness of the facts in each case. In rendering its decision, OHCA considers the factors set forth in § 19a-639(a) of the Statutes. The Applicants bear the burden of proof in this matter by a preponderance of the evidence. *Jones v. Connecticut Medical Examining Board*, 309 Conn. 727 (2013).

The Applicant, Stamford Hospital, is a 305-bed acute care hospital and a Primary Stroke Center/Level II Trauma Center located in Stamford, CT. *FF1,4* The Applicant is seeking authorization for the acquisition of a 320-slice CT scanner to be located in its new modernized Emergency Department. *FF2,3* Currently, ED patients requiring a CT scan must be transported from the ED to the Radiology Department, regardless of the severity of their illness or injury. *FF13*

Many Emergency Departments are equipped with a dedicated CT scanner to allow fast access for trauma patients and medical emergencies. *FF6* Dedicated ED CT scanners can quickly and accurately provide diagnostic imaging of serious medical conditions and potentially life threatening illnesses and accidents. *FF7* According to one study, integrating a CT scanner into the trauma room reduced the time required for a CT examination from 87 to 38 minutes and the mortality rate declined from almost 15% to 8.6%. *FF8* Research has also shown that immediate scans for patients with blunt major trauma leads to more accurate and faster diagnosis, and reduction in ER, ER-to-operating room and ER-to-intensive care unit times as well as declines in ventilation, ICU, hospital days and organ failure rates. *FF9* Both the American Heart and Stroke Associations best practices stress the need for initiation of a CT scan within 25 minutes of arrival and complete interpretation of the scan within 45 minutes. *FF10* Research also indicates the importance of completing a patient's radiological survey within 30 minutes after ED admission. *FF11* A delay in proper surgical care is a major cause of preventable deaths in trauma care, and the earliest possible identification of potential lethal injuries is critical, particularly those patients suffering from stroke or trauma. *FF12* Without a dedicated ED CT scanner, the Hospital risks loss of certification as a Level II Trauma Center. *FF5*

In addition to benefits to the Hospital's critically ill ED patients, access overall will be improved, as the proposed scanner will serve as a backup in the event that the Radiology Department CT scanner goes offline due to malfunction or maintenance issues. The existence of a backup scanner will prevent delays for outpatients who may otherwise be forced to reschedule if emergency patients require scanning. *FF16* Quality of care will also be improved, as the proposed 320-slice CT scanner provides high-resolution images in less time, allowing for faster and more accurate diagnoses with less radiation. *FF15* Locating a CT scanner in the ED is also supported by the volume of ED patients scanned, as approximately half of the Hospital's CT scans in the last three fiscal years were conducted on ED patients. *FF18*

The proposed acquisition will be funded from the Applicant's cash from operations. *FF22* The Applicant projects incremental gains from operations in each of the first three fiscal years following the proposed equipment acquisition, based on the volume resulting from the additional CT scanner. *FF24* Therefore, OHCA finds the proposal financially feasible.

The scanner will provide service to all patient populations, including Medicaid, Medicare, commercial and uninsured patients. The Applicant anticipates treating the same population and payer mix following implementation of the proposal. *FF19-21*

The Applicant has satisfactorily demonstrated that there is a clear public need for this proposal. Acquiring and locating a CT scanner in the Hospital's ED will enable more timely diagnoses and treatment of patients presenting with stroke, trauma or other life threatening conditions. Moreover, the proposal is consistent with the Statewide Health Care and Facilities Plan as it allows for a backup alternative in the event that the existing imaging equipment is offline due to malfunction or maintenance.

Order

Based upon the foregoing Findings and Discussion, the Certificate of Need application of Stamford Hospital for the acquisition of the CT scanner is hereby **APPROVED**.

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

By Order of the
Department of Public Health
Office of Health Care Access

Oct. 20, 2015
Date

Janet M. Brancifort
Janet M. Brancifort, MPH, RRT
Deputy Commissioner