



HAWAII STATE HEALTH PLANNING AND DEVELOPMENT AGENCY

STANDARD APPLICATION – CERTIFICATE OF NEED PROGRAM

Application Number 05-04

Applicant: Castle Medical Center
640 Ulukahiki Street
Kailua, HI
Phone: 808-263-5500

Project Title: Establishment of Interventional Cardiac Catheterization
Services

1. **TYPE OR ORGANIZATION:** (Please check all applicable)

Public	_____
Private	<u> X </u>
Non-profit	<u> X </u>
For-profit	_____
Individual	_____
Corporation	<u> X </u>
Partnership	_____
Limited Liability Corporation (LLC)	_____
Limited Liability Partnership (LLP)	_____
Other: _____	_____

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2. **PROJECT LOCATION INFORMATION:**

A. Primary Service Area(s) of Project: (Please check all applicable)

Statewide:	_____
O`ahu-wide:	<u> X </u>
Honolulu:	_____
Windward O`ahu:	<u> X </u>
West O`ahu:	_____
Maui County:	_____
Kaua`i County:	_____
Hawai`i County:	_____

3. **DOCUMENTATION** (Please attach the following to your application form):

A. Site Control documentation (e.g. lease/purchase agreement, DROA agreement, letter of intent)

The designated area is located on the Castle Medical Center campus and is owned by Castle Medical Center. There is no site control documentation.

B. A listing of all other permits or approvals from other government bodies (federal, state, county) that will be required before this proposal can be implemented (such as building permit, land use permit, etc.)

No other permits are required for this project.

C. Your governing body: list by names, titles and address/phone numbers

Year 2004 list included – see Attachment 1.

D. If you have filed a Certificate of Need Application this current calendar year, you may skip the four items listed below. All others, please provide the following:

- Articles of Incorporation
- By-Laws
- Partnership Agreements
- Tax Key Number (project's location)

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Documents on file and unchanged since 1/16/2004 application approval
(CON # 03 – 35A).

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4. **TYPE OF PROJECT.** This section helps our reviewers understand what type of project you are proposing. Please place an "x" in the appropriate box.

	Used Medical Equipment (over \$400,000)	New/Upgraded Medical Equip. (over \$1 million)	Other Capital Project (over \$4 million)	Change in ownership	Change in service/establish new service/facility	Change in Beds
Inpatient Facility					X	
Outpatient Facility						
Private Practice						

5. **TOTAL CAPITAL COST:** None

6. **BED CHANGES.** Please complete this chart only if your project deals with a change in your bed count and/or licensed types. Again, this chart is intended to help our reviewers understand at a glance what your project would like to accomplish. Under the heading "Type of Bed," please use only the categories listed in the certificate of need rules.

Type of Bed	Current Bed Total	Proposed Beds for your Project	Total Combined Beds if your Project is Approved
TOTAL			

7. **CHANGE IN SERVICE.** If you are proposing a change in service, then please briefly list what services will be added/modified. Be sure to include the establishment of a new service or the addition of a new location of an existing service. Please consult Certificate of Need Rules Section 11-186-5 for the categories of services. If you are unable to determine which category best describes your project, please consult with agency staff.

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Establish an interventional cardiac catheterization laboratory.

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8. **PROJECT COSTS AND SOURCES OF FUNDS (For Capital Items Only)**

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Castle does not anticipate any capital costs for this project.

A. List All Project Costs:	AMOUNT:
1. Land Acquisition	_____
2. Construction Contract	_____
3. Fixed Equipment	_____
4. Movable Equipment	_____
5. Financing Costs	_____
6. Fair Market Value of assets acquired by lease, rent, donation, etc.	_____
7. Other: _____	_____
TOTAL PROJECT COST:	_____ \$0

B. Source and Method of Estimation

Describe how the cost estimates in Item "A" were made, including information and methods used:

Castle does not anticipate any need for funding.

C. Source of Funds	AMOUNT:
1. Cash	_____
2. State Appropriations	_____
3. Other Grants	_____
4. Fund Drive	_____
5. Debt	_____
6. Other: _____	_____
TOTAL SOURCE OF FUNDS:	

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9. IMPLEMENTATION SCHEDULE: Please present a projected time schedule for the completion of this project from start to finish. Include all of the following items that are applicable to your project:

a) Date of site control for proposed project.

The site designated for the cardiac catheterization lab exists on the campus of Castle Medical Center.

b) Dates by which other government approvals/permits will be applied for and received.

Feb. 2005 – Complete & Submit CON.

c) Dates which financing is assured for the project.

Not applicable.

d) Date construction will commence.

Not applicable.

e) Length of construction period.

Not applicable.

f) Date of completion of the project.

Not applicable.

- g) Date of commencement of operation.

Approximately April 2005.

Please remember that the Agency does monitor the implementation of Certificates approved. Non-implementation of a project as described in your application may result in a fine and/or withdrawal of the Certificate of Need.

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10. **EXECUTIVE SUMMARY:** Please present a brief summary of your project. In addition, provide a description of how your project meets each of the Certificate of Need criteria listed below. If a new location is proposed, please attach an easy to read map that shows your project site.

- a) Relationship to the Hawai'i Health Performance Plan (H2P2), also known as the State of Hawai'i Health Services and Facilities Plan
- b) Need and Accessibility
- c) Quality of Service/Care
- d) Cost and Finances (include revenue/cost projections for the first and third year of operation)
- e) Relationship to the Existing Health Care System
- f) Availability of Resources

Castle Medical Center ("Castle") serves, primarily, the Windward Oahu area. Currently, Castle's emergency patients experiencing myocardial infarction ("heart attack") must be transported to downtown Honolulu to receive comprehensive interventional cardiac catheterization services because such services are not available at Castle. Pursuant to this Certificate of Need application, Castle is seeking to establish an interventional cardiac catheterization lab ("Interventional Cath Lab") at its Kailua facility located at 640 Ulukahiki Street, Kailua, Hawaii.

There are two general types of cardiac catheterization services: diagnostic and interventional. Diagnostic cardiac catheterization services identify blockages that can lead to heart attacks at some point in the future. Such diagnostic services allow for early signs of heart attack or heart disease to be detected. Castle currently maintains a diagnostic cardiac catheterization lab at its Kailua facility.

Interventional cardiac catheterization services, on the other hand, allow balloons and other devices to open blocked arteries when a heart attack is imminent or has already occurred. Such procedures are invaluable for patients experiencing a heart attack. Therefore, Castle proposes to establish an Interventional Cath Lab at its main medical campus.

When a heart attack is occurring, time is obviously very crucial. Any delay in treatment may result in a fatality. Currently, Castle transfers heart attack patients to downtown Honolulu hospitals because it does not have approval to use technology necessary for interventional catheterization

treatment. Due to travel time and arranging for services at another hospital, treatment can be unnecessarily delayed from 30 minutes to an excess of three hours. Unfortunately, this delay in care results in needless fatalities and increased health care costs.

As the only major medical facility in Windward Oahu, establishment of an Interventional Cath Lab will allow Castle to provide an invaluable service to Windward heart attack patients. The proposed Interventional Cath Lab will allow Castle to provide various emergent catheterization procedures, including angioplasty, to patients on the verge of succumbing to heart attack. Furthermore, this expanded service will greatly enhance Castle's ability to provide quality health care to all residents and patients of Windward Oahu.

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Castle currently does not have a heart surgery team available on site. Traditionally, hospitals have been denied catheterization technology where there is no surgical team on site to deal with complications that may occur during catheterization. Recently, however, the American College of Cardiology ("ACC") acknowledged the tremendous value provided by interventional catheterization even where a surgical team is not on site. Therefore, the lack of a surgical team should not interfere with Castle's development of an Interventional Cath Lab.

A. Relationship to the Hawaii Health Performance Plan (H2P2), also known as the State of Hawaii Health Services and Facilities Plan.

Interventional cardiac catheterization is a powerful tool that primary care and specialty physicians use to service patients threatened by myocardial infarction or "heart attack." The Hawaii Health Performance Plan (H2P2) goals include: increasing the span of a healthy life for Hawaii residents, reducing health disparities among Hawaii residents, and achieving equitable and effective access at a reasonable cost for all Hawaii residents to health services that are responsible to the holistic needs of community's members. The proposed Interventional Cath Lab will achieve these goals by allowing all physicians and their patients "improved access to quality health care services." The proposed Interventional Cath Lab will allow Windward Oahu residents access to quality health care twenty-four hours a day, seven days a week. Ultimately, an Interventional Cath Lab will allow Castle to achieve its goals of maintaining its high quality of care, improving the continuity of care, decreasing the mortality rate, and minimizing travel time for patients and residents of Windward Oahu. Health disparities among Hawaii's residents' will also be reduced by having the service available to senior citizens and low income families.

H2P2 requires that a new cardiac catheterization lab have a minimum utilization of 750 adult cardiac catheterization procedures in the third year of operation. Castle expects to exceed this number by its third year of operation. Castle services approximately 130,000 Windward residents.

There are approximately 1,000 catheterization procedures performed per 100,000 residents in any given location in Hawaii. Therefore, the demand for catheterization services is approximately 1300 individuals per year. In addition, H2P2 requires other cardiac catheterization laboratories on Oahu to average 1,000 procedures. Two cardiac catheterization laboratories on Oahu do not meet the minimum threshold, including one at Castle. See SHPDA Utilization Report, Cardiac Catheterization, 2003. These two labs applied for and were approved for diagnostic catheterization labs that are limited to performing diagnostic procedures only and do not perform interventional procedures. This results in a lower utilization rate for these two machines. With the addition of the proposed interventional procedures, Castle expects to provide a critical service to a currently underserved population in Windward Oahu while increasing utilization of its existing Cath Lab toward the H2P2 threshold.

Considering Castle's location and position as the foremost medical facility in Windward Oahu, the proposed Interventional Cath Lab is expected to reach a utilization of 135 interventional procedures in its first year of operations. By its third year of operation, as a result of marketing and an increased awareness of the program, Castle expects the Interventional Cath Lab to reach a utilization of 210 interventional procedures. Where Castle performs 210 interventional procedures in its third year of operations, this will equal 315 diagnostic equivalent procedures (1.5 x 210). In addition, Castle expects to perform approximately 449 diagnostic only procedures in its third year of operations, based on a five percent yearly increase from the previous year. Therefore, Castle expects to perform a total of 764 diagnostic equivalent procedures in the third year of operation (449 procedures + 315 procedures = 764 procedures). Please see Table 1 below.

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Table 1

Procedure Type	Year 1	Year 2	Year 3
Interventional, actual	135	198	210
Interventional, diagnostic equivalent (X 1.5)	203	297	315
Diagnostic only (X 1.0)	407	428	449
Total Diagnostic Equivalent	610	725	764

Chapter VII of H2P2, relating to Heart Disease and Stroke, outlines strategies for reducing the impact of coronary vascular disease in Hawaii. Among the strategies listed, three apply directly to this proposal:

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"decrease the time from onset of symptoms for Acute Myocardial Infarction (AMI) or stroke to presentation to the emergency department..."; "decrease time from the emergency department (ED) arrival to treatment with thrombolytic therapy for AMI...unless contraindicated..."; and "increase the number of persons receiving thrombolytic therapy when appropriate." As recognized in the medical community, receiving treatment within the first hour, the "golden hour," after the onset of heart attack symptoms is crucial to preventing a fatality. While clot busting drugs are often used within this first hour to prevent damage, angioplasty has been shown to be a superior treatment, which must be administered through an interventional catheterization procedure. Given the transit time to a Honolulu interventional cardiac catheterization lab from Windward Oahu, the likelihood of death is exponentially increased for Windward patients. Therefore, an Interventional Cath Lab positioned at Castle, which serves Windward Oahu, will greatly increase the likelihood that a heart attack patient will receive treatment within the "golden hour" time period.

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B. Need and Accessibility

Castle serves approximately 130,000 Windward Oahu residents. Centers for Disease Control (CDC) reports indicate typical nationwide utilization of approximately 1,000 catheterization procedures per 100,000 residents per year. (see Ambulatory and Inpatient Procedures in the U.S., 1996; 2002 National Hospital Discharge Survey, Centers for Disease Control and Prevention) Therefore, there is an apparent demand in Windward Oahu for approximately 1,300 catheterization procedures per year, including both diagnostic procedures and interventional procedures.

The proposed Interventional Cath Lab will specifically address the needs of residents in the communities served by Castle. This will be the only Interventional Cath Lab in Castle's geographical area and will serve a population of over 130,000 residents.

In addition to Castle's residents in Windward Oahu, the proposed Interventional Cath Lab will be available for residents of all ages, ethnicities, and economic income levels throughout Hawaii. Castle currently provides and will continue to provide services for all residents of the area, and in particular low income persons, racial and ethnic minorities, handicapped persons, elderly persons and other underserved groups.

C. Quality of Service/Care

The proposed Interventional Cath Lab will operate in the tradition of Castle's mission to provide the highest quality of care. The certified and experienced staff will work along side Castle's board certified cardiologists to ensure that Castle provides high quality interventional cardiac catheterization services. Castle will comply with State and Federal

regulations for delivery of care, maintenance of service equipment, and maintenance of clinical environment. Castle is accredited by the Joint Commission of Accredited Healthcare Organizations (JCAHO), licensed by the State of Hawaii Department of Health, and is in good standing with the Medicaid and Medicare healthcare programs. Castle provides patient care through well-defined processes for caregivers. Castle has also demonstrated on-going commitment to prevention of cardiac illness by maintaining at a financial loss the only civilian, medical center based outpatient cardiac rehabilitation program on the island of Oahu while all other medical centers have closed their outpatient programs.

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D. Cost & Finances

Castle does not expect this project to have any capital costs. Any miscellaneous costs will be paid for with cash.

E. Relationship to the Existing Health Care System

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Castle Medical Center is the current anchor healthcare facility for the Windward communities. The proposed Interventional Cath Lab will enhance Castle's cardiac catheterization services by allowing Castle's patients access to a valuable interventional tool twenty-four hours a day, seven days a week. This proposal will allow Castle to provide Interventional Cath Lab services to patients who might otherwise have to travel to Honolulu. Such delays can add to the cost of health care and disrupt the continuity of care for these patients. The proposed Interventional Cath Lab will expedite treatment and recovery by allowing Windward patients an alternative to seeking treatment in Honolulu.

F. Availability of Resources

The proposed Interventional Cath Lab will staff 3 FTE registered nurses and 4 FTE radiologic technologists. The current diagnostic catheterization lab staffs 1.5 FTE registered nurses and 2 FTE radiologic technologists; these employees will continue to staff the proposed Interventional Cath Lab. An additional 1.5 FTE registered nurses and 2 FTE radiologic technologists will be recruited and hired. One registered nurse or radiologic technologist will serve as the proposed Interventional Cath Lab Coordinator. The Coordinator will manage day-to-day activity in conjunction with technical staff, cardiologists and hospital administrators.