


## Section I. General Applicant Information

	<b>CERTIFICATE OF NEED APPLICATION</b>  <b>APPLICANT IDENTIFICATION AND CERTIFICATION OF ACCURACY</b>
<b>1. Applicant Identification</b>	
<b>Facility Name</b> Providence Alaska Medical Center	<b>Medicaid Provider Number</b> HP11IP; HS11OP
<b>Facility Address (Street/City/State/Zip Code)</b> 3200 Providence Drive, Anchorage, AK 99508	<b>Medicare Provider Number</b> 020001
<b>Name and mailing address of organization that operates the facility</b> (if different from above) P.O. Box 196604, Anchorage, AK 99519-6604	
<b>Facility Administrator</b> (Name, title, mailing address, including City/State/Zip Code) Bruce Lamoureux; CEO/Administrator, Providence Alaska Medical Center P.O. Box 196604, Anchorage, AK 99519-6604	<b>Telephone</b> 907-261-3675 <b>Facsimile</b> 907-261-3041 <b>E-mail:</b> blamoureux@provak.org
<b>Applicant</b> (Name, title, mailing address, including City/State/Zip Code) Bruce Lamoureux; CEO/Administrator, Providence Alaska Medical Center P.O. Box 196604, Anchorage, AK 99519-6604	<b>Telephone</b> 907-261-3675 <b>Facsimile</b> 907-261-3041 <b>E-mail:</b> blamoureux@provak.org
<b>Principal Contact Person</b> (Name, title, physical address, mailing address, including City/State/Zip Code) Lisa Wolf, Regulatory Analyst, Providence Health System in Alaska P.O. Box 196604, Anchorage, AK 99519-6604	<b>Telephone</b> 907-261-3037 <b>Mobile Phone</b> 907-227-8746 <b>Facsimile</b> 907-261-2884 <b>E-mail</b> lwolf@provak.org
<b>2. Ownership Information</b>	
<b>A. Type of Ownership</b> (check applicable category) <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> For profit: individual  <input type="checkbox"/> For profit: partnership  <input type="checkbox"/> For profit: corporation         </div> <div> <input type="checkbox"/> Not for profit: government  <input checked="" type="checkbox"/> Not for profit: corporation  <input type="checkbox"/> Other (specify): _____         </div> </div>	
<b>B. List of all Owners</b> (Page 2 of application) <b>C. Accreditation Information</b> (Page 2 of application)	
<b>3. Certification of Accuracy by Certifying Officer of the Organization</b>	
I hereby certify that the information contained in this application, including all documents that form any part of it, is true, to the best of my knowledge and belief. I agree to provide, within 60 days from receipt of a request from the department under 7 AAC 07.050(b), any additional information needed by the department to make a decision.	
<b>Name</b> Bruce Lamoureux	<b>Title</b> Administrator, Providence Alaska Medical Center
<b>Signature</b>	<b>Date</b>



**Part 2.B., provide the following ownership information under each requirement, using as much space as necessary to provide complete information:**

**(1) For individual owners and partnerships, list the names, titles, organizational name, mailing and street addresses, and telephone and facsimile numbers of the owners or partners.**

**(2) For corporations, list the names, titles, and addresses of the corporate officers and Board of Directors. If the facility is a subsidiary of another company or has multiple owners, provide the names and addresses of the all of companies that have ownership in the facility.**

**(3) For governmental or other nonprofit owners, list the names and addresses of hospital board members.**

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Anchorage, AK 99517



**For Part 2.C.**

**Is this facility accredited or certified by a recognized national organization? Yes**

**If yes, identify the organization, the date of accreditation or certification, and attach as an appendix to this application a copy of the most current accreditation or certification.**

Providence Alaska Medical Center (PAMC) is accredited by the Joint Commission. PAMC was surveyed in July 2008 and received accreditation through October 2011. A copy of the recent survey accreditation is in the appendices.



## **Section II. Summary Project Description**

**1) A brief description of each proposed service, including whether equipment will be purchased or replaced.**

This project is to build an electrophysiology laboratory. Existing space at PAMC will be converted into the EP laboratory. Several other moves must take place to make this space available. Ultrasound must be relocated into existing Clinical Laboratory office space. The Clinical Laboratory office functions will be relocated into vacant space formerly used for Cancer Therapy. A drawing illustrating these locations is located in the appendix.

**2) The number of square feet of construction/renovation.**

A total of 6458 sq ft will be renovated as part of this project.

**3) The number and type of beds/surgery suites/specialty rooms.**

No additional patient beds or operating suites will be added.

**4) Services to be expanded, added, replaced, or reduced.**

The service to be expanded is one electrophysiology catheterization laboratory.

**5) The total cost of the project.**

The total cost of the project is \$7,030,727.

**6) How the project will be financed.**

The project will be paid for through accumulated revenues.

**7) Completion date.**

The electrophysiology catheterization laboratory would be operational in July 2010.



### Section III. Description of Facilities and Services

**A. Proposed changes in service capacity. Provide either the number of beds, surgery suites, rooms, pieces of equipment, or other service.**

Type of Service	Current Capacity	Added, Expanded, or Replacement Capacity	TOTAL PROPOSED CAPACITY
<b>IN-PATIENT ACUTE CARE HOSPITALS</b>			
Med/Surg Beds			
1-bed room/unit	152	0	152
2-bed room/unit	16	0	16
Other (list): NICU	38	0	38
ICU Beds	37	0	37
Obstetrics Beds	36	0	36
Pediatric Beds	32	0	32
Acute Rehab Beds	10	0	10
Ancillary Services (list)	0	0	0
<b>BEHAVIORAL HEALTH CARE</b>			
In-patient Acute Psychiatric Beds	27	0	27
RPTC Beds	0	0	0
In-patient Substance Abuse Beds	0	0	0
<b>LONG-TERM CARE</b>			
Acute Beds	0	0	0
Nursing Beds	0	0	0
<b>DIAGNOSTIC AND DIAGNOSTIC IMAGING SERVICES</b>			
CT Scanner	2	0	2
MRI	1	0	1
PET or PET/CT	0	0	0
Cath Laboratory	4	0	4
<b>EP Lab</b>	<b>1</b>	<b>1</b>	<b>2</b>
<b>SURGICAL CARE</b>			
Dedicated OP	0	0	0
Dedicated IP	0	0	0
Both IP & OP	15	0	15
Endoscopy	4	0	4
Open-Heart Surgery	1	0	1
Organ Transplantation	0	0	0
Ambulatory Surgery	0	0	0
Other Services (list): Cysto Dedicated OR	1	0	1
<b>THERAPEUTIC CARE</b>			
Radiation Therapy	2	0	2
Lithotripsy	0	0	0
Renal Dialysis	6	0	6
Other (List)			
<b>Total Capacity</b>	326 licensed beds	0	326 licensed beds

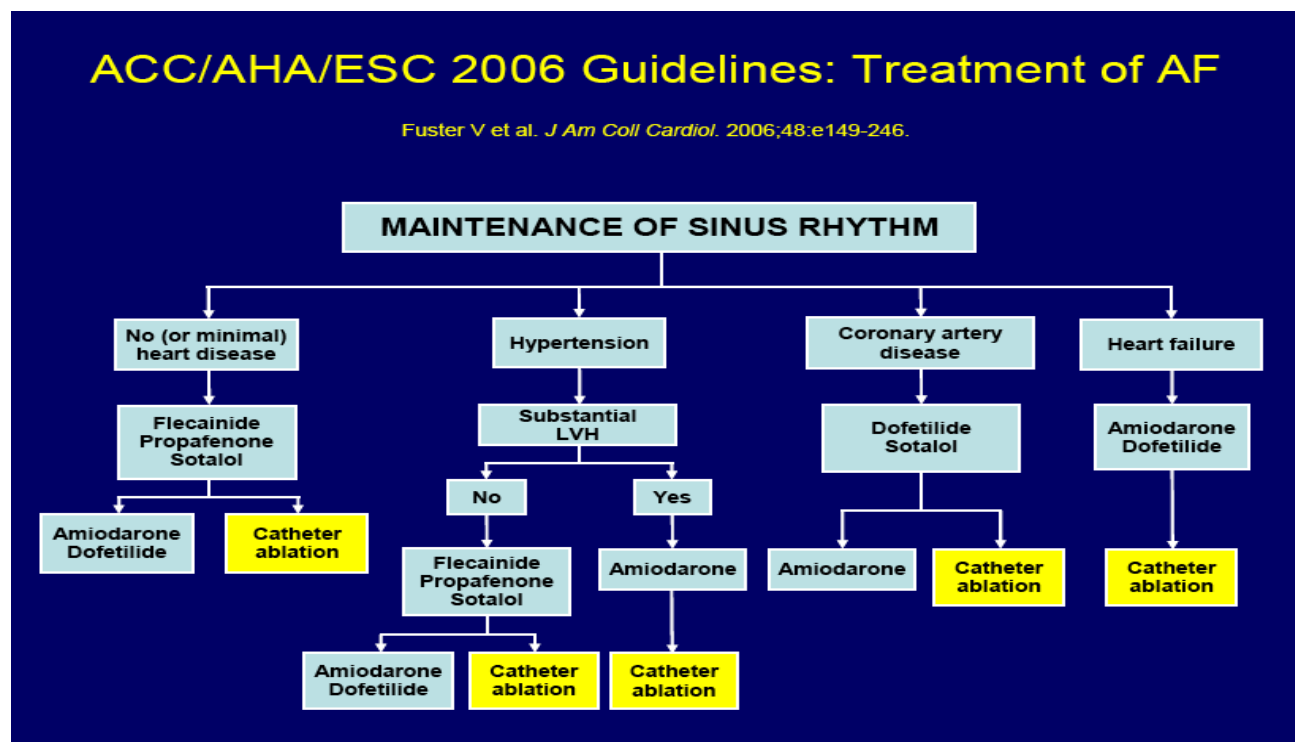


**B. Provide a detailed narrative description of each service identified in "A" above, including the type of change (addition, expansion, conversion, reduction, replacement, elimination). Include, as appropriate, detailed information relative to the scope and level of service.**

PAMC currently has one dedicated electrophysiology lab and another cardiac catheterization lab that does EP procedures 60% of the time. EP labs use electrocardiograms and 3D mapping equipment to perform electrical mapping of the heart.

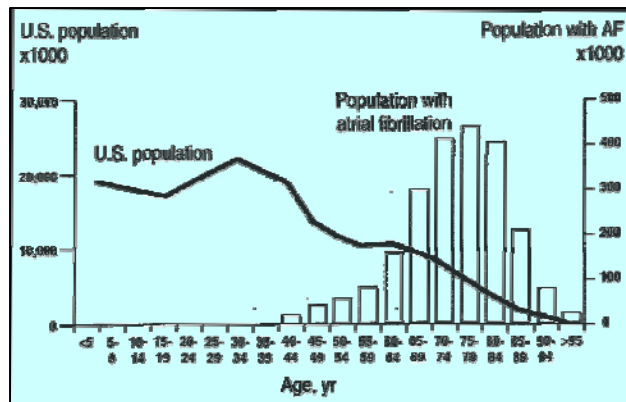
EP procedures diagnose, manage and treat abnormal heart rhythms. This is done with defibrillator implants, internal cardiac defibrillators (ICDs) and ablations. Ablations are performed by inserting into the patient's atria a catheter fitted with a tip that emits radiofrequency energy. The energy burns heart tissue, creating scars. The catheter is moved along the wall of the atria to create line-shaped scars. The scar lines isolate parts of the atria responsible for triggering arrhythmias, thus eliminating the arrhythmias.

With recent changes in technology and technique, ablations have become the preferred treatment of choice for atrial fibrillations (AF). AF is the leading cause of cardiac arrhythmia. Ablations have become the preferred treatment option over oral medications because it is curative.



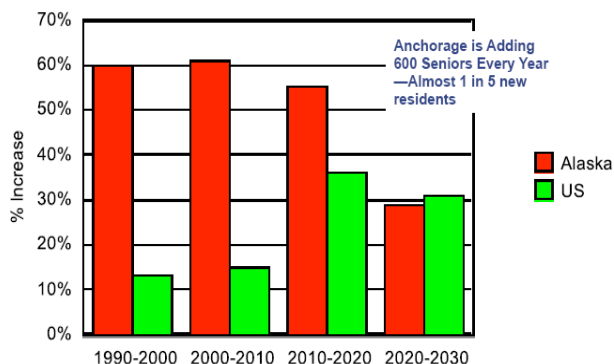


## Population with Atrial Fibrillation by Age



AF is a debilitating disease that significantly affects one's quality of life and also substantially increases the likelihood of a stroke. The incidence of AF dramatically increases with age. Patients as young as 60-64 have AF at a rate of 100 people per 1000 population. By the age of 80-84, the rate has increased to 450 people per 1000 population. This increase in incidence rate is a major factor in increased demand for Alaska. The Anchorage population age 65 + is estimated to grow 85% by 2016. With this projected growth rate, demand will double and then the added increase in incidence rate should increase volumes substantially again.

## Growth of Senior Population 65+: Alaska vs. US



Because of the high incidence of atrial fibrillation, there is currently a three month waiting list for ablations alone. This proposed EP lab will be dedicated to doing ablations only. Because of the length of time it takes to do an ablation (3-4 hours), only about 2.25 cases can be done a day. Operating 250 days a year, the lab will perform about 563 cases a year. This volume will be the unserved

volume of ablations. The current volumes being seen in the labs will be unaffected.

The current dedicated EP lab and other cath lab that performs EP procedures will continue to provide the variety of EP procedures they are currently doing. The proposed lab will address the huge demand for ablations.

The proposed EP lab will be placed next to the other labs performing EP procedures. In order to accomplish that adjacency, Ultrasound will need to be relocated to the lab and offices in the lab will be moved to a currently vacant space. These moves will allow all the cardiac and EP labs to be located together and have the necessary adjacencies to the Cardiovascular Observation unit for the preparation and recovery of their patients.



**C. Provide in the following table information regarding equipment to be purchased.**

<b>Equipment Description</b>	<b>Unit Cost</b>
Bair Hugger Warming unit	N/C
Pyxis Med Storage Unit	Lease
X-ray, Bi-plane	1,888,002
System One Monitoring	460,000
EnSite Ablation	315,924
Carto Mapping	185,000
Cardiac Monitoring System	125,000
Accunav ICE	60,000
Sound for mapping	45,000
EP-4 Stimulator	26,000
Stockert Generator RF	20,000
Storage Cabinets	15,000
Thermocool	10,000
Defibrillator w/Pacemaker	8,484
Bovie Generator	8,400
Oxicom	7,200
pacemaker, External	5,500
Cart, Resuscitation	2,857
<b>Total Capital Equipment Expensed</b>	<b>3,182,367</b>
X-Ray Equip Service Contract*	581,760
2 PCs	2,000
Chairs (2)	1,600
Printer	1,000
Stainless table 3x2	800
Laminate table 5x 21/2	750
Table, Instrument, 48"	551
Hoses for Anesthesia Drop	500
Hamper Linen	495
4 Mac Lab Transducer Cables	300
3 Waste Cans, Swing Top	295
Regulator, Suction	246
Slider Board	200
IV Pole	183
Clock	120
Dispenser, Glove Box	52
2 flowmeters, oxygen	50
Waste Can, Open	50
<b>Total Expensed Equipment</b>	<b>590,952</b>
<b>Total Equipment</b>	<b>3,773,319</b>



**D. Provide in the following table information regarding equipment to be replaced or retired.**

NA

**E. Describe replacement or upgrading of utilities including the electrical, heating, ventilation, and air conditioning systems.**

The electrical infrastructure will be enhanced by adding a new main panel to accommodate the demands of the new catheterization lab emergency power needs.

**F. Describe the structural framing, floor system, and number of floors (including the basement).**

This project is a remodeling of existing space with no added square footage. The catheterization lab construction will include steel studs, lead lined sheet rock and a new unistrut ceiling system.

**G. Total square footage in current facility/project.**

The square footage of Providence Alaska Medical Center is 747,025 SF.  
There will be no additional square footage added to PAMC.

**H. Total square footage of proposed facility/project.**

No square footage will be added in this project. The space being remodeled is about 6,458 sq ft. and includes:

- Space for EP Lab - 1948 sq ft
- Space for Ultrasound and associated services - 3080 sq ft
- Space for a section of Laboratory services - 1430 sq ft.

The total square footage of Providence Alaska Medical Center after this project will be 747,025 SF.

**I. Area per bed, service unit, or surgery suite (if applicable).**

NA.

**J. Percentage of total floor area used for direct service (non-bed activity).**

In this project, 77% of the area will be used for direct patient care.

**K. Additional volume of service (non-bed activity) expected.**

The proposed lab can expect to provide 562 cases per year at maximum occupancy.  
Maximum occupancy is expected in year one and the following years.

**L. Provide a brief history of expansion and construction for the past five years, including new equipment purchases, additional beds, and new services. Describe how this project fits into the facility's long-range plans, including potential projects planned for development within the next five years.**

Over the last five years, PAMC has:

- Upgraded radiology services (2000)



- Upgraded NICU (2001)
- Addition of a Medical Office Building (2004)
- Upgraded Pharmacy (2005)
- Replacement of Linear Accelerator (2005) and
- Addition of a Surgical Robot (2005)
- Replacement of Catheterization Lab (2005)
- Addition of an Medical Office Building (2005)
- Replacement of Catheterization Lab (2006)

Through the Certificate of Need process, PAMC has completed:

- Magnetic Resonance Imaging System (2004) and
- Long Term Acute Care Hospital as a Joint Venture (2005)
- Expansion of the Post Anesthesia Care Unit (2006)
- Relocation and Expansion of the Cancer Center (2006)
- Expansion of the Cardiovascular Observation Unit (2007)
- Expansion and Relocation of Sports Medicine/Rehabilitation Therapy (2007)
- Expansion of the Neonatal Intensive Care Unit (2007)
- Addition of a Cardiac Catheterization Laboratory (2007)

Providence Health System in Alaska has a three year Strategic Plan that is updated each year. The current plan acknowledges the population growth of Anchorage and Alaska, especially in the age cohorts of 45-64 and 65 plus. These populations are large users of health care services, especially of heart, cancer and surgery programs. All three of these areas will need to expand their capacity to continue to meet the demand of the population.

In order to serve the growing population, efforts to recruit additional physicians to our state will continue to be a priority. Additional medical office space will be constructed to support these new physicians. Additional physicians and the associated increase in patient levels require additional space for both diagnostic services as well as inpatient beds.



## Section IV. Narrative Review Questions

### A. RELATIONSHIP TO APPLICABLE PLANS AND NATIONAL TRENDS

**Indicate how the application relates to any relevant plans, including the applicant's long-range plans, appropriate local, regional, or state government plans, the current *Alaska Certificate of Need Review Standards and Methodologies*, adopted by reference in 7 AAC 07.025, and current planning guidelines of recognized national medical and health care groups. If the proposal is at variance with any of these documents, explain why.**

#### **Providence Alaska Medical Center Strategic Plan**

As stated in the previous question, the new EP lab is part of the 2008-2011 Strategic Plan, specifically part of the Cardiovascular Service Line Strategic Plan. This three-year plan is reviewed annually and updated as the health care environment changes. This plan is completed in coordination with our Long Range Financial Plan to assure that funding for projects will be available. The electrophysiology lab helps to support the growing population need for heart services.

#### **Alaska Certificate of Need Review Standards and Methodologies**

The State's catheterization guideline sets the target capacity at 750 procedures a year per catheterization laboratory. The guideline states that 1000 procedures is the maximum capacity for a catheterization lab or 100% capacity. See page 26 of the *Alaska Certificate of Need Review Standards and Methodologies*. In a meeting in the Spring of 2006, DHSS, Providence and Alaska Regional clarified that the term "procedure" in the State's methodology equates to "patient" (there are typically multiple procedures per patient). Following this guideline, the term "patient" is used in this CON to more accurately reflect volumes.

It is important to note that electrophysiology laboratories are different in nature than cardiac catheterization laboratories. EPs deal with the electrical system of heart and take three to four hours to complete, 2-3 times as long as cardiac catheterizations. Thus only 2-3 patients a day can be completed. At an average of 2.25 per day, this equates to 563 patients at 100% capacity. This amount is 44% less than can be done on a cardiac cath lab.

For this reason, it is appropriate and necessary to adjust the evaluative criteria. Absent this modification and review criteria, the rate limiting factor of procedure time would prevent Alaska residents from receiving appropriate EP services. Using the state's methodology and the true capacity of an EP lab, 100% capacity would equal 563 procedures and a target occupancy of 75% would equal 422 patients annually. In 2008, EP volumes at Providence totaled 874 and were operating at 150% capacity. (This was accomplished by using a multipurpose cath lab 60% of the time for EP procedures.)

Volumes at PAMC for EP procedures have been limited by having only one EP lab. A multipurpose cath lab has been utilized to accommodate the ever increasing demand with 60% of its capacity being used for EP procedures. Volumes in the last three years have grown from 738 in 2006 to 874 in 2008 reaching a capacity of 1.6 labs based on 562 procedures equaling 100% capacity. This is an 18% increase over the three years and still a three month waiting list exists.



Using the State's target capacity of 75% or 422 procedures, Table B shows that there is currently a need for two EP labs at PAMC alone.

Table A  
Providence Alaska Medical Center  
Electrophysiology Lab Volumes, 2006-2008

	2006	2007	2008
EP Patients	738	802	875
Number of Electrophysiology Labs	1	1	1
Capacity based on 562 procedures as maximum capacity	1.3	1.4	1.6
Number of labs needed based on State target capacity of 75%	1.7	1.9	2.1

Note: A multipurpose catheterization lab is being used to do EP procedures 60% of the time due to urgent patient demand. In addition, a three month waiting list exists.

Volumes at Alaska Regional Hospital have decreased slightly from 988 patients in 2006 to 918 patients in 2008. They too are limited by having only one lab to perform lengthy procedures.

Table B  
Alaska Regional Hospital  
Electrophysiology Lab Volumes, 2006-2008

	2006	2007	2008
EP Patients	988	966	918
Number of Electrophysiology Labs	1	1	1
Capacity based on 562 procedures as maximum capacity	1.8	1.7	1.6
Number of labs needed based on State target capacity of 75%	2.3	2.3	2.2

Combined, the EP volume for Alaska has grown from 1726 patients in 2006 to 1793 in 2008 an increase of 4% over the three years. Volume is high enough to justify three EP labs at 100% capacity and four labs at 75% capacity.

Table C  
Providence Alaska Medical Center and Alaska Regional Hospital  
Electrophysiology Lab Volumes, 2006-2008

	2006	2007	2008
PAMC and ARH EP Patients	1726	1768	1793
Number of Electrophysiology Labs	2	2	2
Capacity based on 562 procedures as maximum capacity	3.1	3.15	3.19
Number of labs needed based on State target capacity of 75%	4.1	4.2	4.3

### Ablations

The proposed EP lab is planned for only EP ablation procedures due to the 3 month backlog of patients. The volume of ablation procedures currently being done totals 471 in 2008. This ablation volume is equal to one lab at 75% capacity.

Table D  
Providence Alaska Medical Center and Alaska Regional Hospital  
Ablation Patients, 2006-2008

	2006	2007	2008
Providence Ablation Patients	272	311	347



Alaska Regional Ablation Patients	115	113	124
Total Ablation Patients	387	424	471
Capacity based on 562 procedures as maximum capacity	0.7	.75	0.8
Number of labs needed based on State target capacity of 75%	0.9	1.0	1.1

### State Methodology

The State methodology for projecting volumes is based on an historic three-year use rate, and then applies the use rate to population projections in the third year of operation to determine future volume and the need for labs. Table E below shows the State's methodology to project volumes based on PAMC and Alaska Regional volumes for 2006-2008. Using this methodology, the projected volume for 2012 is 1865 patients, resulting in the need for four labs at target capacity.

Table E  
Alaska Population, Volume, Use Rate, Current Capacity and Labs Needed  
Using State's Methodology Based on a Three Year Historic Use Rate  
Historic Years 2006-2008 and Projected Years 2010-2012

Year	Alaska Population	Volume	Use Rate: Patients per 1000 Populations	Current Capacity: 563 Patients per Lab	Labs Needed: Based on Target Capacity (422 Patients per Lab)
2006	678,271	1726	2.5447	153%	4.00
2007	685,644	1768	2.5786	157%	4.00
2008	693,018	1793	2.5872	159%	4.00
Three Year Avg Use Rate			<b>2.5702</b>		
2010	709,352	<b>1823</b>	<b>2.5702</b>	162%	4.32
2011	717,518	<b>1844</b>	<b>2.5702</b>	164%	4.37
2012	725,685	<b>1865</b>	<b>2.5702</b>	166%	4.42

However, this methodology does not take into account the three month waiting list for ablations, nor the increased volume that is expected due to the high incidence rate of Atrial Fibrillation which occurs during the ages of 60-90. Alaska is also projected to have a high increase in this older population at rates over 60% by 2016. Both internal and external data sources provide evidence of significant growth in electrophysiology lab volumes proving the State's methodology is inconsistent with what is happening in the marketplace.



## B. DEMONSTRATION OF NEED

**1. Identify the problems being addressed by the project. For example, identify whether this project is for (a) a new service; (b) an expanded service; or (c) an upgrade of an existing service.**

This project is an expansion of an existing service.

### Capacity of Current Electrophysiology Labs

The two current dedicated EP labs at Providence and Alaska Regional are at capacity. Sixty percent of a multipurpose catheterization laboratory is also being used at Providence for EP procedures and still there is a three month waiting list for ablations.

Since these procedures take three to four hours to perform, only about 2.25 patients can be done in day. Volumes have increased 3.8% over the last three years as the EP labs are operating at capacity. Additional EP procedures are done in multifunctional cath labs because of the demand. Current volumes generate enough procedures for three EP labs at 100% capacity. Volumes today generate enough procedures for four labs at 75% capacity.

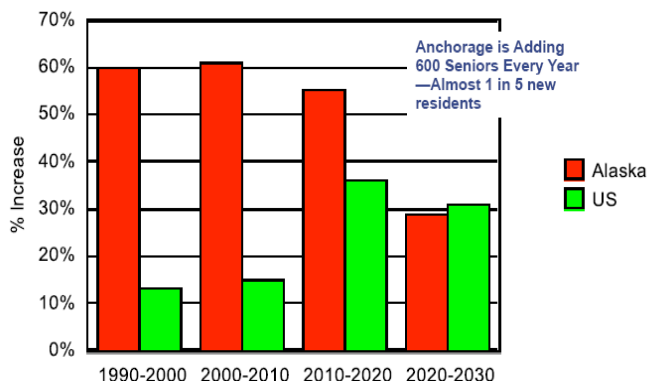
Table F  
Providence Alaska Medical Center and Alaska Regional Hospital  
Electrophysiology Lab Volumes, 2006-2008

	2006	2007	2008
PAMC and ARH EP Patients	1726	1768	1793
Number of Electrophysiology Labs	2	2	2
Capacity based on 562 procedures as maximum capacity	3.1	3.15	3.19
Number of labs needed based on State target capacity of 75%	4.1	4.2	4.3

### Increasing patient demand

As the Alaskan population ages, its use of medical facilities increases. Patients needing medical care are typically patients age 45-64 and 65 plus. These are the fastest growing segments of the Alaska population. These population segments are the same ones that are affected by abnormal heart rhythms. The number of people with these abnormalities is increasing with the population growth.

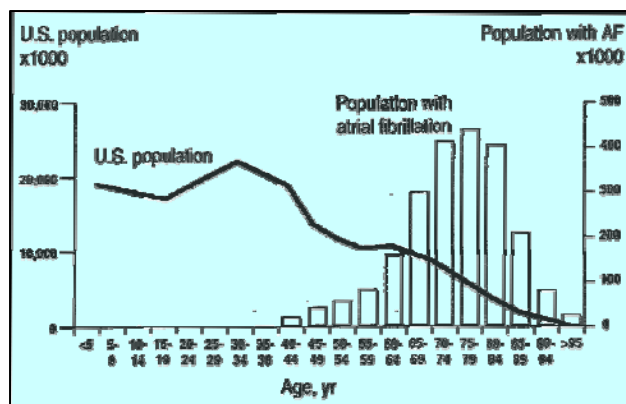
**Growth of Senior Population 65+:  
Alaska vs. US**





Atrial fibrillation (AF) is the leading cause of cardiac arrhythmia. AF is quite a debilitating disease that significantly affects one's quality of life and also substantially increases the likelihood of a stroke. The incidence of AF dramatically increases with age. Patients as young as 60-64 have AF at a rate of 100 people per 1000 population. By the age of 80-84, the rate has increased to 450 people per 1000 population. This increase in incidence rate is a major factor in increased demand for Alaska. The Alaska population age 65 + is estimated to grow 60% by 2016. With this projected growth rate, demand will double and then the added increase in incidence rate should increase volumes substantially again.

**Population with Atrial Fibrillation by Age**



## **New technologies are constantly evolving**

Many of the procedures done today in an electrophysiology lab were not done just a few years ago. Patients instead were treated with oral medications to try to stabilize the rhythm and reduce the number of abnormal rhythms. Today, ablation is now the preferred method of treatment as it is a curative procedure.

- 2. Describe whether (and how) this project (a) addresses an unmet community need; (b) satisfies an increasing demand for services; (c) follows a national trend in providing this type of service; or (d) meets a higher quality or efficiency standard.**

### Unmet Community Need

This is not a new service to Alaska or Anchorage. Electrophysiology procedures are provided at PAMC and Alaska Regional Hospital. Both facilities have a dedicated unit and can do diagnostic procedures and ablations. PAMC also has an additional multipurpose lab that can do electrophysiology procedures and is used about 60% for EP procedures. Even with these three labs there is still an unmet need as demonstrated by the waiting list of three months. This need can only be addressed through the addition of a dedicated EP lab, as proposed in this certificate of need application.

### Demand for Service

With the Alaska population growing and aging, there is increased demand for cardiac services. The population age cohort 45-64 accounts for a large percentage of cardiac patients and is



growing 9.2% by 2016. In addition, residents age 65 and older are high users of cardiac services and are growing dramatically at 84.5% in Anchorage by 2016. This is a nation-wide trend due to the aging of the baby boomer generation.

#### Incidence of Atrial Fibrillation

Atrial fibrillation is the primary reason for abnormal heart rhythms. The incidence of atrial fibrillation increases with age. At the age of 45-64 years, the incidence is about 100 people per 1000 population. The incidence continues to increase until at age 80-84 it reaches 450 people per 1000 population. The incidence declines from age 84 on. This increase in atrial fibrillation has a huge impact in Alaska with its doubling of the senior population. Current EP labs are and will continue to be unable to keep up with the demand for ablations. This is why this proposed EP lab will be dedicated to ablations.

**3. Describe any internal deficiencies of the facility that will be corrected, and document which of these deficiencies have been noted by regulatory authorities. Note any deficiencies that will not be corrected by this project, what efforts have been taken to correct the deficiencies, and how this project will affect the deficiencies. Attach any pertinent inspection records and other relevant reports as an appendix to the application.**

There are no regulatory deficiencies in the lab area. The operational problems are due to capacity issues and include:

- Waiting list – There is a three month wait for ablations; This will grow as our population ages.
- Limited capacity – Additional physicians want to come to Alaska to practice. However, there is no available lab time for additional physicians at this time.
- Length of procedures is getting longer - As these procedures become more complex, the length of time to perform them increases. Some procedures can take five hours and some even eight hours. Throughput is greatly affected as more and more procedures are complex in nature.
- Overtime - High use of overtime to care for routine patients and emergent patients. This is hard on staff in very stressful roles

**4. Identify the target population to be served by this project. The "target population" is the population that is or may reasonably be expected to be served by a specific service at a particular site. Explain whether this is a local program, or a program that serves a population outside of the proposed service area. Use the most recent Alaska Department of Labor and Workforce Development statistics for population data and projections. Explain and document any variances from those projections. The population may be defined in one or more ways:**

The target population for this project is the residents of the state of Alaska. This is a tertiary service and is only offered in Anchorage. Although most patients are over age 44, pediatric and young adults also utilize the EP labs. The Alaska Department of Labor states that the 2008 population of Alaska is 693,018. Their projections show the State's population growing 12% by 2018. The over 65 population is growing 76.6% by 2018. These population increases have a great affect on EP services. The older population sees a higher incidence rate of Atrial Fibrillation and generates a high need for ablations.



**a. Document the service area by means of a patient origin analysis.**

Ablation patients tend to be from all over Alaska with 49% from outside of Anchorage and 51% from Anchorage. They are more often white, male and older than the average hospital patient.

Table G  
Providence Alaska Medical Center  
Ablation Patients  
Patient Origin, 2008

Service Area	Ablation Patients
Anchorage	51%
Mat-Su Borough	17%
Kenai Peninsula Borough	11%
Fairbanks Region	11%
Other Alaska	8%
Outside Alaska	1%
Total	100%

TableH  
Providence Alaska Medical Center  
Ablations Patients  
Race by Percentage, 2008

Race	Ablations Patients
Caucasian	88%
Native	6%
Black	2%
Pacific/Asian Islander	3%
Hispanic	1%
Unknown	<1%
Total	100%

Table I  
Providence Alaska Medical Center  
Ablation Patients  
Gender by Percentage, 2008

Gender	Ablation Patients
Female	34%
Male	66%
Total	100%

Table J  
Providence Alaska Medical Center  
Ablation Patients  
Age by Percentage, 2008

Age	Ablations Patients
0-14	2%
15-44	14%
45-64	44%
65+	40%
Total	100%



- b. Justify the customary geographical area served by the facility using trade and travel pattern information. Indicate the number and location of individuals using services who live out of the primary service area.**

Table K  
Providence Alaska Medical Center  
Ablation Patients by Area of Residence, 2008  
Compared to Population Distribution, 2008

Area	Ablation Patients	Population Distribution
Anchorage	51%	40%
Mat-Su	17%	11%
Gulf Coast Region	11%	12%
Interior Region	8%	15%
Northern Region	2%	4%
Southeast Region	2%	11%
Southwest Region	2%	6%
Total	100%	100%

When comparing the patient utilization by area with the State's population distribution by area, there is higher utilization by patients who live in Anchorage or are on the road system – Anchorage, Mat-Su and the Gulf Coast region. Those that must fly into Anchorage have a lower utilization than the population distribution. However, the utilization by ablation patients is in general closer to the State's population distribution as it is a tertiary service, ie. with 51% from Anchorage as compared to 42% of the population distribution.

- c. Use Alaska Department of Labor and Workforce Development information, including current census data on cities, municipalities, census areas, or census sub-areas, to describe trends, age/sex breakdowns, and other characteristics pertinent to the determination of need.**

Table K, in answer to question b. above, shows the patient utilization compared to the Alaska population distribution.. There is higher use by those who live in Anchorage and those within a few hours drive of Anchorage. However, as electrophysiology procedures are a tertiary service and only available in Anchorage, there is less use by residents who must fly in for the service. Like many tertiary services, a portion of the population seeks care in other states. There is no known database that tracks the number of electrophysiology procedures done on Alaskans in other states.

- d. The population to be served can be defined according to the unique needs of patients requiring specialized or tertiary care (e.g. heart, cancer, kidney, alcoholism, etc.) or the needs of under-served groups.**

Patients using an electrophysiology lab are all cardiac patients suffering from abnormal heart rhythms.



5. Describe the projected utilization of the proposed services and the method by which this projection was derived. Do not annualize utilization data. It must include the last complete year of operation (indicate if it is a calendar year or fiscal year) and as many prior years as is feasible to show trends. If graphs are used to depict this information, and they do not include the actual utilization numbers, numerical charts must be included.

Table L  
Providence Alaska Medical Center  
Electrophysiology Lab Volumes  
Projected 2009 – 2013

	2009	2010	2011	2012	2013	% Increase 2009-2013
Current EP patients (all procedures)	1793	1793	1793	1793	1793	
New EP Lab (Ablations only)	na	281	563	563	563	
Total EP procedures	1793	2074	2356	2356	2356	31%

The new lab is expected to perform only ablations in an effort to reduce the waiting list. It is expected that the new lab will be operating at full capacity upon opening which is 563 patients. Volumes are not shown to increase beyond that level unless an additional lab were to be added.

- a. Include evidence of the number of persons from the target population who are currently using these services and who are expected to continue to use the service, including individuals served out of the service area or out of state;

Over the last three years, over 1700 patients have had electrophysiology procedures annually at the two hospitals in Anchorage. This includes patients from all over Alaska.

Table M  
Providence Alaska Medical Center and Alaska Regional Hospital  
Electrophysiology Lab Volumes, 2006-2008

	2006	2007	2008
PAMC and ARH EP Patients	1726	1768	1793
Number of Electrophysiology Labs	2	2	2

Volumes are expected to increase due to the high growth rate of the 45-64 and 65+ age groups. In addition, there is a high incidence rate of atrial fibrillation in these age groups. Atrial fibrillation can be cured through a procedure called ablation. There is currently a three month wait list for this procedure. The wait list continues to grow as existing capacity has reached the limit of patients that can be accommodated for EP services.

- b. Include evidence of the number of persons who will begin to use any new services that are not now available, accessible, or acceptable to the target population.

The EP labs are continuously at capacity. The three month waiting list for ablations shows there is inadequate access to these services. Although these services are not emergent or life saving, they are life-changing procedures. Those patients whose conditions are unstable are seen urgently. Those patients that can be treated with oral



medications and are stable are delayed and placed on a waiting list. The proposed EP lab will be focused on ablations for patients on the waiting list.

- c. **Provide annual utilization data and demand trends for the five most recent years and monthly utilization data for the most recent incomplete year prior to the application for each existing facility offering a similar service in the service area.**

Table N  
Providence Alaska Medical Center  
Electrophysiology Lab Volumes, 2006 – 2008

	2006	2007	2008	% Increase 2006-2008
EP Patients	738	804	874	
% Growth		8.9%	8.7%	18%
Ablation Patients	273	309	344	
% Growth		13.2%	11.3%	26%

Table O  
Alaska Regional Hospital  
Electrophysiology Lab Volumes, 2006 – 2008

	2006	2007	2008	% Increase 2004-2008
EP Patients	988	966	918	
% Growth		-2.2%	-5.0%	-7.1%
Ablation Patients	115	113	124	
% Growth		-1.7%	9.7%	7.8%

Table P  
Providence Alaska Medical Center and Alaska Regional Hospital  
Combined Electrophysiology Lab Volumes, 2004 – 2008

	2006	2007	2008	% Increase 2004-2008
EP Patients	1726	1768	1793	
% Growth		2.4%	1.4%	3.9%
Ablation Patients	388	422	468	
% growth		8.8%	10.9%	20.6%

**Provide projections for utilization for three years (or the appropriate planning horizon set out in the review standards related to this project) after construction, and show methodology used to determine use, including the math.**

Table Q  
Providence Alaska Medical Center  
Projected Electrophysiology Lab Volume, 2009-2013

	2009	2010	2011	2012	2013
Current EP Volume	935	935	935	935	935
New EP Lab Volume (Ablations)	-	281	563	563	563
Total EP Volume	935	1216	1498	1498	1498
% Growth		30%	23%	0%	0%



The proposed EP Lab for ablations would come on line in July 2010. Volume would be 2.25 ablations a day at 100% capacity resulting in 281 additional ablations in 2010. This is an increase of 30% of EP procedures. In 2011 and going forward, full capacity would be 563 ablations per year or a 23% increase over 2010. Going forward the annual volume will not increase as the lab would be at full capacity. A waiting list is expected to develop as access to the services will not be able to keep pace with demand.

- d. **If the project is an acquisition of a new piece of major equipment or a new service, provide utilization data for similar services, existing equipment, or older technology. Indicate whether similar existing equipment will continue to be used and the project's effect on utilization of similar services. If this service or equipment was not in place in the service area, compare the expected utilization with other similar communities in Alaska or in other states.**

All current labs will continue to be used. The proposed lab will expand capacity. The new lab will not reduce the utilization of the existing labs but should help reduce the waiting list.

- e. **If an increase in utilization is projected, list the factors that will affect the increase. Provide annual utilization projections for three years in the future for each specific service in the proposal.**

The factors affecting utilization include:

- High incidence of atrial defibrillation in the older populations
- Aging population resulting in increased community need;
- Additional physicians electrophysiology creating higher demand;
- New technologies constantly being introduced increasing demand;
- More complex procedures being performed increasing the time it takes to perform a case; and
- Increased access to services allows for more patients and reduces waiting lists.

Table R  
Providence Alaska Medical Center  
Projected Volume and Lab Capacity,  
For the Proposed Electrophysiology Lab , 2010 – 2012

	2010	2011	2012
Patients	281*	563	563
Percentage Growth		50%	0%
Capacity based on 563 procedures	100%	100%	100%
Number of labs needed based on 75% occupancy or 421 procedures per lab at PAMC alone	1.34	1.34	1.34

\*Lab opens in July 2010

- f. **If any services will be reduced, indicate how the proposed reduction will affect the service area needs and patient access.**

No services will be reduced by this project.



- g. **Provide any other information that may be pertinent to establishing the need for this project.**

As additional physicians come to Anchorage, additional demand will be created.

- h. **Attach letters of support from local and regional agencies, other health care facilities, individuals, governmental bodies, etc.**

Letters of support will be sent directly to the CON Coordinator.

**6. Include your calculations of numerical need for each proposed activity for your service area. If the proposed project is expected to have a larger capacity than that projected by (and available from) the department, explain the rationale and provide documentation to support the larger capacity.**

State Methodology

The State methodology for projecting volumes is based on an historic three-year use rate, and then applies the use rate to population projections in the third year of operation to determine future volume and the need for labs. Table U shows the State's methodology to project volumes based on PAMC and Alaska Regional volumes for 2006-2008. Using this methodology, the projected volume for 2012 is 1865 patients, resulting in the need for four labs at target capacity.

It should also be noted that the three year average use rate is below the current use rate. Using a lower user rate for three years going forward only continues to under predict the use of this technology. This is especially true of ablations as this new technology supports the treatment of atrial fibrillations which occurs in the older population which is growing by 60%.

Table S  
Alaska Population, Volume, Use Rate, Current Capacity and Labs Needed  
Using State's Methodology Based on a Three Year Historic Use Rate  
Historic Years 2006-2008 and Projected Years 2010-2012

Year	Alaska Population	Volume	Use Rate: Patients per 1000 Populations	Current Capacity: 563 Patients per Lab	Labs Needed: Based on Target Capacity (422 Patients per Lab)
2006	678,271	1726	2.5447	153%	4.00
2007	685,644	1768	2.5786	157%	4.00
2008	693,018	1793	2.5872	159%	4.00
Three Year Avg. Use Rate			<b>2.5702</b>		
2010	709,352	<b>1823</b>	<b>2.5702</b>	162%	4.32
2011	717,518	<b>1844</b>	<b>2.5702</b>	164%	4.37
2012	725,685	<b>1865</b>	<b>2.5702</b>	166%	4.42



## **C. AVAILABILITY OF LESS COSTLY OR MORE EFFECTIVE ALTERNATIVES**

**1. Describe the different alternatives considered in developing this project. Explain why the particular alternative for providing the services proposed by this application was selected. Include as an alternative a discussion of the effect of doing nothing.**

Alternatives considered for the Catheterization Labs:

- A. Do nothing – Patients will continue to wait months for a procedure, or travel outside for care. The demand is too great to do nothing.
- B. Change use of existing catheterization labs – All four labs are fully functioning and near capacity. There are no labs that have enough time available for additional procedures.
- C. Utilize another lab in the community - Alaska Regional Hospital provides electrophysiology services as well. It is operating at capacity. ARH's labs are also approaching target capacity and do not have enough capacity to address the growing community need.
- D. Add one new lab - Adding one new lab will provide additional capacity and will reduce the waiting list.

**2. Describe any special needs and circumstances. Special needs may include special training, research, Health Maintenance Organizations (HMOs), managed care, access issues, or other needs.**

Not applicable

## **D. THE RELATIONSHIP OF THE PROPOSED PROJECT TO EXISTING HEALTH CARE SYSTEM AND TO ANCILLARY OR SUPPORT SERVICES**

**1. Identify any existing comparable services within the service area and describe any significant differences in population served or service delivery. If there are no existing comparable services in the area, describe the unmet need and how the target population currently accesses the services. Describe significant factors affecting utilization, including cost, accessibility, and acceptability.**

There are two EP labs in Alaska, one at Providence and one at Alaska Regional Hospital. Both are operating at capacity. The EP cardiologists schedule patients at both PAMC and ARH.

Urgent patients needing procedures are done on the same day or as soon as possible. Some procedures are not as urgent and can be done at a later date. Ablation procedures often can be done at a later date while patients are being managed through appropriate medications.

However, the wait has become extensive – three months – for these patients. Ablation procedures cost around \$60,000 with most insurance policies covering them as well as Medicare and Medicaid. Ablations have now become the treatment of choice for atrial fibrillation – recommended by the American College of Cardiologists. They are more than a treatment, they are a cure.



**2. Describe the probable effect on other community resources, including any anticipated impact on existing facilities offering the same/similar services or alternatives locally or statewide if applicable. Describe how each proposed new or expanded service will:**

- a. Complement existing service** – The proposed lab will increase the availability of the service at PAMC. ARH does have an existing EP lab offering the same service. The physicians using these labs are cardiologists who have privileges at both hospitals and can choose in which hospital to perform the procedures. All current EP labs are at capacity. Adding this proposed lab will increase community access to the service.

**3. Identify existing working relationships the applicant has with hospitals, nursing homes, and other resources serving the target population in the service area. Include a discussion of cooperative planning activities, shared services (i.e. agreements assigning services such as emergency or obstetrics), and patient transfer agreements. If other organizations provide ancillary or support services to your facility, describe the relationship. Attach copies of relevant agreements in an appendix in the application. If a service requires support from another agency but does not have an agreement, explain why.**

The two EP programs at the hospitals have a cooperative relationship and share supplies as is needed.

## **E. FINANCIAL FEASIBILITY**

**1. Demonstrate how the project will ensure financial feasibility, including long-term viability, and what the financial effect will be on consumers and the state, region, or community served.**

The addition of an EP lab will increase capacity to serve patients and will reduce the waiting list for EP procedures. The expansion will not increase charges to patients. No financial effect has been identified that would burden patients, the state or the community.

**2. Discuss how the project construction and operation is expected to be financed. Demonstrate access to sufficient financial resources and the financial stability to build and operate this project.**

Providence Alaska Medical Center will finance the additional EP lab with internal capital funds. No borrowing of funds will be required.

**3. Provide a description and estimate of:**

- a. the probable impact of the proposal on the annual increase on the overall costs of the health services to the target population to be served;**

There is no anticipated increase on the pricing of services to our patients, community, or the state as a result of this project.



- b. If applying to build a residential psychiatric treatment centers, nursing homes, or additional nursing home beds the annual increase to Medicaid required to support the new project, and the projected cost of and charges for providing the health care services in the first year of operation (per diem rate, scan, surgery etc);

NA

- c. the immediate and long-term financial feasibility of continuing operations of the proposal.

This project will not have any negative impact on the overall financial condition of PAMC nor its ability to continue operations.

## F. ACCESS TO SERVICE BY THE GENERAL POPULATION AND UNDER-SERVED GROUPS

1. Provide information on service needs and access of under-served groups of people such as low-income persons, racial and ethnic minorities, women, and persons with a disability. Discuss any plans to overcome language and cultural barriers of groups to be served.

Providence Alaska Medical Center maintains an open door philosophy consistent with the values of the Sisters of Providence and their mission to provide quality health care to all individuals regardless of their race, creed or ability to pay. Over the last three years, Providence has provided more than \$100 million in charity care. Total deductions from revenue are expected to increase 36% over the next three years. See Table T below.

PAMC utilizes interpreters via a telephone service which is available 24 hours a day. The interpreter is connected via speaker phone so the patient, family and staff can hear.

2. Indicate the annual amount of charity care provided in each of the last five years with projections for the next three years. Include columns for revenue deductions, contractual allowances, and charity care.

Table T  
Providence Alaska Medical Center  
Total Deductions from Revenue (in thousands)  
Actual 2004-2008, Projected 2009-2011

	Year	Charity Care	Contractual Allowances	Other	Total Deductions from Revenue
Actual	2004	\$23,214	\$76,115	\$242,612	\$341,941
	2005	\$27,874	\$85,660	\$264,292	\$377,826
	2006	\$26,776	\$100,274	\$305,584	\$432,634
	2007	\$31,200	\$106,139	\$356,180	\$493,519
	2008	\$47,125	\$116,917	\$397,835	\$561,877
Projected					
	2009	na	na	na	\$604,601
	2010	na	na	na	\$681,600
	2011	na	na	na	\$767,565



**3. Address the following access issues:**

**a. transportation and travel time to the facility;**

PAMC is located in Anchorage, Alaska's largest city with 42% of the State's population. Being in the center of Anchorage, Providence is easily within a half hour's drive for most residents and from the International Airport. PAMC is served by the city transit system. Providence provides care 24 hours a day/seven days a week.

**b. special architectural provisions for the aged and persons with a disability;**

PAMC complies with the Rules and Regulations of the Federal Register Nondiscrimination on the basis of Disability by Public Accommodations and in Commercial Facilities; the Joint Commission on Accreditation of Healthcare Organizations (JCAHO); and Alaska State Department of Health and Social Services, which oversees hospital licensing.

**c. hours of operation; and**

Providence provides care 24 hours a day/ seven days a week. The EP labs schedule patients Monday-Friday, 8 am- 5 pm. The labs are available after-hours for urgent and emergent patients via treatment teams on call 24 hours a day/seven days a week.

**d. the institution's policies for nondiscrimination in patient services.**

Providence Alaska Medical Center maintains an open door philosophy consistent with the values of the Sisters of Providence and their mission to provide quality health care to all individuals regardless of their race, creed or ability to pay.



## **Section V. Consideration of Quality, Effectiveness, Efficiency, and Benefits of the Applicant's Services**

**Please discuss the following in narrative form:**

### **1. ACCREDITATION AND LICENSURE: The current status, source, date, length, etc., of the applicant's license and certification. Include information on Medicaid and Medicare Certification.**

PAMC is licensed as an acute care hospital with 326 beds by the State of Alaska. It is certified by Medicare and Medicaid. PAMC's Medicare ID number is 020001. PAMC's Medicaid ID numbers are HP11IP and HP11OP. A copy of license is in the Appendices.

### **2. QUALITY CONTROL: How the applicant plans to ensure high quality service.**

The quality control program is outlined below:

- a. Equipment – all equipment meets quality and safety standards required of all manufacturers by the federal government. Preventative maintenance is performed on equipment, and consists of a thorough inspection for any defects that may affect patient care or safety.
- b. Physicians – Physicians education, training and skills are evaluated through a credentialing process, and only qualified physicians are recommended for privileges. Members of the medical staff, through training and continuing education, stay current with new developments in their respective specialties.
- c. Clinical and Non-Clinical Personnel – All personnel must meet professionally accepted job requirements.
- d. Continuing Education – The hospital provides continuing education training and ensures that all personnel receive training provided by equipment vendors, professional societies and attend selected special educational meetings both in and out-of-state.
- e. The objectives of the Quality Improvement Program include:
  - Provide optimal patient care within available resources;
  - Manage resources in the most appropriate manner;
  - Minimize risk and injury;
  - Identify and act upon opportunities to improve patient care; and
  - Trend, benchmark and maximize patient outcomes with advanced databases.

### **3. PERSONNEL: Plans for optimum utilization and appropriate ratios of professional, sub-professional and ancillary personnel.**

All of the staff that work in the Providence Heart Center labs are cross-trained to work in all the labs, on all patient types and all roles within the labs. A sixth team will be added for the proposed lab and will be fully cross-trained as well. Staffing ratio for a lab is one patient to three staff and one physician. The ratio is recommended by the Society of Interventional Radiology and the American College of Cardiology. An article outlining laboratory operations is located in the appendices.



**4. APPROPRIATE UTILIZATION: Development of programs such as ambulatory care, assisted living, home health services, and preventive health care that will eliminate or reduce inappropriate use of inpatient services**

The proposed electrophysiology lab does procedures that are minimally invasive and require very short hospital stays. The lab is a diagnostic tool that is used to identify electric abnormalities in the heart and then provides treatment through implantation of devices or through ablations. New techniques allow services to be done in a catheterization lab that formally required surgery, and can even eliminate a hospitalization.

**5. NEW TECHNOLOGY AND TREATMENT MODES: Plans to use modern diagnostic and treatment devices to enhance the accuracy and reliability of diagnostic and treatment procedures.**

The EP lab allows the use of new technology to resolve abnormal heart arrhythmias through ablations. These procedures are curative and are replacing oral medications that only moderated the symptoms. EP is an ever evolving field of cardiology that helps to diagnose conditions and often provide treatment without surgery. The new lab will have outcome tracking software installed which will allow comparison to national benchmarks.

**6. LABOR SAVING DEVICES AND EFFICIENCY: The employment of labor-saving equipment and programs to provide operating economies.**

This new EP lab will increase capacity and improve access to these services. All staff are thoroughly cross-trained in cath lab functions. This continued cross-training of staff increases efficiency, elevates skill levels and increases quality for all patients.

**7. PROGRAM EVALUATION: Future plans for evaluation of the proposed activity to ensure that it fulfills present expectations and benefits.**

The Heart and Vascular Center reviews its budget, volumes, staffing, productivity, and quality indicators monthly as well through an annual review process. Both the department manager and medical director are responsible for developing plans for corrective action when indicators are not met.

**8. ORGANIZATIONAL STRUCTURE: Include an organizational chart, descriptions of major position requirements and board representation; show representation from community economic and ethnic groups.**

The EP labs are part of the Heart and Vascular Center, which is managed by Director of the Heart and Vascular Center. The Director of the Heart and Vascular Center reports to the Administrator of Providence Alaska Medical Center. PAMC organizational charts are located in the Appendices.

Lists of the Providence Health System Board of Directors and Officers and the Providence Alaska Region Board of Directors are located in Section I.

**9. STAFF SKILLS: Provide descriptions of major position requirements, appropriate staff-to-patient ratios to maintain quality, and the minimal level of utilization that must be**



**maintained to ensure that staff skills are maintained. Provide a source for the staffing standards.**

Position descriptions included in the appendices are:

- Director, Heart and Vascular Center
- RN, Cardiac Catheterization
- Technologist, Cardiovascular

The staffing ratio recommended by the Society of Interventional Radiology and the American College of Cardiology is followed in the Heart and Vascular Center. The staffing ratio for a lab is one patient to three staff and one physician. An excerpt from Cardiac Catheterization Handbook by Morton J. Kern, MD addresses the recommended staffing ratio.

**10. ECONOMIES OF SCALE: The minimum and maximum size of facility or unit required to ensure optimum efficiency. If the planned project is significantly smaller or larger, explain the effect and why the size was chosen.**

The electrophysiology labs are added one lab at a time. Several labs can share a cardiovascular observation unit for pre-procedure and post-procedure recovery. The current cardiovascular observation unit can accommodate the added volumes from the proposed lab which is about two patients a day. Having more than one electrophysiology lab helps in the sharing of supplies.



## Section VI. Narrative Description of How Project Meets Applicable Review Standards

Describe in this section of the application how the proposed project meets each review standard applicable to all activities, and each specific review standard applicable to the proposed activity. *Some of this information will duplicate information required elsewhere in the application packet; that duplication is intentional.*

### I. General Review Standards Applicable to all Certificate of Need Applications

#### *Review Standards*

The department will apply the following general review standards, the applicable service-specific review standards set out in this document, the standards set out in AS 18.07.043, and the requirements of 7 AAC 07 in its evaluation of each certificate of need application:

1. The applicant documents need for the project by the population served, or to be served, including, but not limited to, the needs of rural populations in areas having distinct or unique geographic, socioeconomic, cultural, transportation, and other barriers to care.

#### Capacity of Current Electrophysiology Labs

The two current dedicated EP labs at Providence and Alaska Regional are at capacity. Sixty percent of a multipurpose catheterization laboratory is also being used at Providence for EP procedures and still there is a three month waiting list for ablations.

Since these procedures take three to four hours to perform, only about 2.25 patients can be done in day. Volumes have increased 3.8% over the last three years as the EP labs are operating at capacity. Additional EP procedures are done on multifunctional cath labs because of the demand. Current volumes generate enough procedures for three EP labs at 100% capacity. Volumes today generate enough procedures for four labs at 75% capacity.

Table U  
Providence Alaska Medical Center and Alaska Regional Hospital  
Electrophysiology Lab Volumes, 2006-2008

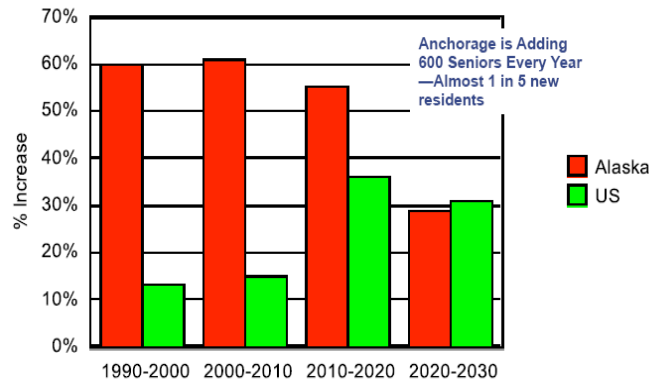
	2006	2007	2008
PAMC and ARH EP Patients	1726	1768	1793
Number of Electrophysiology Labs	2	2	2
Capacity based on 562 procedures as maximum capacity	3.1	3.2	3.2
Number of labs needed based on State target capacity of 75%	4.1	4.2	4.3

#### Increasing patient demand

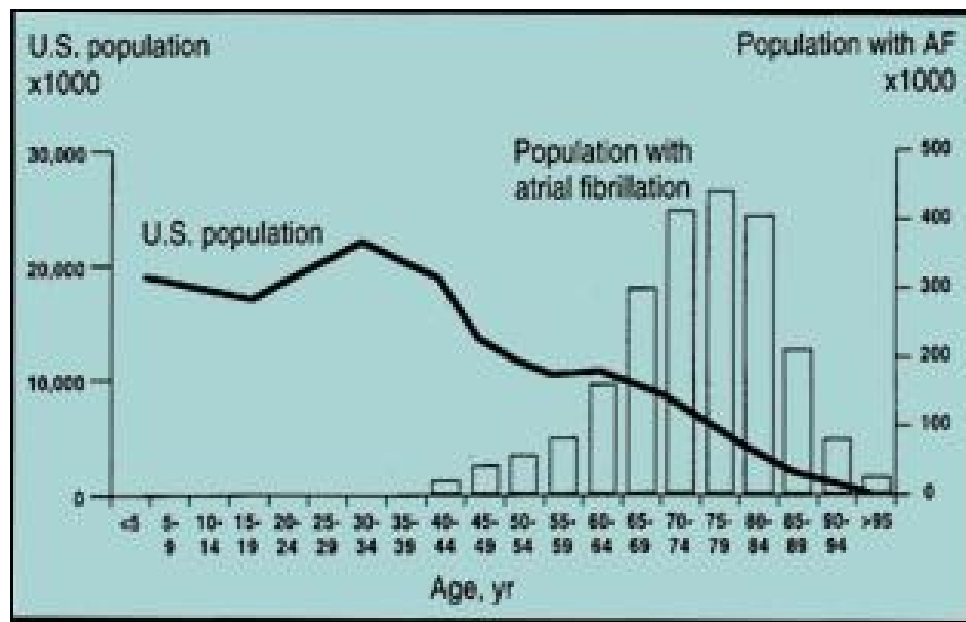
As the Alaskan population ages, its use of medical facilities increases. Patients needing medical care are typically patients age 45-64 and 65 plus. These are the fastest growing segments of the Alaska population. These population segments are the same ones that are affected by abnormal heart rhythms. The number of people with these abnormalities is increasing with the population growth.



### Growth of Senior Population 65+: Alaska vs. US



Atrial fibrillation (AF) is the leading cause of cardiac arrhythmia. AF is quite a debilitating disease that significantly affects one's quality of life and also substantially increases the likelihood of a stroke. The incidence of AF dramatically increases with age. Patients as young as 60-64 have AF at a rate of 100 people per 1000 population. By the age of 80-84, the rate has increased to 450 people per 1000 population. This increase in incidence rate is a major factor in increased demand for Alaska. The Alaska population age 65 + is estimated to grow 60% by 2016. With this projected growth rate, demand will double and then the added increase in incidence rate should increase volumes substantially again.





The current users of these services come from all parts of Alaska, with the majority coming from Anchorage. The majority are white and male and are in the older age groups. EP services are usually located in large cities near large medical centers where physicians specialized in electrophysiology practice. This is the case in Alaska.

Table V  
Providence Alaska Medical Center  
Ablation Patients  
Patient Origin, 2008

Service Area	Ablation Patients
Anchorage	51%
Mat-Su Borough	17%
Kenai Peninsula Borough	11%
Fairbanks Region	11%
Other Alaska	8%
Outside Alaska	1%
Total	100%

Table W  
Providence Alaska Medical Center  
Ablations Patients  
Race by Percentage, 2008

Race	Heart Center
Caucasian	88%
Native	6%
Black	2%
Pacific/Asian Islander	3%
Hispanic	1%
Unknown	<1%
Total	100%

Table X  
Providence Alaska Medical Center  
Ablation Patients  
Gender by Percentage, 2008

Gender	Heart Center
Female	34%
Male	66%
Total	100%

Table Y  
Providence Alaska Medical Center  
Ablation Patients  
Age by Percentage, 2008

Age	Heart Center
0-14	2%
15-44	14%
45-64	44%
65+	40%
Total	100%



- 2. The applicant demonstrates that the project, including the applicant's long-range development plans, augments and integrates with relevant community, regional, state, and federal health planning, and incorporates or reflects evidence-based planning and service delivery. A demonstration under this standard should show that the applicant has checked with the department regarding any relevant state plan, with appropriate federal agencies for relevant federal plans, and with appropriate communities regarding community or regional plans.**

There are currently no community, regional, state or federal health plans that address the need for electrophysiology laboratories in communities or in Alaska specifically. The Providence Alaska Medical Center's Cardiovascular Service Line has a strategic plan that has listed the Electrophysiology Lab as a needed additional service. An excerpt from the plan is included in the appendix.

- 3. The applicant demonstrates evidence of stakeholder participation in planning for the project and in the design and execution of services.**

The planning of this project began with the concern for patients on a three month waiting list for services. Physicians, nurses, and technicians have been involved in the location of the lab, type, make and model of the lab equipment, and the layout of the room. Patients were not involved in the room design as this is highly technical equipment and expert knowledge is required.

- 4. The applicant demonstrates that they have assessed alternative methods of providing the proposed services and demonstrates that the proposed services are the most suitable approach.**

Alternatives considered for the Electrophysiology Lab:

- A. Do nothing – Patients will continue to wait months for a procedure, or travel outside for care. The demand is too great to do nothing.
- B. Change use of existing catheterization labs – All four labs are fully functioning and near capacity. There are no labs that have enough time available for additional procedures.
- C. Utilize another lab in the community - Alaska Regional Hospital provides electrophysiology services as well. It is operating at capacity. ARH's labs are also approaching target capacity and do not have enough capacity to address the growing community need.
- D. Add one new lab - Adding one new lab will provide additional capacity and will reduce the waiting list.



**5. The applicant briefly describes the anticipated impact on existing health care systems within the project's service area that serve the target population in the service area, and the anticipated impact on the statewide health care system.**

The proposed lab will increase the availability of the service at PAMC. Alaska Regional Hospital does have an existing EP lab which also offers the same service. Labs at both institutions are at capacity. These volumes will continue. The proposed lab will address those patients waiting for ablations. The physicians using these labs are cardiologists who have privileges at both hospitals and can choose in which hospital to perform the procedures. Adding this proposed lab will increase community access to the service.

**6. The applicant demonstrates that the project's location is accessible to patients and clients, their immediate and extended families and community members, and to ancillary services. This includes the relocation of existing services or facilities.**

Transportation and travel time to the facility

PAMC is located in Anchorage, Alaska's largest city with 42% of the State's population. Being in the center of Anchorage, Providence is easily within a half hour's drive for most residents and from the International Airport. PAMC is served by the city transit system. Providence provides care 24 hours a day/ seven days a week.

Special architectural provisions for the aged and persons with a disability

PAMC complies with the Rules and Regulations of the Federal Register Nondiscrimination on the basis of Disability by Public Accommodations and in Commercial Facilities; the Joint Commission on Accreditation of Healthcare Organizations (JCAHO); and Alaska State Department of Health and Social Services, which oversees hospital licensing.

Hours of operation; and

Providence provides care 24 hours a day/seven days a week. The EP labs schedule patients Monday-Friday, 8 am- 5 pm. The labs are available after-hours for urgent and emergent patients via treatment teams on call 24 hours a day/seven days a week.

Policies for nondiscrimination in patient services.

Providence Alaska Medical Center maintains an open door philosophy consistent with the values of the Sisters of Providence and their mission to provide quality health care to all individuals regardless of their race, creed or ability to pay.

***Review Standards – Cardiac Catheterization***

- 1. No new labs will be approved unless existing services are operating at an average occupancy of at least 75% of capacity or an average of at least 750 procedures per year.***



There are no Electrophysiology Laboratory Standards in Alaska. The State Review Standards for Cardiac Catheterizations are used as the closest standard for comparison in this application.

Electrophysiology labs cannot operate at that high of a level of volume as the procedures take about four hours to perform. An average of 2.25 procedures a day is the maximum capacity for EP labs or an average of 563 procedures annually. A capacity of 75% would equal 421 procedures a year. PAMC and Alaska Regional Hospital's two EP labs and one multipurpose lab performed on 1793 patients in 2008 which is equal to three labs at 100% capacity or four labs at 75% capacity. This leaves no capacity for future volumes.

2. *Pediatric Labs* – NA

3. *Angioplasty requirements* – NA

4. *Elective coronary interventions and not located within a hospital providing open heart surgery* – NA

5. *New service* – NA

6. *Need for pacemakers* – NA

**Methodology- Cardiac Catheterization (Using patient loads for Electrophysiology)**

**Step 1. Determine historic use rate**

<u>PAMC &amp; ARH Caseload</u>		/	<u>AK Population</u>	=	<u>Use Rate pts per 1000 population</u>
2006	1726	/	678,271	=	2.5447
2007	1768	/	685,644	=	2.5786
2008	1793	/	693,018	=	2.5872
3 Year Avg	1762	/	685,644	=	<b>2.57 patients per 1000 population</b>

**Step 2. Calculate 3 year operational volume**

$$2012 \text{ Projected PAMC \& ARH caseload} = 2012 \text{ AK Population} \times 3 \text{ Yr Avg Use Rate}$$

$$1865 \text{ cases} = 725,685 \times 2.57$$

**Step 3. Determine number of labs required**

$$\text{Labs required} = (\text{caseload} / \text{capacity}) / \text{target occupancy}$$

$$? = (1865/583) / .75$$

$$= \mathbf{4.2 \text{ labs}}$$

**Step 4. Determine number of additional labs needed**

$$\text{Labs required} - \text{Labs existing} = \text{Labs needed}$$

$$4.2 - 2 = \mathbf{2.2 \text{ labs needed}}$$



In addition, this formula does not take into account the high incidence rate of Atrial Fibrillation, the growth in the older population and the new demand for ablations.



## Section VII. Construction Data

### A. Please check appropriate boxes:

- |                      |                               |                                    |  |
|----------------------|-------------------------------|------------------------------------|--|
| 1. Construction type | <input type="checkbox"/> New  | <input type="checkbox"/> Expansion | <input checked="" type="checkbox"/> Renovation |
| 2. Basement          | <input type="checkbox"/> Full | <input type="checkbox"/> Partial   | <input checked="" type="checkbox"/> None       |

### B. Project Development Schedule

#### Date

- |  |              |
|--|--------------|
| 1. Estimated completion of final drawings and specifications | October 2009 |
| 2. Estimated construction begun by                           | October 2009 |
| 3. Estimated construction complete by                        | June 2010    |
| 4. Estimated opening of proposed services                    | July 2010    |

### C. Facility site data: Provide the following as attachments (referenced by the subsection and item number):

1. A legal description and area of the proposed site. Is the site now owned by the facility?  
If not, how secure are the arrangements to acquire the site?

Legal description of Providence Alaska Medical Center is on file with the department.

2. Diagrammatic plan showing:

- a. dimensions and location of structures, easements, rights-of-way or encroachments;
- b. location of all utility services available to the site; and
- d. Location of service roads, parking facilities, and walkways within site boundaries.

All items listed above are on file with the department.

3. Document clearances regarding zone restrictions, fire protection, sewage, and other waste disposal arrangements (under special circumstances, it is acceptable to present evidence of conditional approvals from local government and regulatory agencies).

All items listed above are on file with the department.

4. An architectural master plan including long-range concept and development of total facility.

The PAMC master site is on file.

5. Schematic floor plan drawings (or conceptual drawings) of proposed activity, including functional use of various rooms.

Drawings of the existing area, the proposed area and the proposed layout of the EP lab are located in the following pages.



**D. Describe the plan for completing construction and the effect (disruption) construction activities will have on existing services.**

The proposed EP lab will be located next to the existing EP Lab to take advantage of work efficiencies and sharing of supplies. To accommodate this placement certain relocations must occur. This includes moving ultrasound to a space previously occupied by offices and a conference room; those functions will move to current vacant space; as the lab is an additional piece of equipment, there will be no disruption in service to the Heart and Vascular Center and its cath labs. The other relocations will be staged to address each move and with as little of disruption as possible. No disruption to patient services is anticipated.

Negative air work areas will be created by using fire resistant plastic barriers and negative air units. Construction will consist of steel studs, lead-lined sheet rock and installation of new unistrut ceiling system.

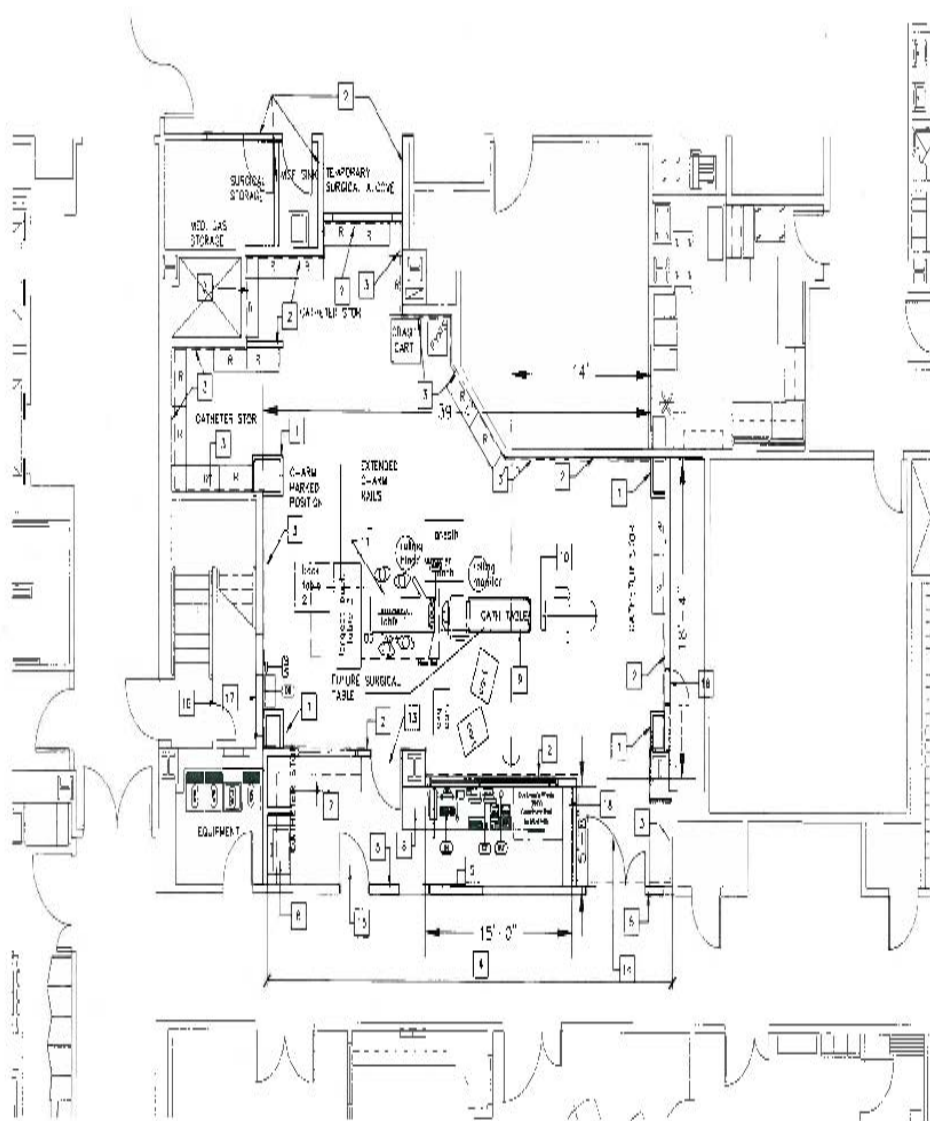
**E. Describe replacement or upgrading of utilities including the electrical, heating, ventilation and air conditioning systems.**

The electrical infrastructure will be enhanced by adding a new main panel to accommodate the demands of the new catheterization lab emergency power needs.









NEW WORK FLOOR PLAN  
1/4" = 1'-0"



NEW WORK NOTES:

1. NEW 10' x 10' x 8' CEILING, PROVIDE 3" x 6" MET. STUDS @ 4'-0" O.C.
2. FLOOR SCOT METAL STUD AND GIRD. FLOOR 2' x 4" x 8' @ 4'-0" O.C. AND 2" x 4" x 8' @ 4'-0" O.C. AND 2" x 4" x 8' @ 4'-0" O.C. AND 2" x 4" x 8' @ 4'-0" O.C.
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12. FLOOR SCOT METAL STUD AND GIRD. FLOOR 2' x 4" x 8' @ 4'-0" O.C. AND 2" x 4" x 8' @ 4'-0" O.C. AND 2" x 4" x 8' @ 4'-0" O.C. AND 2" x 4" x 8' @ 4'-0" O.C.
13. FLOOR SCOT METAL STUD AND GIRD. FLOOR 2' x 4" x 8' @ 4'-0" O.C. AND 2" x 4" x 8' @ 4'-0" O.C. AND 2" x 4" x 8' @ 4'-0" O.C. AND 2" x 4" x 8' @ 4'-0" O.C.
14. FLOOR SCOT METAL STUD AND GIRD. FLOOR 2' x 4" x 8' @ 4'-0" O.C. AND 2" x 4" x 8' @ 4'-0" O.C. AND 2" x 4" x 8' @ 4'-0" O.C. AND 2" x 4" x 8' @ 4'-0" O.C.
15. FLOOR SCOT METAL STUD AND GIRD. FLOOR 2' x 4" x 8' @ 4'-0" O.C. AND 2" x 4" x 8' @ 4'-0" O.C. AND 2" x 4" x 8' @ 4'-0" O.C. AND 2" x 4" x 8' @ 4'-0" O.C.
16. FLOOR SCOT METAL STUD AND GIRD. FLOOR 2' x 4" x 8' @ 4'-0" O.C. AND 2" x 4" x 8' @ 4'-0" O.C. AND 2" x 4" x 8' @ 4'-0" O.C. AND 2" x 4" x 8' @ 4'-0" O.C.
17. FLOOR SCOT METAL STUD AND GIRD. FLOOR 2' x 4" x 8' @ 4'-0" O.C. AND 2" x 4" x 8' @ 4'-0" O.C. AND 2" x 4" x 8' @ 4'-0" O.C. AND 2" x 4" x 8' @ 4'-0" O.C.

**PROVIDENCE**  
Alaska  
Medical Center

**Architects**  
Alaska

35% SUBMITTAL

Architectural & Engineering

**CATH LAB 6**  
**PROVIDENCE ALASKA**  
**MEDICAL CENTER**  
**ANCHORAGE ALASKA**

Date: 2/2/09

Revisions

Sheet Contents

Sheet Number  
**A-1**

PROVIDENCE HEALTH SYSTEM PROJECT NUMBER: 00000000



## Section VIIIB. Financial Data – Construction Only

### 1. Construction Method (Please check)

- a. ☒ Conventional bid      ☐ Contract management      ☐ Design and build  
b. ☒ Phased      ☐ Single project      ☐ Fast Track

### 2. Construction Cost (New Activity)

(Omit cents)

- |   |                     |
|---|---------------------|
| a. Site acquisition (Section VIIIA.2.f)   | \$ N/A              |
| b. Estimated general construction**   | \$ 2,738,041        |
| c. Fixed equipment, not included in a**   | \$ 3,050,295        |
| d. Total construction costs (sum of items a, b, and c)**  | \$ 5,788,336        |
| e. Major movable equipment**  | \$ 723,024          |
| f. Other cost:**  |                     |
| (1) Administration expense  | \$ 63,000           |
| (2) Site survey, soils investigation, and materials testing   | \$ 3,091            |
| (3) Architects and engineering fees   | \$ 416,276          |
| (4) Other consultation fees (preparation of application included)   | \$ 37,000           |
| (5) Legal fees  | \$ 0                |
| (6) Land development and landscaping  | \$ 0                |
| (7) Building permits and utility assessments (including water, sewer, electrical, phones, etc.)   | \$ included in b.   |
| (8) Additional inspection fees (clerk of the works)   | \$ included in b.   |
| (9) Insurance (required during construction period)   | \$ included in b.   |
| <b>g. Total project cost (sum of items d, e, f)</b>   | <b>\$ 7,030,727</b> |
| h. Amount to be financed  | \$ 0                |
| i. Difference between 2.g and 2.h (list, as Schedule 1, available resources to be used, e.g., available cash, investments, grants funds, community contributions, etc.) | <b>\$ 7,030,727</b> |
| j. Anticipated long-term interest rate  | na%                 |
| k. Anticipated interim (construction) interest rate   | na%                 |
| l. Anticipated long-term interest amount  | \$ 0                |
| m. Anticipated interim interest amount  | \$ 0                |
| <b>n. Total items g, l, and m</b>   | <b>\$ 7,030,727</b> |
| o. Estimated annual debt service requirement  | \$ 0                |
| p. Construction cost per sq. ft.  | \$896               |
| q. Construction cost per bed  | \$ na               |
| r. Project cost per sq. ft.   | \$1089              |
| s. Project cost per bed (if applicable)   | \$ na               |

\*Site acquisition should be stated as "book" value, i.e., actual purchase price (or estimate of value if donated) plus costs of development. If desired, the applicant may elect to state as "fair market value" (in which case, so indicate). See Section VIIIA for how to determine fair market value.

\*\* Items must be certified estimates from an architect or other professional. Major medical equipment may be documented by bid quotes from suppliers.



## **Section IX. Financial Data – All Proposed Activities**

Provide an accompanying narrative explanation for each of the schedules below if there are any significant trends or significant changes in any item or group of items from year to year.

**Note:** Indicate whether you are using a calendar year or other fiscal year period.

### **A. Attach Schedule I - Facility Income Statement**

1. For the most recent five prior full fiscal or calendar years
2. Projections during construction or implementation period (if applicable)
3. Projection for three years following completion of construction, or implementation of the proposed activity.

### **B. Attach Schedule II - Facility Balance Sheet**

1. For the most recent five prior fiscal or calendar years.
2. Current fiscal or calendar year to date

### **C. Attach Schedule III - Average Patient Cost Per Day (Per Diem Rate if applicable) and Revenue Amounts**

Provide revenue and expense data FOR EACH SERVICE THAT IS IDENTIFIED AS CHANGING.

1. For the most recent five prior full fiscal or calendar years (information may be obtained on total patient load, directly from your respective years' Medicare Cost Reports)
2. Current fiscal or calendar year to date
3. Projection for five years following completion of construction or implementation.

### **D. Attach Schedule IV – Operating Budget**

Current and projected line item capital and operating budgets for the proposed activity. Describe what alternative plans have been made if deficits occur.

### **E. Attach Schedule V – A. Debt Service Summary, and B. New Project Debt Service Summary**

A debt service cash flow schedule over the life of the debt, if applicable, for all long-term debt of the facility. Identify each debt, including the proposed activity, and break out interest, principal, and other costs.

### **F. Attach Schedule VI - Reimbursement Sources**

Showing reimbursement sources for the facility for the previous five full years and projected for three years after implementation.

### **G. Attach Schedule VII – Depreciation Schedule**

Showing a depreciation schedule for all items acquired through the proposed project. Note that the straight-line method must be used. Indicate on the depreciation schedule or separately which major movable equipment is being purchased for the project (see Section VIIIB, Item 2e). Also, on a separate page, include a list of all equipment to be purchased through this project and the costs.



**Schedule I****INCREMENTAL CATHETERIZATION LAB PROJECTED INCOME STATEMENT (in 000's)**

GROSS PATIENT REVENUE:	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
INPATIENT					
	\$	\$	\$	\$	\$
OUTPATIENT	42,875	46,314	49,103	52,059	55,194
LONG-TERM CARE					
SWING BEDS					
OTHER					
	\$	\$	\$	\$	\$
TOTAL PATIENT REVENUE	42,875	46,314	49,103	52,059	55,194
LESS DEDUCTIONS					
	\$	\$	\$	\$	\$
CHARITY CARE	1,458	1,577	1,672	1,772	1,879
	\$	\$	\$	\$	\$
CONTRACTUAL ALLOWANCES	22,602	25,189	27,129	29,213	31,447
BAD DEBT					
	\$	\$	\$	\$	\$
TOTAL DEDUCTIONS	24,060	26,766	28,801	30,985	33,326
	\$	\$	\$	\$	\$
NET OPERATING REVENUES	18,815	19,548	20,302	21,074	21,868
ALL OTHER REVENUES					
EXPENSES:					
	\$	\$	\$	\$	\$
SALARIES	618	643	669	695	723
	\$	\$	\$	\$	\$
BENEFITS	185	193	201	209	217
	\$	\$	\$	\$	\$
SUPPLIES	4,163	4,424	4,702	4,997	5,311
UTILITIES					
PURCHASED SERVICE					
PROFESSIONAL FEES					
LEASE					
	\$	\$	\$	\$	\$
OTHER EXPENSES	3,837	3,952	4,070	4,192	4,328
	\$	\$	\$	\$	\$
DEPRECIATION	675	675	675	675	675
INTEREST					
	\$	\$	\$	\$	\$
TOTAL EXPENSES	9,478	9,887	10,317	10,768	11,254
	\$	\$	\$	\$	\$
NET INCOME	9,337	9,661	9,985	10,306	10,614



**Schedule I****INCOME STATEMENTS PAMC (in 000's)**

GROSS PATIENT REVENUE:	<b>FY 2004</b>	<b>FY 2005</b>	<b>FY 2006</b>	<b>FY 2007</b>	<b>FY 2008</b>
	\$	\$	\$	\$	\$
INPATIENT	485,928	540,260	606,096	684,827	741,222
	\$	\$	\$	\$	\$
OUTPATIENT	220,132	231,949	256,288	293,642	335,422
LONG-TERM CARE					
SWING BEDS	\$	\$	\$	\$	\$
OTHER	9,291	9,806	12,375	14,857	16,098
	\$	\$	\$	\$	\$
TOTAL PATIENT REVENUE	715,351	782,015	874,759	993,326	1,092,742
LESS DEDUCTIONS	\$	\$	\$	\$	\$
CHARITY CARE	32,087	36,507	38,065	46,118	57,986
	\$	\$	\$	\$	\$
CONTRACTUAL ALLOWANCES	309,854	341,319	394,568	447,401	503,891
	\$	\$	\$	\$	\$
BAD DEBT	43,712	36,818	30,628	51,812	42,180
	\$	\$	\$	\$	\$
TOTAL DEDUCTIONS	385,653	414,644	463,261	545,331	604,057
	\$	\$	\$	\$	\$
NET OPERATING REVENUES	329,698	367,371	411,498	447,995	488,685
	\$	\$	\$	\$	\$
ALL OTHER REVENUES	25,642	18,668	26,848	17,609	28,913
EXPENSES:					
	\$	\$	\$	\$	\$
SALARIES	130,264	141,697	156,677	160,111	166,624
	\$	\$	\$	\$	\$
BENEFITS	34,763	37,059	40,743	42,674	48,122
	\$	\$	\$	\$	\$
SUPPLIES	62,370	70,941	76,223	79,350	85,523
	\$	\$	\$	\$	\$
PURCHASED SERVICE	56,879	63,349	79,179	82,796	92,642
	\$	\$	\$	\$	\$
PROFESSIONAL FEES	11,161	7,230	7,092	6,953	7,186
	\$	\$	\$	\$	\$
OTHER EXPENSES	14,943	18,689	19,233	19,509	20,680
	\$	\$	\$	\$	\$
DEPRECIATION	24,815	24,216	26,313	30,508	36,013
	\$	\$	\$	\$	\$
INTEREST	668	1,231	2,654	6,408	8,010
	\$	\$	\$	\$	\$
TOTAL EXPENSES	335,863	364,412	408,114	428,309	464,800
	\$	\$	\$	\$	\$
NET OPERATING INCOME	19,477	21,627	30,232	37,295	52,798



**Schedule I**

**CARDIAC CATHETERIZATION LAB INCOME STATEMENT (in 000's)**

GROSS PATIENT REVENUE:	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008
	\$	\$	\$	\$	\$
INPATIENT	56,261	67,518	57,235	58,311	64,795
	\$	\$	\$	\$	\$
OUTPATIENT	17,590	14,386	15,778	20,176	26,864
LONG-TERM CARE					
SWING BEDS					
OTHER			\$ -		
	\$	\$	\$	\$	\$
TOTAL PATIENT REVENUE	73,851	81,904	73,013	78,487	91,659
LESS DEDUCTIONS*	\$ -	\$ -	\$ -	\$ -	
CHARITY CARE					
CONTRACTUAL ALLOWANCES					
BAD DEBT					
TOTAL DEDUCTIONS	\$ -	\$ -	\$ -	\$ -	\$ -
	\$	\$	\$	\$	\$
NET OPERATING REVENUES	73,851	81,904	73,013	78,487	91,659
	\$	\$	\$	\$	\$
ALL OTHER REVENUES	15	\$ 8	101	\$ 5	\$ 6
EXPENSES:					
	\$	\$	\$	\$	\$
SALARIES	2,220	2,846	3,366	3,474	3,869
	\$	\$	\$	\$	\$
BENEFITS	180	256	243	234	292
	\$	\$	\$	\$	\$
SUPPLIES	11,850	15,108	15,150	14,011	14,179
UTILITIES					
	\$	\$	\$	\$	\$
PURCHASED SERVICE	540	581	550	746	630
	\$	\$	\$	\$	\$
PROFESSIONAL FEES	54	45	54	41	195
LEASE					
	\$	\$	\$	\$	\$
OTHER EXPENSES	206	193	200	383	315
	\$	\$	\$	\$	\$
DEPRECIATION	\$ -	\$ 4	43	43	36
INTEREST					
	\$	\$	\$	\$	\$
TOTAL EXPENSES	15,049	19,033	19,606	18,932	19,516

*Note: Deductions from revenue are not available at the department level.*



## Schedule II. Facility Balance Sheet

<b>PAMC BALANCE SHEET</b>	<b>FY 2004</b>	<b>FY 2005</b>	<b>FY 2006</b>	<b>FY 2007</b>	<b>FY 2008</b>
<b>CURRENT ASSETS</b>					
CASH & EQUIVALENTS	\$ 10,789	\$ 12,376	\$ 35,129	\$ 32,668	\$ 28,588
ACCOUNTS RECEIVABLE	\$ 65,287	\$ 63,352	\$ 76,551	\$ 73,639	\$ 84,642
SUPPLIES INVENTORY	\$ 10,292	\$ 11,564	\$ 13,269	\$ 13,423	\$ 12,897
OTHER CURRENT ASSETS	\$ 8,391	\$ 16,263	\$ 9,035	\$ 25,732	\$ 26,495
<b>TOTAL CURRENT ASSETS</b>	<b>\$ 94,759</b>	<b>\$ 103,555</b>	<b>\$ 133,984</b>	<b>\$ 145,462</b>	<b>\$ 152,622</b>
<b>PROPERTY AND EQUIPMENT</b>					
LAND	\$ 17,965	\$ 32,901	\$ 32,169	\$ 30,710	\$ 30,860
BUILDING/FIXED EQUIP	\$ 261,256	\$ 273,292	\$ 289,994	\$ 297,783	\$ 306,809
MAJOR MOVABLE EQUIP	\$ 204,357	\$ 266,167	\$ 367,274	\$ 394,115	\$ 382,491
ACCUMULATED DEPRECIATION	\$ 272,763	\$ 301,448	\$ 322,616	\$ 348,385	\$ 372,581
NET PROPERTY AND EQUIPMENT	\$ 210,815	\$ 270,912	\$ 366,821	\$ 374,223	\$ 347,579
OTHER ASSETS	\$ 188,672	\$ 226,189	\$ 243,083	\$ 246,050	\$ 222,387
<b>TOTAL ASSETS</b>	<b>\$ 494,246</b>	<b>\$ 600,656</b>	<b>\$ 743,888</b>	<b>\$ 765,735</b>	<b>\$ 722,588</b>
<b>LIABILITIES/FUND BALANCE</b>					
<b>CURRENT LIABILITIES</b>					
ACCOUNTS PAYABLE	\$ 13,436	\$ 27,833	\$ 35,913	\$ 27,480	\$ 15,635
ACCRUED EXPENSES	\$ 8,350	\$ 11,404	\$ 9,144	\$ 17,750	\$ 54,929
ACCRUED COMPENSATION/OTHER	\$ 16,782	\$ 20,372	\$ 21,917	\$ 21,906	\$ 22,207
<b>TOTAL CURRENT LIABILITIES</b>	<b>\$ 38,568</b>	<b>\$ 59,609</b>	<b>\$ 66,974</b>	<b>\$ 67,136</b>	<b>\$ 92,771</b>
<b>LONG TERM LIABILITIES</b>					
LONG TERM DEBT	\$ 55,770	\$ 113,517	\$ 209,753	\$ 197,896	\$ 149,356
OTHER	\$ 25,133	\$ 40,430	\$ 37,972	\$ 15,875	\$ 14,158
<b>TOTAL LONG TERM LIABILITIES</b>	<b>\$ 80,903</b>	<b>\$ 153,947</b>	<b>\$ 247,725</b>	<b>\$ 213,771</b>	<b>\$ 163,514</b>
<b>FUND BALANCE</b>	<b>\$ 374,775</b>	<b>\$ 387,100</b>	<b>\$ 429,189</b>	<b>\$ 484,828</b>	<b>\$ 466,303</b>
<b>TOTAL LIABILITIES &amp; FUND BALANCE</b>	<b>\$ 494,246</b>	<b>\$ 600,656</b>	<b>\$ 743,888</b>	<b>\$ 765,735</b>	<b>\$ 722,588</b>



## Schedule II. Facility Balance Sheet

	As of December 2008
<b>PAMC BALANCE SHEET</b>	
CURRENT ASSETS	
CASH & EQUIVALENTS	\$ 28,588
ACCOUNTS RECEIVABLE	\$ 84,642
SUPPLIES INVENTORY	\$ 12,897
OTHER CURRENT ASSETS	\$ 26,495
TOTAL CURRENT ASSETS	\$ 152,622
PROPERTY AND EQUIPMENT	
LAND	\$ 30,860
BUILDING/FIXED EQUIP	\$ 306,809
MAJOR MOVABLE EQUIP	\$ 382,491
ACCUMULATED DEPRECIATION	\$ 372,581
NET PROPERTY AND EQUIPMENT	\$ 347,579
OTHER ASSETS	\$ 222,387
TOTAL ASSETS	\$ 722,588
LIABILITIES/FUND BALANCE	
CURRENT LIABILITIES	
ACCOUNTS PAYABLE	\$ 15,635
ACCRUED EXPENSES	\$ 54,929
ACCRUED COMPENSATION/OTHER	\$ 22,207
TOTAL CURRENT LIABILITIES	\$ 92,771
LONG TERM LIABILITIES	
LONG TERM DEBT	\$ 149,356
OTHER	\$ 14,158
TOTAL LONG TERM LIABILITIES	\$ 163,514
FUND BALANCE	\$ 466,303
TOTAL LIABILITIES & FUND BALANCE	\$ 722,588



**Schedule III. Average Patient Cost Per Day (per Diem  
Rate if applicable) and Revenue Amounts**

	<b>FY 2001</b>	<b>FY 2002</b>	<b>FY 2003</b>	<b>FY 2004</b>	<b>FY 2005</b>	<b>FY 2006</b>	<b>FY 2007</b>	<b>FY 2008</b>	<b>FY 2009</b>	<b>FY 2010</b>
(Gross) REVENUES										
EXPENSES										
PATIENT DAYS										
REVENUE PER PATIENT DAY										
OPERATING & CAPITAL BUDGET SUMMARY										
GROSS REVENUES										
DEDUCTIONS FROM REVENUE										
NET REVENUE										
DIRECT EXPENSE										
INDIRECT EXPENSE										
NET INCOME PROJECTED										
RATE COMPUTATION										
ANNUAL MEDICAID RATE										
BASE YEAR COST										
LESS ANCILLARY										
PLUS ADMIN. OVERHEAD										
COST BASIS FOR RATE										
BASE YEAR PATIENT DAYS										
COST PER PATIENT DAY										

**Providence Alaska Medical Center is  
an acute care facility, not long term care**

2001-2004 Direct and Indirect Expense from PAMC  
Medicare Cost Report

2005 Direct cost from Hyperion report



Schedule IV. Operating Budget					
Provide Last Five Years Actual and					
Projections for Three Years Beyond Project Completion					
Description:	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Number of Beds					
Days in a Year					
Available Bed Days					
Resident Bed Days					
Percent Growth					
Occupancy					
Average Length of Stay					
Patient Bed Days					
Number of Residents					
Daily Room and Board Rate*					
Nursing Revenue					
Nursing Services					
Payer mix					
Medicaid					
Medicare					
Other					
Ancillary Revenue					
Total Revenue					
Rate Computation					
Annual Medicaid Rate					
Base Year Cost					
Less Ancillary					
Plus Admin Overhead					
Cost Basis for Rate					
Base Year Patient Days					
Cost per Patient Day					

**Providence Alaska Medical Center is  
an acute care facility, not long term care.**

Years 1 & 2 are equivalent to State of Alaska swing-bed rate  
Facility Medicaid Rate is figured from Year 3 onward



**Schedule V-A. Debt Service Summary**  
**Provide Current Debt Data and Projections For the Next Three Years**

Description:	Existing Debt:	FY 2008	FY 2009	FY 2010	FY 2011
Previous	principal ('000)	\$9,005	\$12,375	\$11,171	\$1,580
	interest ('000)	\$2,814	\$8,552	\$7,815	\$7,441
New Debt	principal	0			
	interest	0			

No new debt will be issued for this project.

**Schedule V-B. New Project Debt Service Summary**

**Attach a debt service cash flow schedule over the life of the debt for the new project**

**Break out principal, interest and Other**

year	Item	Principal	Interest	Other	Total
2006		\$ -	\$ -	\$ -	
2007	PAYMENT	No new debt issued for this project.			
2008	PAYMENT				
2009	PAYMENT				
2010	PAYMENT				
2011	PAYMENT				
2012	PAYMENT				
2013	PAYMENT				
2014	PAYMENT				
2015	PAYMENT				



**Schedule VI. Reimbursement Sources**

Show reimbursement sources for the previous five years and  
projections for three years after the new project opens

Fiscal Year 2005				
Reimbursement Source	Number of Patients	Gross Patient Charges	Deductions	Net Patient Revenues
Medicaid		4.38%		3.35%
Medicare		32.07%		24.03%
Commercial		11.33%		18.25%
Self Pay		4.01%		0.17%
Other Government		5.12%		4.39%
Other		43.10%		49.81%
Total		100.00%		100.00%

Fiscal Year 2006				
Reimbursement Source	Number of Patients	Gross Patient Charges	Deductions	Net Patient Revenues
Medicaid		6.05%		3.95%
Medicare		25.92%		16.58%
Commercial		8.02%		12.08%
Self Pay		2.22%		0.00%
Other Government		6.30%		4.45%
Other		51.48%		62.94%
Total		100.00%		100.00%

Fiscal Year 2007				
Reimbursement Source	Number of Patients	Gross Patient Charges	Deductions	Net Patient Revenues
Medicaid		4.00%		2.21%
Medicare		31.36%		18.56%
Commercial		4.01%		6.94%
Self Pay		2.25%		0.05%
Other Government		9.17%		6.15%
Other		49.21%		66.09%
Total		100.00%		100.00%

Fiscal Year 2008				
Reimbursement Source	Number of Patients	Gross Patient Charges	Deductions	Net Patient Revenues
Medicaid		4.36%		1.93%
Medicare		30.32%		13.92%
Commercial		6.39%		9.76%
Self Pay		4.17%		0.70%
Other Government		5.06%		3.43%
Other		49.70%		70.26%
Total		100.00%		100.00%



Fiscal Year 2009				
Reimbursement Source	Number of Patients	Gross Patient Charges	Deductions	Net Patient Revenues
Medicaid		3.55%		1.50%
Medicare		32.00%		14.10%
Commercial		6.68%		10.30%
Self Pay		3.70%		0.60%
Other Government		4.34%		2.80%
Other		49.74%		70.70%
Total		100.00%		100.00%

Fiscal Year 2010				
Reimbursement Source	Number of Patients	Gross Patient Charges	Deductions	Net Patient Revenues
Medicaid		4.41%		1.90%
Medicare		34.04%		14.90%
Commercial		3.81%		6.10%
Self Pay		3.70%		0.70%
Other Government		4.33%		2.80%
Other		49.70%		73.60%
Total		100.00%		100.00%

Fiscal Year 2011				
Reimbursement Source	Number of Patients	Gross Patient Charges	Deductions	Net Patient Revenues
Medicaid		4.40%		2.00%
Medicare		35.10%		14.90%
Commercial		3.80%		6.20%
Self Pay		3.70%		0.70%
Other Government		4.30%		2.70%
Other		48.70%		73.50%
Total		100.00%		100.00%

Fiscal Year 2012				
Reimbursement Source	Number of Patients	Gross Patient Charges	Deductions	Net Patient Revenues
Medicaid		4.40%		1.90%
Medicare		36.10%		14.90%
Commercial		3.80%		6.40%
Self Pay		3.70%		0.70%
Other Government		4.30%		2.60%
Other		47.70%		73.50%
Total		100.00%		100.00%



Fiscal Year 2013				
Reimbursement Source	Number of Patients	Gross Patient Charges	Deductions	Net Patient Revenues
Medicaid		4.40%		1.90%
Medicare		37.15%		14.90%
Commercial		3.80%		6.50%
Self Pay		3.70%		0.70%
Other Government		4.30%		2.60%
Other		46.65%		73.40%
Total		100.00%		100.00%
Fiscal Year 2014				
Reimbursement Source	Number of Patients	Gross Patient Charges	Deductions	Net Patient Revenues
Medicaid		4.40%		1.90%
Medicare		38.15%		14.95%
Commercial		3.80%		6.60%
Self Pay		3.70%		0.70%
Other Government		4.30%		2.50%
Other		45.65%		73.35%
Total		100.00%		100.00%
Fiscal Year 2015				
Reimbursement Source	Number of Patients	Gross Patient Charges	Deductions	Net Patient Revenues
Medicaid		4.40%		1.90%
Medicare		40.20%		14.90%
Commercial		3.80%		6.90%
Self Pay		3.70%		0.70%
Other Government		4.30%		2.40%
Other		43.60%		73.20%
Total		100.00%		100.00%

Due to the nature of charity and bad debts expense, this schedule is not projectable with certain accuracy.



<b>Schedule VII. Depreciation Schedule</b>			
Use the straight-line method. Provide a separate schedule for any pieces of major moveable equipment.			
Equipment Description	Cost	AHA Life	Depreciation Per Year
<b>Equipment to be Purchased</b>			
<b>Equipment Description</b>	<b>Unit Cost</b>	<b>AHA Life</b>	<b>Depreciation Per Year</b>
Bair Hugger Warming unit	N/C	n/a	n/a
Pyxis Med Storage Unit	Lease	n/a	n/a
X-ray, Bi-plane	1,888,002	7	269,715
System One Monitoring	460,000	7	65,714
EnSite Ablation	315,924	7	45,132
Carto Mapping	185,000	5	37,000
Cardiac Monitoring System	125,000	8	15,625
Accunav ICE	60,000	5	12,000
Sound for mapping	45,000	5	9,000
EP-4 Stimulator	26,000	5	5,200
Stockert Generator RF	20,000	5	4,000
Storage Cabinets	15,000	15	1,000
Thermocool	10,000	10	1,000
Defibrillator w/Pacemaker	8,484	5	1,697
Bovie Generator	8,400	5	1,680
Oxicom	7,200	5	1,440
pacemaker, External	5,500	5	1,100
Cart, Resuscitation	2,857	10	\$286
<b>Total Capital Equipment</b>	<b>3,182,367</b>		<b>471,588</b>
<b>Expensed</b>			
X-Ray Equip Service Contract*	581,760	7	83,109
2 PCs	2,000		
Chairs (2)	1,600		
Printer	1,000		
Stainless table 3x2	800		
Laminate table 5x 21/2	750		
Table, Instrument, 48"	551		
Hoses for Anesthesia Drop	500		
Hamper Linen	495		
4 Mac Lab Transducer Cables	300		
3 Waste Cans, Swing Top	295		
Regulator, Suction	246		
Slider Board	200		
IV Pole	183		
Clock	120		
Dispenser, Glove Box	52		
2 flowmeters, oxygen	50		
Waste Can, Open	50		
<b>Total Expensed Equipment</b>	<b>590,952</b>		
<b>Total Equipment</b>	<b>3,773,319</b>		
*Warranty is expensed every year equipment is in service.			



## APPLICATION FEE – DETERMINATION AND CERTIFICATION OF AMOUNT

### How to Determine the Amount of the Application Fee Required Under 7 AAC 07.079

(1) For a project that does not include a lease of a facility or equipment, the value of the project is:

- A. the amount listed on page 20 of this packet under Section VIIIA, Financial Data – Acquisitions, subsection (2), item “a” (total acquisition cost of land and buildings): \$ 0

**plus**

- B. the amount listed on page 21 of this packet under Section VIIIB, Financial Data – Construction Only, item “g” (total project cost, which is the sum of items d, e, and f): \$ 7,030,727

Estimated Value of the Activity for (1)  
(sum of A & B above) \$ 7,030,727

(2) For a project that has a component that is leased, the fair market value of the leased equipment, facility, or land must be considered in addition to the acquisition cost. See the form on page 31 of this packet for how to determine fair market value.

Estimated Fair Market Value for (2): \$ na

Estimated Value for (1) from above: \$ na

Total Estimated Value of the Activity  
(sum of (1) and (2): \$ na

---

Amount of Application Fee submitted with this application  
(see 7 AAC 07.079 to calculate amount due):  $(.001 \times 7,030,727)$  \$ 7,031

### Certification of Individual Determining Application Fee

I certify that, to the best of my knowledge, as of this date, the estimated value and fee for this certificate of need activity are accurate.

Date:

Providence Alaska Medical Center; 3200 Providence Drive, Anchorage, Alaska  
Lisa Wolf, Regulatory Analyst

---

Signature of Certifying Officer of the Organization



## Appendices



STATE OF ALASKA  
DEPARTMENT OF HEALTH AND SOCIAL SERVICES  
Sarah Palin, Governor

*This is to Certify* that a license is hereby granted by the Department of Health and Social Services to

## Providence Alaska Medical Center

To conduct and maintain a 326 Bed Acute Care Hospital including 27 Psychiatric Beds  
and 10 Rehabilitation Beds

In the premises located at 3200 Providence Drive, Anchorage, Alaska

*This License* is effective July 1, 2008 through June 30, 2010  
of ALASKA STATUTES 47.32. This License shall not be assignable or transferable and shall be subject to revocation at any time  
by the Department of Health and Social Services for failure to comply with the laws of Alaska or rules and regulations as  
provided under the Alaska Administrative Code.

*In Witness Whereof* I have hereunto set my hand and seal of the Department of Health and Social Services this  
First day of July, 2008



By Sarah Palin  
DEPARTMENT OF HEALTH AND SOCIAL SERVICES

*This License Must Be Posted In A Conspicuous Place On The Premises*



Providence Alaska Medical Center  
Anchorage, AK  
has been Accredited by



**The Joint Commission**

Which has surveyed this organization and found it to meet the requirements for the  
**Hospital Accreditation Program**

**July 19, 2008**

Accreditation is customarily valid for up to 39 months.

*David L. Nahawold*

David L. Nahawold, M.D.  
Chairman of the Board

10208  
Organization ID #

*Mark Chassin*

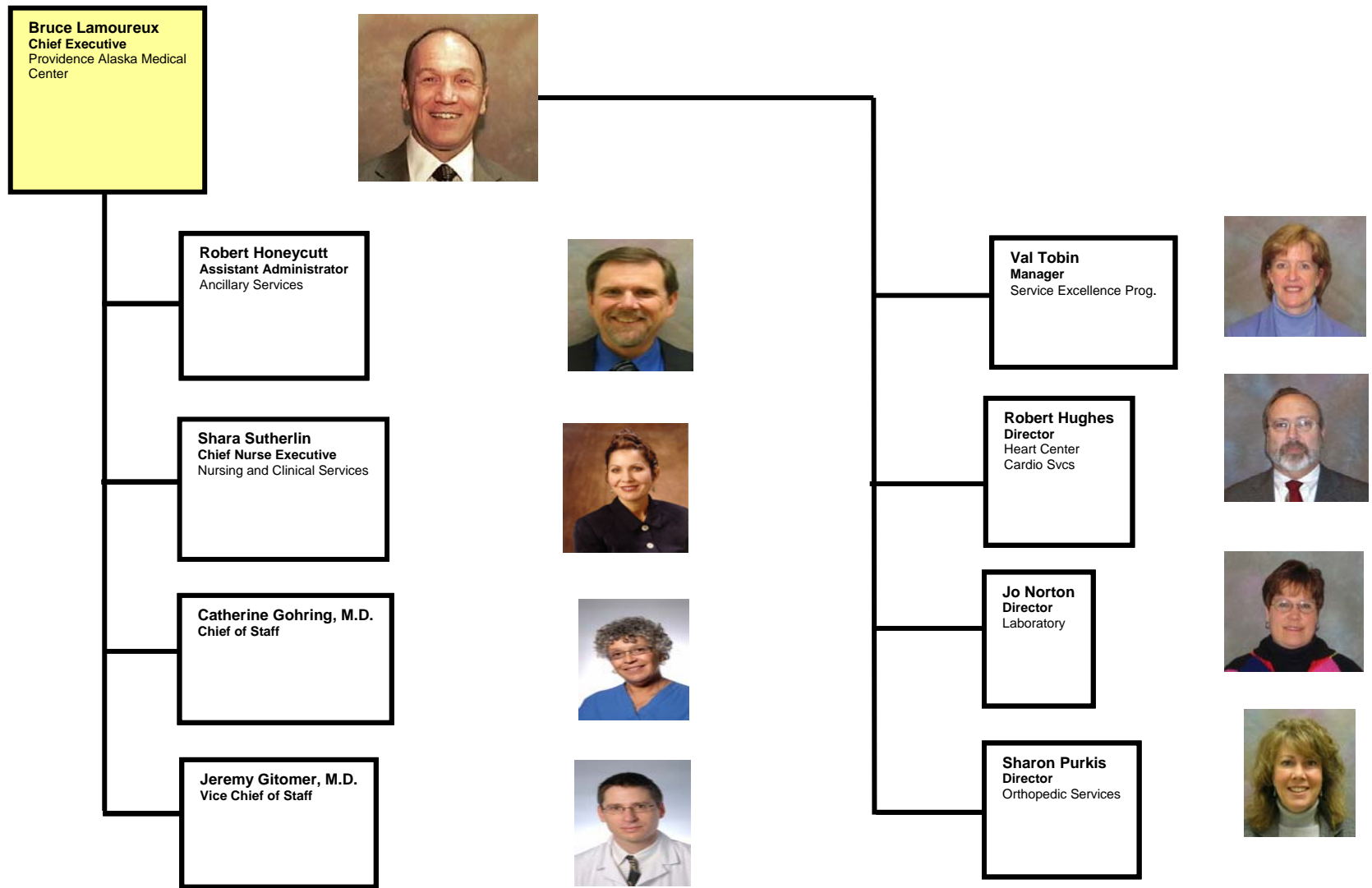
Mark Chassin, M.D.  
President

The Joint Commission is an independent, not-for-profit, national body that oversees the safety and quality of health care and other services provided in accredited organizations. Information about accredited organizations may be provided directly to The Joint Commission at 1-800-994-6610. Information regarding accreditation and the accreditation performance of individual organizations can be obtained through The Joint Commission's web site at [www.jointcommission.org](http://www.jointcommission.org).





## Providence Health & Services Alaska





## Cardiovascular Service Line Objectives and Targets

Grow Volumes and Market Share Objectives	Performance Measure	Baseline	Targets				
		2008	2009	2010	2011	2012	
Complete Cath Lab 6 by 4 <sup>th</sup> quarter 2009	Lab is operational and scheduled five days a week	No lab	In use by 4Q	x	x	x	

EXCERPT FROM **CARDIOVASCULAR SERVICE LINE STRATEGIC PLAN**



## CURRICULUM VITAE

# Steven J. Compton, M.D.

### Personal Data:

BIRTH DATE: JANUARY 11, 1963  
BIRTHPLACE: CINCINNATI, OHIO  
HOMETOWN: ANCHORAGE, ALASKA  
CITIZENSHIP: USA  
MARITAL STATUS: MARRIED (KAREN M. COMPTON)  
WORK ADDRESS:  
ALASKA HEART INSTITUTE  
3841 PIPER STREET  
ANCHORAGE, ALASKA 99508  
E-Mail: scompton@alaskaheart.com



### Education:

UNIVERSITY OF WASHINGTON SCHOOL OF MEDICINE, SEATTLE  
*September 1985- June 1989*

- M.D. degree.
- Manuscript reviewer for **Analytical Biochemistry**.
- Minority Affairs tutor.
- Inner-city reading and mathematics tutor.

DARTMOUTH COLLEGE, HANOVER, NEW HAMPSHIRE  
*September 1980- June 1984*

- A.B. with Honors.
- Chemistry major, emphasizing organic synthesis and analytical instrumentation.
- Honors thesis in chemistry: "Synthesis of Indole Marine Natural Products".

UNIVERSIDAD DE GRANADA, SPAIN  
*Winter 1982*

- Foreign study program in Spanish arts, culture, and civilization.

### Post-Doctoral Training:

UNIVERSITY OF UTAH MEDICAL CENTER, SALT LAKE CITY

*Postdoctoral Fellow, Cardiovascular Disease and Electrophysiology, July 1992-June 1996*

Fellowship in general cardiology and a year of dedicated training in clinical electrophysiology (1993-1994). National Research Service Award Training in Cardiovascular Research Fellowship awardee. HP Cardiovascular Fellowship awardee. NASPE Young Investigator Awardee. Clinical experience included drug and ablative management of arrhythmias, pacemaker and ICD implantation and follow-up, and radiofrequency ablation procedures. Research included dog models of sudden cardiac death and clinical studies in Long QT Syndrome.

Program director: Jay W. Mason, M.D.

NATIONAL CENTER FOR CARDIOVASCULAR DISEASES, SOFIA, BULGARIA

*Visiting Fellow, Electrophysiology, October 1994*

Joined Dr. Rodolphe Ruffy to help establish Bulgaria's national cardiac ablation program. Trained the attending cardiologists in radiofrequency ablation for supraventricular and ventricular tachycardia.

Program director: Ivan Duskalov, M.D.

UNIVERSITY OF WASHINGTON MEDICAL CENTER, SEATTLE



*Resident Physician, Internal Medicine, July 1990-June 1992*

A Traditional Track residency at University, Harborview, VA, Swedish, and Providence hospitals in Seattle. Outpatient clinic responsibilities at Pacific Medical Center.  
Program director: J. Findlay Wallace, M.D.

UNIVERSITY OF WASHINGTON MEDICAL CENTER, SEATTLE

*Intern, Internal Medicine, July 1989-June 1990*

A Traditional Track internship at University, Harborview, VA, Swedish, and Providence hospitals in Seattle.  
Program director: J. Findlay Wallace, M.D.

## **Work Experience:**

ALASKA HEART INSTITUTE

*Director, Clinical Cardiac Electrophysiology, January 2000-present*

Coinvestigator, MADIT II, MADIT CRT, REVERSE, Medtronic 6947, 3830 lead trials.  
Medical, device, and ablative therapy of SVT, VT, atrial flutter, atrial fibrillation.  
Clinical privileges at Providence Anchorage Medical Center and Alaska Regional Hospital.

UNIVERSITY OF UTAH DIVISION OF CARDIOLOGY

*Assistant Professor in Electrophysiology, July 1996 – December 1999*

Animal Lab Director  
Heart Station Director  
Coinvestigator, AVID, MOST, Microny Regency, LESS, Medtronic 5072, Thinline lead studies  
ACLS Instructor  
Lecturer, Cardiovascular Organ System Course  
Division Chief: Jeffrey L. Anderson, M.D.

SALT LAKE CITY VA MEDICAL CENTER, LATTER-DAY SAINTS HOSPITAL, SALT LAKE CITY

*Instructor, Sophomore Physical Diagnosis Course, September 1992- May 1995*

Instructing second-year medical students in interviewing, physical diagnosis, presentation, and write-up skills.  
Course Director: John Holbrook, M.D.

NEW YORK BOTANICAL GARDEN, INSTITUTE OF ECOSYSTEM STUDIES, MILLBROOK, NY

*Research Assistant, June 1984-May 1985*

Work in biochemistry, analytical chemistry, and chemical ecology. Defined the mechanism of action of a popular protein assay and developed methods to determine plant protein content. Synthesized organic disulfide compounds to aid in the analysis of effects of diet breadth on the autogenous chemical defense of a generalist grasshopper.  
Supervisor: Clive G. Jones, D.Phil.

## **Licensure and Specialty Boards:**

ABIM Internal Medicine Examination (Candidate #145348) Passed 9/92, Recertified 5/02.  
ABIM Cardiovascular Disease Examination (Candidate #145348) Passed 11/95, Recertified 5/02.  
ABIM Clinical Cardiac Electrophysiology Examination (Candidate #145348) Passed 11/96, Recertified 5/02.  
National Board of Medical Examiners (Candidate #376980):  
Part I, 91st percentile, 6/87; Part II, 94th percentile, 9/88; Part III, 84th percentile, 3/90.  
Alaska Physician License #4405 effective 1/25/00.  
Utah Physician/Surgeon License #92-187687-1205  
Washington State Physician/Surgeon License Number 252-09 File 0028790 Expired 1/11/93



(I held this license for internship/residency and allowed it to expire).  
DEA #BC3331802  
UPIN F80532

## Professional Organizations:

American College of Physicians  
American College of Cardiology  
American Heart Association  
Alaska Medical Society  
Alaska Physicians and Surgeons  
Heart Rhythm Society (HRS, formerly NASPE) #3240

## Awards/Grants/Other:

- 2007 ADN Best of Alaska Award, Cardiology
- 2007-present: Medtronic Quality Advisory Panel
- 2002-present: Medtronic Cardiac Therapy Delivery Advisory Board
- 2001- present: Managing Editor, Emedicine.com.
- 2001 Leading enrolling center, Medtronic 6947 ICD Lead Study
- 2000 Endocardial Solutions Speakers Panel
- 1999 Outstanding Teaching Award, University of Utah Division of Internal Medicine
- 1998 University of Utah Faculty Research Grant, "Atrial electrophysiology in a canine model of atrial fibrillation"
- 1997 PCMC Foundation Research Grant, "Chromosome 7-linked Long QT Syndrome Treatment Trial, Phase II: Chronic Safety and Efficacy: Pediatric Substudy
- 1996 Young Investigator Award, North American Society for Pacing and Electrophysiology
- 1995/1996 Hewlett-Packard Fellowship.
- 1995 Genentech/American College of Cardiology/American Heart Association Cardiovascular Meeting Travel Grant (ACC '95 Annual Scientific Sessions, New Orleans).
- 1994/1995 Institutional National Research Service Award Training in Cardiovascular Research Fellowship Grant.
- 1994 Wyeth-Ayerst Travel Award (NASPE 1994, Nashville).
- 1992-5 National Research Service Award: Training in Cardiovascular Research Fellowship

## Clinicals:

### ACTIVE:

System Longevity Study, BLOCK HF, FAST, REASSURE , REVERSE, MADIT CRT, MENDMI, MVP, RESPONSE HF, DECODE, SOLO, Optimum Registry, ATTAIN, DISCERN, RATE, ACCURATE, SCORE, Land-IT, STABLE, PRECEDE HF, RAPID RF, ST-DETECT, VEST/PREDICTS, DETERMINE, RESET, LVARS

### COMPLETED:

Optical sensor study 2007, CAPTURE 2004, SVC Coil protocol 2003-2004, 10636 catheter delivered atrial lead protocol 2004-5, St. Jude HouseCall clinical trial 2004, St. Jude septal lead protocol, 2004-7, Advacent Registry 2003-4, REFLEX 2004, MADIT II 2000-2002, Ablate and pace trial 2000-2001, Medtronic 6947 ICD lead study 2001 (leading enroller), SERF 2001-2004, Medtronic CareLink study 2001-2002 (leading enroller), Medtronic Marquis VR clinical 2002- 2003 (leading enroller), Atrial flutter 8mm, Medtronic 100 watt ablation catheter study 2002-2003, Medtronic 3830 pacing lead study 2002-2003 (leading enroller), Guidant MIDIS study 2002-2003, Guidant Intrinsic RV study 2003, Medtronic SVC coil study 2003 (leading enroller), FAST, EnPulse- chief investigator, BlockHF, InSync3, Marquis.

## Manuscripts:

2008. Compton SJ. Ventricular Tachycardia, chapter in eMedicine from WebMD. Updated October 24, 2008. Available at: <http://www.emedicine.com/med/topic2367.htm>.



2008. Koplan BA et al. Clinical and electrical performance of expanded polytetrafluoroethylene-covered defibrillator leads in comparison to traditional leads. **Pacing Clin Electrophysiol**. 2008 Jan; 31:47-55.
2006. Gammage MD, Lieberman RA, Yee R, Manolis AS, Compton SJ, Khazen C, Schaaf K, Oleson KA, Crossley GH; for the Worldwide SelectSecure Clinical Investigators. Multi-center clinical experience with a lumenless, catheter-delivered, bipolar, permanent pacemaker lead: implant safety and electrical performance. **Pacing Clin Electrophysiol**. 2006 Aug;29(8):858-65.
2006. Milasinovic G, Sperzel J, Compton S, Mead H, Smith TW, Brandt J, Haisty WK, Bailey JR, Roelke M, Simonson J, Dieteren H, Englund J, Worldwide EnPulse Investigators. Reduction of RV pacing by continuous optimization of the AV interval. **Pacing Clin Electrophysiol**. 2006 Apr;29(4):406-12.
2006. Compton SJ, Merrill J, Dorian, P; Cao J, Zhou, D, Gillberg, JM. Continuous template collection and updating for electrogram morphology discrimination in implantable cardioverter defibrillators. **Pacing Clin Electrophysiol** 2006 Mar;29(3):244-54.
2005. Sperzel J, Milasinovic G, Smith TW, Mead H, Brandt J, Haisty WK, Bailey JR, Roelke M, Simonson J, Englund J, Farges E, Compton S. Automatic measurement of atrial pacing thresholds in dual-chamber pacemakers: clinical experience with atrial capture management. **Heart Rhythm**. 2005 Nov;2(11):1203-10.
2004. Schoenfeld MH, Compton, SJ, Mead, RH, Weiss, DN, Sherfese, L, Englund, J, Mongeon, LR. Remote Monitoring of Implantable Cardioverter-Defibrillators: A prospective analysis. **Pacing Clin Electrophysiol**. 2004; 27: 757-63.
- 2004 Calkins H, Canby R, Weiss R, Taylor G, Wells P, Chinitz L, Milstein S, Compton S, et al. Results of catheter ablation of typical atrial flutter. **Am J Cardiol** 2004 94:437-432.
- 2003 Etheridge SP, Compton SJ, Tristani-Firouzi M, and Mason JW. A new oral therapy for long QT syndrome: Long-term oral potassium improves repolarization in patients with *HERG* mutations. **JACC** 42 2003, 1777-1782.
- 2002 Lamas GA et al. Ventricular Pacing or Dual-Chamber Pacing for Sinus-Node Dysfunction. **N Engl J Med** 2002; 346:1854-1862.
- 2002 Moss AJ, et al. Prophylactic Implantation of a Defibrillator in Patients with Myocardial Infarction and Reduced Ejection Fraction. **N Engl J Med** 2002; 346:877-883.
- 2001 Strobel GG, Trehan S, Compton S, Judd VE, Day RW, Etheridge SP. Successful pediatric stenting of a nonthrombotic coronary occlusion as a complication of radiofrequency catheter ablation. **PACE** 2001;24:1026-28.
- 2001 Etheridge, SP, Craig JE, Compton, SJ. Amiodarone is safe and highly effective therapy for supraventricular tachycardia in infants. **Am Heart J** 2001 Jan 141:105-110.



- 2001 Luria DM, Nemec J, Etheridge SP, Compton SJ, Klein RC et al. Intra-atrial conduction block along the mitral valve annulus during accessory pathway ablation: Evidence for a left atrial "isthmus". **J Cardiovascular EP** 12: 744-749.
- 2000 Timmermans C, Levy S, Ayers GM et al. Spontaneous episodes of atrial fibrillation after implantation of the Metrix Atrioverter: observations on treated and nontreated episodes. **J Am Coll Cardiol** 35:1428-33.
- 2000 SJ Compton, SP Etheridge, RC Klein. Noncontact electrogram morphology and variability predict atrial activation source. Abstract, Cardiosim 2000, Nice, France, June 2000. **PACE**.
- 2000 Li Zhang et al. Spectrum of ST-T-wave patterns and repolarization parameters in congenital long-QT syndrome : ECG findings identify genotypes. **Circulation**. 2000 Dec 5;102(23):2849-55.
- 1999 Seidl K, Jung W, et al. Clinical experience with the implantable atrial defibrillator (Atrioverter) in patients with atrial fibrillation. **Z Kardiologie** 88: 574-81.
- 1999 Compton SJ and Strobel GG. Sesquiflutter. **Journal of Cardiovascular Electrophysiology** 10:1557-8.
- 1999 Tse HF, Lau CP, Sra JS, Crijns HJ, et al. Atrial fibrillation detection and R-wave synchronization by Metrix implantable atrial defibrillator : implications for long-term efficacy and safety. **Circulation** 99:1446-51.
- 1998 Wellens HJ, Lau CP, et al (Metrix Investigators). Atrioverter: an implantable device for the treatment of atrial fibrillation. **Circulation** 98:1651-6.
- 1996 S.J Compton, RL Lux, MC Sanguinetti, MR Ramsey, KR Strellich, MT Keating, JW Mason. A gene-derived therapy for congenital long QT syndrome: Correction of abnormal repolarization by potassium. **Circulation** 94:1018-1022.
1993. SJ Compton, CL Cellum, C Lee, D Thompson, SM Sumi, TR Fritsche, and RW Coombs. Trichinosis with ventilatory failure and persistent myocarditis. **Clin Infect Dis** 16:500-504.
- 1989 CG Jones, DW Whitman, SJ Compton, PJ Silk, and MS Blum. Reduction in diet breadth results in sequestration of plant chemicals and increases the efficacy of chemical defense in a generalist grasshopper. **J Chemical Ecology** 15(6):1811-1822.
- 1989 CG Jones, JD Hare, and SJ Compton Measuring plant protein with the Bradford assay: 1. Evaluation and standard method. **J Chemical Ecology** 15(3): 979-991.
- 1986 J Braam, C Carlson, D Stephens, A Rehan, SJ Compton, and JM Williams. Synthesis of tetramethyltetraselenafulvalene (TMTSF). **Inorganic Synthesis** 24: 130-134.
- 1986 D Stephens, A Rehan, SJ Compton, R Barkhau, and JM Williams. Synthesis of tetrabutylammonium perchlorate and bis(4,4',5,5'-tetramethyl-2,2' -bi-1, 3-diselenolydene) radical ion (1+) perchlorate. **Inorganic Synthesis** 24: 135-137.
1986. SJ Compton, HW Wang, and JM Williams. Organic Superconducting Solids: Synthesis of tetrabutyl ammonium hexafluoroarsenate and bis (4,4',5,5' -tetramethyl -2,2' -bi-1, 3-diselenolydene) radical ion (1+) hexafluoroarsenate. **Inorganic Synthesis** 24: 138-139.
- 1985 SJ Compton and CG Jones. Mechanism of dye response and interference in the Bradford protein assay. **Analytical Biochemistry** 151: 369-374.



1983 LJ Azevedo, JM Williams, and SJ Compton. Field-induced magnetic order in bis-tetramethyl tetraselenafulvalenium perchlorate (TMTSF)<sub>2</sub>ClO<sub>4</sub>. **Physical Review B: 28**(11):6600-6602.

## Abstracts/Book Chapters:

2008 S. Compton, C. Swerdlow, R. Canby, G. Strobel, J. Zagrodzky, C. Cinbis, J. Carney, S. Bhunia Optical Tissue Perfusion Measurement during Human Arrhythmia. Heart Rhythm Society Annual Scientific Sessions, San Francisco. May 2008.

2007 Compton S, Schaerf R, Christopher T, Rials S and Ramadas S. Implant Fluoroscopy Time using the Locator steerable stylet in lead Placement on atrial septal wall. XIII WORLD CONGRESS ON CARDIAC PACING AND ELECTROPHYSIOLOGY, Rome. December 2007.

2007 Zhang L, Fontaine GH, Zareba W, Martini B, Long M, Stephan S, Pu J, Hu D, Liu W, Towbin JA, Compton SJ, Anderson JL, and Vincent GM. A Spectrum of ECG Abnormalities in patients with arrhythmogenic right ventricular dysplasia: Can ECG predict the disease? Heart Rhythm 4:5S, S207 (PO3-22). Heart Rhythm Society Annual Scientific Sessions, Denver. May 2007.

2007. Crossley GH, Compton SJ, Balaban K, Worley SJ, et al. Does reduction in bipole spacing reduce far-field R-wave oversensing? Heart Rhythm 4:5S, S207 (PO3-22). Heart Rhythm Society Annual Scientific Sessions, Denver. May 2007.

2007 G Milasinovic, J Sperzel, TW Smith, H Mead, MK Hofman, SM Gallagher, SJ Compton. Search AV+ algorithm reduces unnecessary right ventricular pacing. 13th World Congress on Heart Disease, Vancouver. July 2007.

2005. Compton SJ. Heart Rhythm Management in 2005. **Physicians Practice** Nov/Dec 2005 15: 2-5.

2006. Compton S. Ablation of incisional reentrant tachycardia caused by lung transplantation. **Europace Supplements 7:S8, October 2005. Presented at Ninth International Workshop on Cardiac Arrhythmias, Venice, October 2005.**

2005. Lieberman RA, Yee R, Crossley G, Roelke M, Compton S, Simonson J, Johnson E, Worley S, Schutzman JJ, Clemens BJ. Analysis of explanted lumenless permanent pacemaker leads. Europace P852 Prague, June 2005.

2005. Compton S, Crossley G, Schutzman JJ, Yee R, Haisty W, Simpson CS, Wong GK, Lieberman RA, Schaaf K, and Sandberg M. Multicenter chronic electrical efficacy of a deflectable catheter-delivered lumenless permanent pacemaker lead. Europace P845, Prague, June 2005.

2005. Compton S, Balaban K, Wilkoff B, Fedor J, Wright C, MacMillan S, Zhang X, Shkurovich S. Initial Experience of the Remote ICD Monitoring System – Housecall Plus. Europace P399 Prague, June 2005.

2005. Compton SJ, Crossley GH, Schutzman JJ, Yee R, Haisty WK, Simpson CS, Wong GK, Lieberman RA, Schaaf K, Sandberg M. Multicenter chronic electrical efficacy of a deflectable catheter-delivered lumenless permanent ventricular lead. Heart Rhythm Society Annual Sessions, New Orleans, May 2005. Heart Rhythm 2(5) P4-89.

2005. Compton S, Balaban K, Lu F, Benditt DG, and Whitman T. Increasing the SVC electrode length does not lower defibrillation threshold in humans. Heart Rhythm Society Annual Sessions, New Orleans, May 2005. Heart Rhythm 2(5) P4-88.



2005. Compton SJ, Crossley GH, Schutzman JJ, Yee R, Haisty WK. Multicenter Chronic Electrical Efficacy of a Deflectable Catheter-delivered Lumenless Permanent Pacemaker Lead. American College of Cardiology Annual Sessions, March 2005.
2004. Compton S, Stephens K, Valdes P, Jones S. Safety and Efficacy of "Plan-Ahead" Epicardial Lead Placement at Thoracotomy. North American Society for Pacing and Electrophysiology 25<sup>th</sup> Annual Scientific Sessions, San Francisco, 2004.
- 2004 Automatic Measurement of Atrial Pacing Thresholds in Dual Chamber Pacemakers - Atrial Capture Management. North American Society for Pacing and Electrophysiology 25<sup>th</sup> Annual Scientific Sessions, San Francisco, 2004.
- 2004 Preserving Intrinsic Ventricular Activation with a Novel Pacemaker Algorithm: Search AV+ . . North American Society for Pacing and Electrophysiology 25<sup>th</sup> Annual Scientific Sessions, San Francisco, 2004.
- 2004 An Assessment of the Accuracy of Manual Atrial Threshold Measurements. North American Society for Pacing and Electrophysiology 25<sup>th</sup> Annual Scientific Sessions, San Francisco, 2004.
- 2004 Lieberman RA, Compton SJ, Crossley GH, Simpson CS, Haisty WK. Deflectable sheath-delivered lumenless permanent pacemaker leads: Clinical study results. North American Society for Pacing and Electrophysiology 25<sup>th</sup> Annual Scientific Sessions, San Francisco, 2004.
- 2003 Lieberman RA, Compton SJ, Crossley GH, McFadden SC. Initial experience implanting lumenless permanent pacemaker lead with a steerable sheath. Europace, Paris December 2003
- 2003 Weiss R, Chinitz L, Wells PJ, Milstein S, Compton S, Worley SJ, Pena S, Alvarez LG, Xia HA, Stenach N. Higher Incidence of Non-Type I Atrial Flutter in Patients with History of Atrial Fibrillation without Class I and Class III Antiarrhythmic Treatment. North American Society for Pacing and Electrophysiology 24<sup>th</sup> Annual Scientific Sessions, Washington DC, 2003.
- 2003 Merrill JJ, Dorian P, Compton S, Gillberg JM, Cao J, Zhou D. Multi-Center Experience with Wavelet Dynamic VT/SVT Discrimination. North American Society for Pacing and Electrophysiology 24<sup>th</sup> Annual Scientific Sessions, Washington DC, 2003.
- 2003 Lieberman R et al. Deflectable Sheath-delivered Lumenless Permanent Pacemaker Leads: Preliminary Results. North American Society for Pacing and Electrophysiology 24<sup>th</sup> Annual Scientific Sessions, Washington DC, 2003.
- 2003 Day JD et al. Feasibility of Inductionless ICD Implantations: Correlation of Upper Limit of Vulnerability Testing to Defibrillation Threshold Testing at ICD Implantation. North American Society for Pacing and Electrophysiology 24<sup>th</sup> Annual Scientific Sessions, Washington DC, 2003.
- 2003 Compton S, Merrill J, Dorian P, Cao J, Gillberg JM, Zhou D. Clinical performance of the Wavelet automatic electrogram template collection algorithm. American College of Cardiology 52<sup>nd</sup> Annual Scientific Sessions, Chicago 2003.
- 2003 Compton S, Merrill J, Dorian P, Cao J, Zhou D. Clinical performance of Wavelet automatic electrogram template collection. XII World Congress on Cardiac Pacing and Electrophysiology, Hong Kong 2003.
- 2002 Schoenfeld, M, Compton S, Mead RH; and Weiss, D. First evaluation of a new internet-based patient management system: Assessment of usability, utility, and potential applications. Late breaking trials, NASPE 2002.



- 2002 Mead RH, Schoenfeld, M, Compton S; and Weiss, D. Transtelephonic defibrillator interrogation: Ease of use evaluation by patients and clinicians. *Cardiostim* 2002.
- 2001 Etheridge SP, Compton SJ et al. Gene-specific therapy for Long QT Syndrome: Chronic oral potassium in LQTS related to HERG channel mutations. *NASPE* 2001.
- 2001 Mason JW, Compton SJ, Sheppard T, Pursley M, Burkhardt J. Gene-based therapy of inherited LQT Syndrome. *Cardiovasc. Drugs and Ther* 2001; 15:27.
2000. Compton SJ, Etheridge, SP, and Klein, RC. Noncontact electrogram morphology and variability predict atrial activation source. *Europace* 1 Suppl D, July 2000 D231. (*Cardiostim* 2000)
2000. Compton SJ. "Ventricular Tachycardia", in *Internal Medicine*; [www.emedicine.com](http://www.emedicine.com).
1999. Compton SJ and Mason JW. Electrical Disturbances of the Heart: Long Q-T Syndromes. Chapter in "Cardiovascular Medicine", Cohn and Willerson eds., Churchill Livingstone, New York.
1999. Zhang L, Timothy KW, Vincent GM, Lehmann MH, Fox J, Priori SG, Yanowitz F, Compton SJ, Moss AJ, Schwartz PJ, Benhorin J, Robin JL. Can general cardiologists predict long QT Syndrome genotypes by ECG ST-T wave patterns? *NASPE*, Toronto.
- 1999 Klein RC, Compton SJ. Left Atrial Recordings During AV Nodal Reentrant Tachycardia. *Pacing and Clinical Electrophysiology* (abstract). *NASPE*, Toronto.
- 1999 Klein RC, Compton SJ, Freedman R, Marks M. Characteristics of Atrioventricular Nodal Reentry Tachycardia Manifesting Multiple Nodal Pathways. *NASPE*, Toronto.
- 1998 SJ Compton, L Zhang, GM Vincent, KW Timothy, MC Sanguinetti, RL Lux, JW Mason. Adrenergic Ca++ and K+ currents in patients with KVLQT1 Mutations. *Circulation* 1998;17:I-776; 4067A. American Heart Association 71st Scientific Sessions, New Orleans; November 1998.
- 1998 SP Etheridge, SJ Compton, R C Klein. A left sided isthmus? Conduction block following single RF lesions in human left atria. *Circulation* 1998;17:I-565, 2972A. American Heart Association 71st Scientific Sessions, New Orleans; November 1998.
- 1998 RC Klein, RA Freedman, SJ Compton. AV node reentry tachycardia (AVNRT) utilizing multiple slow pathways: Implications for catheter ablation. *Pacing and Clinical Electrophysiology* 21(4) Part II:797 (abstract). North American Society for Pacing and Electrophysiology, 19th Annual Scientific Sessions, San Diego; May 1998.
- 1997 SJ Compton. Genetically defined therapy of inherited long QT syndrome. *Circulation* 1997;95(6):1675-1676 (letter).
- 1997 SJ Compton, RL Lux, MC Sanguinetti, MT Keating, JW Mason. QT interval shortening by lidocaine in chromosome 7-linked Long QT Syndrome. *Pacing and Clinical Electrophysiology* 20(4) Part II:1060 (abstract). North American Society for Pacing and Electrophysiology, 18th Annual Scientific Sessions, New Orleans; May 1997.
1996. S.J. Compton, M. L. Marks, X. Gonzalez, G. M. Ayers, and C.A. Alferness. Proarrhythmic Effects of transvenous atrial defibrillation. *Circulation* 1996;94:0385A. American Heart Association 59th Scientific Meetings, New Orleans; November 1996.
1996. S.J. Compton, R.L. Lux, M.C. Sanguinetti, M.R. Ramsey, K.R. Strellich, M.T. Keating, J.W. Mason. A gene-derived therapy for congenital long QT syndrome: Correction of abnormal repolarization by potassium. *Pacing and Clinical Electrophysiology* 19(4) Part II:642 (abstract). North



American Society for Pacing and Electrophysiology, 17<sup>th</sup> Annual Scientific Sessions, Seattle, May 1996.

1995. S.J. Compton. Technical Contributor, "CDR: Coder's Desk Reference"; Salt Lake City, Medicode Inc., 1995.

1990. S.J. Compton. Ventilatory failure and persistent myocarditis as manifestations of trichinosis. Abstract, Washington Scientific Meeting, American College of Physicians.

## Presentations

- 2009 Rhythm management 2009. ARH Heart Month Lecture series, Anchorage.
- 2008 Session chair, Heart Rhythm Society, San Francisco: Uncharted waters of arrhythmia management.
- 2008 Remote patient management: Lessons from the last frontier. HRS, SJM, San Francisco, May.
- 2008 Arrhythmia update for EMTs. Anchorage EMS conference, February.
- 2008 Remote patient management. Conquering the mountain of patient arrhythmia management, Salt Lake City, January.
- 2007 Session chair, Heart Rhythm Society, Boston. Rhythm case studies.
- 2007 State of the art in cardiac arrhythmia management. Salt Lake City, February.
- 2007 Electrophysiology Update. Fairbanks, March.
- 2007 EP for the ER. PAMC Emergency Department, Anchorage, November.
- 2007 EP Update. Seward, November
- 2007 EP Update. CPGH Grand Rounds, Soldotna, December.
- 2006 ANMC Cardiac Nursing Update Conference. Cardiac EP review. Anchorage, October.
- 2006 Defibrillation waveform optimization. Clinical Applications and Beyond. Las Vegas, September.
- 2005 Ablation of incisional reentrant tachycardia caused by lung transplantation. 9th International Workshop on Cardiac Arrhythmias, Venice, October.
- 2005 Catheter based pacing. Heart Rhythm Society lunch session, New Orleans, May.
- 2005 21<sup>st</sup> century defibrillation. Heart Rhythm Society evening session, New Orleans, May.
- 2005 EP for EMTs. Alaska Annual EMT Conference, Anchorage, March.
- 2005 Selective site pacing with new lead technologies. Medtronic Rhythm Symposium, Seattle, March.
- 2005 Broken Hearts & Circuit Breakers. ARH Public Education Series, Anchorage, February.
- 2004 Remote patient management. Clinical applications and beyond. Scottsdale, November.
- 2004 WWAMI Mini-Medical School, Heart rhythms and circuit breakers. Fairbanks, October.
- 2004 New management strategies for congestive heart failure. Fairbanks, March.
- 2003 Resynchronization therapy for congestive heart failure, Providence Health System Cardiovascular Performance Improvement Collaborative, Burbank, CA, November.
- 2003 Arrhythmia Management Update, Alaska Association of Physician Assistants, Anchorage, October.
- 2003 Inherited Arrhythmia Syndromes, Western 1<sup>st</sup> Annual Western Arrhythmia & Heart Failure Conference, San Francisco, October.
- 2003 Companion trial results. Providence Cardiovascular Forum, Anchorage, June.
- 2003 EnPulse study clinical applications, Denver, June.
- 2003 Electrophysiology and Heart Failure. Providence Cardiovascular Conference, Anchorage, April.
- 2003 WWAMI Mini-medical school forum: What makes the heart tick? Anchorage, February
- 2002 Cardiovascular Society of California, Primary prevention of sudden death. Maui, October.
- 2002 Atrial fibrillation ablation. Providence Cardiovascular Conference, Anchorage, April.
- 2002 New management of arrhythmias. Alaska Men's Health Conference, Anchorage, April.
- 2002 Primary prevention of sudden death: MADIT 2. Providence Grand Rounds, Anchorage, April.
- 2002 Nonmedical management of arrhythmias. Ketchikan General Hospital CME, March.
- 2002 WWAMI Mini-medical school forum: What makes the heart tick? Anchorage, February.
- 2001 Genetic basis of sudden death; idiopathic ventricular tachycardias. Latest advances in cardiac rhythm management for EP fellows. Medtronic World Headquarters, Minneapolis. December.



- 2001 Genetic basis of arrhythmia. Guidant Headquarters, Minneapolis. December.
- 2001 Inherited basis of arrhythmias. Squaw Creek Arrhythmia Symposium. March.
- 2001 Current management of atrial fibrillation/ Providence Hospital Grand Rounds, Anchorage. January.
- 2001 Cardiac resynchronization therapy. Providence Hospital Grand Rounds, Anchorage. November.
- 2001 Sudden Death: How do we prevent it? Community Medicine Series, Providence Hospital, Anch.
- 2001 Noncontact mapping for the single electrophysiologist. Endocardial Solutions. Seattle, Portland.
- 2001 Catheter management of complex atrial arrhythmias. Vancouver, Victoria, BC. September.
- 2001 Cardiac channelopathies: clinical (recognition and treatment) implications. Latest advances in cardiac rhythm management for EP fellows, Minneapolis.
- 2001 Specialized ventricular tachyarrhythmias: Idiopathic RVOFT and LVOFT, ARVD, and HOCM: Recognition and optimum management. Latest advances in cardiac rhythm management for EP fellows, Minneapolis.
- 2000 Noncontact electrogram morphology and variability predict atrial activation source. Cardiotrim, Nice, France.
- 2000 Solo use of a noncontact mapping system. NASPE ESI session.
- 2000 Current best practice in atrial fibrillation. Providence Cardiovascular Conference, Anchorage.
- 2000 Recent advances in electrophysiology. Internal Medicine Grand Rounds Presentations given at Providence Anchorage Medical Center, Alaska Native Medical Center, Alaska Regional Medical Center, Juneau, Fairbanks, Central Peninsula General Hospitals.
- 2000 When good genes go bad: LQTS and Brugada Syndrome. 10th Annual Santa Fe Arrhythmia Management Conference, Santa Fe, NM, March 2000.
- 2000 Advances in management of pediatric LQTS. 13<sup>th</sup> Annual Pediatric Cardiovascular Conference, Park City, UT, February 2000.
- 1999 Noncontact mapping for atrial arrhythmias. ESI QC Conference, St. Paul, MN, December 1999.
- 1999 New treatments for Long QT Syndrome. Sudden Arrhythmic Death Syndromes (SADS) Foundation LQTS Symposium, Salt Lake City, May 1999.
- 1999 Progress in LQTS. Cardiology Research Conference, University of Utah, Salt Lake City, May 1999.
- 1999 Genetic aspects of arrhythmia. Featured Research Seminar, American College of Cardiology Scientific Sessions, New Orleans, March 1999.
- 1999 Internal Atrial Defibrillation. 9<sup>th</sup> Annual Santa Fe Arrhythmia Management Conference, Santa Fe, NM
- 1998 Long QT Syndrome. 8<sup>th</sup> Annual Santa Fe Arrhythmia Management Conference, Santa Fe, NM
- 1997 Recent Advances in Congenital Long QT Syndrome. Colorado Electrophysiology Society, Colorado Springs.
- 1996 Genetics of Long QT Syndrome. Recent Advances in Clinical Cardiac Electrophysiology, Pacing, and Defibrillation: Medtronic, Squaw Valley, CA.
- 1995 Anticoagulation in atrial fibrillation. Advances in Electrophysiology: CPI, Santa Fe, NM.
- 1995 Case studies: multiple concealed atrioventricular bypass tracts. 5<sup>th</sup> Annual Santa Fe Arrhythmia Management Conference, Santa Fe, NM, March 1995.
- 1994 Right ventricular outflow tract tachycardia. University of Utah Electrophysiology Board Review Course, Snowbird, UT.
- 1984. Synthesis of Indole Marine Natural Products. Honors thesis performed in chemistry, Dartmouth College. Defended 6/84.

## National Meetings Attended:

- 2008 HRS, San Francisco, faculty/presenter.
- 2007 HRS, Denver, faculty.
- 2006 NASPE/HRS, Boston, faculty.
- 2005 9<sup>th</sup> International Workshop on Cardiac Arrhythmias, Venice, Italy, October
- 2005 Boston Atrial Fibrillation Symposium
- 2005 NASPE/HRS, New Orleans, LA
- 2004 Boston Atrial Fibrillation Symposium
- 2004 NASPE/HRS, San Francisco, CA



- 2003 NASPE Annual Scientific Sessions, Washington DC
- 2003 ISPE, Hong Kong
- 2002 American Heart Association Scientific Sessions, New Orleans.
- 2002 NASPE Annual Scientific Sessions, Washington DC
- 2001 NASPE Annual Scientific Sessions, Boston.
- 2000 American Heart Association Scientific Sessions, New Orleans.
- 2000 NASPE Annual Scientific Sessions, Washington DC
- 1999 American Heart Association Scientific Sessions, New Orleans.
- 1999 NASPE Annual Scientific Sessions, Toronto
- 1999 ACC Annual Scientific Sessions, New Orleans
- 1998 American Heart Association Scientific Sessions, Dallas
- 1998 NASPE Annual Scientific Sessions, San Diego
- 1997 American Heart Association Scientific Sessions, Orlando
- 1997 NASPE Annual Scientific Sessions, New Orleans
- 1996 NASPE Annual Scientific Sessions, Seattle
- 1996 American Heart Association Scientific Sessions, New Orleans
- 1995 ACC Annual Scientific Sessions, New Orleans
- 1994 NASPE Annual Scientific Sessions, Nashville
- 1992 American Heart Association Scientific Sessions, New Orleans



## **PROVIDENCE HEALTH SYSTEM IN ALASKA JOB DESCRIPTION**

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JOB CODE: 14010-198A  
**JOB TITLE: MEDICAL DIRECTOR**  
PROCESS LEVEL: 198-PROVIDENCE MEDICAL CENTER  
REPORTS TO:  
SUPERVISES: N/A  
DESCRIPTION STATUS:  
SUPERSEDES: old JC 501

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### **POSITION SUMMARY**

Responsible for the clinical integrity of the medical programs for a specific area of practice. This includes oversight of clinical assessment and treatment, application of clinical practice standards, adherence to guidelines, integration of Quality Management into the clinical review process and delivery of care, and acting as a knowledge-based resource to clinicians, supervisors and other related departments.

### **ESSENTIAL JOB FUNCTIONS:** **(Responsibilities, Accountabilities, and Competencies; May not include all duties of this job)**

#### **A. JOB DUTIES: (For performance review, assess competence for each essential function using “C” for competent and “NI” for needs improvement)**

1. Reviews clinical cases in conjunction with Case Managers and Supervisors to ensure that clinical and administrative standards are being met. This includes retrospective reviews, emergent or high-risk case reviews, focused care management reviews and audit reviews.
2. Participates in Quality Improvement meetings to develop improved processes, review audit results for improved clinical and organizational work flow, develop continuous mentoring and teaching modules to address clinical staff needs, monitor clinical benchmarks and formulated work plans addressing deficits or areas of improvement.
3. Provides medical consultation to staff for development of the plan of care for complex patient care needs. Provides administrative direction from a medical staff perspective related to services and care delivery. Provides consultation and leadership to physicians as needed for clinical management.



4. Participates in ongoing monitoring and evaluation of program effectiveness, including follow-up treatment and outcome review, incident monitoring, patient and family satisfaction with services, monitoring of key systems of performance required to support the program, and indicators of clinical quality related to the patient populations served.
5. Reviews and approves clinical policies, procedures, safety practices and emergency plans for the safe and effective delivery of patient care services provided. Assists in meeting medical practice related compliance with all local, State and Federal laws regarding licensure, certification of facility, and compliance with JCAHO patient care standards.
6. Maintains effective communication with the medical community. Consults and advises the staff concerning improved forms and methods of communication. Meets and talks with physicians concerning patient care services and the appropriate use of these services. Assures effective liaison with the medical community and other health care referral sources to facilitate referrals, continuity of care and transition of care.
7. Works in an advisory capacity in daily operations and strategic planning.
8. Participates in site reviews, teaching conferences and administrative meetings. Consults with legal and other departments as required regarding specific high visibility cases. Makes presentations to the professional community in order to enhance the visibility and image of the organization.
9. Provides professional medical services as necessary.
10. Implements care/services that recognize age/diversity specific needs/issues of customers served.
11. Performs other related duties as required.

**B. IDENTIFIED COMPETENCIES**

Completes initial and annual Competency Plan for assigned job and department.

**C. CORE VALUES**

Demonstrates personal and interpersonal qualities that support the Core Values of Providence Health System.

**D. ESSENTIAL JOB QUALIFICATIONS: (Any equivalent Combination of Knowledge, Skills, Abilities, Education, and Experience)**

1. **Education:** Board certified Medical Doctor with current unrestricted license. Added qualifications in area of specialty.



2. **Experience:** Minimum ten years of experience as a practicing medical clinician responsible for leadership in area of specialty. Past experience to include staff supervision, policy formulation and implementation, and coordination of training and inservice programs.
3. **Licensure/Certification:** State licensure as a physician.
4. **Other Qualifications:** Highly developed verbal and written communication skills, negotiation skills, and analytical/critical thinking skills required to interact and collaborate with health care professionals, patients, families, physicians and community groups. Team player with proven leadership qualities and ability to manage multiple projects and interaction with all levels within an organization. Knowledge of health care trends and research and quality improvement principles and techniques.
5. **Attendance:** Regular attendance is a requirement of this position.
6. **English Language:** Must be able to read, write, and speak English.

This Job Description reflects Providence Health System in Alaska's best effort to describe the essential functions and qualifications of the job described. It is not an exhaustive statement of all the duties, responsibilities or qualifications of the job. This document is not intended to exclude an opportunity for modifications consistent with providing reasonable accommodation. This is not intended to be a contract. Your signature indicates you have read this Job Description and understand the essential functions and essential qualifications of the job



**ROBERT J. HUGHES**  
11300 Hideaway Trail  
Anchorage, AK 99507  
907-336-9502

## **QUALIFICATIONS:**

Thirty-three years of experience in the Medical field, of which twenty-six years are in Cardiopulmonary management, and six years experience in private business.

- Budget development and implementation, both capital and operational
- Divisional personnel responsibility including recruitment, hiring, training, supervising, and discipline
- Planning and implementing market strategies
- Physician relations
- Operations management
- International medical relations and business
- Program development and implementation
- Experience working on national, state and local boards
- Experience planning and participating in various flight programs
- Experience with construction, general contracting and blueprint review
- Extensive experience with multiple cost centers and decentralized units

## **EMPLOYMENT HISTORY:**

- 2006- present*      Providence Alaska Medical Center, Anchorage, Alaska  
*Director, Cardiovascular Service Line and Heart and Vascular Center*  
Responsible for all Cardiovascular Services including Cath Lab, Echo, ECG, Interventional Radiology, Cardiovascular Observation and Inpatient Units.
- 2001 – 2006*      Cooper Health Systems, Camden New Jersey  
*Assistant Vice President Cardiovascular Disease and Critical Care Services*  
Responsible for entire Cardiovascular and Critical Care product lines including hospital services, related nursing areas, physician practices and multiple outlying clinics.  
Developed physician outreach program.  
Increased open heart surgeries to exceed state requirements.  
Managed \$35,000,000 service line and increased profits 25%.
- 1995 - 2001*      Rush-Presbyterian-St. Luke's Medical Center, Chicago, Illinois  
*Administrator, Division of Cardiovascular Disease and Critical Care Medicine*  
Ultimate responsibility for 250 employees covering all aspects of Cardiac Care.  
Responsible for operating budget of over \$29,000,000.  
*Administrator, Rush Heart Institute*  
Responsible for the marketing and growth of the Cardiac Program.  
Increased exposure and name recognition of Rush Heart Institute.  
Facilitated the cooperation of Cardiologists and Cardiac Surgeons.  
Supervised and approved marketing programs and publications.  
Maintained surgical volume despite significant changes in the surgical staff, including the Chairman of CV Surgery.  
*Assistant Professor, College of Health Sciences*  
Active member on the faculty of the Health Systems Management Program  
Member of Curriculum, Marketing and Advisory Committees.  
Lectured in courses and lead International Health course.  
*Chief Operating Officer, Rush International Health Services; 1996 – 1998*  
Responsible for launching the International Program at Rush.  
Facilitated contract with government of Yemen.  
Facilitated agreements for medical service with United Arab Emirates



## Page Two

### ROBERT J. HUGHES

1992 - 1995      Jefferson Regional Medical Center, Pine Bluff, Arkansas  
*Director of Therapies and Special Projects Coordinator*

Pine Bluff Technical College, Pine Bluff, Arkansas; 1993  
*Adjunct Instructor, Medical Terminology and Anatomy and Physiology*

1989 - 1992      Deaconess Medical Center, Billings, Montana  
*Respiratory Therapist III*

1983 - 1989      Quik Mart Stores, Yellowstone Ice & Water Co., Billings, Montana  
*Partner and Vice President of Operations*

1974 - 1983      Deaconess Medical Center, Billings, Montana  
*Director of Cardiopulmonary Department*

1971 - 1974      Los Angeles Orthopedic Medical Center, Los Angeles, California  
*Supervisor, Respiratory Care*  
*Licensed Vocational Nurse*

#### MILITARY SERVICE:

1966 - 1970      United States Navy, Hospital Corpsman  
Last Duty: U. S. Naval Medical Center, Long Beach, California  
Completed USN Physical Therapy Technician School, Bethesda, MD.  
Honorable discharge as E-5  
Served in U. S. Naval Reserve 1972-1981

#### EDUCATION:

1993 - 1994      Webster University, St. Louis, Missouri: Little Rock, Arkansas Campus  
*Master of Arts, Health Services Management*

1973 - 1974      Mount San Antonio Junior College, Walnut, California  
*Advanced Respiratory Therapy, Registry Eligible*

1971 - 1973      California State University, Northridge, California  
*Bachelor of Science, Health Science - Community Health Education*

1970              *Licensed Vocational Nurse, California*  
Continuing Education:  
CQI-TQM, ACLS, CPR  
Montana State University, Business  
Cornell University, Convenience Store Merchandising  
Colorado School of Mines, Underground Storage Tanks  
Numerous courses and seminars on Management, Business, Maintenance and education.

#### INTERESTS:

Habitat for Humanities, Clinical Pastoral Education, Hunting, Woodworking



## PROVIDENCE HEALTH SYSTEM IN ALASKA JOB DESCRIPTION

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JOB CODE:	14245-198A
JOB TITLE:	<b>DIRECTOR HEART CENTER &amp; CARDIOVASCULAR SERVICES</b>
PROCESS LEVEL:	PROVIDENCE MEDICAL CENTER
REPORTS TO:	ADMINISTRATOR PAMC
SUPERVISES:	ASSIGNED AREAS AND STAFF
DESCRIPTION STATUS:	New 04/05; 5/06
SUPERSEDES:	

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### **POSITION SUMMARY**

The Director is accountable for the operations, strategic planning, and service line management abilities necessary to lead a specialized cardiovascular team of nurses, technologists, and support staff dedicated to its state-wide reputation of providing outstanding Cardiovascular tertiary care with physician specialists that contributes to PAMC's mission, care excellence, patient safety, and community commitment. Working within the strategic direction of the health system and with the collaboration of Alaska Heart Institute's leadership and Cardiologists, the Director provides managerial oversight and direction for all assigned functions. The Director contributes to the effective and efficient operations in support of high quality, cost-effective patient care in line with PHSA's mission and is responsible for implementing and administering the organization's philosophy, goals and policies. The Director must have outstanding and creative collaborative, supervisory and administrative skills that will develop vision and priorities, direct and delegate the management of patient care services, while assuring compliance with the Federal, State, JCAHO standards, cardiovascular national organizations and associated databases, and local laws.

### **ESSENTIAL JOB FUNCTIONS:** **(Responsibilities, Accountabilities, and Competencies; May not include all duties of this job)**

#### **A. JOB DUTIES: (For performance review, assess competence for each essential function using "C" for competent and "NI" for needs improvement)**

1. Create an environment of collegial and collaborative relationships amongst physicians, staff, the Alaska Heart Institute, and medical center colleagues. Recognize excellence individually and publicly.
2. Direct and administer assigned functions to ensure high quality, cost-effective patient services which meet and/or surpass customer and accreditation standards.



3. Evaluate organization structure, reporting relationships and position incumbents to ensure that high standards of performances are obtained and developed as needed. Assure optimal organizational performance by meeting goals and projections; providing timely and accurate data as requested, and maintaining compliance with all Federal, State and local laws.
4. Develop annual operating plans to meet the strategic service line's specialty goals and support functions. Monitor actual performances and take corrective actions. Develop, implement and maintain the annual operating budget, ensuring that operations are managed within the established guidelines. Establish financial and programmatic goals and conduct an annual audit and evaluation of goals achieved.
5. Collaborate and communicate regularly with the Cardiovascular physicians and their respective teams involved in the diagnostic, interventional, surgical, and administrative aspects of the Heart & Cardiovascular Program. Assure visibility and accessibility to the physician and administrative leadership and staff. Round routinely for customer service, patient safety, and care outcomes. Review and share customer survey results and concerns with team, and respond appropriately. Develop improvements to these experiences and events.
6. Direct, coordinate and/or participate in various hospital committees as needed in order to promote the strategic and operational goals of the Heart & CV Services Program and health system.
7. Select, train, develop and evaluate team members and initiate personnel actions in accordance with Human Resource policies and organizational philosophy. Monitor the progress of employee performance, review skills and practices, promote education, evaluate and implement appropriate training programs. Ensure timely staff performance evaluations, establish goals and criteria of performance with staff, and implement appropriate actions for achievement.
8. Collaborate with colleagues from other divisions within and without the organization for the purpose of furthering the goals and objectives of the Heart and Cardiovascular Center and Program.
9. Support and participate in quality improvement, health and safety control programs as established by organization policy and procedures.
10. Monitor monthly performance of the Center and service line in relation to the inventory, new devices, supplies, vendors, and budget. Intervene as needed. Prepare and submit reports on operations as required.
11. Schedule regular meetings with direct report staff to provide supervision, assure communication and to monitor facility operations. Conduct and document annual performance evaluations on each direct report staff.
12. Oversee the coordination and success of PAMC's annual CV Conference, public educational forums, fund-raisers, and quarterly SPHS Collaboratives.



13. Maintain and guide the implementation of organization policies and procedures in compliance with State, Federal and other regulatory guidelines. Assure adequate preparation for, response and participate in, regulatory and random compliance surveys.
14. Provide direction and support to subordinate managers and staff to assure departmental effectiveness and efficiency.
15. Adhere to hospital policies and procedures and participate in quality improvement and safety programs.
16. Implement care/services that recognize age/diversity specific needs/issues of customers served.
17. Performs other related duties as required.

**B. IDENTIFIED COMPETENCIES**

Completes initial and annual Competency Plan for assigned job and department.  
Collaborative, creative, and inspiring of all team members involved in this specialty.  
Champion of education and specialty certification and promotes these goals/activities.

**C. CORE VALUES**

Demonstrates personal and interpersonal qualities that support the Core Values of Providence Health System.

**D. ESSENTIAL JOB QUALIFICATIONS: (Any equivalent Combination of Knowledge, Skills, Abilities, Education, and Experience)**

1. **Education:** Bachelor's degree. Master's degree in CV health services field.
2. **Experience:** Five to ten years of experience in clinical cardiovascular health care operations with at least three years in a management and leadership role.
3. **Licensure/Certification:**
4. **Other Qualifications:** Must possess the knowledge and ability to manage hospital operations through administrative ability, initiative, resourcefulness, executive and analytical ability. Must have experience in strategic planning, organizational assessment, and have highly developed leadership and interpersonal skills.
5. **Attendance:** Regular attendance is a requirement of this position.
6. **English Language:** Must be able to read, write, and speak English well.



## **PROVIDENCE HEALTH SYSTEM IN ALASKA JOB DESCRIPTION**

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**JOB CODE:** 61000-198B

**JOB TITLE:** **CARDIOVASCULAR CATH LAB TECHNOLOGIST**

**PROCESS LEVEL:** 198-PROVIDENCE ALASKA MEDICAL CENTER

**REPORTS TO:** DIRECTOR, MANAGER, SUPERVISOR

**SUPERVISES:** N/A

**DESCRIPTION STATUS:** 8/04; 8/08; 10/08

**SUPERSEDES:** N/A

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### **POSITION SUMMARY**

Assists cardiovascular Physicians in performing and completing invasive, interventional and therapeutic cardiovascular procedures in Labs using a variety of complicated/advanced equipment, monitors, devices, and supplies. Knowledgeable in Vascular, Cardiac, and Pediatric Procedural practice as well as emergent techniques/protocol. Assists in Quality Control checks/Quality Improvement Program. Performs all duties in a manner which promotes "team" concept and reflects the Sisters of Providence mission and philosophy. Able to observe hospital and departmental policies on confidentiality. CVS patients served range from neonates to senior citizens.

### **ESSENTIAL JOB FUNCTIONS:**

**(Responsibilities, Accountabilities, and Competencies; May not include all duties of this job)**

**A. JOB DUTIES: (For performance review, assess competence for each essential function using "C" for competent and "NI" for needs improvement)**

1. Responsible for patient care in cardiovascular/interventional radiology Labs. Pre-operative preparation includes obtaining patient status report from Nursing Units, SP Documentation Sheet information, Permit, lab studies, Physician orders, IV site, pre-op medications, allergies, contrast history/information/teaching, vital signs, preparation of invasive procedural sites, EKG/physiologic monitoring equipment/positioning, and surgical preparation. Intra-operative includes, scrubbing, circulating, or monitoring the case and alerting Physician to changes in patient status, the administration of appropriate oral and intravenous medications under the direction of the performing physician, assures safe radiation protection protocol, maintaining good patient communication/rapport for comfort/status assessment, and vital signs. Post-operative includes SP Documentation Sheet



information/vital signs, teaching, insertion site assessment, removing sheaths, use of vascular closure devices per department policy, applying vascular pressure, monitoring/alerting Physician to changes, and documenting reports to Nursing Unit. Works on-call rotation to meet the needs of the department after regular business hours.

2. Preparation of sterile procedure trays/set-ups. Adhering to "sterile" technique in all procedures (patient, equipment, supplies.)
3. Maintaining communication with family and/or significant others before, during, and after procedure. Acquisition of Pastoral care prn.
4. Accurate patient positioning and assistance in selection of radiographic techniques for optimal visualization and minimal radiation exposure to patients, staff and CV Physicians.
5. Directly assists the CV Physicians with all CV procedures (Vascular, Cardiac, Adult, Pediatric) as scrub assistant, circulator, control-computer operator, responsible for proper image acquisition, archival and film processing specific to procedure type.
6. Assuring standard completion of patient/computer reports, calculations, and appropriate procedural charges.
7. Establishes/maintains professional training/educational expertise through appropriate continuing education according to Departmental plan.
8. Promotes positive working relationships and "teamwork" concept within Department and throughout hospital.
9. Able to assist in troubleshooting and minor equipment repair in Labs. Stocks supplies, instruments, and equipment according to protocol and storage allocations. Alerts/notifies Supervisor, and/or management about equipment/supply concerns or problems with operational performance.
10. Participates in Quality Improvement Program and knowledgeable in its components and results that affect patient care and quality control issues. Participates in the orientation of new staff.
11. Responsible for review/knowledge of Departmental policies and procedures/guidelines, skills checklist, medications review, and safety and disaster guidelines annually. Regularly attends staff meetings, inservices and skills labs.
12. Functions/acts as charge person when approved/delegated by Cath Lab Supervisor or Director of CVS.
13. Implements care/services that recognize age/diversity specific needs/issues of customers served.
14. Performs other related duties as required.



**B. IDENTIFIED COMPETENCIES**

Completes initial and annual Competency Plan for assigned job and department.

**C. CORE VALUES**

Demonstrates personal and interpersonal qualities that support the Core Values of Providence Health System.

**D. ESSENTIAL JOB QUALIFICATIONS: (Any equivalent Combination of Knowledge, Skills, Abilities, Education, and Experience)**

1. **Education:** Graduation from an accredited school with supervised clinical experience in invasive Cardiovascular, and/or interventional radiological procedures preferred.
2. **Experience:** Knowledge base of Hospital radiology techniques, theory, and procedures necessary. Previous Special Procedures/Cath Lab Cardiovascular Technician experience preferred.
3. **Licensure/Certification:** ARRT or RCIS registered preferred. If new graduate registry must be completed within one year from date of hire. BLS, ACLS, PALS required within six months of hire.
4. **Other Qualifications:** Requires basic knowledge of anatomy and physiology, invasive Cardiovascular practices/techniques/pressures, basic EKG analysis, and emergency protocols/BLS. Requires an ability to deal tactfully and compassionately with patients/families/significant others under potentially stressful conditions. Responsible for effective and constructive communication with CV staff/Physicians/Management/Hospital Departments and Units. Participates as a CV "team" member in supporting a working environment conducive to high quality care/morale, and cost effectiveness.
5. **Attendance:** Regular attendance is a requirement of this position.
6. **English Language:** Must be able to read, write, and speak English.



# PROVIDENCE HEALTH SYSTEM IN ALASKA

## JOB DESCRIPTION

**JOB CODE:** 42500-198B

**JOB TITLE:** STAFF REGISTERED NURSE (RN) – CATH LAB

**PROCESS LEVEL:** 198-PROVIDENCE ALASKA MEDICAL CENTER

**REPORTS TO:** CLINICAL MANAGER OR DESIGNEE

**SUPERVISES:** N/A

**DESCRIPTION STATUS:** NEW: 10/96; 8/03; 03/04; 2/07; 8/08; 5/09

**SUPERSEDES:** All previous versions.

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## ***POSITION SUMMARY - General***

The registered nurse is accountable for the delivery and supervision of safe, quality care that is individualized for their assigned patients and follows the nursing process in accordance with the Nurse Practice Act (assessment, planning implementation, evaluation). She/He is responsible for the assessment, treatment and care of patients in populations and ages as assigned. The registered nurse accepts and promotes professional development as an integral part of nursing practice. She/He will access, analyze, customize, coordinate and communicate the patient's plan of care and activities collaboratively with other members of the health care team. Families and or significant others will be included within the plan of care as appropriate. She/He will direct, delegate and manage the care delivered by colleagues and subordinates. The registered nurse performs all duties in a manner that respects and supports the family centered care model. Collegial and collaborative care will reflect the philosophy of the Division of Nursing, the Mission and Core Values of the Sisters of Providence, and National Patient Safety Standards.

## **POSITION SUMMARY – Cath Lab**

She/He assists physicians in performing and completing invasive, interventional and therapeutic cardiovascular procedures in labs using a variety of specialized equipment, monitors, devices and supplies. She/He is knowledgeable in cardiac, vascular and pediatric procedural practice as well as emergency techniques/protocol. She/He assists with pre, intra, and post procedure monitoring per hospital protocol.

## **KEY RELATIONSHIPS**

1. Students, staff and leadership of the Nursing Division.



2. Medical Staff, Residents and medical students.
3. Patients, Families, Significant Others.
4. All other Allied Health Professionals providing direct patient care.

### **ESSENTIAL FUNCTIONS/STANDARDS OF PERFORMANCE**

(Responsibilities, Accountabilities, and Competencies; May not include all duties of this job)

#### **JOB DUTIES – General**

**(For performance review, assess competence for each essential function using “C” for competent and “NI” for needs improvement)**

1. Possesses knowledge of developmental needs and competent in the assessment and treatment as it relates to the age of the patient population served. Conducts and documents a focused patient assessment upon admission. Continually reassesses and applies appropriate advocacy and interventions as indicated. Competent in the interpretation of a patient’s self-assessment and behavior. This information must be interpreted with an understanding of the cognitive, physical emotional, psychosocial and chronological maturation process. Actively involves patient and family in the collaborative plan of care.
2. Consistently demonstrates and promotes safe patient care practices: (i.e. Hand washing/Patient ID, Communication, Reduction of infection Risks, Medication Safety & Reconciliation, Falls Prevention, No Preventable Deaths/Injuries, Inclusion of patients/families concerns and access to healthcare team)
3. Collaborates with the patient, family and members of the healthcare team; develops, documents, implements and monitors an individualized plan of care which reflects a standard of care based on best practice and evidence-based medicine. Provides, documents, and consults to assure necessary patient and family education in support of the treatment plan. Adaptive to change and updated patient care practices within an evolving healthcare environment.
4. Collaborate with team members, the patient, the patient’s family and others as appropriate in the development of a proactive discharge plan.
5. Performs procedures and treatments according to accepted department/unit protocols, guidelines, standards and the Nurse Practice Act.
6. Legibly and electronically documents patient care activities and information in an accurate, concise, and timely manner. Competent in the input and retrieval of information within the various forms of written and electronic documentation.
7. Provides safe quality care in an efficient, cost effective manner.
8. Supports and assists with orientation of new staff and students. Acquires necessary training and skills to competently perform the preceptor and charge nurse function.
9. Demonstrates advancement of professional nursing practice through continuing education, required training, certification, and participation in department and unit activities. Assures all competencies, certifications, safety information and courses are completed as required.



10. Identifies concerns and takes appropriate action(s) to involve colleagues and management in the development and promotion of a safe patient care environment. Actively engages in positive communication, feedback, and the on-going development of self and team. Takes an active role in building and maintaining an environment that fosters open communication, patient and family-centered care and healthy collegial relationships. Demonstrates adaptive/timely communication based on individual patient/family needs. Participates in staff meetings and councils attending a minimum of 50% of scheduled meetings. Responsible for all meeting content regardless of attendance.
11. Promotes and role models collaborative practice and relationships with other health care professionals. Recognizes the role that the cultural diversity of patients and their families, employees, medical staff, volunteers and community members plays in achieving productive and positive relationships. Rounds with physicians and other team members to promote continuity of care and patient's confidence in their care delivery team.
12. Monitors patient's condition, notes changes in status, utilizes judgment and takes appropriate action. Communicates patient status to colleagues and physicians to include: situation, background, assessment, and recommendations (S.B.A.R). Utilizes tools adopted through quality and safety initiatives when communicating patient status change and at the time of patient handoff. Uses the Providence Early Assessment Team (P.E.A.T.) when indicated by changes in patient's conditions or concerns.
13. Promotes and routinely offers comfort and pain management measures. Documentation reflects assessment, treatment and re-assessment as required to meet patient goals.
14. Consistently demonstrates and incorporates principles and policies of safety and infection control as defined by policy and procedure, National Patient Safety Goals and Emergency Response procedures. Complies with Hospital standards to assure continued compliance and regulatory requirements are met. Examples include but are not limited to: JCAHO, OSHA, State and Federal requirements.
15. Actively participates in Departmental and Unit based Quality Improvement Programs, processes and councils. Participates in departmental activities that improve patient care and process systems, Participates in Tracer Rounds and actively assists others in transitioning and applying knowledge to the clinical and operational setting
16. Performs other related duties as required.
17. Safeguards all forms (Electronic, written and oral) of confidential information as it relates to patients, their families, medical staff and employees. Is aware of and compliant with organizational policies regarding Fraud and Abuse, Conflict of Interest and the Code of Conduct.
18. Adheres to all hospital and department policies and procedures.

### **JOB DUTIES –Cath Lab specific**

1. Responsible for patient care in the cardiovascular / interventional radiology lab. Preoperative preparation includes obtaining patient status report from the primary RN; confirming informed consent, IV site patency, receipt of pre-op medications; reviewing orders, recent lab values, History and Physical, teaching, vital signs, allergies; and preparation of invasive procedure sites. Intra-operative duties include scrubbing, circulating, or monitoring the case, the administration of appropriate oral and intravenous medications, and ensuring good patient communication for



comfort/status assessment. Post-operative duties include procedure documentation, vital signs, teaching, insertion site assessment, removing sheaths, use of vascular closure devices per department policy, monitoring/alerting physician to changes, and documenting reports to receiving nursing unit. Works on-call rotation to meet the needs of department after regular business hours.

2. Prepares sterile procedure trays/set-ups while adhering to sterile technique in all procedures.
3. Positions patient accurately for optimal visualization and minimal radiation exposure to patients, staff and physicians.
4. Assures standard completion of patient/computer reports, calculations, and appropriate procedural charges.
5. Able to assist in troubleshooting and minor equipment repair in Cath Labs. Stocks supplies, instruments, and equipment according to protocol and storage allocations. Alerts/notifies Supervisor, and/or management about equipment/supply concerns or problems with operational performance.

**B. IDENTIFIED COMPETENCIES**

Completes initial and annual Competency Plan for assigned job and department. Competencies include mandatory unit required competencies as designated, BLS, ACLS, and PALS.

**C. CORE VALUES**

Demonstrates personal and interpersonal qualities that support the Core Values of Providence Health System.

**D. ESSENTIAL JOB QUALIFICATIONS: (Any equivalent Combination of Knowledge, Skills, Abilities, Education, and Experience)**

1. Education: Graduate of an accredited/approved school of Nursing.
2. Experience: Two years experience in critical care nursing/emergency nursing, and or two years experience in cardiovascular, interventional radiology and or electrophysiology preferred unless hired as a fellow.
3. Licensure/Certification: Licensed as a Registered Nurse in the State of Alaska. BLS, ACLS and PALS required within six months of hire. RCIS certification preferred.
4. Other Qualifications: Schedule may vary to meet departmental needs. Requires basic knowledge of anatomy and physiology, invasive cardiovascular practices/techniques/pressures, basic EKG analysis and emergency protocols. Requires an ability to deal tactfully and compassionately with patients/families/significant others under potentially stressful conditions. Responsible for effective and constructive communication with staff/physicians/management and other nursing units. Must be able to prioritize multiple tasks, and work with a variety of health unit teams.
5. Attendance: Regular attendance is a requirement of this position.



6. English Language: Must be able to read, write, and speak English.

## ***REFERENCES***

‘Nursing Scope & Standards of Practice’; American Nursing Association  
‘Meeting the Joint Commission’s National Patient Safety Goals’; Joint Commission Resources ‘07  
American Nurses Credentialing Center (ANCC)  
‘Transforming Care at the Bedside’; Innovation Series ’04: Institute for Healthcare Improvement  
‘Wall of Silence,’ Rosemary Gibson and Janardan Prasad Singh; ‘03  
Magnet Standards  
SBAR Communication Standard: Situation-Background-Assessment-Recommendations  
Alaska Statutes and Regulations / Nursing 2006 / Article 9 General Provisions  
American College of Cardiology/Quality and Science/Clinical staff/Nursing Personnel  
Society of Invasive Cardiovascular Professionals/Position Statements



# THE CARDIAC CATHETERIZATION HANDBOOK

Second Edition

EDITED BY

Morton J. Kern, MD

Professor of Medicine  
Director, The J. Gerard Mudd Cardiac  
Catheterization Laboratory  
St. Louis University Health Sciences Center  
St. Louis, Missouri

*with 391 illustrations*

Foreword by William Grossman

 **Mosby**

St. Louis Baltimore Berlin Boston Carlsbad Chicago  
London Madrid Naples New York Philadelphia  
Sydney Tokyo Toronto



**The Catheterization Team: Nurse/Technician Viewpoint**

The composition of a catheterization team varies among laboratories. The smallest functioning unit would consist of a physician, an assisting physician or nurse, a nurse circulator and/or recording technician assigned to the laboratory, and a nurse outside the laboratory able to assist. For more specialized procedures, the staff complement is increased appropriately.

Personnel are trained specifically to provide technical support necessary for the safe performance of cardiac catheterization procedures. Several disciplines are called upon to provide this support. Each member of the team assumes a very important role during the procedure.

**Personnel and functions**

1. A circulating nurse/technologist is present who is capable of assisting the physician in all aspects of care of the cardiovascular patient including routine care and care in case of cardiovascular emergencies.
2. A scrub nurse is needed for assistance at the x-ray table to provide the operating physician with all the equipment and supplies needed in order to carry out the examination and to assist in the exchanging of catheters, and the like.
3. A radiologic technologist is trained in x-ray principles as they relate to cardiovascular procedures, cineangiography, and fluoroscopy and should have complete knowledge of use of power injectors, x-ray generators, cineangiographic systems, image intensifiers, and film processing equipment.
4. A monitoring and recording technologist is responsible for monitoring the ECG and the hemodynamic data. The technician keeps the physician apprised of changes in cardiac pressures and rhythms. The technician must be able to interpret pressure wave forms and operate all physiological recording equipment.

*Optimal staffing.* Every case of coronary arteriography does not require all of these people to be present. In most laboratories, three assistants usually are required for each catheterization procedure: one person is scrubbed and assists the physician at the table; one is not scrubbed and circulates



in the room providing patient care and procuring any supplies that are needed during the procedure; and one performs the duties of recording technician and radiological technologist by selecting proper cineangiographic programs, field sizes, etc., as required.

*Cross training.* Cross training of the individuals in the laboratories is helpful in maintaining the morale and confidence in each job described. Cross training also means that each individual in the laboratory will be competent to start up the laboratory and assist in operation on an emergency 24-hour basis when needed.

*Cardiopulmonary resuscitation (CPR).* All members of the catheterization team should be trained fully in CPR and the use of defibrillators. An algorithm for CPR in the catheterization laboratory is shown in Fig. 7-1.

## CATHETERIZATION LABORATORY INSTRUCTION

### Patient Education

*Teaching before the procedure.* In most cases patients undergoing cardiac catheterization have very vague and often confused ideas of how the procedure is performed. They know little as to what information will be provided about their cardiac status. Preoperative patient teaching is a very important part of the procedure to allay fears and obtain maximal patient care and cooperation.

The teaching should start at the time the patient enters the hospital. The nurse on the floor should provide information on what the patients should expect while being cared for on the floor, both before and after the cardiac catheterization. Topics such as the preprocedural diet, medications, IV therapy, and postprocedural bed rest should be discussed. Teaching by the staff of the cardiac catheterization laboratory should take place on two levels: the nurse's and the physician's.

The nurse should explain step-by-step how the procedure is performed, how long it will take, and what the patient should expect regarding sensations and discomfort associated with the procedure. A prepared booklet (with a videotape) explaining the procedure should be given to the patient to read before the procedure. This will reinforce the verbal teaching that has been done by the nurse (e.g., the steps