17-072

RECEIVED

ORIGINAL

ILLINOIS HEALTH FACILITIES AND SERVICES REVIEW BOARD

DEC 11 2017

APPLICATION FOR PERMIT- 02/2017 Edition

HEALTH FACILITIES & SERVICES REVIEW BOARD

ILLINOIS HEALTH FACILITIES AND SERVICES REVIEW BOARD APPLICATION FOR PERMIT

RECEIVED

DEC 11 2017

HEALTH FACILITIES & SERVICES REVIEW. BOARD

SECTION I. IDENTIFICATION, GENERAL INFORMATION, AND CERTIFICATION

This Section must be completed for all projects.

Facility/Project Identification

Facility Name: Illinois Vascular Care
Street Address: 846 E. Algonquin, Suite 103
City and Zip Code: Schaumburg, IL 60173
County: Cook Health Service Area: 7 Health Planning Area:

Applicant(s) [Provide for each applicant (refer to Part 1130.220)]

Exact Legal Name: Illinois Vascular Care LLC
Street Address: 120 West 22nd Street
City and Zip Code: Oak Brook, IL 60523
Name of Registered Agent: Brian J. O'Dea
Registered Agent Street Address: 120 West 22nd Street
Registered Agent City and Zip Code: Oak Brook, IL 60523
Name of Chief Executive Officer: Arthur Morris MD
CEO Street Address: 120 West 22nd Street
CEO City and Zip Code: Oak Brook, IL 60523
CEO Telephone Number: 630-573-5000

Type of Ownership of Applicants

- ☐ Non-profit Corporation
- ☐ For-profit Corporation
- ☒ Limited Liability Company
- ☐ Partnership
- ☐ Governmental
- ☐ Sole Proprietorship
- ☐ Other

- Corporations and limited liability companies must provide an **Illinois certificate of good standing.**
- Partnerships must provide the name of the state in which they are organized and the name and address of each partner specifying whether each is a general or limited partner.

APPEND DOCUMENTATION AS ATTACHMENT 1 IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Primary Contact [Person to receive ALL correspondence or inquiries]

Name: William Brennan
Title: Special Projects
Company Name: Nephrology Associates of Northern Illinois, LTD
Address: 120 West 22nd Street Oak Brook, IL 60523
Telephone Number: 630-974-5233
E-mail Address: bbrennan@nephdocs.com
Fax Number: 630-368-0331

Additional Contact [Person who is also authorized to discuss the application for permit]

Name: Mark J. Silberman
Title: Partner, CON Counsel
Company Name: Benesch, Friedlander, Coplan & Aronoff LLP
Address: 333 W. Wacker Drive, Suite 1900, Chicago, IL 6006
Telephone Number: 312-212-4952
E-mail Address: MSilberman@Beneschlaw.com
Fax Number: 877-357-4913

ILLINOIS HEALTH FACILITIES AND SERVICES REVIEW BOARD
APPLICATION FOR PERMIT

SECTION I. IDENTIFICATION, GENERAL INFORMATION, AND CERTIFICATION

This Section must be completed for all projects.

Facility/Project Identification

Facility Name: Illinois Vascular Care
Street Address: 846 E. Algonquin, Suite 103
City and Zip Code: Schaumburg, IL 60173
County: Cook Health Service Area: HSA 7 Health Planning Area:

Applicant(s) [Provide for each applicant (refer to Part 1130.220)]

Exact Legal Name: Nephrology Associates of Northern Illinois, LTD
Street Address: 120 West 22nd Street
City and Zip Code: Oak Brook, IL 60523
Name of Registered Agent: Brian J. O'Dea
Registered Agent Street Address: 120 West 22nd Street
Registered Agent City and Zip Code: Oak Brook, IL 60523
Name of Chief Executive Officer: Arthur Morris MD
CEO Street Address: 120 West 22nd Street
CEO City and Zip Code: Oak Brook, IL 60523
CEO Telephone Number: 630-573-5000

Type of Ownership of Applicants

- ☐ Non-profit Corporation
- ☒ For-profit Corporation
- ☐ Limited Liability Company
- ☐ Partnership
- ☐ Governmental
- ☐ Sole Proprietorship
- ☐ Other

- Corporations and limited liability companies must provide an **Illinois certificate of good standing.**
- Partnerships must provide the name of the state in which they are organized and the name and address of each partner specifying whether each is a general or limited partner.

APPEND DOCUMENTATION AS ATTACHMENT 1 IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Primary Contact [Person to receive ALL correspondence or inquiries]

Name: William Brennan
Title: Special Projects
Company Name: Nephrology Associates of Northern Illinois, LTD
Address: 120 West 22nd Street Oak Brook, IL 60523
Telephone Number: 630-974-5233
E-mail Address: bbrennan@nephdocs.com
Fax Number: 630-368-0331

Additional Contact [Person who is also authorized to discuss the application for permit]

Name: Mark J. Silberman
Title: Partner, CON Counsel
Company Name: Benesch, Friedlander, Coplan & Aronoff LLP
Address: 333 W. Wacker Drive, Suite 1900, Chicago, IL 6006
Telephone Number: 312-212-4952
E-mail Address: MSilberman@Beneschlaw.com
Fax Number: 877-357-4913

Post Permit Contact

[Person to receive all correspondence subsequent to permit issuance-**THIS PERSON MUST BE EMPLOYED BY THE LICENSED HEALTH CARE FACILITY AS DEFINED AT 20 ILCS 3960]**

Name: Brian J. O'Dea
Title: COO/CFO
Company Name: Nephrology Associates of Northern Illinois, LTD
Address: 120 West 22nd Street Oak Brook, IL 60523
Telephone Number: 630-974-5225
E-mail Address: bodea@nephdocs.com
Fax Number: 630-368-0320

Site Ownership

[Provide this information for each applicable site]

Exact Legal Name of Site Owner: RMS Properties, Inc. an Illinois Corporation to be leased by Illinois Vascular Care LLC
Address of Site Owner: 111 North Plaza Drive, Suite 200, Schaumburg, IL 60173
Street Address or Legal Description of the Site: **Proof of ownership or control of the site is to be provided as Attachment 2. Examples of proof of ownership are property tax statements, tax assessor's documentation, deed, notarized statement of the corporation attesting to ownership, an option to lease, a letter of intent to lease, or a lease.**
APPEND DOCUMENTATION AS ATTACHMENT 2, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Operating Identity/Licensee

[Provide this information for each applicable facility and insert after this page.]

Exact Legal Name: Illinois Vascular Care LLC
Address: 120 West 22nd Street, Oak Brook, IL 60523

☐	Non-profit Corporation	☐	Partnership		
☐	For-profit Corporation	☐	Governmental		
☒	Limited Liability Company	☐	Sole Proprietorship	☐	Other

- Corporations and limited liability companies must provide an Illinois Certificate of Good Standing.
- Partnerships must provide the name of the state in which organized and the name and address of each partner specifying whether each is a general or limited partner.
- **Persons with 5 percent or greater interest in the licensee must be identified with the % of ownership.**

APPEND DOCUMENTATION AS ATTACHMENT 3, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Organizational Relationships

Provide (for each applicant) an organizational chart containing the name and relationship of any person or entity who is related (as defined in Part 1130.140). If the related person or entity is participating in the development or funding of the project, describe the interest and the amount and type of any financial contribution.

APPEND DOCUMENTATION AS ATTACHMENT 4, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Flood Plain Requirements

[Refer to application instructions.]

Provide documentation that the project complies with the requirements of Illinois Executive Order #2006-5 pertaining to construction activities in special flood hazard areas. As part of the flood plain requirements, please provide a map of the proposed project location showing any identified floodplain areas. Floodplain maps can be printed at **www.FEMA.gov** or **www.illinoisfloodmaps.org**. **This map must be in a readable format.** In addition, please provide a statement attesting that the project complies with the requirements of Illinois Executive Order #2006-5 **(http://www.hfsrb.illinois.gov)**.

APPEND DOCUMENTATION AS ATTACHMENT 5, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Historic Resources Preservation Act Requirements

[Refer to application instructions.]

Provide documentation regarding compliance with the requirements of the Historic Resources Preservation Act.

APPEND DOCUMENTATION AS ATTACHMENT 6, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

DESCRIPTION OF PROJECT

1. Project Classification

[Check those applicable - refer to Part 1110.40 and Part 1120.20(b)]

Part 1110 Classification:

☒ Substantive

☐ Non-substantive

2. Narrative Description

In the space below, provide a brief narrative description of the project. Explain **WHAT** is to be done in **State Board defined terms**, **NOT WHY** it is being done. If the project site does NOT have a street address, include a legal description of the site. Include the rationale regarding the project's classification as substantive or non-substantive.

Illinois Vascular Care LLC (IVC) is proposing to establish a single specialty surgery center located at 846 East Algonquin Road, Suite 103, Schaumburg, IL 60173, thus making this a substantive project. IVC is wholly owned by Nephrology Associates of Northern Illinois, Ltd. ("NANI"), thus making NANI an applicant.

The facility will be licensed for the "General/Other" category of service, with the focus being on vascular access procedures to support and maintain end-stage renal dialysis ("ESRD") patients. The facility will provide the full spectrum of general surgical procedures supporting the vascular health of ESRD patients.

Project Costs and Sources of Funds

Complete the following table listing all costs (refer to Part 1120.110) associated with the project. When a project or any component of a project is to be accomplished by lease, donation, gift, or other means, the fair market or dollar value (refer to Part 1130.140) of the component must be included in the estimated project cost. If the project contains non-reviewable components that are not related to the provision of health care, complete the second column of the table below. Note, the use and sources of funds must be equal.

Project Costs and Sources of Funds			
USE OF FUNDS	**CLINICAL**	**NONCLINICAL**	**TOTAL**
Preplanning Costs			
Site Survey and Soil Investigation			
Site Preparation			
Off Site Work			
New Construction Contracts			
Modernization Contracts	$844,404	$690,876	$1,535,280
Contingencies	$57,376	$46,944	$104,320
Architectural/Engineering Fees	$49,500	$40,500	$90,000
Consulting and Other Fees	-	$69,000	$69,000
Movable or Other Equipment (not in construction contracts)	$450,000	-	$450,000
Bond Issuance Expense (project related)			
Net Interest Expense During Construction (project related)	$15,181	$12,421	$27,602
Fair Market Value of Leased Space or Equipment	$456,769	$373,720	$830,488
Other Costs To Be Capitalized			
Acquisition of Building or Other Property (excluding land)			
TOTAL USES OF FUNDS	$1,873,230	$1,233,460	$3,106,690
SOURCE OF FUNDS	**CLINICAL**	**NONCLINICAL**	**TOTAL**
Cash and Securities		$106,690	$106,690
Pledges			
Gifts and Bequests			
Bond Issues (project related)			
Mortgages			
Leases (fair market value)	$456,769	$373,720	$830,488
Governmental Appropriations			
Grants			
Other Funds and Sources (Line of Credit)	$1,416,461	$753,051	$2,169,512
TOTAL SOURCES OF FUNDS	$1,873,230	$1,233,460	$3,106,690

NOTE: ITEMIZATION OF EACH LINE ITEM MUST BE PROVIDED AT ATTACHMENT 7, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Related Project Costs
Provide the following information, as applicable, with respect to any land related to the project that will be or has been acquired during the last two calendar years:

Land acquisition is related to project ☐ Yes ☒ No
Purchase Price: $ 0.00
Fair Market Value: $

The project involves the establishment of a new facility or a new category of service
☒ Yes ☐ No

If yes, provide the dollar amount of all **non-capitalized** operating start-up costs (including operating deficits) through the first full fiscal year when the project achieves or exceeds the target utilization specified in Part 1100.

Estimated start-up costs and operating deficit cost is $ _____.

Project Status and Completion Schedules

For facilities in which prior permits have been issued please provide the permit numbers.

Indicate the stage of the project's architectural drawings:

☐ None or not applicable ☒ Preliminary
☐ Schematics ☐ Final Working

Anticipated project completion date (refer to Part 1130.140): July 1, 2018

Indicate the following with respect to project expenditures or to financial commitments (refer to Part 1130.140):

☐ Purchase orders, leases or contracts pertaining to the project have been executed.
☐ Financial commitment is contingent upon permit issuance. Provide a copy of the contingent "certification of financial commitment" document, highlighting any language related to CON Contingencies
☒ Financial Commitment will occur after permit issuance.

APPEND DOCUMENTATION AS ATTACHMENT 8, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

State Agency Submittals [Section 1130.620(c)]

Are the following submittals up to date as applicable: **NOT APPLICABLE**
☐ Cancer Registry
☐ APORS
☐ All formal document requests such as IDPH Questionnaires and Annual Bed Reports been submitted
☐ All reports regarding outstanding permits
Failure to be up to date with these requirements will result in the application for permit being deemed incomplete.

Cost Space Requirements

Provide in the following format, the **Departmental Gross Square Feet (DGSF)** or the **Building Gross Square Feet (BGSF)** and cost. The type of gross square footage either **DGSF** or **BGSF** must be identified. The sum of the department costs **MUST** equal the total estimated project costs. Indicate if any space is being reallocated for a different purpose. Include outside wall measurements plus the department's or area's portion of the surrounding circulation space. **Explain the use of any vacated space.**

		Gross Square Feet		Amount of Proposed Total Gross Square Feet That Is:			
Dept. / Area	**Cost**	**Existing**	**Proposed**	**New Const.**	**Modernized**	**As Is**	**Vacated Space**
REVIEWABLE							
Ambulatory Surgery	1,416,461		3,726		3,726		
Intensive Care							
Diagnostic Radiology							
MRI							
Total Clinical	1,416,461		3,726		3,726		
NON REVIEWABLE							
Administrative	859,741		3,048		3,048		
Parking							
Gift Shop							
Total Non-clinical	859,741		3,048		3,048		
TOTAL	**2,276,202**		**6,774**		**6,774**		

APPEND DOCUMENTATION AS ATTACHMENT 9, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Facility Bed Capacity and Utilization- NOT APPLICABLE

Complete the following chart, as applicable. Complete a separate chart for each facility that is a part of the project and insert the chart after this page. Provide the existing bed capacity and utilization data for the latest **Calendar Year for which data is available. Include observation days in the patient day totals for each bed service.** Any bed capacity discrepancy from the Inventory will result in the application being deemed **incomplete**.

FACILITY NAME:		**CITY:**			
REPORTING PERIOD DATES:		**From:**		**to:**	
Category of Service	**Authorized Beds**	**Admissions**	**Patient Days**	**Bed Changes**	**Proposed Beds**
Medical/Surgical					
Obstetrics					
Pediatrics					
Intensive Care					
Comprehensive Physical Rehabilitation					
Acute/Chronic Mental Illness					
Neonatal Intensive Care					
General Long Term Care					
Specialized Long Term Care					
Long Term Acute Care					
Other ((identify)					
TOTALS:					

CERTIFICATION

The Application must be signed by the authorized representatives of the applicant entity. Authorized representatives are:

- in the case of a corporation, any two of its officers or members of its Board of Directors;
- in the case of a limited liability company, any two of its managers or members (or the sole manager or member when two or more managers or members do not exist);
- in the case of a partnership, two of its general partners (or the sole general partner, when two or more general partners do not exist);
- In the case of estates and trusts, two of its beneficiaries (or the sole beneficiary when two or more beneficiaries do not exist); and
- in the case of a sole proprietor, the individual that is the proprietor.

This Application is filed on the behalf of ___Illinois Vascular Care LLC_____* in accordance with the requirements and procedures of the Illinois Health Facilities Planning Act. The undersigned certifies that he or she has the authority to execute and file this Application on behalf of the applicant entity. The undersigned further certifies that the data and information provided herein, and appended hereto, are complete and correct to the best of his or her knowledge and belief. The undersigned also certifies that the fee required for this application is sent herewith or will be paid upon request.

SIGNATURE

_Brian J. O'Dea_____
PRINTED NAME

_Manager_____
PRINTED TITLE

Notarization:
Subscribed and sworn to before me
this 7 day of December, 2017

Signature of Notary

Seal

OFFICIAL SEAL
CYNTHIA PARKS
NOTARY PUBLIC - STATE OF ILLINOIS
MY COMMISSION EXPIRES:09/15/19

SIGNATURE

_Arthur Morris, M.D._____
PRINTED NAME

__Manager_____
PRINTED TITLE

Notarization:
Subscribed and sworn to before me
this 7 day of December, 2017

Signature of Notary

Seal

OFFICIAL SEAL
CYNTHIA PARKS
NOTARY PUBLIC - STATE OF ILLINOIS
MY COMMISSION EXPIRES:09/15/19

*Insert the EXACT legal name of the applicant

CERTIFICATION

The Application must be signed by the authorized representatives of the applicant entity. Authorized representatives are:

- in the case of a corporation, any two of its officers or members of its Board of Directors;
- in the case of a limited liability company, any two of its managers or members (or the sole manager or member when two or more managers or members do not exist);
- in the case of a partnership, two of its general partners (or the sole general partner, when two or more general partners do not exist);
- in the case of estates and trusts, two of its beneficiaries (or the sole beneficiary when two or more beneficiaries do not exist); and
- in the case of a sole proprietor, the individual that is the proprietor.

This Application is filed on the behalf of __Nephrology Associates of Northern Illinois, LTD. ____* in accordance with the requirements and procedures of the Illinois Health Facilities Planning Act. The undersigned certifies that he or she has the authority to execute and file this Application on behalf of the applicant entity. The undersigned further certifies that the data and information provided herein, and appended hereto, are complete and correct to the best of his or her knowledge and belief. The undersigned also certifies that the fee required for this application is sent herewith or will be paid upon request.

SIGNATURE

_Brian J. O'Dea_____
PRINTED NAME

_Manager_____
PRINTED TITLE

Notarization:
Subscribed and sworn to before me
this 7 day of December, 2017

Cynthia Parks
Signature of Notary

Seal

OFFICIAL SEAL
CYNTHIA PARKS
NOTARY PUBLIC - STATE OF ILLINOIS
MY COMMISSION EXPIRES:09/15/19

SIGNATURE

_Arthur Morris, M.D._____
PRINTED NAME

__Manager_____
PRINTED TITLE

Notarization:
Subscribed and sworn to before me
this 7 day of December, 2017

Cynthia Parks
Signature of Notary

Seal

OFFICIAL SEAL
CYNTHIA PARKS
NOTARY PUBLIC - STATE OF ILLINOIS
MY COMMISSION EXPIRES:09/15/19

*Insert the EXACT legal name of the applicant

SECTION II. DISCONTINUATION- NOT APPLICABLE

This Section is applicable to the discontinuation of a health care facility maintained by a State agency.
NOTE: If the project is solely for discontinuation and if there is no project cost, the remaining Sections of the application are not applicable.

Criterion 1110.130 – Discontinuation (State-Owned Facilities and Relocation of ESRD's)

READ THE REVIEW CRITERION and provide the following information:

GENERAL INFORMATION REQUIREMENTS

1. Identify the categories of service and the number of beds, if any that is to be discontinued.
2. Identify all of the other clinical services that are to be discontinued.
3. Provide the anticipated date of discontinuation for each identified service or for the entire facility.
4. Provide the anticipated use of the physical plant and equipment after the discontinuation occurs.
5. Provide the anticipated disposition and location of all medical records pertaining to the services being discontinued and the length of time the records will be maintained.
6. For applications involving the discontinuation of an entire facility, certification by an authorized representative that all questionnaires and data required by HFSRB or DPH (e.g., annual questionnaires, capital expenditures surveys, etc.) will be provided through the date of discontinuation, and that the required information will be submitted no later than 90 days following the date of discontinuation.

REASONS FOR DISCONTINUATION

The applicant shall state the reasons for the discontinuation and provide data that verifies the need for the proposed action. See criterion 1110.130(b) for examples.

IMPACT ON ACCESS

1. Document whether or not the discontinuation of each service or of the entire facility will have an adverse effect upon access to care for residents of the facility's market area.
2. Document that a written request for an impact statement was received by all existing or approved health care facilities (that provide the same services as those being discontinued) located within 45 minutes travel time of the applicant facility.

APPEND DOCUMENTATION AS ATTACHMENT 10, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

SECTION III. BACKGROUND, PURPOSE OF THE PROJECT, AND ALTERNATIVES - INFORMATION REQUIREMENTS

This Section is applicable to all projects except those that are solely for discontinuation with no project costs.

Background

READ THE REVIEW CRITERION and provide the following required information:

BACKGROUND OF APPLICANT

1. A listing of all health care facilities owned or operated by the applicant, including licensing, and certification if applicable.
2. A certified listing of any adverse action taken against any facility owned and/or operated by the applicant during the three years prior to the filing of the application.
3. Authorization permitting HFSRB and DPH access to any documents necessary to verify the information submitted, including, but not limited to official records of DPH or other State agencies; the licensing or certification records of other states, when applicable; and the records of nationally recognized accreditation organizations. **Failure to provide such authorization shall constitute an abandonment or withdrawal of the application without any further action by HFSRB.**
4. If, during a given calendar year, an applicant submits more than one application for permit, the documentation provided with the prior applications may be utilized to fulfill the information requirements of this criterion. In such instances, the applicant shall attest that the information was previously provided, cite the project number of the prior application, and certify that no changes have occurred regarding the information that has been previously provided. The applicant is able to submit amendments to previously submitted information, as needed, to update and/or clarify data.

APPEND DOCUMENTATION AS ATTACHMENT 11, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM. EACH ITEM (1-4) MUST BE IDENTIFIED IN ATTACHMENT 11.

Criterion 1110.230 – Purpose of the Project, and Alternatives

PURPOSE OF PROJECT

1. Document that the project will provide health services that improve the health care or well-being of the market area population to be served.
2. Define the planning area or market area, or other relevant area, per the applicant's definition.
3. Identify the existing problems or issues that need to be addressed as applicable and appropriate for the project.
4. Cite the sources of the documentation.
5. Detail how the project will address or improve the previously referenced issues, as well as the population's health status and well-being.
6. Provide goals with quantified and measurable objectives, with specific timeframes that relate to achieving the stated goals **as appropriate**.

For projects involving modernization, describe the conditions being upgraded, if any. For facility projects, include statements of the age and condition of the project site, as well as regulatory citations, if any. For equipment being replaced, include repair and maintenance records.

NOTE: Information regarding the "Purpose of the Project" will be included in the State Board Staff Report.

APPEND DOCUMENTATION AS ATTACHMENT 12, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM. EACH ITEM (1-6) MUST BE IDENTIFIED IN ATTACHMENT 12.

ALTERNATIVES

1) Identify **ALL** of the alternatives to the proposed project:

Alternative options **must** include:

A) Proposing a project of greater or lesser scope and cost;

B) Pursuing a joint venture or similar arrangement with one or more providers or entities to meet all or a portion of the project's intended purposes; developing alternative settings to meet all or a portion of the project's intended purposes;

C) Utilizing other health care resources that are available to serve all or a portion of the population proposed to be served by the project; and

D) Provide the reasons why the chosen alternative was selected.

2) Documentation shall consist of a comparison of the project to alternative options. The comparison shall address issues of total costs, patient access, quality and financial benefits in both the short-term (within one to three years after project completion) and long-term. This may vary by project or situation. **FOR EVERY ALTERNATIVE IDENTIFIED, THE TOTAL PROJECT COST AND THE REASONS WHY THE ALTERNATIVE WAS REJECTED MUST BE PROVIDED.**

3) The applicant shall provide empirical evidence, including quantified outcome data that verifies improved quality of care, as available.

APPEND DOCUMENTATION AS ATTACHMENT 13, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

SECTION IV. PROJECT SCOPE, UTILIZATION, AND UNFINISHED/SHELL SPACE

Criterion 1110.234 - Project Scope, Utilization, and Unfinished/Shell Space

READ THE REVIEW CRITERION and provide the following information:

SIZE OF PROJECT:

1. Document that the amount of physical space proposed for the proposed project is necessary and not excessive. **This must be a narrative and it shall include the basis used for determining the space and the methodology applied.**

2. If the gross square footage exceeds the BGSF/DGSF standards in Appendix B, justify the discrepancy by documenting one of the following:

   a. Additional space is needed due to the scope of services provided, justified by clinical or operational needs, as supported by published data or studies and certified by the facility's Medical Director.

   b. The existing facility's physical configuration has constraints or impediments and requires an architectural design that delineates the constraints or impediments.

   c. The project involves the conversion of existing space that results in excess square footage.

   d. Additional space is mandated by governmental or certification agency requirements that were not in existence when Appendix B standards were adopted.

Provide a narrative for any discrepancies from the State Standard. A table must be provided in the following format with Attachment 14.

SIZE OF PROJECT				
DEPARTMENT/SERVICE	PROPOSED BGSF/DGSF	STATE STANDARD	DIFFERENCE	MET STANDARD?
ASTC	3,726	3,320-4,400	N/A	Yes

APPEND DOCUMENTATION AS ATTACHMENT 14, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

PROJECT SERVICES UTILIZATION:

This criterion is applicable only to projects or portions of projects that involve services, functions or equipment for which HFSRB has established utilization standards or occupancy targets in 77 Ill. Adm. Code 1100.

Document that in the second year of operation, the annual utilization of the service or equipment shall meet or exceed the utilization standards specified in 1110.Appendix B. **A narrative of the rationale that supports the projections must be provided.**

A table must be provided in the following format with Attachment 15.

UTILIZATION					
	DEPT./ SERVICE	HISTORICAL UTILIZATION (PATIENT DAYS) (TREATMENTS) ETC.	PROJECTED UTILIZATION	STATE STANDARD	MEET STANDARD?
YEAR 1	ASTC	2,011	79.80%	>1500 Hours	Yes
YEAR 2	ASTC	2,031	80.60%	>1500 Hours	Yes

APPEND DOCUMENTATION AS ATTACHMENT 15, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

UNFINISHED OR SHELL SPACE: NOT APPLICABLE

Provide the following information:

1. Total gross square footage (GSF) of the proposed shell space.

2. The anticipated use of the shell space, specifying the proposed GSF to be allocated to each department, area or function.

3. Evidence that the shell space is being constructed due to:
   a. Requirements of governmental or certification agencies; or
   b. Experienced increases in the historical occupancy or utilization of those areas proposed to occupy the shell space.

4. Provide:
   a. Historical utilization for the area for the latest five-year period for which data is available; and
   b. Based upon the average annual percentage increase for that period, projections of future utilization of the area through the anticipated date when the shell space will be placed into operation.

APPEND DOCUMENTATION AS ATTACHMENT 16, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

ASSURANCES: NOT APPLICABLE

Submit the following:

1. Verification that the applicant will submit to HFSRB a CON application to develop and utilize the shell space, regardless of the capital thresholds in effect at the time or the categories of service involved.

2. The estimated date by which the subsequent CON application (to develop and utilize the subject shell space) will be submitted; and

3. The anticipated date when the shell space will be completed and placed into operation.

APPEND DOCUMENTATION AS ATTACHMENT 17, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

G. Non-Hospital Based Ambulatory Surgery

Applicants proposing to establish, expand and/or modernize the Non-Hospital Based Ambulatory Surgery category of service must submit the following information.

ASTC Service
☐ Cardiovascular
☐ Colon and Rectal Surgery
☐ Dermatology
☐ General Dentistry
☒ General Surgery
☐ Gastroenterology
☐ Neurological Surgery
☐ Nuclear Medicine
☐ Obstetrics/Gynecology
☐ Ophthalmology
☐ Oral/Maxillofacial Surgery
☐ Orthopedic Surgery
☐ Otolaryngology
☐ Pain Management
☐ Physical Medicine and Rehabilitation
☐ Plastic Surgery
☐ Podiatric Surgery
☐ Radiology
☐ Thoracic Surgery
☐ Urology
☐ Other_____

3. READ the applicable review criteria outlined below and **submit the required documentation for the criteria:**

APPLICABLE REVIEW CRITERIA	Establish New ASTC or Service	Expand Existing Service
1110.1540(c)(2) – Service to GSA Residents	X	X
1110.1540(d) – Service Demand – Establishment of an ASTC or Additional ASTC Service	X	
1110.1540(e) – Service Demand – Expansion of Existing ASTC Service		X
1110.1540(f) – Treatment Room Need Assessment	X	X
1110.1540(g) – Service Accessibility	X	
1110.1540(h)(1) – Unnecessary Duplication/Maldistribution	X	
1110.1540(h)(2) – Maldistribution	X	
1110.1540(h)(3) – Impact to Area Providers	X	

1110.1540(i) – Staffing	X	X
1110.1540(j) – Charge Commitment	X	X
1110.1540(k) – Assurances	X	X

APPEND DOCUMENTATION AS ATTACHMENT 25, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

The following Sections DO NOT need to be addressed by the applicants or co-applicants responsible for funding or guaranteeing the funding of the project if the applicant has a bond rating of A- or better from Fitch's or Standard and Poor's rating agencies, or A3 or better from Moody's (the rating shall be affirmed within the latest 18-month period prior to the submittal of the application):

- **Section 1120.120 Availability of Funds – Review Criteria**
- **Section 1120.130 Financial Viability – Review Criteria**
- **Section 1120.140 Economic Feasibility – Review Criteria, subsection (a)**

VII. 1120.120 - AVAILABILITY OF FUNDS

The applicant shall document that financial resources shall be available and be equal to or exceed the estimated total project cost plus any related project costs by providing evidence of sufficient financial resources from the following sources, as applicable **[indicate the dollar amount to be provided from the following sources]:**

$106,690	a)	Cash and Securities – statements (e.g., audited financial statements, letters from financial institutions, board resolutions) as to: 1) the amount of cash and securities available for the project, including the identification of any security, its value and availability of such funds; and 2) interest to be earned on depreciation account funds or to be earned on any asset from the date of applicant's submission through project completion;
N/A	b)	Pledges – for anticipated pledges, a summary of the anticipated pledges showing anticipated receipts and discounted value, estimated time table of gross receipts and related fundraising expenses, and a discussion of past fundraising experience.
N/A	c)	Gifts and Bequests – verification of the dollar amount, identification of any conditions of use, and the estimated time table of receipts;
$3,000,000	d)	Debt – a statement of the estimated terms and conditions (including the debt time period, variable or permanent interest rates over the debt time period, and the anticipated repayment schedule) for any interim and for the permanent financing proposed to fund the project, including: 1) For general obligation bonds, proof of passage of the required referendum or evidence that the governmental unit has the authority to issue the bonds and evidence of the dollar amount of the issue, including any discounting anticipated; 2) For revenue bonds, proof of the feasibility of securing the specified amount and interest rate; 3) For mortgages, a letter from the prospective lender attesting to the expectation of making the loan in the amount and time indicated, including the anticipated interest rate and any conditions associated with the mortgage, such as, but not limited to, adjustable interest rates, balloon payments, etc.; 4) For any lease, a copy of the lease, including all the terms and conditions, including any purchase options, any capital improvements to the property and provision of capital equipment; 5) For any option to lease, a copy of the option, including all

	terms and conditions. e) Governmental Appropriations – a copy of the appropriation Act or ordinance accompanied by a statement of funding availability from an official of the governmental unit. If funds are to be made available from subsequent fiscal years, a copy of a resolution or other action of the governmental unit attesting to this intent; f) Grants – a letter from the granting agency as to the availability of funds in terms of the amount and time of receipt; g) All Other Funds and Sources – verification of the amount and type of any other funds that will be used for the project.
$3,106,690	**TOTAL FUNDS AVAILABLE**

APPEND DOCUMENTATION AS ATTACHMENT 34, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

SECTION VIII. 1120.130 - FINANCIAL VIABILITY

All the applicants and co-applicants shall be identified, specifying their roles in the project funding or guaranteeing the funding (sole responsibility or shared) and percentage of participation in that funding.

Financial Viability Waiver

The applicant is not required to submit financial viability ratios if:

1. "A" Bond rating or better
2. All of the projects capital expenditures are completely funded through internal sources
3. The applicant's current debt financing or projected debt financing is insured or anticipated to be insured by MBIA (Municipal Bond Insurance Association Inc.) or equivalent
4. The applicant provides a third party surety bond or performance bond letter of credit from an A rated guarantor.

See Section 1120.130 Financial Waiver for information to be provided

APPEND DOCUMENTATION AS ATTACHMENT 35, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

The applicant or co-applicant that is responsible for funding or guaranteeing funding of the project shall provide viability ratios for the latest three years for which **audited financial statements are available and for the first full fiscal year at target utilization, but no more than two years following project completion.** When the applicant's facility does not have facility specific financial statements and the facility is a member of a health care system that has combined or consolidated financial statements, the system's viability ratios shall be provided. If the health care system includes one or more hospitals, the system's viability ratios shall be evaluated for conformance with the applicable hospital standards.

	Historical 3 Years			Projected
Enter Historical and/or Projected Years:	N/A- New Business	N/A- New Business	N/A- New Business	CY 2019
Current Ratio				1.79
Net Margin Percentage				53%
Percent Debt to Total Capitalization				75%
Projected Debt Service Coverage				3.94
Days Cash on Hand				79
Cushion Ratio				3.94

Provide the methodology and worksheets utilized in determining the ratios detailing the calculation and applicable line item amounts from the financial statements. Complete a separate table for each co-applicant and provide worksheets for each.

Variance

Applicants not in compliance with any of the viability ratios shall document that another organization, public or private, shall assume the legal responsibility to meet the debt obligations should the applicant default.

APPEND DOCUMENTATION AS ATTACHMENT 36, IN NUMERICAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

SECTION IX. 1120.140 - ECONOMIC FEASIBILITY

This section is applicable to all projects subject to Part 1120.

A. Reasonableness of Financing Arrangements

The applicant shall document the reasonableness of financing arrangements by submitting a notarized statement signed by an authorized representative that attests to one of the following:

1) That the total estimated project costs and related costs will be funded in total with cash and equivalents, including investment securities, unrestricted funds, received pledge receipts and funded depreciation; or

2) That the total estimated project costs and related costs will be funded in total or in part by borrowing because:

   A) A portion or all of the cash and equivalents must be retained in the balance sheet asset accounts in order to maintain a current ratio of at least 2.0 times for hospitals and 1.5 times for all other facilities; or

   B) Borrowing is less costly than the liquidation of existing investments, and the existing investments being retained may be converted to cash or used to retire debt within a 60-day period.

B. Conditions of Debt Financing

This criterion is applicable only to projects that involve debt financing. The applicant shall document that the conditions of debt financing are reasonable by submitting a notarized statement signed by an authorized representative that attests to the following, as applicable:

1) That the selected form of debt financing for the project will be at the lowest net cost available;

2) That the selected form of debt financing will not be at the lowest net cost available, but is more advantageous due to such terms as prepayment privileges, no required mortgage, access to additional indebtedness, term (years), financing costs and other factors;

3) That the project involves (in total or in part) the leasing of equipment or facilities and that the expenses incurred with leasing a facility or equipment are less costly than constructing a new facility or purchasing new equipment.

C. Reasonableness of Project and Related Costs

Read the criterion and provide the following:

1. Identify each department or area impacted by the proposed project and provide a cost and square footage allocation for new construction and/or modernization using the following format (insert after this page).

COST AND GROSS SQUARE FEET BY DEPARTMENT OR SERVICE

Department (list below)	A	B	C	D	E	F	G	H	Total Cost (G + H)
	Cost/Square Foot New	Cost/Square Foot Mod.	Gross Sq. Ft. New	Gross Sq. Ft. Circ.*	Gross Sq. Ft. Mod.	Gross Sq. Ft. Circ.*	Const. $ (A x C)	Mod. $ (B x E)	
ASTC		$226.62			3,726			$844,404	$844,404
Contingency		$34.22			3,048			$104,320	$104,320
TOTALS		$260.84			6,774			$948,724	$948,724

* Include the percentage (%) of space for circulation

D. Projected Operating Costs

The applicant shall provide the projected direct annual operating costs (in current dollars per equivalent patient day or unit of service) for the first full fiscal year at target utilization but no more than two years following project completion. Direct cost means the fully allocated costs of salaries, benefits and supplies for the service.

E. Total Effect of the Project on Capital Costs

The applicant shall provide the total projected annual capital costs (in current dollars per equivalent patient day) for the first full fiscal year at target utilization but no more than two years following project completion.

APPEND DOCUMENTATION AS ATTACHMENT 37, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

SECTION X. SAFETY NET IMPACT STATEMENT

SAFETY NET IMPACT STATEMENT that describes all of the following must be submitted for ALL SUBSTANTIVE PROJECTS AND PROJECTS TO DISCONTINUE STATE-OWNED HEALTH CARE FACILITIES [20 ILCS 3960/5.4]:

1. The project's material impact, if any, on essential safety net services in the community, to the extent that it is feasible for an applicant to have such knowledge.

2. The project's impact on the ability of another provider or health care system to cross-subsidize safety net services, if reasonably known to the applicant.

3. How the discontinuation of a facility or service might impact the remaining safety net providers in a given community, if reasonably known by the applicant.

Safety Net Impact Statements shall also include all of the following:

1. For the 3 fiscal years prior to the application, a certification describing the amount of charity care provided by the applicant. The amount calculated by hospital applicants shall be in accordance with the reporting requirements for charity care reporting in the Illinois Community Benefits Act. Non-hospital applicants shall report charity care, at cost, in accordance with an appropriate methodology specified by the Board.

2. For the 3 fiscal years prior to the application, a certification of the amount of care provided to Medicaid patients. Hospital and non-hospital applicants shall provide Medicaid information in a manner consistent with the information reported each year to the Illinois Department of Public Health regarding "Inpatients and Outpatients Served by Payor Source" and "Inpatient and Outpatient Net Revenue by Payor Source" as required by the Board under Section 13 of this Act and published in the Annual Hospital Profile.

3. Any information the applicant believes is directly relevant to safety net services, including information

regarding teaching, research, and any other service.

A table in the following format must be provided as part of Attachment 38.

Safety Net Information per PA 96-0031			
CHARITY CARE			
Charity (# of patients)	**2014**	**2015**	**2016**
Total Outpatient	10	3	7
Charity (cost In dollars)			
Outpatient	$52,724	$19,031	$21,788
Percentage	2.38%	0.93%	1.03%
MEDICAID			
Medicaid (# of patients)	**2014**	**2015**	**2016**
Outpatient	48	45	10
Total	48	45	10
Medicaid (revenue)			
Total Outpatient	$66,209	$70,364	$2,326
Percentage	2.98%	3.43%	0.11%

APPEND DOCUMENTATION AS ATTACHMENT 38, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

SECTION XI. CHARITY CARE INFORMATION

Charity Care information MUST be furnished for ALL projects [1120.20(c)].

1. All applicants and co-applicants shall indicate the amount of charity care for the latest three **audited** fiscal years, the cost of charity care and the ratio of that charity care cost to net patient revenue.

2. If the applicant owns or operates one or more facilities, the reporting shall be for each individual facility located in Illinois. If charity care costs are reported on a consolidated basis, the applicant shall provide documentation as to the cost of charity care; the ratio of that charity care to the net patient revenue for the consolidated financial statement; the allocation of charity care costs; and the ratio of charity care cost to net patient revenue for the facility under review.

3. If the applicant is not an existing facility, it shall submit the facility's projected patient mix by payer source, anticipated charity care expense and projected ratio of charity care to net patient revenue by the end of its second year of operation.

Charity care" means care provided by a health care facility for which the provider does not expect to receive payment from the patient or a third-party payer (20 ILCS 3960/3). Charity Care must be provided at cost.

A table in the following format must be provided for all facilities as part of Attachment 39.

CHARITY CARE			
	2014	2015	2016
Net Patient Revenue			
Amount of Charity Care (charges)	$52,724	$19,031	$21,788
Cost of Charity Care	$52,724	$19,031	$21,788

APPEND DOCUMENTATION AS ATTACHMENT 39, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

After paginating the entire completed application indicate, in the chart below, the page numbers for the included attachments:

INDEX OF ATTACHMENTS

ATTACHMENT NO.		PAGES
1	Applicant Identification including Certificate of Good Standing	27-29
2	Site Ownership	30-32
3	Persons with 5 percent or greater interest in the licensee must be identified with the % of ownership.	33-34
4	Organizational Relationships (Organizational Chart) Certificate of Good Standing Etc.	35
5	Flood Plain Requirements	36
6	Historic Preservation Act Requirements	37-42
7	Project and Sources of Funds Itemization	43-44
8	Financial Commitment Document if required	45
9	Cost Space Requirements	
10	Discontinuation	
11	Background of the Applicant	46
12	Purpose of the Project	47-48
13	Alternatives to the Project	49-50
14	Size of the Project	51
15	Project Service Utilization	
16	Unfinished or Shell Space	
17	Assurances for Unfinished/Shell Space	
18	Master Design Project	
	Service Specific:	
19	Medical Surgical Pediatrics, Obstetrics, ICU	
20	Comprehensive Physical Rehabilitation	
21	Acute Mental Illness	
22	Open Heart Surgery	
23	Cardiac Catheterization	
24	In-Center Hemodialysis	
25	Non-Hospital Based Ambulatory Surgery	52-91
26	Selected Organ Transplantation	
27	Kidney Transplantation	
28	Subacute Care Hospital Model	
29	Community-Based Residential Rehabilitation Center	
30	Long Term Acute Care Hospital	
31	Clinical Service Areas Other than Categories of Service	
32	Freestanding Emergency Center Medical Services	
33	Birth Center	
	Financial and Economic Feasibility:	
34	Availability of Funds	92-102
35	Financial Waiver	
36	Financial Viability	103-105
37	Economic Feasibility	106-109
38	Safety Net Impact Statement	110
39	Charity Care information	111

File Number 5112-723-4

To all to whom these Presents Shall Come, Greeting:

I, Jesse White, Secretary of State of the State of Illinois, do hereby certify that I am the keeper of the records of the Department of Business Services. I certify that

NEPHROLOGY ASSOCIATES OF NORTHERN ILLINOIS, LTD., A DOMESTIC CORPORATION, INCORPORATED UNDER THE LAWS OF THIS STATE ON APRIL 01, 1977, APPEARS TO HAVE COMPLIED WITH ALL THE PROVISIONS OF THE BUSINESS CORPORATION ACT OF THIS STATE RELATING TO THE PAYMENT OF FRANCHISE TAXES, AND AS OF THIS DATE, IS IN GOOD STANDING AS A DOMESTIC CORPORATION IN THE STATE OF ILLINOIS.

In Testimony Whereof, *I hereto set my hand and cause to be affixed the Great Seal of the State of Illinois, this* 13TH *day of* MARCH *A.D.* 2017 .

Authentication #: 1707202504 verifiable until 03/13/2018
Authenticate at: http://www.cyberdriveillinois.com

Jesse White

SECRETARY OF STATE

Form **LLC-5.5**	**Illinois** **Limited Liability Company Act** **Articles of Organization**	**FILE # 06639046**
Secretary of State Jesse White Department of Business Services Limited Liability Division www.cyberdriveillinois.com	**Filing Fee:** $500 **Expedited Fee:** $100 **Approved By:** TLB	**FILED** **DEC 01 2017** **Jesse White** **Secretary of State**

1. Limited Liability Company Name: ILLINOIS VASCULAR CARE LLC

2. Address of Principal Place of Business where records of the company will be kept:
120 W 22ND STREET

OAK BROOK, IL 60523

3. The Limited Liability Company has one or more members on the filing date.

4. Registered Agent's Name and Registered Office Address:

BRIAN ODEA
120 W 22ND STREET
OAK BROOK, IL 60523

5. Purpose for which the Limited Liability Company is organized:
"The transaction of any or all lawful business for which Limited Liability Companies may be organized under this Act."

6. The LLC is to have perpetual existence.

7. Name and business addresses of all the managers and any member having the authority of manager:

O'DEA, BRIAN
120 W 22ND STREET
OAK BROOK, IL 60523

8. **Name and Address of Organizer**
I affirm, under penalties of perjury, having authority to sign hereto, that these Articles of Organization are to the best of my knowledge and belief, true, correct and complete.

Dated: DECEMBER 01, 2017

BRIAN O'DEA
120 W 22ND STREET
OAK BROOK, IL 60523

Nephrology Associates of Northern Illinois, LTD

120 W 22nd Street · Oak Brook, IL 60523 · Phone 630-573-5000 · Fax 630-368-0280

December 6, 2017

Ms. Kathryn J. Dlson, Chair
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, 2nd Floor
Springfield, IL 62761

Dear Ms. Dlson:

As representative of both Illinois Vascular Care, LLC and Nephrology Associates of Northern Illinois, LTD. I, Brian J. D'Dea, give authorization to the Health Facilities and Services Review Board and the Illinois Department of Public Health (IDPH) to access documents necessary to verify the information submitted including, but not limited to: official records of IDPH or other state agencies, the licensing or certification records of other states, and the records of nationally recognized accreditation organizations.

I further verify that, Nephrology Associates of Northern Illinois, LTD owns a healthcare facility, DuPage Vascular Care (approved as Project #17-08), and neither entity has had an adverse action in the past three years.

I hereby certify this is true and based upon my personal knowledge under penalty of perjury and in accordance with 735 ILCS 5/1-109.

Brian J. D'Dea

Site Ownership/ Control

The building in which the ASTC will be located is owned by RMS Properties, Inc. an Illinois Corporation and will be leased by Illinois Vascular Care, LLC. Attached as evidence of control is the letter of intent to reflect the terms under which the space will be leased if approved for the establishment of an ASTC.

LEE & ASSOCIATES
COMMERCIAL REAL ESTATE SERVICES

October 19, 2017

Joe Stevens
Transwestern
200 W. Madison St. Suite 1200
Chicago, IL 60606

Re: REVISED Letter of Intent to Lease
846 Algonquin Rd. Schaumburg, IL

Dear Joe:

Lee & Associates has been exclusively engaged by Nephrology Associates http://www.nephdocs.com/ ("Tenant") to submit the following lease proposal.

1. **TOTAL AREA REQUIRED:** Approximately 6,774 SF
2. **USE:** Ambulatory Surgical Center for Nephrology.
3. **LEASE TERM:** 7 year term.
4. **LEASE CONTINGENCY:** Certificate of Need (CON) approval for ASC for this lease to be enforced, not to exceed 6 months. Tenant shall submit a non-refundable deposit of $20,000 as compensation to Landlord to hold space during the CON process should tenant not execute the fully prepared lease from the Landlord. Tenant shall have one option to extend for 3 months with an additional payment of $10,000.
5. **LEASE COMMENCEMENT:** 6 months after CON approval date.
5. **LEASE RATE:** $14.00 per foot Gross.
6. **ANNUAL ESCALATIONS:** 3% annually.
7. **TENANT IMPROVEMENTS:** None by Landlord. Tenant to perform all demolition and improvement at sole cost and expense. Includes but not limited to, covered walk and drive way at main entrance (with design acceptable to the Landlord), backup generator (location T.B.D.) and additional HVAC to space. All improvements to be permitted through Village of Schaumburg.
8. **REAL ESTATE TAXES:** None. Included in Base Rent.
9. **CAM:** None. Included in Base Rent.

10. Renewal Options:	Tenant shall have the right to renew for two 5 year terms at the the current market rate by providing Landlord with 10 months prior written notice.
11. Rent Abatement:	None.
12. Electricity & Utilities:	Tenant shall be separately metered for electrical consumption within the Premises.
13. Janitorial:	Tenant shall contract directly with a janitorial company for cleaning of the Tenant's Premises.
14. Response:	Please kindly respond by October 25, 2017.
15. Brokerage:	Landlord acknowledges that Tenant has engaged Lee & Associates as their broker for the transaction provided herein and Landlord shall be solely responsible for payment of commission to Lee & Associates per separate agreement.

This LOI does not constitute a contract between the parties and is not intended to be binding on either party. This LOI is intended solely as an expression of terms upon which the parties will endeavor to negotiate a formal and binding lease agreement which meets with the approval of both parties respective counsel. In no event shall either party incur any liability whatsoever of its failure to execute a formal and binding lease agreement or for any other reason.

We appreciate your prompt attention to this matter and look forward to working with you to determine if an acceptable lease agreement can be structured. Should you have any questions please do not hesitate to call.

Sincerely,

Lee & Associates® of Illinois, LLC
A Member of the Lee & Associates® Group of Companies

RA

Rick Anesi
Vice President
773.355.3043

Accepted this 26 *day of* October *2017*
Neurologist Associates
By: Bill Brennan
Its: [signature]
"Tenant"

Accepted this 26 *day of* October *2017*
By: [signature]
Its: President, RMS Properties, Inc.
"Landlord"

File Number 5112-723-4

To all to whom these Presents Shall Come, Greeting:

I, Jesse White, Secretary of State of the State of Illinois, do hereby certify that I am the keeper of the records of the Department of Business Services. I certify that

NEPHROLOGY ASSOCIATES OF NORTHERN ILLINOIS, LTD., A DOMESTIC CORPORATION, INCORPORATED UNDER THE LAWS OF THIS STATE ON APRIL 01, 1977, APPEARS TO HAVE COMPLIED WITH ALL THE PROVISIONS OF THE BUSINESS CORPORATION ACT OF THIS STATE RELATING TO THE PAYMENT OF FRANCHISE TAXES, AND AS OF THIS DATE, IS IN GOOD STANDING AS A DOMESTIC CORPORATION IN THE STATE OF ILLINOIS.

In Testimony Whereof, *I hereto set my hand and cause to be affixed the Great Seal of the State of Illinois, this* 13TH *day of* MARCH *A.D.* 2017 .

Authentication #: 1707202504 verifiable until 03/13/2018
Authenticate at: http://www.cyberdriveillinois.com

Jesse White

SECRETARY OF STATE

Form **LLC-5.5**	**Illinois** **Limited Liability Company Act** **Articles of Organization**	**FILE # 06639046**
Secretary of State Jesse White Department of Business Services Limited Liability Division www.cyberdriveillinois.com	**Filing Fee:** $500 **Expedited Fee:** $100 **Approved By:** TLB	**FILED** **DEC 01 2017** **Jesse White** **Secretary of State**

1. Limited Liability Company Name: ILLINOIS VASCULAR CARE LLC

2. Address of Principal Place of Business where records of the company will be kept:
120 W 22ND STREET

OAK BROOK, IL 60523

3. The Limited Liability Company has one or more members on the filing date.

4. Registered Agent's Name and Registered Office Address:

BRIAN ODEA
120 W 22ND STREET
OAK BROOK, IL 60523

5. Purpose for which the Limited Liability Company is organized:
"The transaction of any or all lawful business for which Limited Liability Companies may be organized under this Act."

6. The LLC is to have perpetual existence.

7. Name and business addresses of all the managers and any member having the authority of manager:

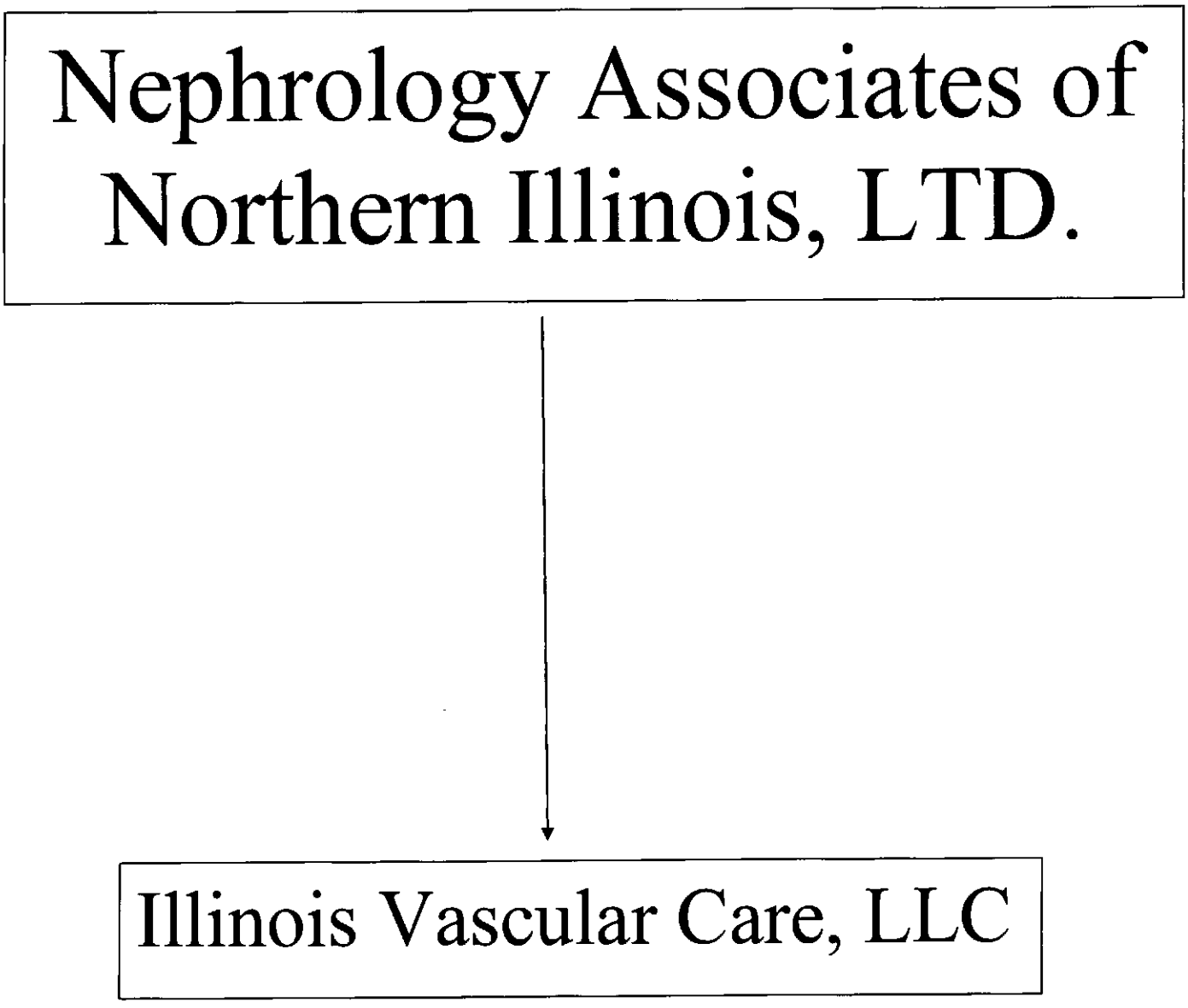
O'DEA, BRIAN
120 W 22ND STREET
OAK BROOK, IL 60523

8. **Name and Address of Organizer**
I affirm, under penalties of perjury, having authority to sign hereto, that these Articles of Organization are to the best of my knowledge and belief, true, correct and complete.

Dated: DECEMBER 01, 2017

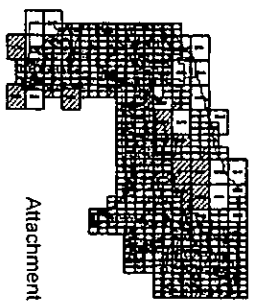
BRIAN O'DEA
120 W 22ND STREET
OAK BROOK, IL 60523

This document was generated electronically at www.cyberdriveillinois.com

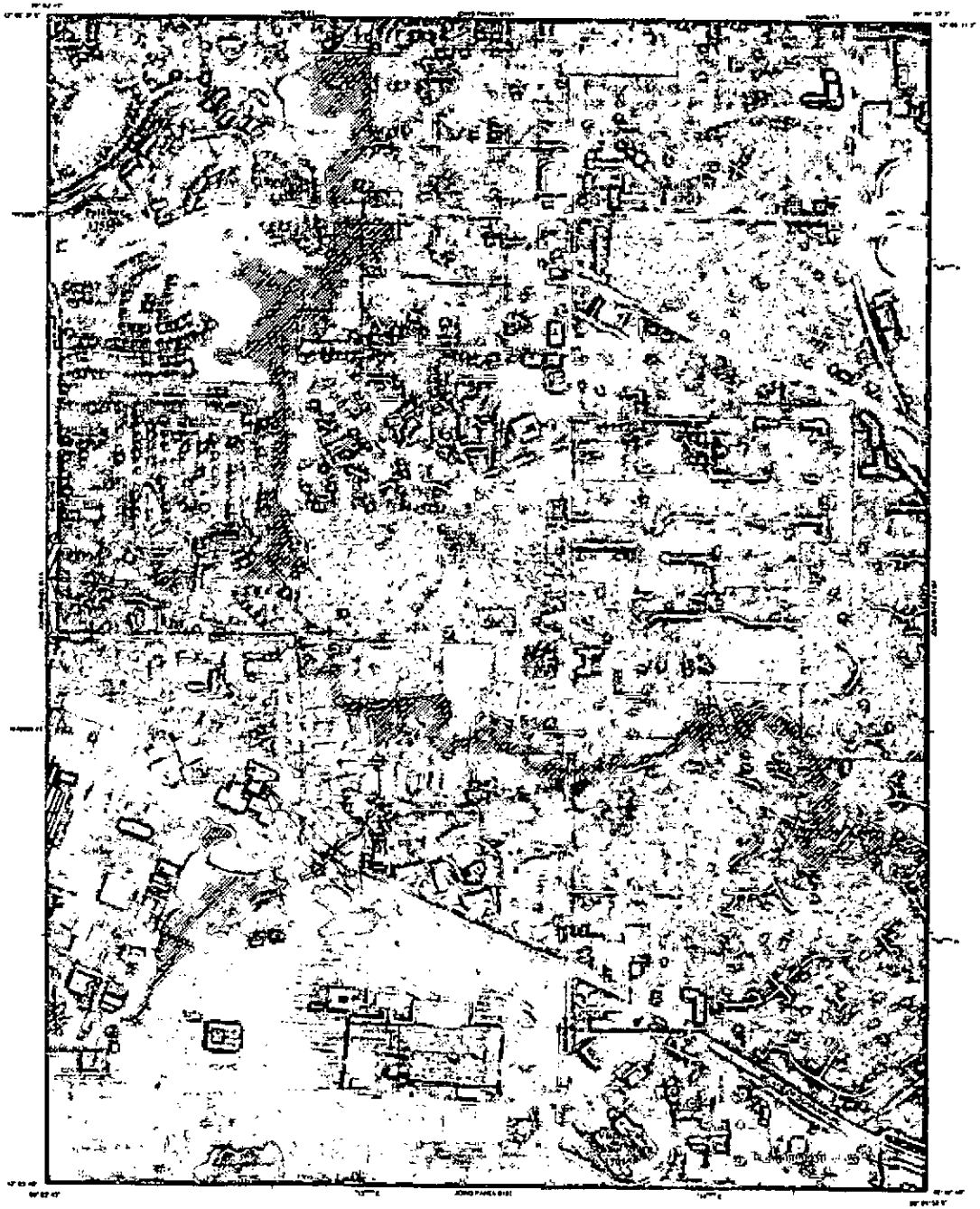

Nephrology Associates of Northern Illinois, LTD.
Illinois Vascular Care, LLC

NOTES TO USERS

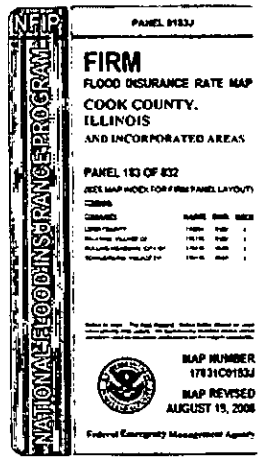
PANEL INDEX



Panel Not Printed



LEGEND



PANEL 0183J

FIRM

FLOOD INSURANCE RATE MAP

COOK COUNTY, ILLINOIS AND INCORPORATED AREAS

PANEL 183 OF 832

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]

MAP NUMBER
17031C0183J

MAP REVISED
AUGUST 15, 2008

Federal Emergency Management Agency

Page 36

Attachment 5

Benesch
Attorneys at Law

Juan Morado, Jr.
333 West Wacker Drive, Suite 1900
Chicago, IL 60606
Direct Dial: 312.212.4967
Fax: 312.757.9192
jmorado@beneschlaw.com

November 21, 2017

VIA FEDERAL EXPRESS

Rachel Leibowitz, Ph.D.
Deputy State Historic Preservation Officer
Preservation Services Division
Illinois Historic Preservation Office
Illinois Department of Natural Resources
1 Natural Resources Way
Springfield, IL 62702

Re: Certificate of Need Application for the Establishment of an Ambulatory Surgical Treatment Center in Leased Office Space

Dear Rachel:

I am writing on behalf of my clients, Nephrology Associates of Northern Illinois and Indiana (NANI), and Illinois Vascular Care (IVC) to request review of the of the project area under Section 4 of the Illinois State Agency Historic Resources Preservation Act (20 ILCS 3420/1 et. seq.) NANI and IVC are submitting an application for a Certificate of Need from the Illinois Health Facilities and Services Review Board. NANI and IVC are proposing to establish a single specialty surgery center to be located at 846 East Algonquin Road, Suite 103, Schaumburg, IL 60173. NANI and IVC will be leasing existing office space and modernizing the space to meet Illinois Department of Public Health regulations for Ambulatory Surgical Treatment Centers.

The facility will be focused on providing vascular access procedures to support and maintain end-stage renal dialysis ("ESRD") patients. The facility will provide the full spectrum of general surgical procedures supporting the vascular health of ESRD patients. For your reference we have included pictures of the building and topographic maps (Attachments 1-4)

showing the general location of the project. The buildings pictured include the site 846 E. Algonquin Road and an adjacent office space with the address 850 E. Algonquin Road, Schaumburg, Illinois 60173.

We respectfully request review of the project area and a determination letter at your earliest convenience. Thank you in advance for all of the time and effort that will be going into this review.

Very truly yours,

BENESCH, FRIEDLANDER,
COPLAN & ARONOFF LLP

Juan Morado, Jr.

JM:
Enclosures

Google Maps

IL-62

846 E. Algonquin Road Schaumburg, Illinois 60173

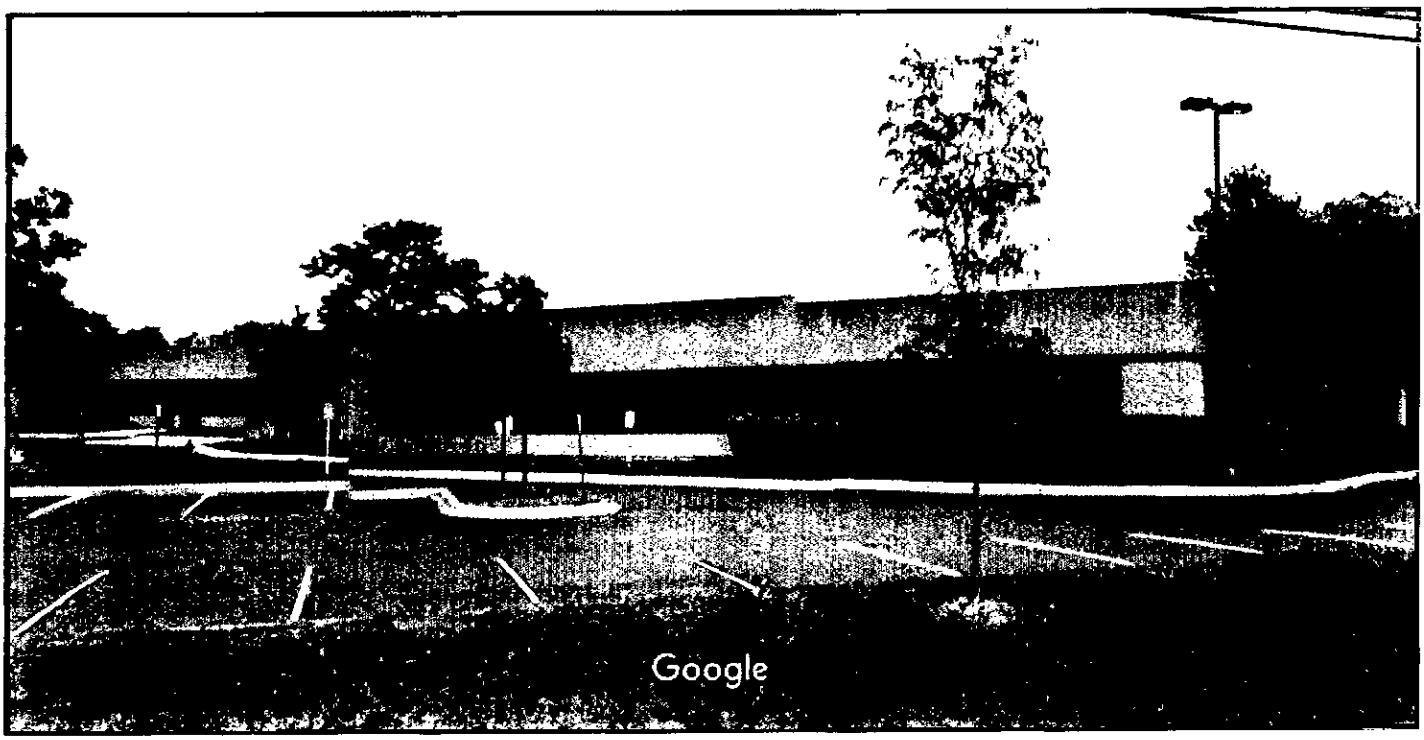
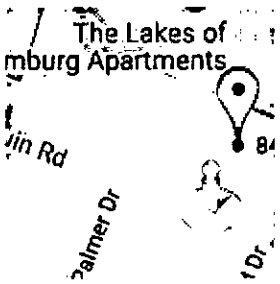


Image capture: Sep 2016 © 2017 Google

Schaumburg, Illinois

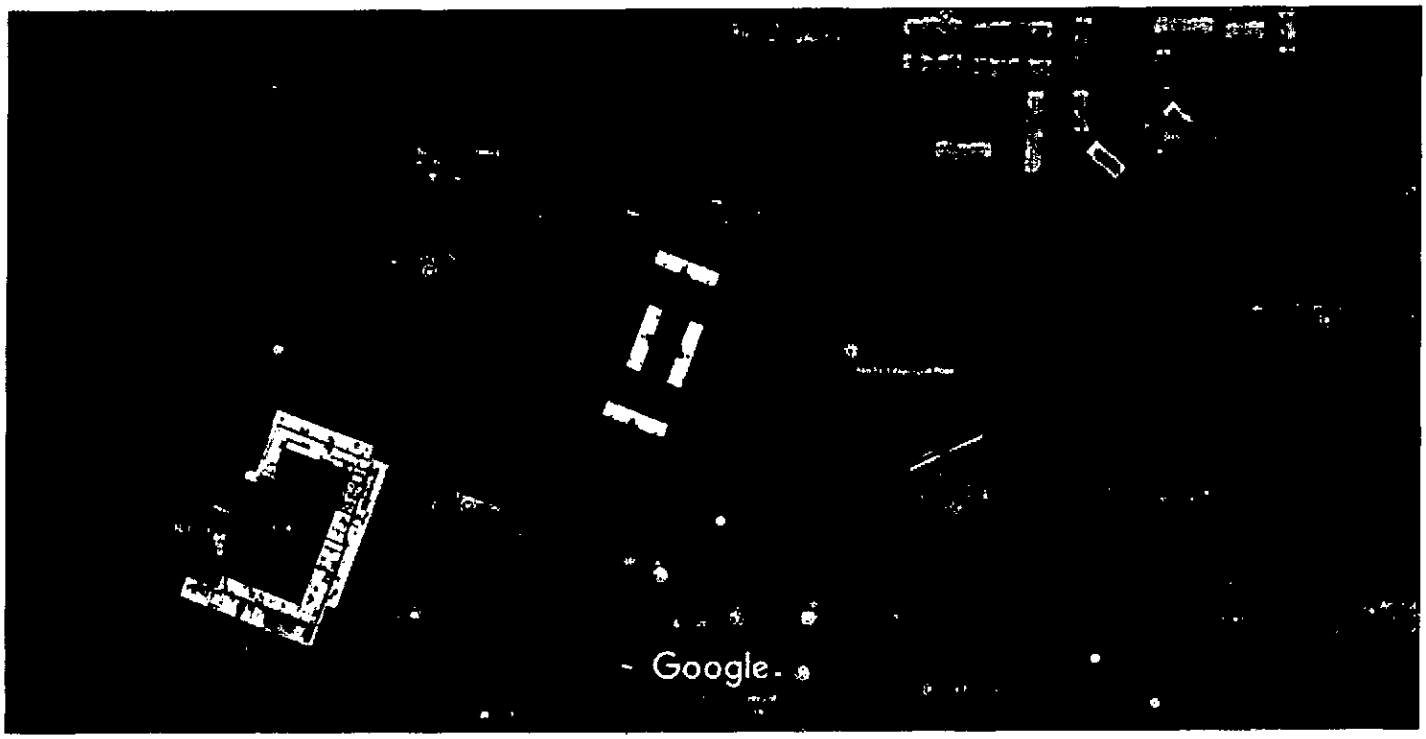
Google, Inc.

Street View - Sep 2016

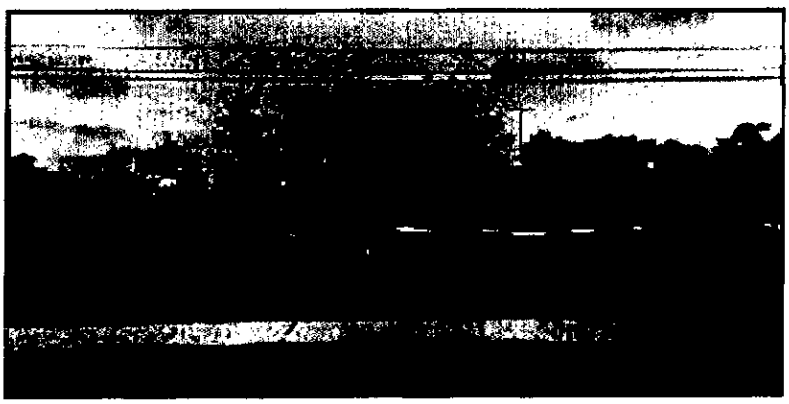


Attachment 1

Google Maps 846 E Algonquin Rd



Imagery ©2017 Google, Map data ©2017 Google 200 ft



846 E Algonquin Rd

Schaumburg, IL 60173

Attachment 2

topoView

Location | Map Name

846 E Algonquin Rd, Schaum...

1880 — 2010

All | HTMC

19 maps. Filtered by all scales from 1880 to 2010 near 901 Westwood Dr, Schaumburg, IL 60173 | Elev: 729 ft

Filter records | Date

- Rockford, IL 1958 (1981 ed.) Scale 1:250000
- Rockford, IL 1958 (1974 ed.) Scale 1:250000
- Rockford, IL 1958 (1974 ed.) Scale 1:250000
- Palatine, IL
- Palatine, IL 1961 (1981 ed.) Scale 1:24000
- Palatine, IL 1961 (1973 ed.) Scale 1:24000
- Palatine, IL 1961 (1962 ed.) Scale 1:24000
- Barrington, IL 1961 (1965 ed.) Scale 1:62500
- Rockford, IL 1963 (1963 ed.) Scale 1:250000
- Elgin, IL 1978 (1978 ed.) Scale 1:100000
- Palatine, IL 1993 (1994 ed.) Scale 1:24000
- Palatine, IL 1998 (2002 ed.) Scale 1:24000

300 m
1000 ft

Lat: 42° 4' 19" N Long: 88° 2' 44" W

DMS DD MGR UTM

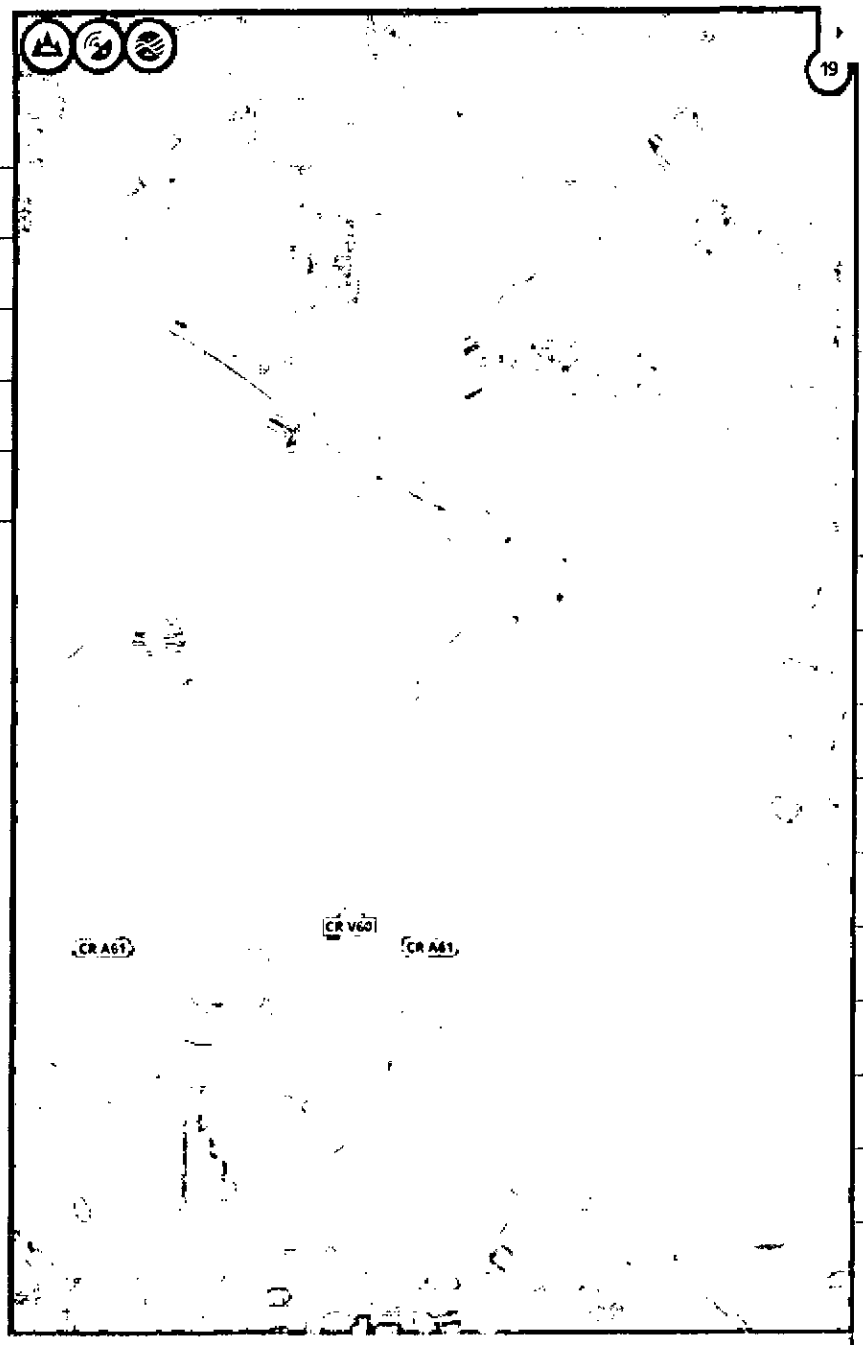
Scale 1:18,056

Map Records: 19

Chance light rain, 43° near Rolling Meadows, IL

Attachment 3

Attachment 6



topoView

Location | Map Name

846 E Algonquin Rd, Schaum...

1880 2010

All | HTMC

19 maps. Filtered by all scales from 1880 to 2010 near
3390 Yorkshire Ct, Hoffman Estates, IL 60067 | Elev: 810 ft

Filter records | Date

Barrington, IL
1923 (1938 ed.) Scale 1:62500
JPEG (3 MB) GeoTiff (8 MB)
KMZ (3 MB) GeoPDF (11 MB)
SHOW INFO ZOOM PAN PIN FIX

Barrington, IL
1923 (1931 ed.) Scale 1:62500

Barrington, IL
1923 (1927 ed.) Scale 1:62500

Barrington, IL
1923 (1923 ed.) Scale 1:62500

Barrington, IL
1935 (1958 ed.) Scale 1:62500

Palatine, IL
1953 (1955 ed.) Scale 1:24000

Rockford, IL
1958 (1986 ed.) Scale 1:250000

Rockford, IL
1958 (1981 ed.) Scale 1:250000

Rockford, IL
1958 (1974 ed.) Scale 1:250000

Rockford, IL
1958 (1974 ed.) Scale 1:250000

Palatine, IL

300 m
1000 ft

Lat: 42° 4' 9" N Long: 88° 3' 17" W
DMS DD MGR UTM
Scale 1:18,056
Map Records: 19

Leaflet © Mapbox © OpenStreetMap | Improve

Chance sleet, 43° near Inverness, IL.

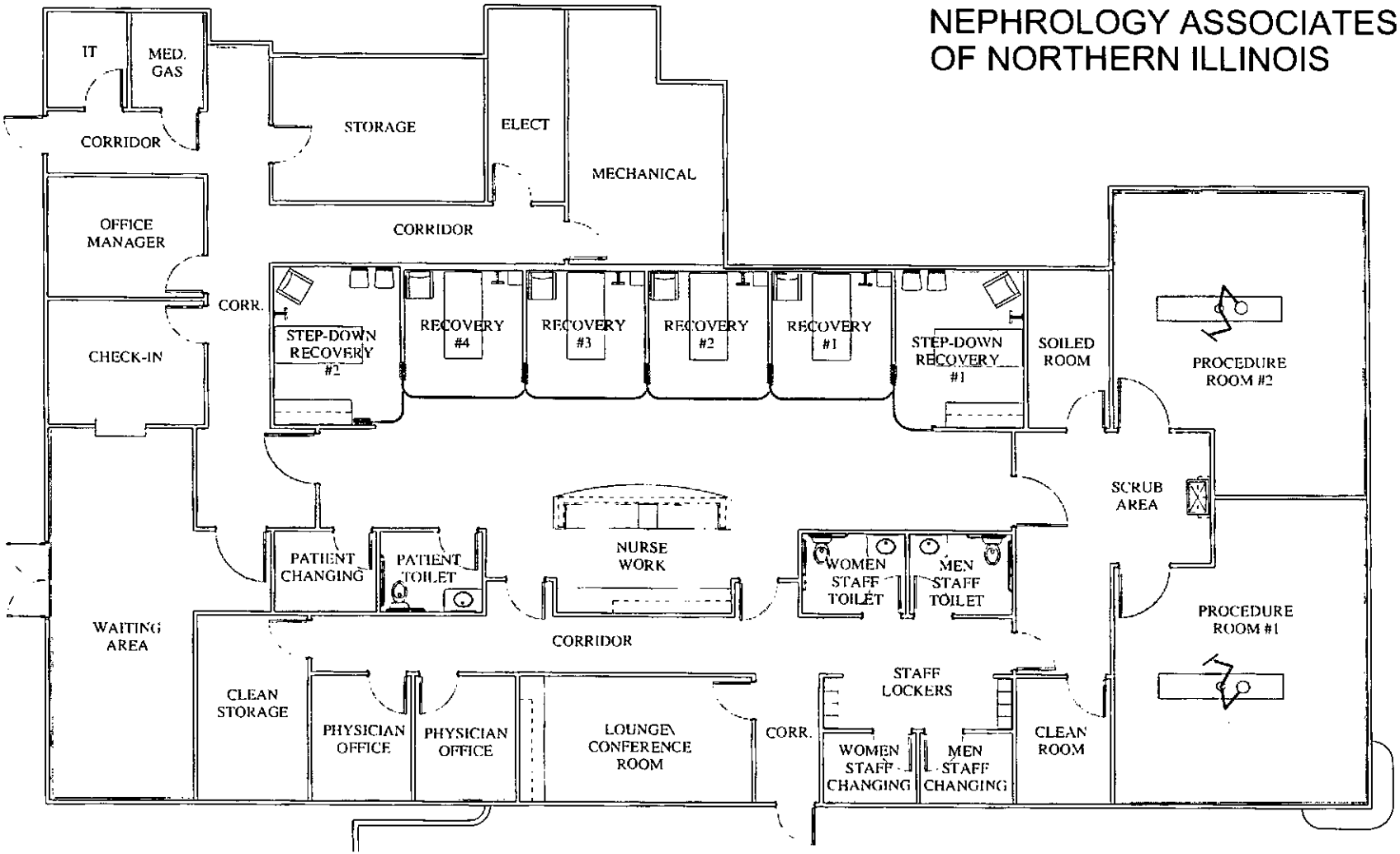
Illinois Vascular LLC
Modernizarion Contract Budget

Dept	Description	Amount
DIV 2	Demolition	24,700
	Excavation	2,187
	Landscaping	
DIV 3	Concrete Slabs	13,580
	Gypcrete	
DIV 4	Masonry	
DIV 5	Structural Steel	10,000
	Exterior Misc Metals	
DIV 6	Carpentry	134,000
	Millwork	42,450
	Cabinets	
	Tops	
DIV 7	Insulation/Fireproofing	5,000
	EIFS	
	Roofing & Gutters	2,400
	Caulking	w/paint
DIV 8	Doors & Hardware	37,000
	Storefront / Entry	26,610
	Windows	
	window films	
	Signage Allowance	w/storefront
DIV 9	Drwyall & Tape	15,000
	break metal @ end of walls & windows	
	Metal Framing	25,000
	Acoustical Ceilings	
	- Floor Prep	5,000
	VCT	8,000
	Sheetgoods	39,134
	Carpet	
	Painting	12,270
DIV 10	Wall & Corner Protection	10,000

Illinois Vascular LLC
Modernizarion Contract Budget

	Toilet Accessories	4,500
	Fire Extinguishers	2,500
	Storage Lockers	2,000
	Cubicles / Blinds / OFCI	
	Window Tint	5,016
	Owner Equip Install -Allowance	1,040
DIV 11	Equipment-TV's	
	Appliances	7,284
DIV 12	Furnishings	
DIV 13	Specialities	w/trades
	Lead Shielding	w/trades
DIV 14	Elevators	
DIV 21	Fire Protection	13,480
DIV 22	Plumbing	196,200
	Medical Gas	85,000
	Medical Vacuum	w/med gas
DIV 23	HVAC	350,000
	Aaon Materials/Labor	
DIV 25	BAS/BAC	
DIV 26	Electric	290,325
DIV 27	Telephone / Data Systems	3,710
DIV 28	Security Systems	w/fire
	Fire Alarm	35,000
	Nurse Call	
DIV 900	General Conditions	81,894
DIV 901	Consrtuction Mgmt	45,000
TOTAL		1,535,280

NEPHROLOGY ASSOCIATES OF NORTHERN ILLINOIS



HOCH
Powerful Ideas

= CLINICAL

= NONCLINICAL

SCHEMATIC FLOOR PLAN

SCALE: 1/8" = 1'-0"

Background of the Applicant, 20 ILCS 3960/2

Illinois Vascular Care and Nephrology Associates of Northern Illinois (NANI) both possess the qualifications, background, and character necessary, as well as possess the financial resources to adequately provide services for the community.

Illinois Vascular Care does not own or operate any healthcare facilities in Illinois or elsewhere. NANI is the parent company of DuPage Vascular Care, LLC (Project # 17-08 approved by HFSRB in September 2017) who own and will soon operate DuPage Vascular Care. No adverse actions have been taken against any facility owned and/or operated by either applicant in the three years prior to this application, as evidenced by the certification accompanying this, Attachment 11. Additionally, no changes have occurred regarding information that was previously submitted in association with Project #17-08 for the DuPage Vascular Care ASTC application.

Further incorporated in the certification is the authorization necessary for both the Illinois Health Facilities and Services Review Board (HFSRB) and the Illinois Department of Public Health (IDPH) the access records necessary to verify this information.

NANI has been providing access to care, innovation, and results in the field of nephrology for over 45 years. When the field of nephrology was just developing NANI was already beginning to serve the community. Many years ago, some of the physicians associated with NANI began operating some of the first outpatient dialysis centers in the country. Since then, NANI has added locations and doctors have joined their group from all around the Chicago area and throughout the northern Indiana and continued its commitment to providing care to those suffering from end-stage renal disease and requiring dialysis. Today, NANI is moving forward to increase quality of care for their patients by establishing vascular access surgery centers for outpatient procedures.

With a specific focus on wanting to provide care for patients closer to their homes, the founders of the West Suburban Kidney Center created a new model for dialysis that later became NANI. The care was provided outside of the hospital in a safe medical environment closer to patient's homes and within communities in which their patients lived. That is a part of NANI's past and, with the approval of this Ambulatory Surgical Treatment Center (ASTC), it hopes a part of its future.

Purpose of the Project, 77 Ill. Admin. Code 1110.230 (a)(1)-(4)

The purpose of this project is to ensure the residents of the community and the patients historically served by Nephrology Associates of Northern Illinois (NANI) will continue to have access to the vascular care surgical procedures they need. This is quite literally, a matter of life and death.

The Centers for Medicare & Medicaid Services (CMS) has recently made changes that have fundamentally altered the reimbursement models available for vascular access procedures. These changes in reimbursement models are driving physicians to perform these procedures in either a hospital or surgery center setting. As will be addressed more fully below when explaining the alternatives that were considered (see. 77 Ill. Admin. Code 1110.230(c), Attachment 13), the performance of these procedures in an ASTC setting is substantially more cost-effective than in hospitals and it allows for patients to work with familiar dedicated staff who are well versed and trained in the needs of patents with compromised vascular systems, and who are receiving treatment for end-stage renal disease.

There has been a trend in recent years of providers not performing vascular access surgical procedures, and often patients turn to traditional hospital settings for these procedures only to find they are not deemed a priority. This can and has led to extraordinary wait times and poor access to this service. The reimbursement changes by CMS are a direct response to this trend and attempt to improve patient access, increase efficiency, and contain costs. Establishment of this single-specialty ASTC will improve the healthcare available within this community, it will improve the well-being of the patients it serves, and it will increase the access to available care for those in the surrounding communities who unexpectedly find themselves in need.

This ASTC is designed to continue to serve those NANI patients who have come to depend on quality care to facilitate their ability to receive dialysis and to ensure availability of care for those whose current providers elect to cease the provision of these services.

The market area, as defined by regulation, is 45 minutes from the location at which the ASTC will be established. This, technically, includes a substantial part of the Chicagoland area. However, historically, ESRD patients seek care close to home and within their immediate communities. This is a result of the effects of dialysis treatment on patients. Often patients deal with nausea and extreme fatigue after treatments, and the closer a facility is to their home, the better. One of NANI's core values is to ensure that patients are receiving the best possible care and to work with them so they may continue living/working within a relatively normal schedule.

The welfare of the patient remains the core priority for those in this industry and the ability to co-exist has always been key to this industry. This will remain the case. The expectation is the primary clientele served will be those already served by NANI in this immediate area and the ASTC will be available to patients from any other provider who find their access to these surgical services otherwise and unexpectedly compromised.

These procedures have not been sufficiently accommodated in hospital settings, and the result has been significant on patients. In the life span of a dialysis patient these procedures can be frequent and are often time sensitive. Because they are not high-reimbursement procedures,

patients fall victim to the whim of scheduling priorities and delays at hospitals. Establishing this surgery center, focused on vascular access needs of the community, solves that problem and ensures there is available care for those in need.

Alternatives, 77 ILL. Admin. Code 1110.230(c)

1. Exit the Marketplace

Too many providers are exiting the marketplace and that is one of the reasons why this application was filed and this alternative was rejected. Maintaining vascular access is literally a matter of life and death for many patients, and it is important to NANI that their patients have access to the best quality of care possible. The changes in reimbursement models by CMS seem to strongly encourage the relocation of these procedures to an ASTC setting. Hospital surgical suites on the other hand which certainly have benefits regarding the management of complications and limitation of infections are simply no longer a sustainable model.

NANI has hundreds of patients who rely on them to perform these surgical procedures that are necessary to maintain vascular access for dialysis. With so many providers exiting the marketplace there will be a need of this care and NANI and Illinois Vascular Care are committed to its provision. For these reasons, this alternative was rejected.

2. Utilize a Hospital Surgical Suite

This option produces challenges that we have described above with regard to access, and priority of patients. These procedures keep NANI patients alive by allowing them to continue their dialysis treatments when vascular access complications arise. The problem for hospitals is that because these procedures are not reimbursed at a high rate it is not out of the ordinary for these procedures to be either re-scheduled to inconvenient times for patients or for the patient to be delayed while the hospital performs more profitable procedures first. Additionally, the reason behind the CMS changes in reimbursement models is because the hospital setting has proven to increase costs while procedures in a ASTC setting can be performed at a lower cost and with the same results.

For these reasons, this alternative was rejected.

3. Rely on Available Capacity at Other Surgery Centers

A majority of surgery centers in the area focus upon 14 other identified categories of service for an ASTC rather than general procedures. In order for this alternative to work, other facilities would have to be willing to allow NANI doctors to use the procedure rooms in their facility to perform procedures that likely have lower reimbursement rates than other procedures they normally perform. As matter of simply economics, other facilities would not be willing or able to work with the patient population that NANI is dedicated too. The comorbidities and complexities of patients requiring this care are better served as a patient population by a staff and facility committed to this type of care.

For these reasons, this alternative was rejected.

4. Acquire an Existing ASTC

Another option that was considered was the acquisition of an existing Ambulatory Surgical Treatment Center. There are a limited number of existing ASTCs in this area, none of which are

committed to nor designed to meet the needs of the patient population being served by this proposed project. The likelihood is that to identify a sufficiently viable multi-room facility and then retrofit the facility to meet the needs of this patient population would exceed the costs of the proposed project. Additionally, since there is a fundamental need for facilities that are entirely committed to this population (to avoid delay or cancellation for the benefit of higher profit cases) it would result in the displacement of the patients and procedures being served by whatever facility were acquired. For these reasons, this alternative was not selected.

5. Project as Proposed

The project, as proposed, reflects the most cost-effective, patient-centered, comprehensive means of ensuring access to quality care for patients in need. It is designed to meet the needs of an existing patient population with sufficient capacity for further meeting the needs of the surrounding community. For these reasons, this alternative was selected.

Size of Project, 77 Ill. Admin. Code 1110.234

SIZE OF PROJECT				
DEPARTMENT/SERVICE	PROPOSED BGSF/DGSF	STATE STANDARD	DIFFERENCE	MET STANDARD?
ASTC	3,726	3,320-4,400	N/A	Yes

This project involves a modernization of what is currently shell office space to allow it to come into compliance with standards that will allow it to be licensed as an Ambulatory Surgical Treatment Center ("ASTC"). Two procedure rooms are envisioned, and the proposed project involves the conversion of existing space that is within the established state standard.

The design of the facility and the separation between clinical and non-clinical space is designed to maximize patient benefit while being respectful and appreciative of the applicable government standards.

This project expects to be found to be in compliance with the established State Standard.

Geographic Service Area, 77 Ill. Admin Code 1110.1540(c)

There is no formula need determination for the number of ASTCs and the number of surgical treatment rooms in a geographic service area under the rules established by the HFSRB.

The primary purpose of this project is to provide necessary health care to the residents of the geographic service area ("GSA") in which the ASTC will be located. The focus will be on providing vascular access procedures to the residents within the area immediately surrounding the ASTC as evidenced by the listed of zip codes of patients served by this practice.

Listed below, in accordance with 77 Ill. Admin. Code 1110.1540(c)(2)(A), is the GSA consisting of all zip code areas that are located within 45 minutes multi-directional travel time (under normal driving conditions) of the proposed site of the ASTC.

The zip codes and area within a 45-minute drive time of the facility are listed below. We have also included the 10-mile radius which is reflected in the proposed rules, yet to be enacted but seems reflective of the direction HFSRB intends to take in consideration of these projects.

Algonquin ASTC's 30 min 45 min & 10 mile Radius

ZIP Code	Country/Region	Population: total (2007) by ZIP Code
60135	United States	6765
60542	United States	14695
60539	United States	0
60503	United States	8779
60505	United States	64730
60502	United States	17586
60140	United States	11642
60510	United States	33197
60134	United States	30033
60175	United States	25781
60174	United States	35861
60177	United States	21398
60124	United States	14276
60136	United States	4152
60156	United States	34263
60123	United States	52203
60118	United States	20128
60102	United States	35005
60110	United States	38684
60446	United States	28447
60564	United States	51950
60504	United States	31702
60555	United States	14777
60563	United States	33041
60540	United States	44106
60490	United States	16974
60565	United States	44030
60440	United States	60908
60532	United States	28878
60517	United States	31546
60515	United States	27520
60516	United States	33675
60559	United States	26008
60439	United States	21593
60561	United States	24109
60527	United States	28548
60514	United States	9684
60521	United States	19178
60558	United States	11945
60185	United States	35278
60190	United States	11154
60184	United States	3090
60103	United States	38201
60187	United States	64065
60188	United States	43992
60139	United States	32598
60133	United States	38829

60108	United States	23123
60172	United States	25865
60120	United States	54654
60192	United States	904
60107	United States	36445
60010	United States	44279
60169	United States	3545
60195	United States	28706
60193	United States	40116
60194	United States	36027
60067	United States	36356
60137	United States	39513
60148	United States	52294
60157	United States	2958
60101	United States	38735
60191	United States	14157
60143	United States	9922
60007	United States	34607
60523	United States	9394
60181	United States	31362
60126	United States	45966
60162	United States	7831
60163	United States	4916
60164	United States	21045
60106	United States	23175
60666	United States	0
60173	United States	11578
60008	United States	22619
60005	United States	28179
60074	United States	37548
60056	United States	55424
60070	United States	16408
60018	United States	28886
60016	United States	57816
60004	United States	50433
60089	United States	46420
60090	United States	36267
60463	United States	13486
60464	United States	10332
60480	United States	5200
60465	United States	17563
60457	United States	12736
60455	United States	15282
60525	United States	30693
60526	United States	12623
60458	United States	13648
60501	United States	10882
60513	United States	18426

60534	United States	9960
60482	United States	10316
60415	United States	13606
60459	United States	26717
60453	United States	53325
60456	United States	4185
60638	United States	54048
60402	United States	57981
60632	United States	85858
60636	United States	48539
60621	United States	45284
60609	United States	76898
60619	United States	72597
60637	United States	55455
60653	United States	35769
60615	United States	43859
60154	United States	15770
60155	United States	8011
60104	United States	19583
60165	United States	4910
60160	United States	21930
60153	United States	25678
60141	United States	238
60546	United States	15088
60130	United States	15010
60305	United States	11098
60707	United States	41489
60131	United States	18303
60176	United States	11521
60171	United States	10048
60634	United States	72867
60706	United States	21587
60656	United States	26469
60631	United States	27482
60304	United States	17017
60301	United States	2008
60302	United States	30985
60804	United States	81992
60623	United States	113167
60644	United States	57681
60639	United States	89836
60651	United States	74934
60624	United States	44942
60641	United States	71426
60630	United States	53249
60646	United States	25499
60712	United States	12201
60068	United States	36520

60714	United States	29019
60026	United States	12877
60025	United States	39209
60015	United States	28450
60062	United States	39429
60035	United States	33149
60053	United States	21827
60029	United States	62
60093	United States	19639
60077	United States	24544
60076	United States	32027
60203	United States	4482
60091	United States	27480
60082	United States	92
60022	United States	8466
60608	United States	83243
60647	United States	96444
60612	United States	41693
60622	United States	78448
60607	United States	19240
60616	United States	51579
60614	United States	64007
60661	United States	7081
60606	United States	2011
60654	United States	3
60602	United States	853
60610	United States	54860
60618	United States	96218
60625	United States	87929
60659	United States	38267
60645	United States	41278
60657	United States	67561
60613	United States	47814
60640	United States	75118
60660	United States	44621
60626	United States	57550
60605	United States	17879
60604	United States	348
60603	United States	423
60601	United States	6553
60611	United States	26878
60202	United States	30965
60201	United States	39631
60043	United States	2532
60208	United States	1916
60180	United States	1855
60142	United States	16213
60014	United States	54428

60012	United States	10921
60013	United States	28443
60072	United States	810
60050	United States	41517
60021	United States	6451
60042	United States	10187
60051	United States	14837
60084	United States	15787
60073	United States	48245
60041	United States	11650
60020	United States	7686
60081	United States	9315
60046	United States	35988
60047	United States	43948
60060	United States	41219
60030	United States	36376
60061	United States	24162
60069	United States	8709
60048	United States	32492
60031	United States	40480
60045	United States	22778
60040	United States	5306
60037	United States	992
60044	United States	12102
60064	United States	15703
60088	United States	17001
60085	United States	77056

ZIP Codes Within a 10 mile radius	Population: total (2007) by ZIP Code
60133	38829
60108	23123
60172	25865
60120	54654
60192	904
60107	36445
60010	44279
60169	3545
60195	28706
60193	40116
60194	36027
60067	36356
60157	2958
60101	38735
60191	14157
60143	9922
60007	34607
60106	23175
60173	11578
60008	22619
60005	28179
60074	37548
60056	55424
60070	16408
60018	28886
60016	57816
60004	50433
60089	46420
60090	36267
60047	43948

Service Demand, 77 Ill. Admin. Code 1110.1540(d)

Historical Referrals

Enclosed are physician referral letters that attest to a total of 2,011 treatments of which 839 have been historically referred for the services that will be provided at this ASTC and which would, upon HFSRB approval, be referred to this licensed ASTC, in each of the coming two years. Included with the referral letter are the patient originations by zip code and the verification from the referring physician that these patients and procedures have not been utilized to justify any other CON application.

Nephrology Associates of Northern Illinois, LTD

120 W 22nd Street · Oak Brook, IL 60523 · Phone 630-573-5000 · Fax 630-368-0280

November 30, 2017

Ms. Kathryn J. Olson, Chair
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, 2nd Floor
Springfield, IL 62761

Dear Ms. Olson:

I am writing on behalf of my practice, Nephrology Associates of Northern Illinois, LTD, in support of the proposed Illinois Vascular Care Center. Over the past 12 months, our nephrologists have referred 839 procedures to the current facility. Due to space and time restrictions the number of patients we can send to the current facility is limited. We have actually had to turn patients away due to capacity issues, which is part of the reason we are pursuing the current project. The attached table lists the zip codes of residence for these patients.

If the Health Facilities and Services Review Board were to approve the establishment of the proposed Illinois Vascular Care Surgery Center, I would anticipate referring at least 2,011 procedures to Illinois Vascular Care Center in each of the two years following project completion. This is based on both the expanded hours of service and the projected increase in patient volume which shall naturally result from the proposed geographic service area of Illinois Vascular Care Center.

I can also verify that these patient referrals have not been used to support another pending or approved Certificate of Need application.

The information in this letter is based upon my personal knowledge and is true and correct to the best of my knowledge.

Sincerely,

Mohamed Rahman, M.D.

Illinois Vascular Care LLC
Historical Rolling 12 Patient ZIP

Zip Code	Patients
43524	1
46706	4
46714	1
46725	2
46733	1
46740	1
46742	1
46745	1
46748	1
46750	1
46766	1
46774	1
46802	2
46803	3
46804	1
46806	4
46807	1
46808	0
46814	1
46825	1
46845	1
46952	2
46953	2
46989	1
46992	1
53181	1
60004	31
60005	8
60007	64
60008	15
60010	10
60012	2
60013	6
60014	5
60016	26
60018	21
60020	2
60025	7
60030	8
60035	2
60041	1
60042	3
60046	5
60047	6
60050	8
60051	1
60053	4
60056	14
60060	4
60062	4
60064	2
60067	20
60068	4
60070	10
60073	4
60074	21
60077	1
60079	1
60083	1
60084	6
60085	20
60087	5
60089	7
60090	13
60097	2
60098	13
60099	8
60101	20
60102	7
60103	16
60106	2
60107	25
60108	10
60110	38
60118	1
60120	43
60123	48
60124	8
60131	7
60133	18
60136	6
60139	3
60142	6
60143	13
60148	2
60152	3
60156	10
60169	43
60172	9
60173	7
60176	1
60177	7
60181	3
60188	2
60191	9
60192	2
60193	30
60194	13
60195	1
60440	2
60490	2
60491	1
60523	1
60603	1
60618	2
60629	3
60630	5
60631	2
60634	3
60646	3
60647	1
60656	3
60706	2
60712	1
60714	9
61114	1
Total	887

Illinois Vascular Care LLC
Future Patient ZIP

Zip Code	Patients
00791	1
07650	1
27606	1
33913	1
34207	1
39110	1
47022	1
49512	1
53142	1
53144	2
53179	2
53208	1
53209	1
53212	2
53214	1
54952	1
54961	2
60002	10
60004	27
60005	25
60006	3
60007	66
60008	14
60010	12
60012	6
60013	9
60014	23
60015	4
60016	27
60017	1
60018	40
60020	2
60025	14
60026	3
60030	11
60031	19
60033	15
60034	2
60035	1
60041	7
60042	2
60045	1
60046	4
60047	14
60048	3
60050	24
60051	14
60053	3
60056	36
60060	13
60061	9
60062	9
60064	48
60067	17
60068	6
60069	4
60070	9
60071	2
60073	35
60074	29

Zip Code	Patients
60076	4
60077	1
60079	2
60081	2
60083	7
60084	12
60085	186
60087	50
60089	11
60090	59
60091	2
60096	2
60097	2
60098	30
60099	62
60101	8
60102	24
60103	19
60106	10
60107	54
60108	19
60110	76
60112	7
60115	14
60118	12
60120	75
60123	87
60124	11
60131	7
60133	41
60135	6
60136	10
60139	14
60140	18
60141	1
60142	42
60143	9
60145	3
60148	1
60152	6
60156	14
60157	1
60160	2
60164	1
60165	1
60169	41
60172	25
60173	13
60176	1
60177	13
60178	11
60181	2
60184	1
60188	8
60191	22
60192	6
60193	49
60194	27
60195	2

Zip Code	Patients
60201	3
60202	3
60302	1
60402	1
60409	4
60411	1
60425	1
60433	4
60435	4
60440	1
60455	1
60490	1
60532	6
60534	1
60550	2
60555	1
60556	1
60561	1
60563	7
60586	1
60609	1
60614	3
60618	1
60623	1
60625	1
60628	4
60629	2
60630	1
60631	3
60632	1
60634	2
60637	3
60638	1
60639	4
60641	1
60642	1
60644	1
60645	1
60646	1
60647	1
60649	1
60656	2
60657	1
60659	2
60706	2
60707	1
60714	18
60804	1
61008	1
61068	1
61071	1
61080	1
61101	1
61103	1
61109	1
62881	4
63134	1
85331	1
92236	1

Total Patients 2,011

Treatment Room Need Assessment, 77 Ill. Admin. Code 1110.150(f)

UTILIZATION					
	DEPT./ SERVICE	HISTORICAL UTILIZATION (PATIENT DAYS) (TREATMENTS) ETC.	PROJECTED UTILIZATION	STATE STANDARD	MEET STANDARD?
YEAR 1	ASTC	2,011	79.80%	>1500 Hours	Yes
YEAR 2	ASTC	2,031	80.60%	>1500 Hours	Yes

The number of 2,011 predicted treatments are derived from patients and procedures envisioned emanating directly from current patients and individuals receiving care from NANI physicians and are reflected in the physician referral letters. The average procedure time of 90 minutes was derived from evaluating already maintained documentation (attached below) tracking patient procedures. With an envisioned 252 days open to perform procedures and 7.5 hours each date, the resulting 2,011 procedures would result in 3,016.50 hours or 79.80% of the available 2018 hours the surgical suite could be utilized. In year 2 the resulting 2,031 procedures would result in 3,046.50 hours the surgical suite could be utilized or 80.60%.

RMB AC

Admit Date Range in January , 2017

	TIME AVERAGE in MINUTES							
	ARRIVAL vs SCHEDULE	CHECKIN to ASSESMENT	ASSESMENT to PROC 1	PROC 1 DURATION	PROC 2 DURATION	PROC 3 DURATION	ALL PROCS TIME	TOTAL CASE TIME
Angiography	-13	13	56	10			10	115
Angioplasty	-14	16	50	25	6		25	143
Endovascular Stent Implantation	-32	17	78	27			27	172
HD Catheter Placement	-21	28	38	19			19	133
HD Catheter Removal	-6	15	19	9			9	76
Thrombectomy	-14	24	58	55			55	186
Vascular Mapping	1	14	83	6			6	119
	-14	**17**	**50**	**24**	**6**		**24**	**140**
Angioplasty	-12	31	42	24			24	152
Endovascular Stent Implantation	-34	51	93	76			76	262
HD Catheter Exchange	11	14	33	17			17	124
HD Catheter Placement	-60	30	56	30			30	165
Thrombectomy	-42	12	61	99	8		99	212
	-18	**30**	**48**	**34**	**8**		**34**	**164**
Angiography	-3	3	23	36			36	108
Angioplasty	-12	15	39	22			22	127
Thrombectomy	-22	-18	104	44			44	167
	-12	**12**	**42**	**24**			**24**	**128**
CENTER AVERAGE	**-14**	**18**	**47**	**26**	**7**		**26**	**141**
NATIONAL AVERAGE	**-17**	**26**	**48**	**21**	**19**	**40**	**21**	**127**

Illinois Vascular Care LLC	Center Average in Minutes
Assessment to Procedure	47
Procedure Duration	26
Room Turn	17
Total Procedure Time	90

Utilization Caluation

Operational Days	252
Avg. Hours of Operation	7.5
Procedure Hours per OR	1890
Number of OR	2
Total Procedure Hours	3780
Average Procedure Time (hours)	1.5
80% Utilization Threshold	2016
2018 Predicted Procedures	2011
2018 Utilization	79.80%
2019 Predicted Procedures	2031
2019 Utilization	80.60%

Service Accessibility, 77 Ill. Admin. Code 1110.1540(g)

There is no doubt that this application will receive a negative finding on the criteria of service accessibility because there are other surgery centers that exist within the identified GSA that are not meeting the established utilization targets reflected in the Board's rules. This is a common challenge for virtually all ASTC applications.

However, what sets this application apart is the defined patient population and the dedication of the facility to vascular access procedures. As discussed in the alternatives section, these patients require regular access to care that is absolutely necessary to sustain their ability to live. Being dependent on either a hospital or another facility dedicated to procedures beyond vascular access creates a roadblock to the prompt and efficient care that patients deserve. Those roadblocks include wildly inconvenient procedure times, rescheduling, and being "bumped" from the schedule altogether in favor of higher reimbursable procedures.

The changes by CMS to the reimbursement model for these procedures has forced providers to reassess their willingness to perform them. NANI is taking a pro-active approach to ensure that their patients continue to have access to essential care, and that they provide that care in dedicated ASTC where it is far more cost effective. To properly assess the worthiness of this project requires the Board members to go beyond the numbers and determine whether or not these services are truly needed within the community and whether those needs can practically and principally be met by existing facilities.

The capacity of surrounding ASTCs should not determine whether this project is warranted because it will be the only facility in the area dedicated to vascular access procedures. This will increase access to necessary care for a vulnerable patient population.

Name	Address	City	State	Zip	Distance from Proposed Facility (in minutes)
Advantage Health Care	203 EAST IRVING PARK ROAD	WOOD DALE	IL	60191	19
Aiden Center for Day Surgery	1580 WEST LAKE STREET	ADDISON	IL	60101	17
Apollo Surgical Center	2750 South River Road	Des Plaines	IL	60016	20
Ashton Center for Day Surgery	1800 McDonough Road	Hoffman Estates	IL	60192	15
Barrington Pain and Spine Institute	600 Hart Road	Barrington	IL	60010	19
Chicago Surgical Clinic, Ltd.	129 West Rand Road	Arlington Heights	IL	60005	13
Illinois Hand & Upper Extremity Center	515 West Algonquin Road	Arlington Heights	IL	60005	10
Northwest Community Day Surgery	675 WEST KIRCHOFF ROAD	ARLINGTON HEIGHTS	IL	60005	12
Northwest Endoscopy Center	1415 South Arlington Heights Road	Arlington Heights	IL	60005	14
Northwest Surgicare Healthsouth	1100 WEST CENTRAL ROAD	ARLINGTON HEIGHTS	IL	60005	13
Presence Lakeshore Gastroenterology	150 North River Road	Des Plaines	IL	60016	25
Regenerative Surgery Center	1455 EAST GOLF ROAD	DES PLAINES	IL	60016	23
Schaumburg Surgery Center	929 West Higgins Road	Schaumburg	IL	60195	13
The Hoffman Estates Surgery Center	1595 North Barrington Road	Hoffman Estates	IL	60194	14

ASTC Facilities within a 10 mile radius

ASTC Facilities within 45 minutes

Name	Address	City	State	Zip	Distance from Proposed Facility (in minutes)
25 East Same Day Surgery	25 EAST WASHINGTON	CHICAGO	IL	60602	59
Advanced Ambulatory Surgical Center	2333 NORTH HARLEM AVENUE	CHICAGO	IL	60707	33
Advantage Health Care	203 EAST IRVING PARK ROAD	WOOD DALE	IL	60191	19
Advocate Condell Ambulatory Surgical Treatment Center	825 South Milwaukee	Libertyville	IL	60048	35
Advocate Sherman ASTC	1445 North Randall Road	Elgin	IL	60123	22
Aiden Center for Day Surgery	1580 WEST LAKE STREET	ADDISON	IL	60101	17
Albany Medical Surgical Center	5086 NORTH ELSTON AVENUE	CHICAGO	IL	60630	29
Algonquin Road Surgery Center	2550 ALGONQUIN ROAD	LAKE IN THE HILLS	IL	60156	27
Ambulatory Surgicenter of Downers Grove	4333 MAIN STREET	DOWNERS GROVE	IL	60515	28
Apollo Surgical Center	2750 South River Road	Des Plaines	IL	60016	21
Ashton Center for Day Surgery	1800 McDonough Road	Hoffman Estates	IL	60192	15
Barrington Pain and Spine Institute	600 Hart Road	Barrington	IL	60010	19
Belont/Harlem Surgery Center	3101 NORTH HARLEM AVENUE	CHICAGO	IL	60634	32
Cadence Ambulatory Surgery Center	27650 Ferry Road	Warrenville	IL	60555	32
Castle Surgicenter	2111 OGDEN AVENUE	AURORA	IL	60504	48
Chicago Prostate Cancer Surgery Center	815 PASQUINELLI DRIVE	WESTMONT	IL	60559	30
Chicago Surgical Clinic, Ltd.	129 West Rand Road	Arlington Heights	IL	60005	13
Children's Outpatient Services at Westchester	2301 ENTERPRISE DRIVE	WESTCHESTER	IL	60154	32
DMG Pain Management Surgery Center, LLC	2490 Rollingridge, Suite 200	Naperville	IL	60564	48
Dreyer Ambulatory Surgery Center	1221 NORTH HIGHLAND AVENUE	AURORA	IL	60506	41
DuPage Eye Surgery Center	2015 North Main Street	Wheaton	IL	60187	28
DuPage Medical Group Surgery Center	1801 South Highland	Lombard	IL	60148	27
DuPage Vascular Care	7425 Janes Avenue	Woodridge	IL	60517	30
Elgin Gastroenterology Endoscopy Center	745 Fletcher Drive	Elgin	IL	60123	23
Elmhurst Foot & Ankle	340 WEST BUTTERFIELD ROAD	ELMHURST	IL	60148	27
Elmhurst Outpatient Surgery Center	1200 SOUTH YORK ROAD	ELMHURST	IL	60126	31
Elmwood Park Same Day Surgery Center	1614 NORTH HARLEM AVENUE	ELMWOOD PARK	IL	60707	37
Eye Surgery Center of Hinsdale	950 North York Road	Hinsdale	IL	60521	35
Forest Medical-Surgical Center	9050 West 81st Street	Justice	IL	60458	46
Fox Valley Orthopaedic Associates	2525 KANEVILLE ROAD	GENEVA	IL	60134	46
Fullerton Kimball Medical & Surgical Center	3412 WEST FULLERTON	CHICAGO	IL	60647	44

Fullerton Surgery Center	4849 West Fullerton	Chicago	IL	60639	43
Gold Coast Surgicenter	845 NORTH MICHIGAN AVENUE	CHICAGO	IL	60611	59
Golf Surgical Center	8901 WEST GOLF ROAD	DES PLAINES	IL	60016	26
Grand Avenue Surgical Center	15 WEST GRAND AVENUE	CHICAGO	IL	60610	55
Hawthorne Place Outpatient Surgery Center	Center Drive and Lakeview Parkway	Vernon Hills	IL	60061	32
Hinsdale Surgical Center	12 Salt Creek Drive	HINSDALE	IL	60521	33
Hispanic-American Endoscopy Center	3536 West Fullerton	Chicago	IL	60647	44
Hyde Park Same Day Surgicenter	1644 EAST 53RD STREET	CHICAGO	IL	60615	63
Illinois Hand & Upper Extremity Center	515 West Algonquin Road	Arlington Heights	IL	60005	10
Illinois Sports Medicine & Orthopedic Surgery Center	9000 Waukegan Road	Morton Grove	IL	60053	29
Lakeshore Surgery Center	7200 NORTH WESTERN AVENUE	CHICAGO	IL	60645	48
Lindenhurst Surgery Center	1050 RED OAK LANE	LINDENHURST	IL	60046	53
Loyola Ambulatory Surgery Center at Oakbrook	1650 South Ardmore Avenue	Villa Park	IL	60181	28
Loyola University Ambulatory Surgery Center	2160 SOUTH FIRST AVENUE	MAYWOOD	IL	60153	40
Lurie Children's Hospital ASTC	1121 Techny Road	Northbrook	IL	60062	29
Midwest Center for Day Surgery	3811 HIGHLAND AVENUE	DOWNERS GROVE	IL	60515	27
Midwest Endoscopy Center	1243 Rickert Drive	NAPERVILLE	IL	60540	41
Naperville Fertility Center	1175 East Diehl Road	Naperville	IL	60540	30
Naperville Surgical Centre	1263 RICKERT DRIVE	NAPERVILLE	IL	60540	41
North Shore Endoscopy Center	988 Carriage Park Avenue	LAKE BLUFF	IL	60144	42
North Shore Surgical Center	3725 West Touhy Avenue	Lincolnwood	IL	60712	38
Northwest Community Day Surgery	675 WEST KIRCHOFF ROAD	ARLINGTON HEIGHTS	IL	60005	12
Northwest Endoscopy Center	1415 South Arlington Heights Road	Arlington Heights	IL	60005	14
Northwest Surgicare Healthsouth	1100 WEST CENTRAL ROAD	ARLINGTON HEIGHTS	IL	60005	13
Northwestern Grayslake Ambulatory Surgery Center	1475 EAST BELVIDERE ROAD	GRAYSLAKE	IL	60030	42
Northwestern Grayslake Endoscopy Center	1475 East Belvidere Road	Grayslake	IL	60030	42
Novamed Center for Reconstructive Surgery	6309 WEST 95TH STREET	OAK LAWN	IL	60453	47
Novamed Surgery Center of Chicago Northshore	3034 WEST PETERSON	CHICAGO	IL	60659	38
Novamed Surgery Center of River Forest	7427 WEST LAKE STREET	River Forest	IL	60305	39
Oak Brook Surgical Centre	2425 WEST 22ND STREET	Oak Brook	IL	60523	29
Oak Lawn Endoscopy Center	9921 SOUTHWEST HIGHWAY	OAK LAWN	IL	60453	49
Palos Hills Surgery Center	10330 South Roberts Road	Palos Hills	IL	60465	46
Palos Surgicenter	7340 WEST COLLEGE DRIVE	PALOS HEIGHTS	IL	60463	53
Peterson Medical Surgicenter	2300 West Peterson Avenue	Chicago	IL	60659	48
Presence Lakeshore Gastroenterology	150 North River Road	Des Plaines	IL	60016	25

Ravine Way Surgery Center	2350 Ravine Way	Glenview	IL	60025	29
Regenerative Surgery Center	1455 EAST GOLF ROAD	OES PLAINES	IL	60016	22
River North Same Day Surgery Center	ONE EAST ERIE STREET	CHICAGO	IL	60611	54
Rogers Park One Day Surgery Center	7616 NORTH PAULINA	CHICAGO	IL	60626	53
Rush Oak Brook Surgery Center	2011 York Road	Oak Brook	IL	60521	34
Rush Surgicenter - Professsional Building	1725 WEST HARRISON	CHICAGO	IL	60612	54
Salt Creek Surgery Center	530 NORTH CASS AVENUE	WESTMONT	IL	60559	33
Schaumburg Surgery Center	929 West Higgins Road	Schaumburg	IL	60195	13
Six Corners Same Oay Surgery	4211 NORTH CICERO AVENUE	CHICAGO	IL	60647	33
South Loop Endoscopy & Wellness Center	2336 South Wabash	Chicago	IL	60616	63
Southwestern Medical Center	7456 South State Road	BEOFORO PARK	IL	60638	58
The Center for Surgery	475 EAST OIEHL ROAD	NAPERVILLE	IL	60563	31
The Glen Endoscopy Center	2551 COMPASS ROAD	GLENVIEW	IL	60026	29
The Hoffman Estates Surgery Center	1595 North Barrington Road	Hoffman Estates	IL	60194	14
The Surgery Center at 900 North Michigan Avenue	60 EAST DELAWARE	CHICAGO	IL	60611	56
United Urology Center LaGrange	120 North LaGrange Road	LaGrange	IL	60525	39
Valley Ambulatory Surgery Center	2210 OEAN STREET	5t. Charles	IL	60175	40
Vernon Square Surgicenter	230 Center Drive	VERNON HILLS	IL	60061	33
Western Oiversey Surgical Centei	2744 NORTH WESTERN AVENUE	Chicago	IL	60647	42
Winchester Endoscopy Cente	1870 Winchester Roac	Libertyville	IL	60048	37

Unnecessary Duplication/ Maldistribution/ Impact to Area Providers, 77 Ill. Admin. Code 1110.1540 (h)

As is well documented the number of patients seeking care for end stage renal disease continues to rise in our county and Illinois specifically. This substantial population of ESRD patients and the frequency with which these patients will require vascular access procedures provides strong basis to approve this project. Historically, many providers have been able to coexist in serving their patient populations, each reserved to smaller geographic areas. As discussed in the Purpose of the Project section, ESRD patients are susceptible to extreme fatigue and nausea after dialysis treatment and considerable travel creates unnecessary complications for those patients. The attached articles show that the need for access to this care is of fundamental importance, and this is not the time to decrease access to this care for this patient population.

Given the importance of vascular access procedures for this vulnerable patient population, the fundamental question for the Board is whether or not they believe existing facilities have the capability to meet the needs of these patients. The answer is no, they do not. As discussed in the Alternatives section, these patients require regular access to care that is fundamentally necessary to ability to receive the dialysis treatment that keeps them alive while waiting for a kidney transplant. Hospitals and existing facilities have already proven to be unable to meet the needs of these patients as it is not economically feasible for them to serve these patients. In many cases this is the result of the patient population being a high Medicaid population, the procedures being lower reimbursement procedures than other sub-specialties, and as a result patients are "bumped" for more profitable procedures.

Performing these procedures in a ASTC setting is far more cost effective option when compared to a hospital surgical suite. Given the mission of the Board to increase access to care, and contain costs this project is the embodiment of that mission. Accordingly, we will invite the Board members to look past the question of whether or not capacity exists at other facilities and to evaluate whether there is a need for this project and whether or not it will increase access to necessary care for a vulnerable patient population. We strongly believe that answer to these questions is yes.

None of the existing surgery center are designed for or dedicated to serving the patient population, making the likelihood of maldistribution minimal, and would greatly diminish any impact to area providers.

Dedicated outpatient vascular access center decreases hospitalization and missed outpatient dialysis treatments

R Mishler[1], JJ Sands[2], NJ Ofsthun[2], M Teng[2], D Schon[1] and JM Lazarus[2]

[1]*Arizono Kidney Disease and Hypertension Center, Phoenix, Arizona, USA and* [2]*Fresenius Medical Care North America, Lexington, Massachusetts, USA*

Dedicated outpatient vascular access centers (VAC) specializing in percutaneous interventions (angiography, thrombectomy, angioplasty and catheter placement) provide outpatient therapy that can obviate the need for hospitalization. This paper reports the impact of one VAC staffed by interventional nephrologists on vascular access-related hospitalization and missed outpatient dialysis treatments. We performed a retrospective analysis of vascular access-related hospitalized days and missed vascular access-related outpatient dialysis treatments from 1995 to 2002 in 21 Phoenix Arizona Facilities (5928 cumulative patients) and 1275 cumulative Fresenius Medical Care North America (FMCNA) facilities (289 454 cumulative patients) to evaluate the impact of the introduction of a VAC in Phoenix. Vascular access-related hospitalized days/patient year and missed dialysis treatments/patient year declined from 1997 to 2002 across all access types. The decline was greater in Phoenix and coincided with the creation of a VAC in 1998. By 2002, there were 0.57 fewer hospitalized days/patient year and 0.29 fewer missed treatments/patient year than in the national sample ($P<0.01$). In 2002, the relative risk for vascular access hospitalized days was 0.38 (95% confidence interval (CI) 0.27–0.5) ($P<0.01$) and for vascular access-related missed outpatient dialysis treatments was 0.34 (95% CI 0.24–0.49) ($P<0.01$) in Phoenix vs FMCNA after adjustment for age, gender, diabetic status duration of dialysis and access type. VAC development was associated with a significant decrease in vascular access-related hospitalization and missed outpatient dialysis treatments. Further studies are necessary to demonstrate this effect in other communities.

Kidney International (2006) **69**, 393–398. doi:10.1038/sj.ki.5000066

KEYWORDS: dialysis access; vascular access center; hemodialysis; interventional nephrology; arteriovenous fistula; polytetrafluoroethylene graft

Correspondence: *R Mishler, AKDHC ASC, 3320 N Second Street, Phoenix, Arizona 85012, USA. E-mail: rmishler@pal.net*

Received 10 November 2004; revised 14 August 2005; accepted 15 September 2005

Hemodialysis access failure remains a major source of morbidity and hospitalization for end stage renal disease (ESRD) patients. ESRD patients undergo more than one access procedure per patient year, with annual costs estimated at greater than $1.5 billion.[1] Access failure is second only to cardiovascular disease as a cause of hospitalization and in 2001 accounted for 40% of ESRD patient hospitalizations.[2] The frequent need for emergent procedures strains the healthcare delivery system and its dialysis facilities, hospitals, surgical units and interventional radiology suites. Patients requiring access interventions are frequently placed on supplemental operating room schedules or have to wait up to 48–72 h for procedures. This often results in missed dialysis treatments or catheter placement to allow emergent dialysis. In recognition of these problems, groups throughout the US and Europe have explored other delivery models to streamline vascular access care.

One approach to improving vascular access intervention has been the development of dedicated outpatient vascular access center (VAC).[3,4] These centers specialize in percutaneous interventions (angiography, thrombectomy, angioplasty and catheter placement). Some centers also provide surgical access creation and revision. Many of the interventionists in these centers are nephrologists who have been trained in endovascular techniques.[5] The safety and efficacy of the procedures performed in these outpatient centers is well documented in the literature.[6–9] However, there are little published data on the impact of these centers on vascular access-related hospitalization, missed dialysis treatments or the cost of care. The purpose of this paper is to evaluate the impact of a dedicated outpatient VAC in Phoenix, AZ on vascular access care delivery, hospitalization and missed outpatient dialysis treatments.

RESULTS

Phoenix patients were more likely to be older, Caucasian, diabetic and have AV fistula (AVF) or central venous catheters (CC) than the national Fresenius Medical Care North America (FMCNA) cohort (Tables 1 and 2). There was no significant difference in mean vascular access-related

Table 1 | Patient demographics

	Patient demographics											
	Patient age (Mean ± s.d.)			% Male gender			% Caucasian			% Diabetic		
Year	Phoenix	FMCNA	P	Phoenix	FMCNA	P	Phoenix	FMCNA	P	Phoenix	FMCNA	P
1995	60.3 ± 15.1	58.9 ± 15.6	<0.01	51.7	51.5	NS	73.7	56.4	<0.01	50.6	44.7	<0.01
1996	60.9 ± 15.1	59.2 ± 15.6	<0.01	52.0	51.5	NS	78.0	56.7	<0.01	52.1	46.6	<0.01
1997	61.3 ± 14.9	59.5 ± 15.5	<0.01	51.4	51.8	NS	80.8	56.8	<0.01	52.7	48.3	<0.01
1998	60.9 ± 15.4	59.9 ± 15.5	<0.01	51.6	52.2	NS	84.0	56.9	<0.01	54.4	49.6	<0.01
1999	61.4 ± 15.2	60.2 ± 15.6	<0.01	54.8	52.7	NS	86.1	57.2	<0.01	54.9	50.6	<0.01
2000	62.2 ± 15.4	60.4 ± 15.5	<0.01	55.0	52.9	NS	86.1	56.4	<0.01	55.6	51.7	<0.01
2001	62.5 ± 15.2	60.6 ± 15.5	<0.01	55.6	53.2	<0.05	86.8	56.5	<0.01	57.6	53.3	<0.01
2002	62.2 ± 15.2	60.8 ± 15.5	<0.01	57.4	53.4	<0.01	89.0	56.8	<0.01	56.7	54.4	<0.05

NS, not significant.

Table 2 | Access type (%)

	Access type (%)						
	Phoenix			FMCNA			
Year	AV fistula	AV graft	Central catheter	AV fistula	AV graft	Central catheter	P
1995	24.1	44.4	31.5	22.4	61.6	16.0	<0.01
1996	23.6	40.3	36.0	21.5	58.7	19.8	<0.01
1997	25.0	39.7	35.3	21.5	55.9	22.5	<0.01
1998	26.7	41.3	32.1	22.8	52.3	25.0	<0.01
1999	29.6	41.9	28.5	24.5	48.7	26.9	<0.01
2000	32.6	37.1	30.3	27.0	45.2	27.8	<0.01
2001	37.2	32.4	30.4	29.3	41.7	28.9	<0.01
2002	40.7	29.1	30.2	31.5	39.1	29.3	<0.01

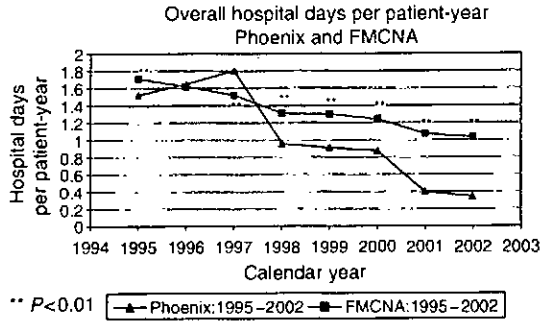


Figure 1 | Vascular access-related hospital days per patient-year.

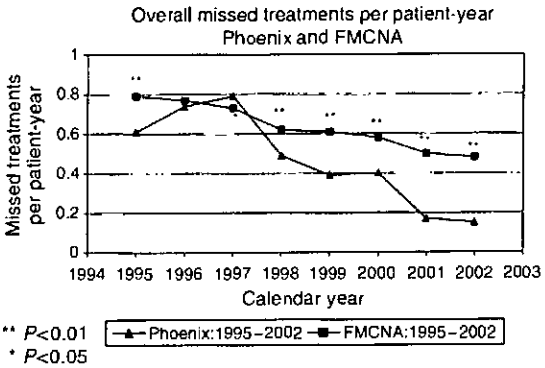


Figure 2 | Vascular access-related missed dialysis treatments per patient-year.

hospitalized days per patient year from 1995 to 1997 or mean missed outpatient hemodialysis treatments per patient year (1996–1998) between Phoenix (AZ) patients and the national sample. Vascular access-related hospitalized days per patient year and missed outpatient hemodialysis treatments per patient year then gradually declined in both groups. This decline was greater in the Phoenix area, resulting in significantly fewer missed vascular access-related FMCNA outpatient dialysis treatments per patient year and hospitalized days per patient year than seen in the national cohort (Figures 1 and 2). AVF, prevalence increased in Phoenix and the FMCNA cohort, beginning in 1997 and 1998 and continuing through 2002. This increase was more pronounced in Phoenix than the national FMCNA cohort (Table 2). Dialysis catheter use was higher in Phoenix than in the national cohort throughout the study period. This difference gradually declined (31.5% catheters in Phoenix vs 16% nationally in 1995; 30.2% catheters in Phoenix vs 29.3% catheters nationally in 2002) due to a marked increase in catheter use in the national cohort and a modest decline in catheter use in Phoenix during this time period (Table 2).

Decreases in hospitalized days and missed vascular access-related FMCNA outpatient dialysis treatments however were evident in all access types, but were more pronounced in Phoenix, resulting in significantly fewer vascular access-related missed outpatient treatments per patient year and hospitalized days per patient year for AVF, AV graft, and CC patients than in the national FMCNA cohort (Table 3). These changes coincided with the creation of the VAC in 1998 and accelerated in 2000 with the full accreditation of the Ambulatory Surgery Center (ASC).

Declines in vascular access-related hospitalization were also apparent on a facility-specific basis, resulting in 0.64 fewer vascular access-related hospitalized days per patient year in 2001 and 0.57 fewer vascular access-related hospitalized days per patient year in 2002 than in the national sample (Table 4). Similarly, missed vascular access-related FMCNA outpatient dialysis treatments per patient year were significantly lower in Phoenix (AZ) facilities than in the

Table 3 | Vascular access-related hospitalized days and vascular access-related missed dialysis treatment with breakdown by access type

	Overall hosp. days/patient-year			Overall missed rx/patient-year		
Calendar year	Phoenix	FMCNA	*P*-value	Phoenix	FMCNA	*P*-value
AV fistula patients						
1995	0.62	0.64	NS	0.2	0.28	<0.05
1996	0.77	0.56	<0.01	0.32	0.26	NS
1997	0.48	0.59	<0.05	0.18	0.27	<0.01
1998	0.41	0.5	<0.05	0.17	0.24	<0.05
1999	0.23	0.53	<0.01	0.12	0.25	<0.01
2000	0.6	0.51	<0.05	0.25	0.24	NS
2001	0.12	0.43	<0.01	0.06	0.2	<0.01
2002	0.09	0.45	<0.01	0.04	0.21	<0.01
AV graft patients						
1995	1.71	1.94	<0.01	0.66	0.9	<0.01
1996	1.66	1.8	NS	0.81	0.85	NS
1997	2.03	1.59	<0.01	0.94	0.76	<0.01
1998	1.05	1.34	<0.01	0.56	0.63	NS
1999	1.08	1.31	<0.01	0.46	0.62	<0.01
2000	0.75	1.27	<0.01	0.36	0.58	<0.01
2001	0.49	1.11	<0.01	0.2	0.52	<0.01
2002	0.32	1.05	<0.01	0.14	0.49	<0.01
Catheter patients						
1995	2.23	3.52	<0.01	1.08	1.65	<0.01
1996	2.41	3.07	<0.01	1.11	1.47	<0.01
1997	2.73	2.95	<0.05	1.26	1.37	NS
1998	1.52	2.5	<0.01	0.74	1.17	<0.01
1999	1.58	2.41	<0.01	0.67	1.12	<0.01
2000	1.56	2.29	<0.01	0.69	1.07	<0.01
2001	0.77	2.03	<0.01	0.34	0.92	<0.01
2002	0.83	1.96	<0.01	0.38	0.92	<0.01

NS, not significant.

Table 4 | Vascular access-related hospitalized days per patient-year

	VA hospitalization days per patient-year				
	Phoenix		FMCNA		
Calendar year	*N* Fac	Mean ± s.d.	*N* Fac	Mean ± s.d.	*P*-value
1995	13	1.44 ± 0.94	492	1.98 ± 1.76	0.0689**
1996	13	1.57 ± 0.91	540	1.97 ± 2.49	0.1590**
1997	15	1.62 ± 1.02	621	1.82 ± 1.65	0.4907**
1998	14	1.13 ± 0.63	695	1.54 ± 1.51	0.0325
1999	14	0.93 ± 0.74	757	1.48 ± 1.67	0.0165
2000	16	0.92 ± 0.85	836	1.35 ± 1.44	0.0684**
2001	17	0.55 ± 0.52	932	1.19 ± 1.28	<0.01
2002	17	0.57 ± 0.49	989	1.14 ± 1.30	<0.01

**P-value > 0.05 means that the means in two populations are not significantly different at 0.05 significance level.

national sample (0.31 fewer missed treatments/patient year in 2001 and 0.29 fewer missed treatments/patient year in 2002) (Table 5). Poisson models demonstrated a markedly lower relative risk of experiencing vascular access-related hospital days and vascular access-related missed outpatient dialysis treatments in Phoenix compared to the FMCNA sample in

Table 5 | Vascular access related missed dialysis treatments per patient-year

	VA missed treatments per patient-year				
	Phoenix		FMCNA		
Calendar year	*N* Fac	Mean ± s.d.	*N* Fac	Mean ± s.d.	*P*-value
1995	13	0.58 ± 0.45	492	0.95 ± 0.88	0.0689**
1996	13	0.78 ± 0.51	540	0.93 ± 0.85	0.1590**
1997	15	0.78 ± 0.52	621	0.88 ± 0.83	0.4907**
1998	14	0.57 ± 0.42	695	0.73 ± 0.71	0.0325
1999	14	0.46 ± 0.32	757	0.69 ± 0.74	0.0165
2000	16	0.45 ± 0.43	836	0.64 ± 0.72	0.0684**
2001	17	0.26 ± 0.24	932	0.57 ± 0.64	<0.01
2002	17	0.26 ± 0.23	989	0.55 ± 0.67	<0.01

**P-value > 0.05 means that the means in two populations are not significantly different at 0.05 significance level.

both the unadjusted and adjusted models (adjusted for age, gender, diabetic status, duration of dialysis, and dialysis access type). These declines began in 1998–2000 and increased significantly in 2001 and 2002. By 2002 the relative risk for vascular access-related hospital days was 0.4 (95% confidence interval (CI) 0.29–54) (unadjusted model) and 0.38 (95% CI 0.27–0.5) (adjusted model) and the relative risk for missed vascular access-related FMCNA outpatient dialysis treatments was 0.37 (95% CI 0.27–0.51) (unadjusted model) and 0.34 (95% CI 0.24–0.49) (adjusted model) in Phoenix compared to the FMCNA national cohort ($P<0.01$) (Tables 6 and 7).

DISCUSSION

Arizona Kidney Disease and Hypertension Center (AKDHC), a large nephrology practice in Phoenix, Arizona, started operating a VAC within the walls of a hospital in 1998. In January 2000, the practice opened an Ambulatory Surgery Center (ASC) focused on the creation and maintenance of vascular access for hemodialysis patients. The center primarily serves the patients in Fresenius Dialysis facilities in the metro Phoenix area and some rural areas of Arizona, and is the provider of choice for vascular access intervention for all AKDHC patients in the FMCNA units in Arizona. Two nephrologists were trained as interventionists and they perform the procedures. A vascular surgeon within the group creates and modifies the accesses. The physicians of AKDHC are also the medical directors for FMCNA in the state of Arizona, and are responsible for quality oversight in these facilities.

Prior to the operation of the VAC in 1998, referrals for vascular access care were dispersed among several hospitals and several different interventionists and surgeons within the Phoenix metropolitan area. This was largely determined by insurance requirements and, as a result, referral patterns changed frequently. Focus and comprehensive access care were often lacking. It was not unusual that a given hospital might not have a competent interventionist on staff. The VAC was initially constructed within the walls of an existing hospital. This step improved the ability to obtain focused care for many patients' vascular access problems. Barriers still

Table 6 | Poisson models of vascular access-related hospitalized days (Phoenix vs FMCNA)

	Unadjusted model				Adjusted[a] model			
		95% CI				95% CI		
	Relative risk (ref. FMCNA=1.0)	LL	UL	*P*-value	Relative risk (ref. FMCNA=1.0)	LL	UL	*P*-value
1995	0.89	0.69	1.14	0.36	0.91	0.69	1.21	0.52
1996	1.07	0.84	1.36	0.58	0.93	0.71	1.22	0.60
1997	1.47	1.16	1.86	<0.01	1.42	1.08	1.86	0.01
1998	0.71	0.55	0.92	0.01	0.62	0.46	0.84	<0.01
1999	0.72	0.56	0.93	0.01	0.64	0.48	0.86	<0.01
2000	0.70	0.53	0.92	0.01	0.86	0.64	1.17	0.35
2001	0.37	0.27	0.49	<0.01	0.38	0.27	0.53	<0.01
2002	0.40	0.29	0.54	<0.01	0.38	0.27	0.53	<0.01

[a]Adjusted variables: age, gender, race, diabetes status, duration of dialysis and dialysis access.
LL, lower level; UL, upper level.

Table 7 | Poisson models of vascular access-related missed dialysis treatments (phoenix vs FMCNA)

	Unadjusted model				Adjusted[a] model			
		95% CI				95% CI		
	Relative risk (ref. FMC)	LL	UL	*P*-value	Relative risk (ref. FMC)	LL	UL	*P*-value
1995	0.74	0.58	0.95	0.02	0.67	0.51	0.88	<0.01
1996	0.87	0.69	1.09	0.24	0.82	0.64	1.07	0.14
1997	1.21	0.96	1.52	0.11	1.13	0.87	1.46	0.36
1998	0.76	0.59	0.97	0.03	0.64	0.48	0.85	<0.01
1999	0.68	0.53	0.88	<0.01	0.64	0.48	0.84	<0.01
2000	0.69	0.53	0.90	0.01	0.83	0.61	1.12	0.22
2001	0.33	0.25	0.45	<0.01	0.36	0.26	0.50	<0.01
2002	0.37	0.27	0.51	<0.01	0.34	0.24	0.49	<0.01

[a]Adjusted variables: age, gender, race, diabetes status, duration of dialysis and dialysis access.
LL, lower level; UL, upper level.

existed because the hospital in which the center resided did not participate in all available healthcare plans and, therefore, focused care was unavailable for many patients. Since the accreditation of the ASC, limitations due to insurance coverage have largely been eliminated. As the ASC is owned by the AKDHC practice, contracts with third party payors are usually negotiated to include physician services as well as ASC facility services. In some instances, 'carve out' contracts with third party payors have been negotiated to accommodate vascular access care within the ASC.

The data reflecting the Phoenix VAC experience represent the first published data to specifically address the impact of a VAC on hospitalization and missed outpatient dialysis treatments. The demonstrated reductions of approximately >0.6 hospital days/patient year and decreased missed treatments of >0.3/patient year represent the effects of intense focused vascular access care in a large metropolitan area as well as rural areas of Arizona. It also illustrates the impact of coordinated access care provided by interventional nephrologists initially in a hospital-based VAC and subsequently in an ASC. This coordination of care is facilitated by the dual responsibilities of the nephrologists as medical directors of the FMCNA dialysis facilities and as interventionists in the VAC.

The reported decrease in missed vascular access related FMCNA outpatient dialysis treatments and hospitalization across all access types has a profound potential impact on clinical outcomes and the cost of dialysis care. Missed dialysis treatments result in a significant increase in mortality risk (14% increase in the relative mortality risk from one missed treatment/month).[10] The reduction of 0.6 hospital day per patient per year represents a potential savings of approximately $300 million to $750 million per year when applied across 250 000 hemodialysis patients, assuming $2000–5000 expenses per hospital day. Outpatient vascular placement is vastly less expensive (up to $9000 less per procedure) than inpatient surgery or surgery performed in the hospital outpatient setting under the Hospital Outpatient Prospective Payment System. Similarly, other outpatient access procedures such as thrombectomy and angioplasty are much less costly in ASC than in the hospital inpatient or outpatient setting.[11,12] Unfortunately, the majority of hemodialysis patients in the United States do not have vascular access care provided in this manner.

The FMC-NA outcomes likely represent values that might be expected in most areas of the US. The demonstrated decrease in hospitalization and missed outpatient dialysis treatments associated with introduction of a VAC represents an opportunity to improve clinical outcomes, while decreasing the cost of access-related complications. It is also clear evidence of the potential to improve vascular access care when nephrologists assume the prime responsibility for

vascular access management. Some of the demonstrated decrease in hospitalization and missed vascular access-related FMCNA outpatient dialysis treatments may be attributable to increases in the rates of AVF prevalence in Phoenix.[13,14] This in itself is a laudable accomplishment[15,16] and does not negate the role of the VAC. The Phoenix center was utilized to coordinate an AVF creation program based on preoperative imaging and outpatient AVF creation by a dedicated vascular surgeon. It is also used to evaluate and correct problems resulting in poorly maturing AVFs. Significant decreases in vascular access-related hospitalization and missed outpatient hemodialysis treatments, however, were seen in AVF, AV graft and catheter patients. By 2002, there was a 62% lower relative risk of vascular access hospitalized days and a 66% lower risk of vascular access-related missed treatments in Phoenix compared to the FMCNA national cohort, despite adjustments for age, gender, diabetic status duration of dialysis, and access type. This impact across the full spectrum of dialysis access and patient demographics points to the effect of improvements in vascular access care delivery rather than only a change in the relative prevalence of AVF and CCs.

Vascular access-related hospitalization and missed outpatient dialysis treatments also declined in the FMCNA national cohort, although less so than in Phoenix. We believe that these changes in the control group reflect the results of K/Dialysis Outcome Quality Initiative[17]-driven increased national interest in vascular access outcomes and the national trend toward the use of percutaneous interventions for access failure.[1] Increased attention and focus on vascular access (Hawthorne effect) that coincided with creation of the VAC likely accounted for some of the reported improvements. These improvements also may have been accomplished through focused efforts using other models, including hospital-based programs or programs led by an interventional radiologist or vascular surgeon in conjunction with a nephrology group. These data however show that the creation of a VAC with care provided by interventional nephrologists is one route for decreasing vascular access-related hospitalization. The fact that these types of improvements have not frequently been reported in other communities suggests that the development of a dedicated VAC is an important element that can catalyze and deliver improved vascular access care. The data also reveal a continued reliance on catheters for access in approximately 30% of the population. This is similar to the national data and highlights the need for further efforts to replace catheters with alternative access both in Phoenix and nationally.

This paper has several limitations. This paper reports data on missed vascular access-related FMCNA outpatient dialysis treatments, vascular access-related hospital admissions and hospitalized days, and does not include thrombosis and procedure rates. It is possible that the decline in hospital admissions and hospitalized days masks an increase in procedure rates. Although there is no evidence to suggest an increase in procedure rates or thrombosis, the available data do not allow us to make a definitive statement. This is an important question that will require a future study specifically designed to address these questions. Despite this limitation, we believe that the decline in hospitalization and missed outpatient treatments has significant potential benefits. These data also cannot rule out the possibility of other potential confounding factors such as the role of managed care. However, this appears unlikely due to the diminished role of managed care programs over the past 5–8 years and the preponderance of Medicare patients in the overall population (both in Phoenix and nationally). The unusually high number of hospital days for the AVF group in Phoenix in 2000 remains unexplained. Review of the data however revealed that three patients each accounted for over 30 hospital days, and together those three patients accounted for 124 of 188 (66%) of the Phoenix group's hospital days (data not shown). Lastly, no formal claims analysis was performed. Further studies including formal claims analysis are necessary to further clarify the financial ramifications of the development and use of outpatient VACs.

In conclusion, the development of a dedicated VAC staffed by interventional nephrologists was associated with a significant decrease in vascular access-related hospitalizations and vascular access-related FMCNA missed outpatient dialysis treatments across all access types. These data represent the experience at one center in one region of the US. Further studies reporting the clinical and economic impact of VACs in other regions are necessary to demonstrate the wider applicability of this approach.

MATERIALS AND METHODS

We performed a retrospective analysis of vascular access-related hospitalizations, hospitalized days and missed outpatient dialysis treatments from 1995 to 2002 for all FMC Dialysis facilities in the Phoenix (Arizona area) as well as all FMCNA dialysis units within the US. This included data from 21 Arizona Facilities (5928 cumulative patients) and 1275 cumulative FMCNA facilities (289 454 cumulative patients). Data were obtained from the FMCNA Data Warehouse. This database captures patient demographics and outcomes including all patient hospitalizations, hospitalized days and missed outpatient dialysis treatments, defined as treatments that were not performed as scheduled in a FMC outpatient dialysis facility. International Classification of Diseases (ICD)-9 codes are entered by dialysis unit personnel to identify the cause of admissions or missed dialysis treatments.

Missed outpatient dialysis treatments were defined as outpatient dialysis treatments that were not performed as scheduled in a FMCNA outpatient dialysis facility due to vascular access-related complications as defined by specific ICD-9 codes. All missed hemodialysis treatments, whether expected (e.g., because of hospitalization) or unexpected (e.g., because of noncompliance), and all permanent discharges (e.g., because of transplantation or death), together with diagnoses coded according to the ICD, Ninth Revision, Clinical Modification, were recorded to complete the daily reconciliation of prescribed and administered treatments. These required fields must be completed upon the patients' return in order for outpatient dialysis to be performed.

The following primary and secondary diagnostic codes were utilized to identify vascular access-related hospitalizations and missed outpatient dialysis treatments: ICD-9 codes 996.1, 996.3, 996.6, 996.62, 996.7, 996.73, 996.74 and 997.2. The numbers of missed outpatient dialysis treatments per patient-year and hospitalized days per patient-year were computed for the Phoenix Arizona area and compared to the national FMCNA cohort. Statistical analysis was performed using SAS 9.1; SAS Institute, Cary, NC, USA. Data were expressed as mean $\pm$ s.d. Parametric (t-test) and nonparametric tests (Wilcoxon's test) were used. Poisson analyses of vascular access-related hospital length of stay and missed dialysis treatments were performed using PROC GENMOD (SAS 9.1; SAS Institute, Cary, NC, USA). A P-value lower than 0.05 was considered significant.

Financial disclosers

The AKDHC Surgery Center is wholly owned by the Arizona Kidney Disease and Hypertension Center (AKDHC), a large nephrology practice in Phoenix, Arizona, as an extension of the practice. Fresenius Medical Care North America owns and operates outpatient dialysis facilities in Phoenix and throughout the US. AKDHC physicians are employed as medical directors for specific dialysis facilities in Arizona by FMCNA. In this capacity, they function as independent contractors. FMCNA's subsidiary US Vascular Access Holdings develops, owns or operates vascular access centers within the US. FMCNA and/or its subsidiaries has no past or present ownership, investment in or direct financial relationship with the AKDHC Surgery Center.

REFERENCES

1. US Renal Data System. *USRDS 2003 Annual Data Report*. The National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases: Bethesda, MD, 2003.
2. Eggers PW. *PhD NIDDK from Presentation at Cincinnati Hemodialysis Vascular Access Symposium 2004*, vol. 20, Cincinnati, OH, 2004.
3. Asif A, Byers P, Vieira CF *et al.* Developing a comprehensive diagnostic and interventional nephrology program at an academic center. *Am J Kidney Dis* 2003; **42**(2): 229–233.
4. Rasmussen RL. Establishing an interventional nephrology suite. *Semin Nephrol* 2002; **22**(3): 237–241.
5. Saad T. Training, certification, and reimbursement for nephrology procedures. *Semin Nephrol* 2002; **22**(3): 276–285 (review).
6. Beathard GA. The treatment of vascular access graft dysfunction: a nephrologist's view and experience. *Adv Ren Replace Ther* 1994; **1**(2): 131–147.
7. Beathard GA. Management of complications of endovascular dialysis access procedures. *Semin Dial* 2003; **16**(4): 309–313.
8. Schon D, Mishler R. Pharmacomechanical thrombolysis of natural vein fistulas: reduced dose of TPA and long-term follow-up. *Semin Dial* 2003; **16**(3): 272–275.
9. Schon D, Mishler R. Salvage of occluded autologous arteriovenous fistulae. *Am J Kidney Dis* 2000; **36**(4): 804–810.
10. Held PJ, Port FK, Wolfe RA *et al.* The dose of hemodialysis and patient mortality. *Kidney Int* 1996; **50**(2): 550–556.
11. Medicare Program Changes to the Hospital Outpatient Prospective Payment System and Calendar Year 2005 Prospective Payment Rates. Center For Medicare and Medicaid Services, 42 CFR Part 419, Federal Register V 69 N219 November 15, 2004.
12. Medicare Program Changes to the Hospital Inpatient Prospective Payment System and Fiscal Year 2005 Prospective Payment Rates. Center For Medicare and Medicaid Services, 42 CFR Part 403, 413, 418, 460, 482, 483, 485, 489, CMS 1428-F.
13. Pisoni RL, Young EW, Dykstra DW *et al.* Vascular access use in Europe and the United States: results from the DOPPS. *Kidney Int* 61: **2002**: 305–316.
14. Dhingra RK, Young EW, Hulbert-Shearon TE *et al.* Type of vascular access and mortality in US hemodialysis patients. *Kidney Int* 2001; **60**: 1443–1451.
15. Sands JJ, Perry MA. Where are all the AV fistulas? *Semin Dial* 2002; **15**(3): 146–148.
16. Lee H, Manns B, Taub K *et al.* Cost analysis of ongoing care of patients with end-stage renal disease: the impact of dialysis modality and dialysis access. *Am J Kidney Dis* 2002; **40**(3 September): 611–622.
17. K/DOQI Clinical Practice Guidelines for Vascular Access 2000; National Kidney Foundation. *Am J Kidney Dis* 2001; **37**(Suppl 1): S137-S181.

ASDIN

Clinical and Economic Value of Performing Dialysis Vascular Access Procedures in a Freestanding Office-Based Center as Compared with the Hospital Outpatient Department among Medicare ESRD Beneficiaries

Al Dobson,* Audrey M. El-Gamil,* Matthew T. Shimer,* Joan E. DaVanzo,* Aris Q. Urbanes,† Gerald A. Beathard,‡ and Terry Foust Litchfield†

*Dobson DaVanzo & Associates, LLC, †Lifeline Vascular Access, a DaVita Healthcare Partners® affiliate, and ‡Lifeline Vascular Access a DaVita Healthcare Partners® affiliate and Clinical Professor of Medicine at the University of Texas Medical Branch

ABSTRACT

Dialysis vascular access (DVA) care is being increasingly provided in freestanding office-based centers (FOC). Small-scale studies have suggested that DVA care in a FOC results in favorable patient outcomes and lower costs. To further evaluate this issue, data were drawn from incident and prevalent ESRD patients within a 4-year sample (2006-2009) of Medicare claims (USRDS) on cases who receive at least 80% of their DVA care in a FOC or a hospital outpatient department (HOPD).

Using propensity score matching techniques, cases with a similar clinical and demographic profile from these two sites of service were matched. Medicare utilization, payments, and patient outcomes were compared across the matched cohorts (n = 27,613).

Patients treated in the FOC had significantly better outcomes ($p < 0.001$), including fewer related or unrelated hospitalizations (3.8 vs. 4.4), vascular access-related infections (0.18 vs. 0.29), and septicemia-related hospitalizations (0.15 vs. 0.18). Mortality rate was lower (47.9% vs. 53.5%) as were PMPM payments ($4,982 vs. $5,566).

This study shows that DVA management provided in a FOC has multiple advantages over that provided in a HOPD.

Maintaining healthy vascular access is critical to ensuring the efficacy of hemodialysis treatments and overall patient quality of life. Clinical practice guidelines and research have identified the types of dialysis vascular access (DVA) patients should receive to achieve optimal outcomes (1). Proper care during and after vascular access placement can reduce complications and overall utilization.

In recent years, patients have typically received DVA management services in either a freestanding office-based center (FOC) or the hospital outpatient department (HOPD). The literature suggests that DVA management can be optimized when patients receive care in a FOC, as this setting can provide the "highest quality medical care at the lowest possible cost." HOPDs are multipurpose facilities and have issues associated with DVA care, including delayed treatments, unnecessary hospitalizations, unnecessary use of temporary catheters, and excessive cost (2).

To date, there have been only a few regional and small-scale studies that compare Medicare payments and outcomes of receiving DVA management services in a FOC versus an HOPD. The purpose of this study was to conduct a retrospective cohort study using 4 years of Medicare claims data (2006-2009) from the United States Renal Data System (USRDS). USRDS is a national data system funded directly by the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) in conjunction with the Centers for Medicare & Medicaid Services (CMS). The USRDS database contains all healthcare utilization and Medicare payment claims for end-stage renal disease (ESRD) patients, as well as select clinical information, including ESRD-specific laboratory values, patient functional status, and comorbidities.

This study compares Medicare payments and outcomes for patients who received DVA procedures in a FOC with those who received DVA care in the HOPD for a defined episode of care. This study also investigates the impact of physician specialty

Address correspondence to: Audrey El-Gamil, Dobson DaVanzo & Associates, LLC, 440 Maple Avenue East, Suite 203, Vienna, VA 22180, Tel.: 703-260-1764, Fax: 703-636-0130, or e-mail: audrey.el-gamil@dobsondavanzo.com.

Seminars in Dialysis—Vol 26, No 5 (September–October) 2013 pp. 624–632
DOI: 10.1111/sdi.12120

and care processes on patient outcomes within this context. Patients are matched using a propensity score model that controls for observable selection bias across sites of service.

Propensity score matching techniques are widely used in observational studies when randomized controlled trials (RCTs) are not available, able to be generalized to the population, or are unethical or impractical to administer (3). Literature suggests that applying this technique to observational studies is sufficient to remove observable selection bias among treatment and comparison groups and can result in findings that mimic RCTs (4–7).

Methods

Study Design and Population

The study sample was drawn from all incident and prevalent ESRD patients with Medicare fee-for-service coverage between 2006 and 2009. The design is a retrospective cohort study of Medicare claims data informed by published literature and ongoing communication with a clinical advisory committee. The clinical advisory committee was consulted to develop a patient episode framework, inform and validate all analytic assumptions, and to provide clinical interpretation of data results. Quantitative analyses are based on the USRDS datasets, which contain all healthcare utilization and Medicare payments for ESRD patients, as well as selected clinical information, including ESRD-specific laboratory values (i.e., body mass index (BMI), HbA1C, albumin, and creatinine), functional status, and comorbidities.

Through rigorous propensity score matching techniques, study group patients who received DVA-related care in a FOC were matched to comparison group patients with a similar clinical and demographic profile who received DVA-related care in an HOPD. Medicare utilization, payments, and patient outcomes were compared across the matched cohorts.

Data Collection

A single episode of care was created from the data for each patient that captured all DVA and dialysis-related services, and all related or unrelated hospitalizations over the span of the study period (2006-2009). An episode started with the first DVA-related service during the study period and ended either with patient death, or the end of the study period. Episodes included claims across all settings, including inpatient and outpatient hospitals, skilled nursing facilities, inpatient rehabilitation facilities, home health agencies, long-term care hospitals, physicians, hospices, and durable medical equipment.

Patient episodes were administratively defined by the site of service in which at least 80% of the patient's DVA-related services were provided: either a FOC (identified as a physician's office in the claims), or the HOPD, including all outpatient settings (i.e., outpatient hospital, emergency room, dialysis center, and state/local public health clinic). FOC is identified by the physician's office site of service in the Medicare claims (site of service 11). HOPD is identified by sites of service 22, as well as other hospital-based sites of service, including 23, 65, or 71. Given the equipment and staff requirements to perform vascular access services, we assume that all relevant services performed in the physician's office are FOCs.

Patients were clinically defined within each cohort by the first type of DVA service within the episode. This clinical definition attempted to identify incident from prevalent ESRD patients based on the first service they received. Services were placed into two groups: 1) placement services, defined as the creation of a fistula or a graft, vessel mapping, or catheter placement prior to any dialysis treatment (incident ESRD patients), and 2) maintenance services, defined as receiving dialysis treatments prior to any DVA-related service such as a placement or treatment service (prevalent patients).

Patient pathways were identified in each episode to track the receipt of specific DVA services across settings and over time using a hierarchical design. As many DVA services consist of multiple separate procedures billed on the same claim, the hierarchy distinguished between the primary (most relevant) service and the ancillary service. Pathways were unique to each individual and allow for comparison of treatments and outcomes across patient cohorts. The use of hierarchical pathways allowed for the identification of whether each service was a maintenance or anticipatory service (angioplasty or angiogram—performed to maintain the health and function of the access site) or a resuscitative service (salvage procedure performed once the access became dysfunctional). Table 1 presents the hierarchy for identifying DVA services within the patient episode, the codes used to identify them, and whether they were identified as an anticipatory or resuscitative service. Consistent with the USRDS methodology, procedures were identified using CPTs, MS-DRGs, and ICD-9s, as appropriate. Despite the use of a hierarchical pathway to identify the services, all access procedures provided during the study period are captured in the analysis.

There were three types of outcomes for which the study and comparison groups were compared. The primary outcome was selected clinical indicators, including number of infections due to dialysis vascular device, implant and graft (CPT 99662), septicemia-related hospitalizations (MS-DRGs 416, 575, 576 prior to October 2007; 870-872 after October 2007), and related (MS-DRGs: 682-685 prior to October 2007; 316-317 after October 2007; ICD-9s: 585, 586) and unrelated hospitalizations. The second outcome was the all-cause mortality rate. Finally, the third outcome was average PMPM Medicare payment for DVA-related care (including and excluding dialysis treatments and drugs).

TABLE 1. Hierarchy for identifying patient pathways in episode

Hierarchical Rank	Description (CPT Codes)	Service Type
1	Creation af fistula (36821, 36818, 36819, 36820, or 36825) Creation of graft (36830)	Treatment
2	Catheter placement (36558)	Resuscitative
3	Catheter exchange (36581)	Treatment
4	Thrombectomy (36870)	Resuscitative
5	Cannulation & injection (36005) Scan of arteries (93931, 93930, 93970, 93971) Vessel mapping (G0365)	Treatment
6	Catheter removal (36589)	Treatment
7	Arteriogram of extremity (75710)	Treatment
8	Stent placement (37205 & 75960)	Treatment
9	Arterial/venous angioplasty (35475 & 75962, 35476 & 75978, G0393, G0392) Angiogram (36145, 36147, 75790, 75791)	Anticipatory
10	Hospitalization	Treatment
11	Dialysis (90935-90947)	Treatment
12	Aranesp (J0882) Epogen (J0885, J0886, Q4081) TPA (J2997)	Treatment

Statistical Analyses

A two-step process was used to match patients who received DVA services in the FOC with those who received care in the HOPD.

First, many-to-many matching of patients was carried out across cohorts on a series of variables that directly impact how patients receive care and how Medicare determines payments. These include whether the patient first received placement or maintenance services within the episode; whether the patient had a confirmed fistula or graft during the episode to ensure that outcomes are not due to a disproportionate use of catheters as the primary access type within a given setting; the date from first DVA-related service during study period (within 30 days); whether the patient was a new Medicare enrollee (used to calculate hierarchical condition categories—HCC—scores as a measure of patient severity); and the metropolitan statistical area (MSA) of the patient's residence to control for geographic differences in Medicare payments and practice patterns. HCCs are used in the Medicare Advantage program to determine per member–per month payments based on historical utilization. For rural patients, the first number of their ZIP code was used instead. By matching patients on the start of their dialysis in the study period within 30 days, the Medicare payments are adjusted for medical inflation cost.

Second, following the initial match, propensity score techniques were used to refine the match of patients across settings. This statistical method is used to reduce observable selection bias between the two cohorts and is used in this study to isolate the impact of site of service on all three types of patient outcomes. The propensity score indicated the probability of a patient receiving care in the FOC, based on the patient's demographic and clinical characteristics.

A propensity score for each patient was calculated based on patient demographic characteristics, clinical characteristics, and functional status variables. Patient demographic characteristics included age; gender; race; years since first ESRD service; dual eligibility for Medicare and Medicaid; and smoking and alcohol and drug dependence. Clinical characteristics included comorbidities; history of a transplant; laboratory values for BMI, HbA1c, albumin, and creatinine at start of dialysis; HCC score; and whether the patient historically received care from: 1) a nephrologist and/or 2) a dietician. Functional status was based on the patient's ability to ambulate or transfer, and whether the patient needed assistance with the activities of daily living. All matching variables, except the confirmed access type, were defined and identified by USRDS.

Patients were matched one-to-one within 0.2 standard deviations of the logit function that determined their propensity score, consistent with the caliper width traditionally used in the literature (8). The rigor of the matching techniques isolated the effect of site of service from other observable causal effects. Patients who were not able to be matched were excluded from the analysis.

Following the matching process, patient outcomes were compared across cohorts and descriptive statistics on nonmatching variables were calculated to identify potential drivers of the outcomes. Two main drivers of interest were the distribution of episodes within the care setting by the physician specialty that performed the majority of the patient's DVA-related services and the impact of receiving maintenance/anticipatory services on outcomes. The impact of anticipatory care is conducted across all patients (not just the matched cohorts) to better understand if increases in anticipatory services are related to decreases in patient outcomes, regardless of where care is received. Prevalence of anticipatory care is defined as the ratio of anticipatory services to the total number of anticipatory, resuscitative, and catheter placement services. The sum of resuscitative and catheter placement services is used instead of the total number of treatments provided to isolate the services provided to maintain access health as opposed to all DVA-related care. That is, the number of angioplasties and angiograms received divided by the total number of angioplasties and angiograms, thrombectomies, and catheter placement services.

Results

Patient Characteristics of Matched Cohorts

A total of 27,613 patients were matched across each cohort (n = 55,226), representing approximately 10 percent of all ESRD patients contained

in the USRDS claims during the study period. Following the propensity score match, patient demographic characteristics were very similar across cohorts for variables included in the match or propensity score (Table 2). Both patient cohorts had an average age of 61 years and a comparable proportion of patients who are White (56%) and dual-eligible (41%). Furthermore, patients are matched on clinical laboratory values at the time of dialysis (BMI, HbA1c, albumin, and creatinine),

TABLE 2. Patient characteristics of matched cohorts for variables included in propensity score matching

Matching and propensity score variables	FOC (n = 27,613)	HOPD (n = 27,613)	Difference[a] (FOC − HOPD)	95% confidence interval
Demographic characteristics				
Average age	61.0	60.5	0.5*	(0.2, 0.8)
Female	46.1%	47.3%	−1.2%**	(−2.1%, −0.4%)
Race/ethnicity				
Asian	3.7%	3.9%	−0.2%	(−0.2%, 0.2%)
Black	38.6%	39.2%	−0.6%	(−0.9%, 0.2%)
Native American	1.3%	1.2%	0.1%	(−0.1%, 0.2%)
White	56.1%	55.3%	0.8%	(−0.3%, 0.8%)
Other races	0.3%	0.3%	0.0%	(−0.1%, 0.1%)
Dual-eligible	40.8%	41.3%	−0.5%	(−1.3%, 0.3%)
Had transplant	11.4%	12.0%	−0.6%**	(−1.2%, −0.1%)
Years since first ESRD service	2.5	2.6	−0.1***	(−0.1, 0.0)
New medicare enrollees[b]	53.6%	53.6%	0.0%	(−0.8%, 0.8%)
Clinical characteristics at start of episode				
HCC Score—New medicare enrollee	1.00	1.00	0.00	(−0.01, 0.01)
HCC Score—Community risk	4.36	4.38	−0.02	(−0.07, 0.03)
HCC Score—Institutional risk	4.06	4.08	−0.02	(−0.06, 0.02)
Average BMI	28.6	28.6	0.0	(−0.2, 0.2)
Average HbA1c (%)	7.34	7.45	−0.11	(−0.49, 0.28)
Average albumin value (g/dl)	3.13	3.13	0.00	(−0.02, 0.02)
Average creatinine value (mg/dl)	6.38	6.35	0.03	(−0.05, 0.11)
Patient under care of dietician	10.7%	11.3%	−0.6%	(−1.3%, 0.3%)
Patient under care of nephrologist	64.9%	64.8%	0.1%	(−1.1%, 1.3%)
Comorbidities & functional status				
Congestive heart failure	34.4%	34.5%	−0.1%	(−1.2%, 1.0%)
Atherosclerotic heart disease	22.2%	21.8%	0.4%	(−0.6%, 1.3%)
Other cardiac disease	17.1%	16.7%	0.4%	(−0.4%, 1.3%)
Cerebrovascular disease, CVA, TIA	10.4%	9.8%	0.6%	(−0.1%,1.3%)
Peripheral vascular disease	14.2%	13.8%	0.4%	(−0.4%, 1.2%)
History of hypertension	85.2%	85.4%	−0.2%	(−1.0%, 0.7%)
amputation	3.2%	3.1%	0.1%	(−0.2%, 0.6%)
Diabetes, currently on insulin	35.1%	34.9%	0.2%	(−0.9%, 1.3%)
Diabetes, on oral medications	14.2%	14.0%	0.2%	(−0.6%, 1.0%)
Diabetes, without medications	5.6%	5.5%	0.1%	(−0.4%, 0.7%)
Diabetes retinopathy	8.2%	8.3%	−0.1%	(−0.7%, 0.6%)
Chronic obstructive pulmonary disease	7.9%	7.0%	0.9%**	(0.3%, 1.5%)
Tobacco use (current smoker)	4.8%	4.7%	0.1%	(−0.4%, 0.6%)
Malignant neoplasm, cancer	6.8%	7.0%	−0.2%	(−0.9%, 0.3%)
Toxic nephropathy	0.4%	0.4%	0.0%	(−0.1%, 0.1%)
Alcohol dependence	1.2%	1.0%	0.2%	(−0.1%, 0.4%)
Drug dependence	1.0%	0.9%	0.1%	(−0.1%, 0.3%)
Inability to ambulate	6.6%	7.1%	−0.5%	(−1.0%, 0.1%)
Inability to transfer	3.1%	3.5%	−0.4%***	(−0.9%, −0.1%)
Needs assistance with daily activities	11.8%	11.9%	−0.1%	(−0.8%, 0.7%)
Institutionalized	7.3%	6.9%	0.4%	(−0.2%, 1.0%)
Institutionalized—Assisted living	0.6%	0.6%	0.0%	(−0.1%, 0.2%)
Institutionalized—Nursing home	7.1%	6.7%	0.4%	(−0.2%, 1.0%)
Institutionalized—Other institution	0.5%	0.3%	0.2%	(0.0%, 0.3%)
Nonrenal congenital abnormality	0.2%	0.2%	0.0%	(−0.2%, 0.0%)
No comorbidities	1.9%	2.0%	−0.1%	(−0.4%, 0.2%)
Access type				
Confirmed fistula/graft during episode[b]	71.6%	71.6%	0.0%	(−0.8%, 0.8%)
Confirmed catheter, but no confirmed fistula/graft during episode[b]	28.4%	28.4%	0.0%	(−0.8%, 0.8%)

Totals do not add due to rounding.
[a]Difference represents the percentage point difference of FOC minus HOPD.
[b]Matching variable prior to propensity score matching.
*Statistically significant at $p < 0.001$.
**Statistically significant at $p < 0.01$.
***Statistically significant at $p < 0.05$.

access type, and comorbidities. The only statistically significant difference between the two groups was the proportion of patients who were female (46.1% for FOC patients vs. 47.3% for HOPD patients, 95% Confidence Interval of the difference [CI] −2.1%, −0.4%); the proportion who had received renal transplants (11.4% for FOC patients vs. 12.0% for HOPD patients, CI −1.2%, −0.1%) and the number of years since first ESRD service (2.5 years for FOC patients vs. 2.6 years for HOPD patients; CI −0.1, 0.0). While the years since first ESRD service are statistically significant, the results are not clinically significant. Furthermore there is a slightly higher rate of COPD among FOC patients and a lower inability to transfer than HOPD patients.

Outcomes across Matched Cohorts

Matched patients who received their DVA services in a FOC had an average Medicare per member–per month (PMPM) payment (including dialysis treatments and drugs) that was $584 lower than those who received care in the HOPD ($4,982 vs. $5,566, CI -$694, -$473). This represents an average annual difference in Medicare payment of $7,008. The difference in Medicare payments for only DVA services was $626 PMPM ($3,162 vs. $3,788, CI -$736, -$516) (Table 3).

Higher PMPM payments for patients treated in the HOPD are probably driven by an increase in negative outcomes during the episode (Table 3). Patients treated in the FOC have significantly fewer related and unrelated hospitalizations, infections, and septicemia-related hospitalizations than those treated in the HOPD ($p < 0.001$). As a result of fewer hospitalizations among patients treated in the FOC, patients who received their DVA services in the FOC had a larger proportion of their episode in an outpatient setting, and therefore had higher PMPM payments for outpatient dialysis treatments and drugs compared with patients treated in the HOPD ($1,820 vs. $1,777, CI $29, $56). As both groups receive a similar number of outpatient dialysis treatments per week, patient compliance (as defined by missed dialysis treatments) does not appear to be driving the results.

Patients treated in the FOC also had a significantly lower mortality rate (47.9% vs. 53.5%, CI −6.5%, −4.8%) (11.7% difference). This lower mortality rate resulted in a longer average episode length compared with those treated in the HOPD (2.3 years vs. 2.1 years, CI 0.1, 0.2). Therefore, patients treated in the FOC had lower PMPM payments, better outcomes, and live longer than those treated in the HOPD.

Potential Drivers of Outcomes across Matched Cohorts

The PMPM episode payment by physician specialty for the majority of the DVA-related services and the distribution of DVA services contained within the episode were investigated as drivers of outcomes. The distribution of physician specialties and the average PMPM episode payment within a specialty was different across cohorts (Table 4). A larger proportion of patients treated in the FOC received interventional DVA care primarily by a nephrologist compared with patients treated in the HOPD (64.2% vs. 47.9%, CI 15.5%, 17.2%). Given the lack of a designated specialty code for interventional nephrologists, it is the authors' assumption that nephrologists who provide DVA services are interventional nephrologists. However, patients receiving DVA care from nephrologists in the FOC had PMPM payments that were $1,365 lower than those receiving care from a nephrologist in the HOPD ($3,436 vs. $4,801, CI -$1,492, -$1,238). Data suggest that, within each setting, nephrologists treat higher severity patients than the other specialties, as indicated by the average community HCC

TABLE 3. Distribution of outcomes by matched cohort

	FOC (n = 27,613)	HOPD (n = 27,613)	Difference[a] (FOC − HOPD)	95% confidence interval
DVA PMPM payment (including dialysis & drugs)	$4,982	$5,566	−$584*	(−$694, −$473)
DVA PMPM (excluding outpatient dialysis & drugs)	$3,162	$3,788	−$626*	(−$736, −$516)
DVA PMPM for outpatient dialysis & drugs	$1,820	$1,777	$42*	($29, $56)
Outcomes per patient				
Average number of related and unrelated hospitalizations per year	3.8	4.4	−0.6*	(−0.7, −0.5)
Average number of infections per year	0.18	0.29	−0.11*	(−0.13, −0.10)
Average number of septicemia hospitalizations per year	0.15	0.18	−0.03*	(−0.04, −0.02)
Outpatient dialysis treatments per week	2.8	2.9	−0.1**	(−0.1, 0.0)
All-cause mortality rate during episode	47.9%	53.5%	−5.6%*	(−6.5%, −4.8%)
Episode length (years)	2.3	2.1	0.2*	(0.1, 0.2)

Totals do not add due to rounding.
[a]Difference represents the percentage point difference of FOC minus HOPD.
*Statistically significant at $p < 0.001$.
**Statistically significant at $p < 0.01$.
***Statistically significant at $p < 0.05$.

TABLE 4. Distribution of Episodes by Physician Specialty Providing the Majority of DVA-Related Services by Matched Cohort

	FOC (n = 27,613)		HOPD (n = 27,613)		Difference[a] (FOC – HOPD)			
	Percentage of episodes	Average PMPM	Percentage of episodes	Average PMPM	Percentage of episodes	95% confidence interval	Average PMPM	95% confidence interval
Nephrology	64.2%	$3,436	47.9%	$4,801	16.4%*	(15.5%, 17.2%)	–$1365*	(–$1492, –$1238)
Diagnostic/ Interventional radiology	16.3%	$2,577	26.0%	$2,485	–9.7%*	(–10.4%, –9.0%)	$92	(–$142, $325)
Internal medicine	6.2%	$3,952	5.2%	$5,389	1.0%*	(0.6%, 1.4%)	–$1437*	(–$2194, –$682)
Vascular surgery	5.4%	$2,165	7.9%	$2,808	–2.6%*	(–3.0%, –2.2%)	–$643***	(–$1217, –$68)
General surgery	3.6%	$1,719	7.0%	$2,212	–3.4%*	(–3.8%, –3.0%)	–$494**	(–$799, –$189)
Thoracic surgery	0.4%	$2,529	0.9%	$2,208	–0.6%*	(–0.7%, –0.4%)	$322	(–$660, $1304)
Cardiology	0.4%	$2,926	0.8%	$4,193	–0.4%*	(–0.6%, –0.3%)	–$1,267	(–$3620, $1086)
Other	3.6%	$2,569	4.3%	$3,118	–0.7%*	(–1.0%, –0.3%)	–$549***	(–$1091, –$8)
Total	100.0%	$3,162	100.0%	$3,788	–	–	–$626*	(–$736, –$516)

Totals do not add due to rounding.
[a]Difference represents the percentage point difference of FOC minus HOPD.
*Statistically significant at $p < 0.001$.
**Statistically significant at $p < 0.01$.
***Statistically significant at $p < 0.05$.

TABLE 5. Number of annualized services per patient and average PMPM by type of service, by cohort

	FOC (n = 27,613)		HOPD (n = 27,613)		Difference[a] (FOC – HOPD)			
	Number of services per patient[b]	Average PMPM[c]	Number of services per patient[b]	Average PMPM[c]	Number of Services per Patient	95% confidence interval	Average PMPM	95% confidence interval
Average number of DVA services per patient	20.5	–	23.9	–	–3.4**	(–5.3, –1.6)	–	–
Prevalence of anticipatory care	63.0%	–	53.0%	–	10.0%*	(9.1%, 10.9%)	–	–
Anticipatory services per year								
Angioplasty & angiograms	8.4	$268	7.1	$176	1.3***	(0.2, 2.4)	$92*	($67, $116)
Resuscitative services per year								
Catheter placement	1.3	$27	2.0	$54	–0.8*	(–1.0, –0.5)	–$27*	(–$36, –$17)
Thrombectomy	0.8	$49	0.8	$25	0.0	(–0.2, 0.2)	$24*	($14, $35)
Treatments per year								
Creation of fistula/graft	0.5	$22	2.3	$110	–1.8*	(–2.1, –1.4)	–$87*	(–$104, –$70)
Catheter exchange	0.5	$9	0.7	$17	–0.2	(–0.4, 0.0)	–$8*	(–$11, –$4)
Related and unrelated hospitalizations (including septicemia-related)	2.3	$2,720	2.8	$3,283	–0.5*	(–0.6, –0.4)	–$563*	(–$661, –$465)
Vessel mapping	1.6	$7	2.0	$5	–0.4*	(–0.5, –0.2)	$2*	($1, $2)
Catheter removal	3.2	$14	3.6	$31	–0.4	(–1.0, 0.3)	–$17*	(–$23, –$11)
Stent placement	0.6	$30	1.4	$67	–0.8*	(–1.2, –0.4)	–$36**	(–$63, –$10)
Arteriogram of extremity	1.3	$15	1.2	$22	0.0	(–0.3, 0.4)	–$7	(–$16, $2)

Totals do not add due to rounding.
[a]Difference represents the percentage point difference of FOC minus HOPD.
[b]Calculated as the number of services divided by the number of total patient years.
[c]Average PMPM includes the Medicare payment for the specific service divided by the total number of patient months across all episodes, including those who did not receive the service.
*Statistically significant at $p < 0.001$.
**Statistically significant at $p < 0.01$.
***Statistically significant at $p < 0.05$.

score (data not shown). This may explain the higher PMPM payments for nephrologists' patients within a setting compared with the other specialties. About one-quarter (26.0%) of patients treated in the HOPD primarily received DVA-related care from a diagnostic or interventional radiologist compared to 16.3% of patients treated in the FOC.

The types of DVA services received during an episode also differed by cohort (Table 5). Patients treated in the FOC had less complex patient

pathways (received fewer DVA services) than those treated in the HOPD (20.5 vs. 23.9, CI -5.3, -1.6), despite having longer episodes and lower mortality rates. Not only are they receiving fewer total services, patients treated in the FOC received a significantly higher proportion of maintenance/anticipatory care (63.0% of all services vs. 53.0%, CI 9.1%, 10.9%). Anticipatory services were defined by the prevalence of angioplasties and angiograms, which was significantly higher for patients treated in the FOC compared with patients treated in the HOPD (8.4 vs. 7.1, CI 0.2, 2.4). The lower number of services and higher proportion of anticipatory services resulted in a lower average PMPM payment.

The largest difference in the average PMPM payment across cohorts was due to the prevalence of related and unrelated hospitalizations per year. Patients treated in the FOC had significantly fewer related and unrelated hospitalizations per year during their episode compared with patients treated in the HOPD (2.3 vs. 2.8, CI -0.6, -0.4). The lower use of hospital services resulted in a $563 lower PMPM payment ($2,720 vs. $3,283, CI -$661, -$465).

With the exception of arteriograms and thrombectomies, patents treated in the FOC had lower utilization of all treatment services, resulting in lower PMPM payments over the length of the episode. The number of thrombectomies and vessel mappings per annualized episode was the same or lower for patients treated in the FOC, but the total number of patients receiving these services was higher, resulting in a higher average PMPM for patients treated in the FOC.

Impact of Anticipatory Care on Average PMPM Payments

The results suggest that anticipatory care was associated with better patient outcomes and lower average PMPM payments. Figure 1 illustrates the average infection rate, mortality rate, and PMPM payments for DVA services by the percentage of anticipatory care a patient received. This analysis was not divided by patient cohort, but rather investigated the overall impact of anticipatory care, regardless of site of service. Across all patients and care settings, prior to matching, as the proportion of anticipatory care services increased, the infectiou rate, mortality rate, and average PMPM payment decreased significantly.

Discussion

Based on a large retrospective matched cohort analysis of Medicare ESRD beneficiaries using claims data from 2006 to 2009, this study demonstrates that patients who receive DVA care in a FOC have statistically significantly better outcomes, including fewer related and unrelated hospitalizations, infections, septicemia-related hospitalizations, and all-cause mortality, despite having longer patient episodes. Furthermore, patients treated in the FOC have lower average PMPM payments than patients treated in an HOPD. That is, patients treated in the FOC live longer as a result of the lower mortality rate and have lower PMPM payments.

These results are consistent with other research concluding that receiving DVA care in a FOC is

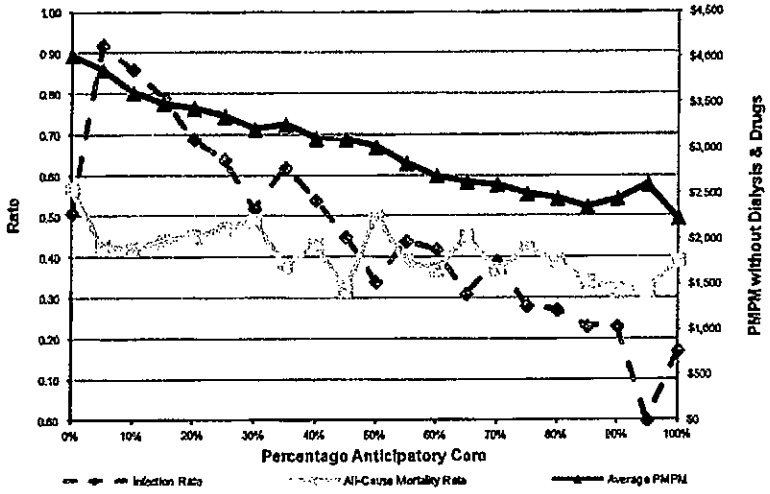


Fig. 1. Impact of Anticipatory Care on Infection Rate, All-Cause Mortality Rate, and Average PMPM Payments. Prevalence of patient outcomes by percentage of anticipatory care, defined as the proportion of dialysis vascular access (DVA) services for anticipatory services (angioplasties and angingrams) to resuscitation services (thrombectomies and additional placements). Infection rate (dashed line); all-cause mortality (gray solid line); average per member–per month (PMPM) payment excluding outpatient dialysis treatments and drugs (black solid line).

associated with a significant decrease in DVA-related hospitalizations. Researchers have concluded that FOCs demonstrate efficiency and have better outcomes even while treating emergent DVA problems (9–13). One study specifically noted that FOCs use best-demonstrated practices for both diagnosis and treatment and provide the comprehensive set of skills needed to achieve quality results with an acceptably low complication rate (10).

This study enables attribution of patient outcomes to the site of service at which patients receive over 80% of their DVA care. Patient outcomes are probably influenced by the presence of care coordination across specialties, physician specialty performing DVA procedures, and the provision of anticipatory care to maintain access function. The data suggest that nephrologists are less likely, and diagnostic/interventional radiologists are more likely, to be providing the majority of a patient's DVA-related care in the HOPD than in the FOC. Because the study patients were not risk-adjusted by specialty within setting, the study cannot determine the cost-effectiveness of DVA-related care provided by specialty. However, literature suggests that nephrologists are associated with safe, successful, and quality outcomes, resulting in decreased morbidity and cost (14). Several studies also suggest that receiving DVA services by nephrologists increases the chances of receiving permanent access placed prior to dialysis (15–19). Furthermore, appropriately trained interventional nephrologists have been shown to perform DVA procedures effectively and safely with a low major complication rate (20).

In addition to specialty and anticipatory care, the presence of a dedicated access team and team coordinator improves patient outcomes and reduces cost. Coordinators have been identified as essential for managing interaction among different disciplines, such as vascular surgeons, nephrologists, and interventionalists (21). Using a nephrologist in the role of interventionist and key decision maker enhances the ability to practice coordinated care (22). The literature asserts that a dedicated team is better able to assess fistula and graft maturation, organize timely interventions, and establish a multidiscipline prevention strategy. Close collaboration among nephrologists, surgeons, radiologists, and dialysis staff, streamlined by a dedicated access coordinator, improves DVA management and outcomes (23).

The results of this study, informed by the published literature, suggest that patients treated in the FOC achieve favorable results due to the synergy of the provider specialty, receipt of anticipatory care, and use of a dedicated access team with proper coordination. The exclusion of any one of these aspects may inhibit favorable outcomes. Based on the results of this and other studies investigating the impact of FOCs on patient outcomes and Medicare payments, proper incentives could be developed to ensure that patients are receiving care in the setting that provides for the best patient outcomes.

This study serves as the first published research to analyze patient outcomes using a 4-year national dataset that captures all care across all sites of service. This methodology allows for very rigorous risk-adjustment methods to be implemented and spans beyond the practice patterns of select, geographically focused access centers. Furthermore, this study includes over 55,000 ESRD patients matched on demographic characteristics, clinical characteristics (laboratory values and comorbidities), and access type, who represent about 10% of ESRD patients nationally.

There are, however, limitations to this approach. First, while all healthcare utilization is captured in the USRDS database, this study was limited to the use of administrative claims data and select clinical information. USRDS data includes several clinical fields, but the use of medical records would have increased our ability to identify DVA-related outcomes beyond the specificity of CPT and ICD-9 coding. All comorbidity and clinical values, however, were defined using USRDS methodology. Second, the reliance on administrative claims over a fixed period of time precludes examining the patients' healthcare utilization prior to the study period. Therefore, prior complications or historical utilization cannot be included in our propeosity score model. As indicated by the ability to match patients across sites of service based on rigorous patient demographic and clinical characteristics, we believe, however, that this study reflects minimum residual selection bias among those who are treated in the FOC compared with those who are treated in the HOPD.

In conclusion, these results suggest that patients who receive care from a FOC that provides a multidisciplinary approach with a dedicated care team have significantly better patient outcomes and lower mortality rates at a significantly reduced cost to Medicare. These outcomes may be the result of receiving anticipatory care to maintain DVA health from dedicated physician specialists working within a coordinated care environment.

Acknowledgments

The authors gratefully acknowledge Samuel Awuah at Lifeline Vascular Access, a DaVita Healthcare Partners® affiliate, for his thoughtful guidance and support throughout the study. The authors would also like to acknowledge the staff at the National Institute of Diabetes and Digestive and Kidney for maintaining the USRDS database and making comprehensive claims-level data available for analysis.

Funding

This research was funded by a contract with Lifeline Vascular Access, a DaVita Healthcare Partners® affiliate. These funding sources, beyond the identified authors, had no involvement in the design or execution of the study.

The content expressed is the responsibility and opinion of the authors and not their affiliation.

References

1. National Kidney Foundation: KDOQI Clinical Practice Guidelines for Vascular Access. *Am J Kidney Dis* 48(Suppl 1):S176–S273, 1996.
2. Beathard GA: Integrated vascular access management. *Blood Purif* 21:89–98, 2003.
3. Trojano M, Pellegrini F, Paolicelli D, Fuiani A, Di Renzo V: Observational studies: propensity score analysis of non-randomized data. *International MS Journal* 16:90–97, 2009.
4. Austin PC: An introduction to propensity score methods for reducing the effects of confounding in observational studies. *Multivar Behav Res* 46:399–424, 2011.
5. Kuss O, Legler T, Borgermann J: Treatments effects from randomized trials and propensity score analyses were similar in similar populations in an example from cardiac surgery. *J Clin Epidemiol* 64(10):1076–84, 2011.
6. Dehejia R, Wahba S: Propensity score-matching methods for nonexperimental causal studies. *The Review of Economics and Statistics* 84 (1):151–161, 2002.
7. Rosenbaum PR, Rubin DB: The central role of the propensity score in observational studies for causal effects. *Biometrika* 70(1):41–55, 1983.
8. Austin PC: Optimal caliper widths for propensity-score matching when estimating differences in means and differences in proportions in observational studies. *Pharm Stat* 10:150–161, 2011.
9. Arnold WP: Improvement in hemodialysis vascular access outcomes in a dedicated access center. *Semin Dialysis* 13:359–363, 2001.
10. Jackson J, Litchfield T: How a dedicated vascular access center can promote increased use of fistulas. *Nephrol Nurs J* 33:195, 2006.
11. Kian K, Takesian K, Wyatt C, Vassalotti J, Mishler R, Schon D: Efficiency and outcomes of emergent vascular access procedures performed at a dedicated outpatient vascular access center. *Semin Dial* 20:346–50, 2007.
12. Mishler R, Sands JJ, Ofsthun NJ, Tend M, Schon D, Lazarus JM: Dedicated outpatient vascular access center decreases hospitalization and missed outpatient dialysis treatments. *Kidney Int* 69:393–398, 2006.
13. Jain K, Munn J, Rummel M, Vuddineni S, Langton C: Future of vascular surgery is in the office. *J Vasc Surg* 51:509–514, 2010.
14. Asif A, Besarab A, Roy-Chaudhury P, Spergel LM, Ravani P: Interventional nephrology: from episodic to coordinated vascular access care. *J Nephrol* 20:399–405, 2007.
15. Schwab S: Vascular access for hemodialysis. *Kidney Int* 55:2078–2090, 1999.
16. US Renal Data System: *USRDS 2011 Annual Data Report: Atlas of End-Stage Renal Disease in the United States*. Bethesda, MD: National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases, 2011
17. Wasse H, Speckman RA, Frankenfield DL, Rocco MV, McClellan WM: Predictors of delayed transition from central venous catheter use to permanent vascular access among ESRD patients. *Am J Kidney Dis* 49:276–253, 2007.
18. Astor BC, Eustace JA, Powe NR, Klag MJ, Sadler JH, Fink NE, Coresh JC: Timing of nephrologist referral and arteriovenous access use: the CHOICE study. *Am J Kidney Dis* 38:494–501, 2001.
19. Stehman-Breen CO, Sherrard DJ, Gillen D, Caps M: Determinants of type and timing of initial permanent hemodialysis vascular access. *Kidney Int* 57:639–645, 2000.
20. Beathard GA, Litchfield T: Physician operators Forum of RMS Lifeline, Inc: effectiveness and safety of dialysis vascular access procedures performed by interventional nephrologists. *Kidney Int* 66:1622–1632, 2004.
21. Kalman P, Pope M, Bhola C, Richardson R, Saiderman K: A practical approach to vascular access for hemodialysis and predictors of success. *J Vasc Surg* 30:727–733, 1999.
22. Jackson J, Lewis JL, Brouillette JR, Braatley RR Jr: Initial experience of a nephrologist-operated vascular access center. *Semin Dialysis* 13:354–358, 2008.
23. Allon M: Current management of vascular access. *Clin J Am Soc Nephrol* 2:786–800, 2007.

Staffing, 77 Ill. Admin. Code 1110.1540(i)

The facility will appoint one the existing NANI physicians, all Board certified nephrologists, to act in the capacity of medical director for the facility.

The staffing of the facility will consist of already employed individuals and includes the following positions:

- 4 Registered Nurses (already employed)
- 1 Vascular Care Coordinator (already employed)
- 2 Radiological Technologist (already employed)
- 1 Facility Manager (may be responsibility of existing personnel)
- 1 Administrative Staff (already employed)
- 1 Medical Director (already employed)

As needed, additional staff will be identified and employed utilizing existing job search sites and professional placement services.

Charge Commitment, 77 Ill. Admin. Code 1110.1540(j)

A list of the procedures and charges with the proposed ASC is below. Illinois Vascular Care verifies it will adhere to these charges for a minimum of 24 months.

CPT Description	2017 CPT Code	2017 POS 24 Charge ASC Amount
Fistulogram	36901	1,500.00
Venous Angioplasty	36902	3,300.00
Arterial Angioplasty	36902	3,300.00
Stent + Angioplasty	36903	15,000.00
Thrombectomy + Angioplasty	36905	6,100.00
Stent + Thrombectomy	36906	18,000.00
Central Venous Cath Insertion	36558	1,811.45
	77001	
	76937	
Central Venous Cath Removal	36589	2,016.46
Central Venous Cath Exchange	36581	
	77001	
Cephalic Vein Transposition Fistula	36818	2,015.00
BVT Fistula	36819	2,127.00
Forearm Vein Transposition Fistula	36820	2,127.00
Direct Anastomosis Fistula	36821	1,927.00
AV Graft Creation	36830	1,940.00
PD Catheter Insertion	49418	3,667.00
PD Catheter Removal	49422	1,085.00
Fistula Revision	36832	2,200.00
Pseudo aneurysm	36901	1,500.00
Injection with Fistulagram	36002	3,300.00
Vein Mapping	36005	
	75820	
	75827	
Direct Brachial Puncture w/Fistula imaging	36140	1,800.00
	36901-52	

Angioplasty w/Selective Cath & Imaging	36902 36215 75710	5,975.00
Thrombectomy no Angioplasty	36904	4,000.00
Central Venous Angioplasty	36902 36907	5,300.00
Central Venous Stenting	36902 36908	5,300.00
Embolization	36901 36909	6,800.00
Thrombectomy w/Arterial Thrombus	36905 37186 36215 75710	11,778.00
Embolization w/Foreign Body Retrieval	36901 36909 37197	9,803.00
Arterial Angioplasty	37246	4,600.00
Outside Fistula	36902 36215 75710	5,975.00
Venous Angioplasty	37248	4,000.00
No Fistula Cannulation	36581 77001	1,693.61
Angioplasty w/IVUS	36902 37252	7,000.00
Ligation Collateral Vessel	37607	918.00
Fistula Superficialization Revision	36832	2,200.00

Assurances, 77 Ill. Admin. Code 1110.1540(k)

Illinois Vascular Care herby attests, in accordance with the provisions of 735 ILCS 5/1-109, that it will implement a peer review program to evaluate whether patient outcomes are consistent with quality standards as established by the relevant professional organizations. In the unlikely event that the outcomes being experienced do not meet or exceed those standards, an appropriate quality improvement plan will be initiated.

As shown below, the project will exceed the utilization standard for ASTCs within the first year of opening it's doors.

UTILIZATION					
	DEPT./ SERVICE	HISTORICAL UTILIZATION (PATIENT DAYS) (TREATMENTS) ETC.	PROJECTED UTILIZATION	STATE STANDARD	MEET STANDARD?
YEAR 1	ASTC	2,011	79.80%	>1500 Hours	Yes
YEAR 2	ASTC	2,031	80.60%	>1500 Hours	Yes

Availability of Funds, 77 Ill. Admin. Code 1120.120

This project will be funded with a combination of cash on hand and loan from Huntington Bank.

The cash necessary to complete this project is evidenced by the attached bank statement and the accompanying affidavit verifying that these funds are explicitly dedicated to the establishment of this ASTC with the only limited condition being the approval of the HFSRB.

Huntington

December 7, 2017

Mr. Bill Brennan
Nephrology Associates of Northern Illinois
120 W 22nd St
Oakbrook, IL 60523

Summary of ASC Loan Terms

Dear Bill:

The purpose of this letter is to summarize the terms of the loan provided to NANI:

Bank:	The Huntington National Bank, N.A.
Loan Facility:	**Delayed Draw Term Loan**
Borrower:	Nephrology Associates of Northern Illinois and its related parties ("NANI" or "Borrower")
Loan Amount:	$3,000,000
Purpose:	Finance 100% of the costs associated with upgrading access centers to Ambulatory Surgical Center standards
Term/Amortization:	Five years from the date of close (May 2017)
Repayment:	Interest only for the first 12 months, with the balance due in equal monthly principal payments plus interest based on straight-line commercial amortization over 48 months thereafter.
Interest Rate:	LIBOR plus 2.25%.

The credit facility is open and available for draws at any time for the Borrower. Supporting documentation for draw requests includes copies of invoices for work performed.

Sincerely,

Stanton H Barnett
SeniorVice President/Group Manager
The Huntington National Bank
678 Lee Street
Des Plaines, IL 60016
O: 847-391-6280

Nephrology Associates of Northern Illinois, LTD

120 W 22nd Street · Oak Brook, IL 60523 · Phone 630-573-5000 · Fax 630-368-0280

December 7, 2017

Ms. Kathryn J. Olson, Chair
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, 2nd Floor
Springfield, IL 62761

Dear Ms. Olson:

In accordance with the verification provision of 735 ILCS 5/1-109 of the Illinois Code of Civil Procedure, I hereby certify under penalty of perjury that the $106,690 in funds referenced as cash on hand is designated for and will remain available for the completion of this ASTC project. The funds are currently available and will remain available for the throughout the Certificate of Need process and have been designated solely for the use of completing this project, subject to the approval by the Health Facilities and Services Review Board.

I hereby certify this is true and based upon my personal knowledge, and under penalty of perjury and in accordance with 735 ILCS 5/1-109.

Brian J. O'Dea

Nephrology Associates of Northern Illinois, LTD

120 W 22nd Street · Oak Brook, IL 60523 · Phone 630-573-5000 · Fax 630-368-0280

December 7, 2017

Ms. Kathryn J. Olson, Chair
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, 2nd Floor
Springfield, IL 62761

Dear Ms. Olson:

In accordance with the verification provision of 735 ILCS 5/1-109 of the Illinois Code of Civil Procedure, I hereby certify under penalty of perjury that the $3,000,000 in funds referenced in the December 7, 2017 letter from Huntington Bank, executed by Stanton H. Barnett, are designated for and will remain available for the completion of this ASTC project. The funds are currently available and will remain available for the throughout the Certificate of Need process and have been designated solely for the use of completing this project, subject to the approval by the Health Facilities and Services Review Board.

This is to confirm that through our analysis of funding options for this project that:

- Borrowing is less costly than the liquidation of existing investments, and the existing investments begin retained may be converted to cash or used to retire debt within a 60-day period; and
- The selected form of debt financing for the project will be at the lowest net cost available.

I hereby certify this is true and based upon my personal knowledge, and under penalty of perjury and in accordance with 735 ILCS 5/1-109.

Brian J. O'Dea

Nephrology Associates of Northern Illinois, Ltd. and Nephrology Associates of Northern Indiana, P.C. and Subsidiaries and Affiliates

Oak Brook, Illinois

Financial Statements

Years Ended December 31, 2016 and 2015

NANI
Nephrology Associates of Northern Illinois and Indiana

WIPFLI LLP
CPAs and Consultants

WIPFLi LLP

Independent Auditor's Report

To the Executive Committee of
Nephrology Associates of Northern Illinois, Ltd. and Nephrology Associations of Northern Indiana, P.C. and Subsidiaries and Affiliates

Report on the Combined Financial Statements
We have audited the accompanying combined financial statements of Nephrology Associates of Northern Illinois, Ltd. and Nephrology Associations of Northern Indiana, P.C. and Subsidiaries and Affiliates (the "Company"), which comprise the combined balance sheet as of December 31, 2016, and the related combined statements of operations, equity, and cash flows for the year then ended and the related notes to the combined financial statements.

Management's Responsibility for the Combined Financial Statements
Management is responsible for the preparation and fair presentation of these combined financial statements in accordance with accounting principles generally accepted in the United States; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility
Our responsibility is to express an opinion on these combined financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the combined financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the combined financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the combined financial statements whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the combined financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the combined financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion
In our opinion, the combined financial statements referred to above present fairly, in all material respects, the financial position of Nephrology Associates of Northern Illinois, Ltd. and Nephrology Associations of Northern Indiana, P.C. and Subsidiaries and Affiliates as of December 31, 2016, and the results of their operations and their cash flows for the year then ended in accordance with accounting principles generally accepted in the United States.

WIPFLi LLP

Prior Period Financial Statements

The combined financial statements of Nephrology Associates of Northern Illinois, Ltd. and Nephrology Associations of Northern Indiana, P.C. and Subsidiaries and Affiliates, as of December 31, 2015, were audited by other auditors whose report dated May 26, 2016 , expressed an unmodified opinion on those statements. Their report also stated that the accompanying 2015 supplementary information was fairly stated in all material respects in relation to the 2015 financial statements as a whole.

Report on Supplementary Information

Our audit was conducted for the purpose of forming an opinion on the 2016 combined financial statements as a whole. The Nephrology Associates of Northern Illinois, Ltd. and Nephrology Associations of Northern Indiana, P.C. and Subsidiaries and Affiliates combining balance sheets and combining statements of operations are presented for purposes of additional analysis of the combined financial statements rather than to present the financial position and results of operations of the individual entities and are not a required part of the combined financial statements. The other combining balance sheets and statements of operations with joint venture information are presented for the purpose of additional analysis and are not a required part of the combined financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the combined financial statements. The supplementary combining and other informational schedules have been subjected to the auditing procedures applied in the audit of the 2016 combined financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the combined financial statements or to the combined financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States. In our opinion, the 2016 information is fairly stated in all material respects in relation to the combined financial statements as a whole.

Wipfli LLP

Wipfli LLP
Buffalo Grove, Illinois
May 15, 2017

Nephrology Associates of Northern Illinois, Ltd. and Nephrology Associations of Northern Indiana, P.C. and Subsidiaries and Affiliates

Combined Balanced Sheets

As of December 31,	2016	2015
Current assets:		
	$	
Total current assets	12,232,772	11,224,311
Total property and equipment	4,707,093	4,775,647
Other assets:		
Total other assets	46,011,681	37,300,532
TOTAL ASSETS	$ 62,951,546	$ 53,300,490

Nephrology Associates of Northern Illinois, Ltd. and Nephrology Associations of Northern Indiana, P.C. and Subsidiaries and Affiliates

Combined Balanced Sheets (Continued)

As of December 31,	2016	2015
Current liabilities:		
[redacted]		
Total current liabilities	19,029,337	19,701,106
Long-term liabilities:		
[redacted]		
Total long-term liabilities	16,873,031	14,458,442
Total liabilities	35,902,368	34,159,548
Equity		
[redacted]		
Total NANI stockholders' equity	5,639,259	3,641,720
[redacted]		
Total Equity	27,049,178	19,140,942
TOTAL LIABILITIES AND EQUITY	$ 62,951,546	$ 53,300,490

See accompanying notes to combined financial statements.

Nephrology Associates of Northern Illinois, Ltd. and Nephrology Associations of Northern Indiana, P.C. and Subsidiaries and Affiliates

Combined Statements of Operations

Years Ended December 31,	2016	2015
Revenue		
Net patient service revenue	49,449,211	46,680,288
Total revenues	60,312,472	57,092,421
Operating expenses		
Total operating expenses	64,598,718	60,189,535
Loss from operations	(4,286,246)	(3,097,114)

Nephrology Associates of Northern Illinois, Ltd. and Nephrology Associations of Northern Indiana, P.C. and Subsidiaries and Affiliates

Other income (expense)	[redacted]	[redacted]
Total other income (expense)	25,118,290	17,965,151
Income before income taxes and non-controlling interests	20,832,044	14,868,037
Provision for income taxes	1,488,997	217,882
Net income	19,343,047	14,650,155
Less: net income attributable to non-controlling interests	(17,345,508)	(13,812,797)
Net income attributable to NANI	$ 1,997,539	$ 837,358

See accompanying notes to combined financial statements.

Illinois Vascular Care
Financial Ratio's

	Year 1 Annual Operations	Year 2 Annual Operations	Standard
1. Current Ratio	1.79	**1.84**	**1.5 or more**
Current Assets = Cash (Net Income)	2,593,556	2,655,286	
Current Liabilities=Modernization Contract	1,445,713	1,445,713	
Current Assets / Current Liabilities			
2. Net Margin Percentage	**53.8%**	**54.0%**	**3.5% or more**
Net Income	2,593,556	2,655,286	
Net Operating Revenue x 100	4,816,345	4,913,154	
(Net Income / Net Operatiog Revenue) x 100			
3. Long-Term Debt to Capitalization	**75%**	**59%**	**80.0% or less**
Long-Term Debt	2,276,201	1,820,961	
Long-Term Debt plus Net Assets	3,043,556	3,105,286	
(Long-term Debt / Long-term Debt plus Net Assets) x 100			
4. Projected Debt Service Coverage	**3.94**	**4.17**	**1.5 or more**
Net Income	2,593,556	2,655,286	
Principal payment + interest	659,098	636,370	
Net Income plus (Depreciation plus Interest plus Amortization) / Principal Payments plus Interest Expense for the Year of Maximum Debt Service after Project Completion			
5. Days Cash on Hand	**79**	**78**	**45 days or more**
Cash (Net-Operating Exp)	461,677	465,600	
Daily Operating Expenses	5,841	5,999	
(Cash-Operating Expenses) / (Operating Expenses / 365)			
6. Current Ratio	**3.94**	**4.17**	**3.0 or more**
Cash + Investment + Board Designated Funds	2,593,556	2,655,286	
Principal & Interest Payments	659,098	636,370	
(Cash plus Investments plus Board Designated Funds) / (Principal Payments plus Interest Expense) for the year of maximum debt service after project completion			

Illinois Vascular LLC
Modernizarion Contract Budget

Dept	Description	Amount
DIV 2	Demolition	24,700
	Excavation	2,187
	Landscaping	
DIV 3	Concrete Slabs	13,580
	Gypcrete	
DIV 4	Masonry	
DIV 5	Structural Steel	10,000
	Exterior Misc Metals	
DIV 6	Carpentry	134,000
	Millwork	42,450
	Cabinets	
	Tops	
DIV 7	Insulation/Fireproofing	5,000
	EIFS	
	Roofing & Gutters	2,400
	Caulking	w/paint
DIV 8	Doors & Hardware	37,000
	Storefront / Entry	26,610
	Windows	
	window films	
	Signage Allowance	w/storefront
DIV 9	Drwyall & Tape	15,000
	break metal @ end of walls & windows	
	Metal Framing	25,000
	Acoustical Ceilings	
	- Floor Prep	5,000
	VCT	8,000
	Sheetgoods	39,134
	Carpet	
	Painting	12,270
DIV 10	Wall & Corner Protection	10,000

Illinois Vascular LLC
Modernizarion Contract Budget

	Toilet Accessories	4,500
	Fire Extinguishers	2,500
	Storage Lockers	2,000
	Cubicles / Blinds / OFCI	
	Window Tint	5,016
	Owner Equip Install -Allowance	1,040
DIV 11	Equipment-TV's	
	Appliances	7,284
DIV 12	Furnishings	
DIV 13	Specialities	w/trades
	Lead Shielding	w/trades
DIV 14	Elevators	
DIV 21	Fire Protection	13,480
DIV 22	Plumbing	196,200
	Medical Gas	85,000
	Medical Vacuum	w/med gas
DIV 23	HVAC	350,000
	Aaon Materials/Labor	
DIV 25	BAS/BAC	
DIV 26	Electric	290,325
DIV 27	Telephone / Data Systems	3,710
DIV 28	Security Systems	w/fire
	Fire Alarm	35,000
	Nurse Call	
DIV 900	General Conditions	81,894
DIV 901	Consrtuction Mgmt	45,000
TOTAL		1,535,280

Nephrology Associates of Northern Illinois, LTD

120 W 22nd Street · Oak Brook, IL 60523 · Phone 630-573-5000 · Fax 630-368-0280

December 7, 2017

Ms. Kathryn J. Olson, Chair
Illinois Health Facilities and Services Review Board
525 W. Jefferson Street, 2nd Floor
5pringfield, IL 62761

Dear Ms. Olson:

In accordance with the verification provision of 735 ILCS 5/1-109 of the Illinois Code of Civil Procedure, I hereby certify under penalty of perjury that the $3,000,000 in funds referenced in the December 7, 2017 letter from Huntington Bank, executed by Stanton H. Barnett, are designated for and will remain available for the completion of this ASTC project. The funds are currently available and will remain available for the throughout the Certificate of Need process and have been designated solely for the use of completing this project, subject to the approval by the Health Facilities and Services Review Board.

This is to confirm that through our analysis of funding options for this project that:

- Borrowing is less costly than the liquidation of existing investments, and the existing investments begin retained may be converted to cash or used to retire debt within a 60-day period; and
- The selected form of debt financing for the project will be at the lowest net cost available.

I hereby certify this is true and based upon my personal knowledge, and under penalty of perjury and in accordance with 735 ILCS 5/1-109.

Brian J. O'Dea

Projected Operating Costs, 1120.140(d)

The chart below is the projected direct annual operating costs (in current dollars per equivalent patient day or unit of service) for the first two full fiscal years, both which are expected to reach the level of target utilizations.

Illinois Vascular Care

	Year 1 Annual Operations	Per Day	Per Encounter	Year 2 Annual Operations	Per Day	Per Encounter
Encounters Per Day	7.98			8.06		
Operating Days per year	252			252		
Number of Patient Encounters	2,011			2,031		
Avg Revenue per Encounter	2,395			2,419		
Revenue: % Change						
Net Revenue	4,816,345	19,112	2,395	4,913,154	19,497	2,419
Salaries & Wages	608,366	2,414	303	626,617	2,487	309
Benefits and Taxes	212,928	845	106	219,316	870	108
Total Salaries, Wages & Benefits	821,295	3,259	408	845,933	3,357	416
Medical Supplies	822,000	3,262	409	846,660	3,360	417
Other Center Operating Expenses:						
Building Rent	108,384			111,636		
Equip & Buildout Lease	-			-		
Machine Maintenance & Repair	9,800			10,094		
Facility Maintenance & Repair	35,000			36,050		
Utilities	14,000			14,420		
Telephone	12,000			12,360		
Office Supplies/Minor Equipment	15,000			15,450		
Travel & Entertainment	1,000			1,030		
Other Purchase Services	5,000			5,150		
Taxes & Licenses	600			618		
Patient Transportation	58,000			59,740		
Laundry & Linen	18,000			18,540		
Freight/Postage	208			206		
Equipment Rental	1,200			1,236		
Insurance	1,400			1,442		
Other	4,000			4,120		
Total Other Ctr Operating Expenses	283,584	1,125	141	292,092	1,159	144
Total Oper Exp Before Mgmt Fees	1,926,879	7,646	958	1,984,685	7,876	977
Management Fees	205,000	813	102	205,000	813	101
Total Operating Expenses	2,131,879	8,460	1,060	2,189,685	8,689	1,078
Interest	90,910	361	45	68,183	271	34
Return to Practice	2,593,556	10,292	1,290	2,655,286	10,537	1,307

Total Effect of the Project on Capital Costs, 77 Ill. Admin. Code 1120.140 (e)

The chart below outlines the total project annual capital costs (in current dollars per equivalent patient day) for the first two full fiscal years at target utilization.

Illinois Vascular Care

	Year 1 Annual Operations	Per Day	Per Encounter	Year 2 Annual Operations	Per Day	Per Encounter
Encounters Per Day	7.98			8.06		
Operating Days per year	252			252		
Number of Patient Encounters	2,011			2,031		
Avg Revenue per Encounter	2,395			2,419		
Revenue: % Change						
Net Revenue	4,816,345	19,112	2,395	4,913,154	19,497	2,419
Salaries & Wages	608,366	2,414	303	626,617	2,487	309
Benefits and Taxes	212,928	845	106	219,316	870	108
Total Salaries, Wages & Benefits	821,295	3,259	408	845,933	3,357	416
Medical Supplies	822,000	3,262	409	846,660	3,360	417
Other Center Operating Expenses:						
Building Rent	108,384			111,636		
Equip & Buildout Lease	-			-		
Machine Maintenance & Repair	9,800			10,094		
Facility Maintenance & Repair	35,000			36,050		
Utilities	14,000			14,420		
Telephone	12,000			12,360		
Office Supplies/Minor Equipment	15,000			15,450		
Travel & Entertainment	1,000			1,030		
Other Purchase Services	5,000			5,150		
Taxes & Licenses	600			618		
Patient Transportation	58,000			59,740		
Laundry & Linen	18,000			18,540		
Freight/Postage	200			206		
Equipment Rental	1,200			1,236		
Insurance	1,400			1,442		
Other	4,000			4,120		
Total Other Ctr Operating Expenses	283,584	1,125	141	292,092	1,159	144
Total Oper Exp Before Mgmt Fees	1,926,879	7,646	958	1,984,685	7,876	977
Management Fees	205,000	813	102	205,000	813	101
Total Operating Expenses	2,131,879	8,460	1,060	2,189,685	8,689	1,078
Interest	90,910	361	45	68,183	271	34
Return to Practice	2,593,556	10,292	1,290	2,655,286	10,537	1,307

Reasonableness of Project and Related Costs, 1120.140(c)

Below is outlined the cost per square foot for the establishment of the ASTC, taking into consideration the entirety of the modernization and excluding those costs solely attributable to the fair market value lease of the property.

COST AND GROSS SQUARE FEET BY DEPARTMENT OR SERVICE									
	A	B	C	D	E	F	G	H	
Department (list below)	Cost/Square Foot New	Cost/Square Foot Mod.	Gross Sq. Ft. New	Gross Sq. Ft. Circ.*	Gross Sq. Ft. Mod.	Gross Sq. Ft. Circ.*	Const. $ (A x C)	Mod. $ (B x E)	Total Cost (G + H)
ASTC		$380.15			3,726			$1,416,460	$1,416,460
Contingency		$34.22			3.048			$104,320	$104,320
TOTALS		$414.37			6,774			$1,520,780	$1,520,780
* Include the percentage (%) of space for circulation									

Safety Net Impact Statement

This project should have significant impact on essential safety net services in the community. A very high percentage of ESRD patients qualify for Medicaid and Medicare insurance to pay for their dialysis treatment. Many of these same patients rely on safety net providers for all of their healthcare needs. The vascular access procedures that will take place at Illinois Vascular Care will undoubtedly relieve pressure on existing providers in the area, while providing patients with a facility dedicated to ensuring they can continue receiving life-sustaining dialysis treatments.

Furthermore, the applicant participants in the only ESRD Seamless Care Organization (ESCO) in Chicago. The ESCO is designed to allow dialysis facilities, nephrologists, and other health care providers to communicate and work together closely, so they can deliver high-quality care that meets the patient's needs. Illinois Vascular Care and NANI are committed to providing the highest quality of care in the most cost efficient manner possible. Working with the ESCO in Chicago will create additional efficiencies that will benefit patients and insurers.

Safety Net Information per PA 96-0031			
CHARITY CARE			
Charity (# of patients)	**2014**	**2015**	**2016**
Total Outpatient	10	3	7
Charity (cost In dollars)			
Outpatient	$52,724	$19,031	$21,788
Percentage	**2.38%**	**0.93%**	**1.03%**
MEDICAID			
Medicaid (# of patients)	**2014**	**2015**	**2016**
Outpatient	48	45	10
Total	48	45	10
Medicaid (revenue)			
Total Outpatient	$66,209	$70,364	$2,326
Percentage	2.98%	3.43%	0.11%

Note: These amounts reflect charity care provided, but not in accordance with the statutory definition.

Charity Care Information

CHARITY CARE			
	2014	2015	2016
Net Patient Revenue			
Amount of Charity Care (charges)	$52,724	$19,031	$21,788
Cost of Charity Care	$52,724	$19,031	$21,788

Note: These amounts reflect charity care provided, but not in accordance with the statutory definition.

After paginating the entire completed application indicate, in the chart below, the page numbers for the included attachments:

INDEX OF ATTACHMENTS

ATTACHMENT NO.		PAGES
1	Applicant Identification including Certificate of Good Standing	27-29
2	Site Ownership	30-32
3	Persons with 5 percent or greater interest in the licensee must be identified with the % of ownership.	33-34
4	Organizational Relationships (Organizational Chart) Certificate of Good Standing Etc.	35
5	Flood Plain Requirements	36
6	Historic Preservation Act Requirements	37-42
7	Project and Sources of Funds Itemization	43-44
8	Financial Commitment Document if required	45
9	Cost Space Requirements	
10	Discontinuation	
11	Background of the Applicant	46
12	Purpose of the Project	47-48
13	Alternatives to the Project	49-50
14	Size of the Project	51
15	Project Service Utilization	
16	Unfinished or Shell Space	
17	Assurances for Unfinished/Shell Space	
18	Master Design Project	
	Service Specific:	
19	Medical Surgical Pediatrics, Obstetrics, ICU	
20	Comprehensive Physical Rehabilitation	
21	Acute Mental Illness	
22	Open Heart Surgery	
23	Cardiac Catheterization	
24	In-Center Hemodialysis	
25	Non-Hospital Based Ambulatory Surgery	52-91
26	Selected Organ Transplantation	
27	Kidney Transplantation	
28	Subacute Care Hospital Model	
29	Community-Based Residential Rehabilitation Center	
30	Long Term Acute Care Hospital	
31	Clinical Service Areas Other than Categories of Service	
32	Freestanding Emergency Center Medical Services	
33	Birth Center	
	Financial and Economic Feasibility:	
34	Availability of Funds	92-102
35	Financial Waiver	
36	Financial Viability	103-105
37	Economic Feasibility	106-109
38	Safety Net Impact Statement	110
39	Charity Care Information	111

Benesch
Attorneys at Law

Mark J. Silberman
333 West Wacker Drive, Suite 1900
Chicago, IL 60606
Direct Dial: 312.212.4952
msilberman@beneschlaw.com

December 8, 2017

VIA FEDEX

Courtney Avery
Illinois Health Facilities and
Services Review Board
535 W. Jefferson Street, Floor 2
Springfield, IL 62761

Re: Application and request for expedited review

Dear Courtney:

Enclosed please find our application on behalf of Illinois Vascular Care, LLC and Nephrology Associates of Northern Illinois, LTD to establish a single-specialty Ambulatory Surgical Treatment Center. Accompanying the two copies of the application (original marked) is the requisite check for $2,500. Should there be any additional information needed, please do not hesitate to contact me or my colleague, Juan Morado, Jr., to address any questions or concerns.

Please also accept, herein, this as our request for expedited review of this application. We are requesting that this project be heard no later than the February 27, 2018 meeting of the Board. As outlined in this application, the location at which these procedures are currently able to be performed, NANI only has part-time access and is having to turn away patients in need of care. As discussed the last time NANI was before the Board, this is a transition that is being driven by government changes in reimbursement designed to see these procedures performed in ASTCs or hospitals. Time is of the essence in making sure this vulnerable patient population continues to receive the necessary care and has access to the life-saving treatments they need.

If additional rationale or reasoning would be of assistance, please do not hesitate to let us know.

Best regards,

BENESCH, FRIEDLANDER,
COPLAN & ARONOFF LLP

Mark J. Silberman

MJS:mls
Attachments