March 30, 2011

Mr. Craig Smith, Chief
Certificate of Need Section
Division of Health Service Regulation
2704 Mail Service Center
Raleigh, NC 27699-2704

RE: Comments Regarding Certificate of Need Applications:
WakeMed CON Project ID # #J-8631-11 (Wake County)
Duke Raleigh Hospital CON Project ID # J-8629-11 (Wake County)

Dear Mr. Smith:

I am submitting comments regarding the above referenced project applications on behalf of University of North Carolina Hospitals. These comments are submitted in accordance with NCGS 131E-185(a1)(1) and reference specific statutory criteria and criteria and rules relevant to this review.

Thank you for your consideration of the enclosed information. Should you have any questions, please do not hesitate to contact me.

Sincerely,

David J. French
Consultant to University of North Carolina Hospitals

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In project application #J-8631-11, WakeMed proposes to add fourteen rehabilitation beds to its existing facility for a total of 98 rehabilitation beds. The application is flawed based on unreasonable utilization projections. The application is not conforming to specific CON review criteria as follows:

(1) The proposed project shall be consistent with applicable policies and need determinations in the State Medical Facilities Plan, the need determination of which constitutes a determinative limitation on the provision of any health service, health service facility, health service facility beds, dialysis stations, operating rooms, or home health offices that may be approved.

The 2011 State Medical Facilities Plan (2011 SMFP) includes a need determination for fourteen acute rehabilitation beds. WakeMed's proposal does not exceed the need determination. However, the application does not adequately demonstrate that its projected volumes for the proposed inpatient rehabilitation beds incorporate the basic principles (Policy GEN-3) in meeting the needs of patients to be served. See Criterion 3 for additional discussion. The applicant does not adequately demonstrate the need for the project and therefore fails to adequately demonstrate that the proposed project is a cost-effective approach. Therefore the application is not conforming to Policy Gen-3 and is not conforming to criterion 1.

(3) The applicant shall identify the population to be served by the proposed project, and shall demonstrate the need that this population has for the services proposed, and the extent to which all residents of the area, and, in particular, low income persons, racial and ethnic minorities, women, handicapped persons, the elderly, and other underserved groups are likely to have access to the services proposed.

The WakeMed application fails to conform to Criterion 3 because the patient origin projections are unreasonable and the utilization projections are overstated and unreasonable.

WakeMed's application provides patient origin projections for future years that vary significantly from its patient origin data for the most recent 12 month period. These discrepancies for Wake and Johnston Counties are shown in the following table:

Patient Origin Counties	Jan 1, 2010 to Dec. 31, 2010 Historical	Oct. 1, 2012 to Sept. 30, 2013 Projected
Wake	56.30%	59.56%
Johnston	9.75%	12.24%

It is unreasonable for WakeMed to project to serve higher percentages of patients from Wake and Johnston Counties in future years because page 97 of the application demonstrates that over the past three years WakeMed's numbers of patients from Wake and Johnston Counties have declined. This decline in the actual number of patients from Wake and Johnston occurred even though WakeMed added inpatient rehabilitation beds. The applicant fails to demonstrate that its projected volumes for the proposed fourteen additional inpatient rehabilitation beds are reasonable in light of the decline in the numbers of cases that originate from within its core market area. WakeMed has experienced a dramatic decline in the number of rehab cases from both Wake and

Johnston Counties. The following table summarizes the historical data from page 97 of the application:

WakeMed Rehab Market Area Cases			
	2008	2009	2010
Wake County Cases	1,021	966	973
Johnston County Cases	212	201	155
All Other NC Counties	482	497	503
Total WakeMed Rehab Cases	1,715	1,664	1,631

The WakeMed methodology is defective because it is calculated based on 5-year average market share percentages. Using a 5-year average market share is unreliable because it fails to accurately reflect the importance and full values of the most recent years' utilization data that is the basis of the methodology and need determinations of the 2011 State Medical Facilities Plan. The following table shows the percentage change for 2008 through 2010 for WakeMed rehab cases, focusing again on Wake and Johnston Counties:

WakeMed Rehab Hospital Market Area Cases			
Cases obtained from Table IV.8 page 97.			
	2008	*2009*	*2010*
Wake County Cases	1021	966	973
Percentage change from previous year		-5.39%	0.72%
Johnston County Cases	212	201	155
Percentage change from previous year		-5.19%	-22.89%

But in contrast to the above historical data showing the decline in cases, WakeMed's methodology produces overstated values for the number of projected patient cases from Wake and Johnston County. The next table shows WakeMed's projections for 2011 (in the last column to the right) based on its flawed methodology.

WakeMed Rehab Hospital Market Area Cases				
Cases obtained from Table IV.8 page 97.				Cases Obtained from Table IV.10
	2008	*2009*	*2010*	*2011*
Wake County Cases	1021	966	973	1035
Percentage change from previous year		-5.39%	0.72%	6.37%
Johnston County Cases	212	201	155	213
Percentage change from previous year		-5.19%	-22.89%	37.42%

Over the past three years, WakeMed has not achieved an increase in patients from Wake County that supports its projected increase for 2011 and future years. WakeMed's methodology fails to adequately explain the projected increase from 973 Wake County cases in 2010 to its projected 1035 Wake County cases in 2011. This increase of 62 cases represents a 6.3 percent one year gain that is inconsistent with the decline in actual utilization for the previous years.

WakeMed has had two consecutive years of decline in the number of cases from Johnston County. The applicant's projection of 213 Johnston County cases for 2011 as compared to 155 in 2010, represents a 37.4% one year increase. This increase in the number of patients from Johnston is unreasonable and is not adequately explained in the application.

On page 99 of the application, the applicant shows continuing growth year after year for the number of rehabilitation cases from both Wake and Johnston Counties as well as the "Other Counties". These projections are flawed and unreliable because the 5-year average market share percentages fail to accurately reflect the decline in the actual number of rehabilitation patients that have been admitted to WakeMed in recent years. Page 97 of the application also demonstrates a large decrease in the number of rehabilitation cases from Chatham, Cumberland, Nash and Warren Counties that were admitted to WakeMed in 2010 as compared to the previous year.

WakeMed Rehab Market Area Cases		
	2009	2010
Chatham	5	1
Cumberland	16	5
Nash	53	45
Warren	7	5

Even with the recent decline in utilization, the WakeMed methodology irrationally projects growth in the combined number of patients from these counties. The applicant fails to provide an adequate explanation for this future growth.

It is most unreasonable for WakeMed to predict future growth in the number of rehabilitation patients from Nash County that will be admitted to WakeMed because Nash General Hospital has 23 licensed inpatient rehabilitation beds and is CARF-accredited. According to the Nash Hospital website, all 23 rehabilitation beds are private whereas most WakeMed rehab beds are semi-private.

Also WakeMed fails to explain how the recent underutilization of the existing orthopedic acute care beds supports the need for fourteen additional inpatient rehabilitation beds. The WakeMed application predicts that approximately 28 percent of its rehabilitation cases will be orthopedic patients based on its historical data. This seems unreasonably high because WakeMed reported in its 2011 Hospital License Renewal Application that six of its thirty three orthopedic acute care beds are not staffed as of September 30, 2010. Inpatient orthopedic surgery cases at WakeMed (New Bern Ave.) dropped 2.3 percent from 2172 cases in 2008-09 to 2111 cases in 2009-10. Furthermore, WakeMed has seen a decline in orthopedic acute care utilization as seen in the following table:

	Beds Staffed 2008-09	Beds Staffed 2008-09	2008-09 Days of Care	2009-10 Days of Care	% Change Previous Year
Orthopedic Beds (33 licensed)	27	27	9,788	8,467	-13.5%

Source: 2010 and 2011 WakeMed Hospital License Renewal Applications

(4) Where alternative methods of meeting the needs for the proposed project exist, the applicant shall demonstrate that the least costly or most effective alternative has been proposed.

The WakeMed application fails to conform to CON Review Criterion 4 because the utilization projections are unreliable and the financial projections are inaccurate. The comments regarding Criterion 3 explain why the utilization projections are unreliable in terms of incorrect patient origin, overstated projections and unreasonable assumptions. Consequently the financial projections are based on unreasonable and overstated utilization projections. Please see the comments regarding Criteria 3 and 5.

(5) Financial and operational projections for the project shall demonstrate the availability of funds for capital and operating needs as well as the immediate and long-term financial feasibility of the proposal, based upon reasonable projections of the costs of and charges for providing health services by the person proposing the service.

The financial projections are based on unreasonable and overstated utilization projections. Please see the comments above regarding Criterion 3. Revenues are overstated based on unreasonable and inflated utilization projections. In addition, WakeMed projects the highest net revenue per discharge of all applicants in this review.

In Year 2 following project completion, WakeMed shows total expenses for Rehab at $34,760,024 based on 1,889 discharges. The total expense per discharge in Year 2 is $18,401 and total expense per day is calculated at $1,266. These expenses are unreliable because the numbers of patients are overstated as discussed in the comments regarding Criterion 3.

(6) The applicant shall demonstrate that the proposed project will not result in the unnecessary duplication of existing or approved health service capabilities or facilities.

The application fails to comply with CON Review Criterion 6 because the application does not conform to CON Review Criterion 3. The WakeMed projections are overstated based on its defective methodology and unreasonable assumptions. Consequently the proposed addition of fourteen beds to WakeMed Rehab Hospital is unjustified and duplicative.

(18a) The applicant shall demonstrate the expected effects of the proposed services on competition in the proposed service area, including how any enhanced competition will have a positive impact upon the cost effectiveness, quality, and access to the services proposed; and in the case of applications for services where competition between providers will not have a favorable impact on cost-effectiveness, quality, and access to the services proposed, the applicant shall demonstrate that its application is for a service on which competition will not have a favorable impact.

WakeMed's proposal does not enhance competition or improve access to services. No new services or specialized patient rooms are proposed. Most of WakeMed's existing rehab beds are semi-private and even with the proposed additional beds the total facility comprises 89,894 square feet or only 917 square feet per bed. This overly compact facility configuration provides very limited space for rehabilitation activities.

WakeMed Rehab Hospital fails to adequately demonstrate that its proposal will have a positive impact upon the cost effectiveness and quality of rehabilitation services. See Criteria (3) and (5) for discussion. Therefore, the applicant is not conforming to this criterion.

Conformance with Section .2800 – Criteria and Standards for Rehabilitation Centers

WakeMed's proposal does not conform to the following regulatory criteria and standards:

10A NCAC 14C .2802 Information Required of Applicant

(e) Projected patient origin

(g) Projected occupancy for all rehab beds for first eight quarters

10A NCAC 14C.2803 Performance Standards

(b) occupancy is projected to be 80% no later than two years following project completion

The WakeMed patient origin projections are unreasonable as discussed in the comments regarding Criterion 3. Utilization projections for the project are unreliable as discussed regarding Criterion 3. Therefore the quarterly projections and the are unreliable and the projected occupancy is not based on reasonable utilization projections.

The Duke Raleigh Hospital CON application # J-8629-11 proposes to develop a fourteen bed inpatient rehabilitation unit. Utilization projections are overstated and unreasonable and cause the application to be nonconforming to multiple CON review criteria. The application is not conforming to specific CON review criteria as follows:

(1) The proposed project shall be consistent with applicable policies and need determinations in the State Medical Facilities Plan, the need determination of which constitutes a determinative limitation on the provision of any health service, health service facility, health service facility beds, dialysis stations, operating rooms, or home health offices that may be approved.

The 2011 State Medical Facilities Plan (2011 SMFP) includes a need determination for fourteen acute rehabilitation beds. The Duke Raleigh Hospital proposal does not exceed the need determination. Nevertheless the application does not adequately demonstrate that its projected volumes for the proposed inpatient rehabilitation beds incorporate the basic principles (Policy GEN-3) in meeting the needs of patients to be served. See Criterion 3 for additional discussion. The applicant does not adequately demonstrate the need for the project and therefore fails to adequately demonstrate that the proposed project is a cost-effective approach. Consequently, the application is not conforming to Policy GEN-3 and is not conforming to Criterion 3.

(3) The applicant shall identify the population to be served by the proposed project, and shall demonstrate the need that this population has for the services proposed, and the extent to which all residents of the area, and, in particular, low income persons, racial and ethnic minorities, women, handicapped persons, the elderly, and other underserved groups are likely to have access to the services proposed.

The application fails to adequately identify the population to be served by the proposed project because page 30 of the application is omitted. No other page in the application provides the projected patient origin by county of residence for the first two years following completion of the project.

Page 29 provides patient origin tables for the acute care discharges. However, these tables are flawed and inadequate because the applicant fails to identify the counties that are included in the "All Other" category that comprise 15.5% of the acute care discharges.

The patient origin data on page 19 of Duke Raleigh Hospital's 2011 License Renewal Application shows that numerous acute care patients originated from HSA IV: Chatham, Durham, Granville, Lee, Orange, and Warren Counties. However, the tables on page 29 do not list any of these HSA IV counties.

Utilization projections for the proposed project are unreliable. Duke Raleigh Hospital unreasonably projects that the utilization of its fourteen bed rehabilitation unit will soar from 214 patients in Year 1 to 333 patients in Year 3.

The following table shows the projected annual number of patients and percentage increase over the previous year.

Duke Raleigh Rehabiltation Projections			
	YR 1	YR 2	YR 3
Rehabiltation Patients	214	306	333
Percentage increase from previous year		43.0%	8.8%

The above annual growth percentages of 43% and 8% far exceed the historic 4.43% annual growth of inpatient rehabilitation days in HSA IV between 2006-2009 that is reported in the 2011 SMFP.

The utilization projections for the proposed project at Duke Raleigh Hospital are unreasonable because patients at Duke Raleigh Hospital, Duke University Hospital and Durham Regional Hospital already have access to the existing thirty bed rehabilitation unit at Durham Regional Hospital. Yet, utilization of the existing rehabilitation beds at Durham Regional Hospital has remained low. The 2011 License Renewal Application for Durham Regional Hospital (managed by DUHS) shows that only twenty four rehab beds were staffed on September 30, 2010. Annual days of care for inpatient rehabilitation at Durham Regional totaled 8,662 days and 79% annual occupancy for the year ending September 30, 2010. This occupancy is less than the 83.3% overall occupancy percentage for all inpatient rehab beds in HSA IV combined (for the reporting period ending September 2009). The occupancy of the 30 rehabilitation beds at Durham Regional Hospital has remained below 80% in previous years. Even though Duke University Health System manages three acute care hospitals in HSA IV, these facilities have not demonstrated sufficient coordination of care and referral demand to support more than 79 percent utilization at the inpatient rehabilitation unit at Durham Regional Hospital.

Additional reasons why the utilization projections for the Duke Raleigh Hospital application are unreasonable include:

The application omits the inpatient rehabilitation utilization projections, methodology and assumptions for the existing 30 bed unit at Durham Regional Hospital for the first three years following completion of the proposed project at Duke Raleigh Hospital. Therefore, the proposed Duke Raleigh Hospital project is duplicative of the existing rehabilitation beds operated by Duke Health System.

Page 37 of the application includes an assumption regarding 55 patient referrals per quarter from Duke Raleigh to other inpatient rehabilitation facilities. The applicant unreasonably expects to capture 100% of these referrals even though other existing licensed and accredited inpatient rehabilitation facilities are available that are closer to the homes and families of many patients.

Page 38 of the methodology and assumptions includes the following statement:
"Beginning in the third quarter of Year 1, quarterly volumes also include the redirection of patients currently referred to skilled nursing facilities, due to the inability to secure a rehab bed, who would receive more appropriate care in an inpatient setting." **This statement is unreasonable because Duke Health System manages the underutilized thirty bed inpatient rehab unit at Durham Regional. In reality, Duke Raleigh Hospital can secure an inpatient rehabilitation bed at Durham Regional Hospital <u>at any time</u>. The application fails to provide sufficient documentation regarding its historical volume of patients referred to skilled nursing due to its supposed inability to secure an inpatient rehab bed.**

(4) Where alternative methods of meeting the needs for the proposed project exist, the applicant shall demonstrate that the least costly or most effective alternative has been proposed.

The application does not conform to CON Review Criterion 4 because the utilization projections are unreliable and the financial projections are inaccurate. The comments regarding Criterion 3 explain why the utilization projections are unreliable in terms of unreasonable patient origin, and overstated and unreliable assumptions and projections. The financial projections are based on unreasonable and overstated utilization projections. Please see the comments regarding Criteria 3 and 5. Due to the overstated volumes and unreasonable financial projections, Duke Raleigh Hospital does not demonstrate that the proposed project is the least costly or most effective alternative.

(5) Financial and operational projections for the project shall demonstrate the availability of funds for capital and operating needs as well as the immediate and long-term financial feasibility of the proposal, based upon reasonable projections of the costs of and charges for providing health services by the person proposing the service.

The financial projections are based on unreasonable and overstated utilization projections. Please see the comments above regarding Criterion 3. Revenues are overstated based on unreasonable and inflated utilization projections.

Total expenses for the project are understated because page 9 of the application includes a table showing that the facility will pay for contractors to provide physiatrist and psychological assessment. However, the income statement for the project, shown on page 75, shows no expenses for professional and purchased services.

Total expenses for the proposed project are understated because no expenses are shown for the line item "Indirect Hospital Overhead-Fixed" which should include the existing building and equipment depreciation plus other overhead / facility related fixed costs such as insurance.

(6) The applicant shall demonstrate that the proposed project will not result in the unnecessary duplication of existing or approved health service capabilities or facilities.

The application does not to comply with CON Review Criterion 6 because the application is nonconforming to CON Review Criterion 3. Specifically, Duke Raleigh Hospital fails to provide the inpatient rehabilitation utilization projections, methodology and assumptions for the existing 30 bed unit at Durham Regional Hospital for the first three years following completion of the proposed project at Duke Raleigh Hospital. If Duke Health System is unable or unwilling to achieve the target 80 percent utilization of its existing 30-bed inpatient rehabilitation unit at Durham Regional Hospital, it should not be approved to add rehabilitation beds at Duke Raleigh Hospital.

(7) The applicant shall show evidence of the availability of resources, including health manpower and management personnel, for the provision of the services proposed to be provided.

The application fails to comply with CON Review Criterion 7 because no contractor is identified to provide psychological assessment. The table on page 9 omits the name of the contractor to provide psychological assessment. The table on page 56 indicates that fifty hours per year is budgeted in Year 2 for contract psychologists. However, fifty hours per

year of contract professional service is an unreasonable projection to serve the expected 306 patients.

(12) Applications involving construction shall demonstrate that the cost, design, and means of construction proposed represent the most reasonable alternative, and that the construction project will not unduly increase the costs of providing health services by the person proposing the construction project or the costs and charges to the public of providing health services by other persons, and that applicable energy saving features have been incorporated into the construction plans.

The application does not comply with CON Review Criterion 12 because the renovation plans for the project show that one component of the rehabilitation project, the proposed ADL apartment, is co-mingled with the acute care beds.

Duke Raleigh Hospital provides a copy of the existing facility floor plan in Exhibit XI.3 pages 451 to 453. The proposed rehabilitation rooms are adjacent to existing acute care beds. The facility plans in Exhibit XI.3 show that one component of the proposed project, the ADL apartment, will be located in the midst of the acute care unit that is physically separate from the fourteen beds of the rehabilitation services. This arrangement of the ADL apartment is unreasonable because it should be designed to be contiguous to the other inpatient rehabilitation services. Instead, the proposed facility design will cause the rehab patients and staff to have to travel through an acute care unit to reach a distant and isolated rehab service component.

The drawing on page 453 is labeled "FootPrint of Existing Hospital" and shows what appears to be the present layout of spaces, rooms and corridors. Many of the spaces on the 3rd floor do not have room labels. However, there are seven existing private patient beds and two existing semi-private patient beds that are labeled and appear in the area where the proposed project is to be developed. The application fails to explain if these are existing acute care patient rooms that are to be de-licensed or relocated. Also, the applicant fails to include the capital cost for the relocation of services that now occupy the 3rd floor area that is to be renovated for the proposed project.

(13) The applicant shall demonstrate the contribution of the proposed service in meeting the health-related needs of the elderly and members of the medically underserved groups, such as medically indigent or low income persons, Medicaid and Medicaid recipients, racial and ethnic minorities and handicapped persons, which have traditionally experienced difficulties in obtaining equal access to the proposed services, particularly those needs identified in the State Health Plan as deserving priority. For the purpose of determining the extent to which the proposed services will be accessible, the applicant shall show:

c. That the elderly and the medically underserved groups identified in this subdivision will be served by the applicant's proposed services and the extent to which each of these groups is expected to utilize the proposed services;

The application does not conform to Criterion 13 c. because Duke Raleigh Hospital aims to provide too few Medicaid patient days of care as compared to the percentages for the existing providers in HSA IV. Table 12 on page 54 of the Duke Raleigh application predicts only 4.6% Medicaid patient days of care. The Medicaid patient days as a percent of total patient days for the existing inpatient rehabilitation services for WakeMed and UNC Hospitals were 14.12% and 21.2% respectively.

(18a) The applicant shall demonstrate the expected effects of the proposed services on competition in the proposed service area, including how any enhanced competition will have a positive impact upon the cost effectiveness, quality, and access to the services proposed; and in the case of applications for services where competition between providers will not have a favorable impact on cost-effectiveness, quality, and access to the services proposed, the applicant shall demonstrate that its application is for a service on which competition will not have a favorable impact.

Duke Raleigh Hospital does not demonstrate that its proposal will have a positive impact upon the cost effectiveness and quality of rehabilitation services. See Criteria 3 and 5 for discussion. This proposal limits Medicaid access as discussed in the comments regarding Criterion 13c. Based on these deficiencies the applicant is not conforming to this criterion.

Conformance with Section .2800 – Criteria and Standards for Rehabilitation Centers

Duke Raleigh Hospital's proposal does not conform to the following regulatory criteria and standards:

10A NCAC 14C .2802 Information Required of Applicant

(b) (3) Plan for allocation of personnel and services

(e) Projected patient origin

(g) Projected occupancy for all rehab beds for first eight quarters

10A NCAC 14C.2803 Performance Standards

(b) occupancy is projected to be 80% no later than two years following project completion

10A NCAC 14C.2805 Staffing and Staff Training

(5) Psychology

The application fails to provide adequate documentation regarding the willingness of a psychologist to provide services for the proposed project. Section VII Table VII.1 shows 50 hours per year budgeted for psychologist contract services. However, this minimal allocation of hours is inconsistent with the projection of over 300 patients per year. Furthermore, no psychologists are named in the application.

Duke Raleigh Hospital omits the patient origin projections as discussed in the comments regarding Criterion 3.

Utilization projections for the project are unreliable as discussed in Criterion 3. Therefore the quarterly projections are also unreliable and the projected occupancy is not based on reasonable utilization projections.

Comparison of Inpatient Rehabiltation CON Applications				
Applicant	**WakeMed**	**Duke Raleigh**	**UNC Hospitals**	**Johnston Memorial**
Project ID	**J-8631-11**	**J-8629-11**	**J-8630-11**	**J-8633-11**
Description	**Add 14 Inpatient Rehab Beds for a total of 98 beds**	**Develop 14 Inpatient Rehab Beds**	**Add 6 Inpatient Rehab Beds for a total of 36 beds, renovate and relocate services**	**Develop 8 Inpatient Rehab Beds**
County	**Wake**	**Wake**	**Orange**	**Johnston**
Location Analysis	**Wake County has majority of existing IR beds**	**Wake County has majority of existing IR beds**	**Adds beds to high growth and high % senior population county in eastern HSA IV**	**Adds beds to high growth county in eastern HSA IV**
Total Capital Cost	**$2,422,165**	**$4,060,700**	**$8,023,700**	**$2,177,291**
Total Rehab Space at Completion	**89,894 SF**	**14,637 SF**	**38,048 SF**	**9,097 SF**
SF per Bed	**917**	**1,046**	**1,057**	**1,137**
SF Space Renovated	**7,329 SF**	**14,637 SF**	**19,824 SF**	**9,097 SF**
Existing IR Beds or Facility Utilization	**Existing 84 IR beds at WakeMed exceed 80%**	**No existing IR Beds at Duke Raleigh; however, Durham Regional 30 beds less than 80% occupancy**	**Existing 30 IR Beds at UNC exceed 80% occupancy**	**No existing IR Beds at Johnston**
Enhances access with private beds and / or specialized rooms	**Adds 14 private rooms but does not address the high number of existing semi-private beds**	**Develops new Rehab Unit with 8 private and 4 semi-private beds**	**Adds 6 private beds, converts 4 existing semi-private rooms to 8 private beds. Special private rooms include Isolation Room, Bariatric Room and Smart Room**	**Developes new Rehab Unit with 8 private beds**
Beds Private and Semi-Private at Completion	**40 Private 58 Semi-private**	**10 Private 4 Semi-private**	**28 Private 8 Semi-private**	**8 Private**
Percentage Private Rooms	**41%**	**71%**	**78%**	**100%**
Projections	**YR 1 29,736 83.1%**	**YR 1 2,681 52.4%**	**YR 1 10,667 81.2%**	**YR 1 1,875 64.2%**
Patient Days / Occupancy	**YR 2 30,414 85.0%**	**YR 2 3,885 76.0%**	**YR 2 11,072 84.3%**	**YR 2 2,402 82.3%**
	YR 3 31,107 86.97%	**YR 3 4,228 82.7%**	**YR 3 11,365 86.5%**	**YR 3 2495 85.4%**
Patient Discharges	**YR 1 1,847**	**YR 1 214**	**YR 1 702**	**YR 1 139**
	YR 2 1,889	**YR 2 306**	**YR 2 728**	**YR 2 179**
	YR 3 1,910	**YR 3 333**	**YR 3 748**	**YR 3 186**
ALOS Overall	**16.1 Days**	**12.5 Days Yr 1 12.7 Days Yrs 2 & 3**	**15.2 Days**	**13.4 Days**
Payor Mix YR 2 Projected				
Medicare	**59.08%**	**74.20%**	**45.70%**	**61.10%**
Medicaid	**14.12%**	**4.60%**	**21.20%**	**10.30%**
Self Pay / Indigent/Charity	**0.76%**	**0.30%**	**5.60%**	**2.90%**
Policy GEN-4 Statement	**Yes**	**Yes**	**Yes**	**Yes**
Rehab Net Rev YR 2	**$38,491,118**	**$5,287,347**	**$8,259,091**	**$2,875,164**
Rehab Total Expense Yr 2	**$34,760,024**	**$3,702,882**	**$12,877,014**	**$2,342,604**
Patient Discharges YR 2	**1889**	**306**	**728**	**179**
Patient Days YR 2	**30414**	**3885**	**11072**	**2402**
Net Rev / Discharge YR 2	**$20,376**	**$17,279**	**$11,345**	**$16,062**
Net Rev / Pt Day	**$1,266**	**$1,361**	**$746**	**$1,197**
Total Expense / Discharge YR 2	**$18,401**	**$12,101**	**$17,688**	**$13,087**
Total Expense / Pt Day	**$1,143**	**$953**	**$1,163**	**$975**

Comparative Analysis

A spreadsheet on the previous page provides comparative data from the project applications. The following comparative analysis demonstrates that the UNC Hospitals application should obtain CON approval.

Conformance with CON Review Criteria

The project application submitted by UNC Hospitals is complete and conforms to all CON review criteria. As discussed in the previous comments the application by WakeMed does not conform to CON Review criteria 1, 3, 4, 5, 6 and 18a. Also, the Duke Raleigh Hospital application does not conform to CON Review Criteria 1, 3, 4, 5, 6, 7, 13a and 18a. The UNC Hospital application is comparatively superior to both these applications.

Geographic Analysis

Health Service Area IV encompasses eleven counties and is served by existing inpatient rehabilitation beds that are distributed as follows:

Maria Parham Hospital	**11 beds**	**in Vance County**
WakeMed	**84 beds**	**in Wake County**
Durham Regional Hospital	**30 beds**	**in Durham County**
UNC Hospitals	**30 beds**	**in Orange County**

The majority of the inpatient rehabilitation beds are located in Wake County. WakeMed proposes to add fourteen beds to its existing 84-bed rehab hospital in Wake County and Duke proposes to develop a new 14-bed rehabilitation unit in Wake County. These two proposals would not enhance geographic access for patients in the other ten counties of the services area. The proposals by WakeMed and Duke are the least effective proposals with regard to geographic access.

Johnston Memorial Hospital proposes to develop an 8-bed inpatient rehabilitation unit which will improve geographic access to patients from Johnston County in eastern HSA IV. The proposal by UNC Hospitals will add six rehabilitation beds to the existing 30 beds in Orange County. This arrangement increase access to rehab beds in the western counties of HSA IV. With regard to geographic access, the Johnston Memorial Hospital and UNC Hospitals proposals are the two superior applications in this review.

Availability of Private Patient Rooms

As described on page 53 of the UNC Hospitals CON application # J-863011, private patient rooms reduce the risk of hospital-acquired infections, allow for greater flexibility in operation and management, and have a positive therapeutic impact on the patients. Increasing the number of private patient rooms will provide rehabilitation patients with greater privacy and sufficient space for in-room therapies that focus on improving functional independence and self care.

The UNC Hospitals project involves an increase of six beds and an increase in the number of private patient rooms as shown in the following chart:

UNC Inpatient Rehabiltation Center	Semi-Private	Private	Total
Current	16 Beds / 8 Rooms	14 Beds	30 Beds
Proposed Project	8 Beds / 4 Rooms	28 Beds	36 Beds

The following table provides a comparison of the project applications based on the numbers and percentages of private patient rooms at completion of the projects.

	Private	Semi-private	% Private
WakeMed	40	58	41%
Duke Raleigh	10	4	71%
UNC Hospitals	28	8	78%
Johnston Memorial	8	0	100%

Projects with higher percentages of total private patient rooms at project completion are comparatively superior because space limitations in the semi-private rooms reduce patient privacy and make it difficult for the patients and staff to interact. Semi-private rooms are less flexible from a capacity standpoint (due to the inability to mix genders in one room) and present difficulties for patient care due to the space restrictions.

Johnston Memorial Hospital proposes to develop eight private rehabilitation beds with the highest percentage of private patient rooms of the four applicants. UNC Hospitals proposes 78% private rooms as the second highest.

Duke Raleigh Hospital offers 71% private rooms. WakeMed proposes only 40% of its beds will be private, the lowest percentage of all applicants. WakeMed is the least effective alternative in terms of percentage of private rooms. The Johnston Memorial Hospital and UNC Hospital proposals are the superior proposals regarding percentage access to private patient rooms.

Square Footage per Bed

The following table provides a comparison of the four project applications based on the total square footage at project completion per bed

	Inpatient Rehab Total S.F. at Completion	Licensed Beds at Completion	S.F. / Bed
WakeMed	89,894 SF	98	917
Duke Raleigh	14,637 SF	14	1,046
UNC Hospitals	38,048 SF	36	1,057
Johnston Memorial	9,097 SF	8	1,137

Duke Raleigh Hospital proposes a rehabilitation unit that has the second lowest square footage per bed and is contiguous to acute care beds. The facility plans in Exhibit XI.3 shows that one component of the proposed project includes the ADL apartment that is located in the midst of the

acute care unit and is physically separate from the fourteen beds that comprise the rehabilitation services. WakeMed proposes the least effective alternative with regard to a design that offers the absolute lowest square footage per bed for the specific needs of rehabilitation patients.

Johnston Memorial proposes the highest square footage per bed based on a plan that includes eight private patient rooms and ample space for rehabilitation services. The UNC Hospitals application proposes the second highest square footage per bed for the 36 bed rehabilitation center. The Johnston Memorial Hospital proposal is comparatively superior in terms of square footage per bed.

UNC Hospitals proposes to develop three specialized patient rooms that can better accommodate patients and the staff caring for those patients. These three patient rooms are included in the total 36-bed licensed capacity of the Rehabilitation Center and include one "smart room", one bariatric room, and an isolation room. While these are specialized private rooms, each will have the flexibility to be used for a wide variety of rehabilitation patients during periods of peak census. UNC Hospitals proposes the second highest total square footage per bed and includes specialized patient rooms to serve patients with spinal cord injuries, severely obese patients and patients requiring infection control isolation. Based on these factors the application by UNC Hospitals is superior in terms of square footage per bed and using the square footage to better accommodate the special needs of rehabilitation patients.

Access by Self Pay / Indigent / Charity and Medicaid Patient Populations

The following table illustrates each applicant's projected percentage of hospital services to be provided to Medicaid and Self Pay/ Indigent / Charity patients in the second year following completion of the project, as stated by the applicants in Section VI.12(a) of the applications.

	Projected Percentage of Services to be Provided to Medicaid Recipients	Projected Perectnage of Services to be Provided to Self Pay / Indigent/Charity
WakeMed	14.12%	0.76%
Duke Raleigh	4.60%	0.30%
UNC Hospitals	21.20%	5.60%
Johnston Memorial	10.30%	2.90%

With regard to access by Self Pay/ Indigent / Charity patients, UNC Hospitals projects the highest and Duke Raleigh projects the lowest percentage of total services to be provided to this category of patients.

With regard to access by Medicaid recipients, UNC Hospitals projects the highest percentage of total services to be provided to Medicaid patients. Duke Raleigh projects the lowest percentage of total services to be provided to Medicaid patient category of the applicants. See Criterion 13c for additional discussion.

Net Revenue

The following table shows the net revenue per patient day for the second operating year for each applicant. Net revenues are taken from Form B for the Inpatient Rehabilitation Facility or Unit of the applications.

	YR 2 Net Revenue	YR 2 Patient Days	YR 2 Net Revenue / Patient Day
WakeMed	$38,491,118	30,414	$1,266
Duke Raleigh	$5,287,347	3,885	$1,361
UNC Hospitals	$8,259,091	11,072	$746
Johnston Memorial	$2,875,164	2,402	$1,197

As shown in the table above, UNC Hospitals projects the lowest net revenue per patient day in the second year of operation. Johnston Memorial Hospital projects the second lowest net revenue per patient day.

Operating Costs

The following table shows the operating costs per patient day for the second operating year for each applicant. Operating costs are taken from Form B for the Inpatient Rehabilitation Facility or Unit of the applications.

	YR 2 Operating Expense	YR 2 Patient Days	YR 2 Operating Expense / Patient Day
WakeMed	$34,760,024	30,414	$1,142.90
Duke Raleigh	$3,702,882	3,885	$953.12
UNC Hospitals	$12,877,014	11,072	$1,163.03
Johnston Memorial	$2,342,604	2,402	$975.27

As shown in the table above, Duke Raleigh Hospital projects the lowest net revenue per inpatient day in the second year of operation. However, the operating expenses for Duke Raleigh are based on projections of a number of inpatient days to be provided that are unsupported and unreliable. Similarly the operating expenses for WakeMed are based on projections of a number of inpatient days to be provided that are unsupported and unreliable. Therefore, Johnston Memorial projects the lowest operating expense per inpatient day that is based on reasonable and supported projections of inpatient days to be provided in the second year of operation.

With regard to operating costs, the UNC Hospitals CON application states the following:

"As the principal teaching hospital for the University of North Carolina - Chapel Hill's School of Medicine, UNC Hospitals provides a comprehensive host of health care services to the citizens of North Carolina. In addition to providing clinical care, the Rehabilitation Center has a far more extensive role in teaching and research as compared to any other hospital in Health Service Area IV. The UNC Rehabilitation Center is integral to the PM & Residency program and provides an ideal setting for a broad range of health professional training programs. Based on these circumstances, the costs of offering rehabilitation services in an academic medical center setting would not be comparable to other hospitals."

Summary of Comparative Analysis:

The following is a summary of the reasons UNC Hospitals is determined to be an effective alternative and should obtain CON approval:

The UNC Hospitals application is complete and conforms to all CON review criteria.

UNC Hospitals proposes to add six rehabilitation beds to Orange County, increasing access to rehab beds in the western portion of HSA IV.

UNC Hospitals provides the second highest percentage of private beds at project completion.

UNC Hospitals projects the second highest square footage per bed and includes renovation of space to better accommodate special needs rehabilitation patients.

UNC Hospitals projects the highest percentage of service to Self Pay/ Indigent / Charity patients.

UNC Hospitals projects the highest percentage of total services to be provided to Medicaid patients.

UNC Hospitals projects the lowest net revenue per patient day in the second year of operation.