

Technology and Equipment Committee

**Positron Emission Tomography
(PET) Scanner
Material**

April 21, 2008

**Need Determination
Related to PET Scanners
Using Two Different Methodologies
With Different Thresholds**

Fixed Dedicated PET Scanner Need Methodology as reflected in Table 9K

One additional fixed dedicated PET scanner is needed for each existing fixed dedicated PET scanner that was utilized at or above 80 percent of capacity during the twelve month period reflected in the owner's or operator's 2008 Hospital Licensure Renewal Application on file with the N.C. Division of Health Service Regulation. For the purposes of this determination, the annual capacity of a fixed dedicated PET scanner is 2600 ($2,600 \times .80 = 2080$) procedures.

Need Determinations

The first part of the methodology indicates that there is a need for one additional fixed dedicated PET scanner in each of HSA IV and HSA V. There is no need for any additional fixed dedicated PET scanners anywhere else in the State.

Alternative Fixed Dedicated PET Scanner Need Methodology as reflected in Table 9K Alternative

One additional fixed dedicated PET scanner is needed for each existing fixed dedicated PET scanner that was utilized at or above 80 percent of capacity during the twelve month period reflected in the owner's or operator's 2008 Hospital Licensure Renewal Application on file with the N.C. Division of Health Service Regulation. For the purposes of this determination, the annual capacity of a fixed dedicated PET scanner is 3000 ($3000 \times .80 = 2400$) procedures.

Need Determinations

The first part of the methodology indicates that there is a no need for any additional fixed dedicated PET scanners anywhere in the State.

Proposed 2008 SMFP

Table 9K: PET Scanner Utilization of Existing Fixed Dedicated Scanners

Center					HSA	Inventory	Utilization Rate	Need Determination by Criteria - 80% of Present Capacity
	2003- 2004	2004- 2005	2005- 2006	2006- 2007			Year 2006 Procedures / 2600 as Capacity	
Mission Hospitals (f)	644	875	1003	1607	I	1	61.81%	
Catawba Valley/ Frye Reg. (j)		848	1258	1574	I	1	60.54%	
N.C. Baptist Hospitals	1797	1266	1477	1919	II	1	73.81%	
Moses Cone Health System (o)		1352	1760	1995	II	1	76.73%	
Forsyth Medical Center (p)	130	1579	2417	2983	II	1	114.73%	0
2008 SMFP Need Determination								
High Point Regional (r)	179	356	574	785	II	1	30.19%	
Alamance Reg. Medical Ctr. (u)			374	480	II	1	18.46%	mobile procedures
Carolinas Med Center(a),(k)	2908	3049	3635	3654	III	2	70.27%	
Gaston Mem. / CIS Summit (m)	172	700	846	984	III	1	37.85%	
NorthEast Medical Center (n)	330	481	615	818	III	1	31.46%	
The Presbyterian Hospital (q)		1544	1988	2173	III	1	83.58%	0
2008 SMFP Need Determination								
Iredell Memorial Hospital (t)			NA	NA	III	1	NA	
Duke Univ. Hospital (d)	3135	3091	3596	3858	IV	2	74.19%	
UNC Hospitals (b)	1389	1144	1386	1878	IV	2	36.12%	
Rex Hospital (e)	1116	1544	1913	2139	IV	1	82.27%	1
Wake PET Services, Wake Radiology Oncology, Wake Radiology, WakeMed (s)			NA	NA	IV	1		
New Hanover Reg. Med. (g)		582	755	895	V	1	34.42%	
Cape Fear Valley Medical Ctr. (h)	629	1218	2069	2268	V	1	87.23%	1
First Imaging of the Carolinas (i)	351	529	550	NR	V	1	#VALUE!	
Pitt Co. Memorial (c)	418	393	832	981	VI	1	37.73%	
Craven Reg. Medical (l)		719	831	852	VI	1	32.77%	
Nash General Hospital (u)			336	421	VI	1	16.19%	mobile procedures
TOTAL	13,198	21,270	28,215	32,264		25		2

t9k2009p.xls

NA Not Applicable for time period ending September 30, 2007.

NR No Report at this time.

- (a) Approved for additional scanner in November 2001.
- (b) Approved for scanner in June 2000 and additional scanner under Policy AC-3 in November 2005.
- (c) Approved for scanner in August 2001.
- (d) Approved for additional scanner under Policy AC-3 in September 2002.
- (e) Approved for scanner in September 2002.
- (f) Approved for scanner in January 2003.
- (g) Operational in October 2004.
- (h) Approved for scanner in August 2003.
- (i) Approved for scanner in August 2003.
- (j) Approved for scanner in July 2003.
- (k) Approved for replacement of 1 scanner in June 2003.

- (l) Approved for scanner in October 2003.
- (m) Approved for scanner in December 2003.
- (n) Approved for scanner in December 2003.
- (o) Operational in October 2004.
- (p) Approved for scanner in June 2004.
- (q) Approved for scanner in June 2004.
- (r) Approved for scanner in January 2005.
- (s) Approved for scanner in November 2005.
- (t) Approved for scanner in January 2007.
- (u) Approved for scanner in April 2007.
- (v) Approved for scanner in May 2007

Alternative Table Proposed 2008 SMFP

Table 9K: PET Scanner Utilization of Existing Fixed Dedicated Scanners

Center					HSA	Inventory	Utilization Rate	Need Determination by Criteria - 80% of Present Capacity
	2003- 2004	2004- 2005	2005- 2006	2006- 2007			Year 2006 Procedures / 3000 as Capacity	
Mission Hospitals (f)	644	875	1003	1607	I	1	53.57%	
Catawba Valley/ Frye Reg. (j)		848	1258	1574	I	1	52.47%	
N.C. Baptist Hospitals	1797	1266	1477	1919	II	1	63.97%	
Moses Cone Health System (o)		1352	1760	1995	II	1	66.50%	
Forsyth Medical Center (p)	130	1579	2417	2983	II	1	99.43%	
2008 SMFP Need Determination								
High Point Regional (r)	179	356	574	785	II	1	26.17%	
Alamance Reg. Medical Ctr. (u)			374	480	II	1	16.00%	mobile procedures
Carolinas Med Center(a),(k)	2908	3049	3635	3654	III	2	60.90%	
Gaston Mem. / CIS Summit (m)	172	700	846	984	III	1	32.80%	
NorthEast Medical Center (n)	330	481	615	818	III	1	27.27%	
The Presbyterian Hospital (q)		1544	1988	2173	III	1	72.43%	
2008 SMFP Need Determination								
Iredell Memorial Hospital (t)			NA	NA	III	1	NA	
Duke Univ. Hospital (d)	3135	3091	3596	3858	IV	2	64.30%	
UNC Hospitals (b)	1389	1144	1386	1878	IV	2	31.30%	
Rex Hospital (e)	1116	1544	1913	2139	IV	1	71.30%	
Wake PET Services, Wake Radiology Oncology, Wake Radiology, WakeMed (s)			NA	NA	IV	1		
New Hanover Reg. Med. (g)		582	755	895	V	1	29.83%	
Cape Fear Valley Medical Ctr. (h)	629	1218	2069	2268	V	1	75.60%	
First Imaging of the Carolinas (i)	351	529	550	NR	V	1	#VALUE!	
Pitt Co. Memorial (c)	418	393	832	981	VI	1	32.70%	
Craven Reg. Medical (l)		719	831	852	VI	1	28.40%	
Nash General Hospital (u)			336	421	VI	1	14.03%	mobile procedures
TOTAL	13,198	21,270	28,215	32,264		25		0

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