

## Transfer Cases Payment Adjustment under Global Revenue Models

### Introduction

As academic medical centers (AMCs) providing quaternary services, Johns Hopkins Hospital and University of Maryland Medical Center play a distinct role in the health care system by handling a large proportion of highly acute cases, accepting regional referrals, and serving as centers for clinical and technological innovation in the State. For global models to be successful in Maryland, different regulatory treatment must be given to specific clinical service lines at these AMCs that will allow them to function effectively within this new payment structure. Under global models, hospitals are incentivized to lower expenses and volume by taking measures to reduce avoidable utilization and promote care management and quality improvement. This may result in community hospitals transferring complex cases to AMCs in order to get patients the advanced care they need and reduce the high costs associated with those patients. Patients transferred to AMCs are often critically ill patients or patients with highly specialized care not available at the transferring hospitals whose access to care should be ensured. Utilizing AMCs as regional referral centers may improve outcomes for critically ill patients and thus be beneficial to the entire Maryland health system. AMCs must have the capacity to take on a possible influx of complex cases without facing financial penalty under a global model. Inter-hospital transfers is one of those areas of special concern that must be addressed to ensure that resources are readily available to care for complex cases.

Global budgets change financial incentives. Hospitals have reduced incentives to keep highly complex cases that are beyond their capabilities in order to garner revenue. There is also a risk that hospitals could avoid complex cases altogether. HSCRC has included a number of requirements in global budget agreements to monitor for such outcomes including:

- Review of changes in severity levels or case mix of patients treated, with possible revenue reductions for declines;
- Review of volume declines beyond a specified level; and
- Potential revenue adjustments for shifts of services between hospitals (referred to as market share adjustment).

While each of these requirements can detect changing patterns in transfers, the relatively small numbers of complex cases makes transfers a special category of focus. HSCRC wants to ensure that financial policies are in place early in the implementation of global budgets to be responsive to potential changing patterns, aiding in the transfer of patients based on their clinical needs, while ensuring that the receiving entities have the capacity to take on the possible influx of complex cases without facing financial penalty under a global model.

## Objectives/Guiding Principles

The HSCRC staff have collected data to aid in the development of a transfer policy. The following are some basic principles to guide the development and implementation of the Commission's transfer policy.

- The primary consideration is for the most appropriate treatment and well-being of the patient being transferred. Transfers should occur in order to serve the best interest of the patient.
- The current level and pattern of transfers should be used as the baseline, with subsequent revenue adjustments based on changes in transfer levels from the current level.
- The Commission should regularly monitor hospitals for changes in transfer patterns for both financial and quality implications.
- The charge for increased transfers should be at a fixed predetermined level. The level should be low enough so that it does not pose a barrier to transfers yet high enough to provide for average incremental resource needs of complex patients transferred.
- Significant changes in the case mix of transfers can be addressed in the review of AMC budgets.
- Unique circumstances such as changing clinical protocols, ambulance patterns, or other changing circumstances can be evaluated on a hospital-specific basis.
- Revenue adjustments for transfer cases, where below a threshold, should be done on a net basis, where small increases in referrals offset small decreases in referrals before making adjustments to those hospitals revenues who have increased referrals. Increases in referrals above the threshold should result in an adjustment to the referring hospital outside of the net revenue calculation.
- Transfers are a special subcategory of market share. HSCRC will need to take any adjustments made for transfers into account when it makes a market share adjustment.

## Data Collection

HSCRC staff proposes to define transfers as same or next day admissions, meaning the discharge date of the initial admission or emergency "admission" will be the same day or the next day as the admission date of the second admission to the academic medical center. The subgroup recommended to expand the definition from same day to next day to include transfers that are admitted after midnight based on the validation results of same day transfers.

HSCRC staff has collected data to aid in the evaluation of transfer cases. Initially, staff focused on the transfer in/transfer out recorded in the case mix data, representing inpatient to inpatient transfers. However, this data has not been used for reimbursement in Maryland and did not prove to be accurate.

- There was confusion regarding whether a patient was being transferred from the emergency room or from an inpatient setting. Given the increasing numbers of observation cases, this confusion is not surprising.
- Referrals were recorded as transfers in the data. There were sometimes multiple day gaps between the transfer out and the transfer in.

- The recording of transfers out and transfers in did not match.

In order to overcome these problems, HSCRC staff has used the master patient index provided from CRISP to track patient flow from one hospital to another. In doing so, patients were tracked with direct transfers from emergency room settings as well as inpatient settings. HSCRC staff will request that selected hospitals review this data to ensure that transfers are being properly identified.

#### DATA VALIDATION RESULTS INCOMPLETE DRAFT

The table below provides reconciliation results based on data provided to HSCRC as of 7/28/2014 validating sameday transfers. In general, the information received from sending hospitals validate the measurement counts. On the other hand, AMCs indicated that they have found additional transfer cases that were not included in the HSCRC transfer case list. HSCRC will continue to validate the counts hospital by hospital using case level information from both sending and receiving hospital.

Sending Hospital	Hospital Name	Total Number of Included Cases	Total Number of Cases Disagreed	Percent Disagree	Total Number of Additional Transfers	Percent Additional
210008	MERCY	177	28	16%	5	3%
210012	SINAI	182	11	6%	155	85%
210051	DOCTORS COMMUNITY	125	4	3%	15	10%
210005	FREDERICK MEMORIAL	346	9	3%	0	0%
210033	CARROLL COUNTY	428	9	2%	0	0%
210006	HARFORD	35				
210010	DORCHESTER	14				
210015	FRANKLIN SQUARE	290				
210018	MONTGOMERY GENERAL	42				
210024	UNION MEMORIAL	130				
210028	ST. MARY	64				
210030	CHESTERTOWN	23				
210034	HARBOR	193				
210035	CHARLES REGIONAL	26				
210037	EASTON	63				
210038	UMMC MIDTOWN	21				
210043	BALTIMORE WASHINGTON M.CENTER	103				
210044	G.B.M.C.	195				
210049	UPPER CHESAPEAKE HEALTH	112				
210058	REHAB & ORTHO	9				
210062	SOUTHERN MARYLAND	77				
210063	UM ST. JOSEPH	37				
<b>Total</b>		<b>2,692</b>				

Academic Institutions						
Receiving Hospital	Hospital Name	Total Number of Included Cases	Total Number of Cases Disagreed	Percent Disagree	Total Number of Additional Transfers	Percent Additional
210002	University of Maryland and MIEMS	3,602	0	0%	2286	63%
210009	Johns Hopkins University	2,274	0	0%	1748	77%
<b>Total</b>		<b>5,876</b>	<b>0</b>	<b>0</b>		

### Transfer Case Exclusions

Certain types of cases have been excluded from the analysis of transfers. Each exclusion and the rationale are discussed below:

- Categorical cases were excluded, because these cases are already being handled under a different global budget review mechanism. The definition of categorical cases is shown in Appendix A.
- Non-Maryland resident transfer cases have been excluded. This may require additional evaluation for hospitals located near the State's borders.
- MDC 5 (cardiology and cardiac surgery) has been excluded. There are alternative competitors for this care, and the HSCRC staff have focused on those categories where the special resources of an AMC resulted in the transfer.
- Psychiatric transfers (based on the receiving institution's recorded APR-DRG of 740,750-760) have been excluded as this is a category where there are a number of institutions providing the service.
- Rehab cases have been excluded (APR\_DRG 860, 980-989) based on the planned nature of these transfers.

In addition, transfers within the same hospital or within the same hospital system were excluded from the analysis. Transfers within the same hospital are under the same global budget. Transfers within a hospital system may reflect resource planning approaches and specialization. While global budgets may be adjusted for these transfers, it should occur under a different process.

### Transfer Monitoring Categories

To monitor out of state transfers, particularly for border hospitals, and to evaluate the possibility of unintended consequences of the transfer policy, the following additional categories will closely be monitored:

1. Transfers that are excluded from payment adjustments
2. Transfers to out of state providers
3. Levels of ED Diversion
4. Casemix intensity of transfer cases

## 5. Length of stay of transfer cases in sending and receiving hospitals

**Transfer Payment Measures**

HSCRC staff is proposing the following measurement for the payment adjustments:

AMC GBR Transfer Adjustments

On a quarterly basis, AMC GBR budgets are adjusted by the increase or decrease in transfer cases net of population adjustment weighted by the average adjusted cost. The average adjusted cost is calculated as the base year average charge \*Price update\*Variable Cost Factor. The adjustments are done separately for patient transferred from inpatient setting and from Emergency Departments based on the recommendations from the sub-workgroup. Table 1 below illustrates the calculation.

Table1: Example calculation of AMC Adjustments

<b>Price Update</b>		
<b>(1/2FY14Update+1/2FY2015Update)</b>	A	1.68%
<b>VCF</b>	B	50%
<b>Transfers From ED</b>		
Average Charge of Transfer Cases in CY2013	C	\$24,159
Average Transfer Case Adjustment	D= $C*(1+A)*B$	\$12,283
Number of Transfers in the Base Period	E	4,958
Number of Transfers in the Current Period	F	
Total Adjustment	G= $D*(F-E)$	
<b>Transfers From Inpatient</b>		
Average Charge of Transfer Cases in CY2013	H	\$46,497
Average Transfer Case Adjustment	I= $H*(1+A)*B$	\$23,639
Number of Transfers in the Base Period	J	2,713
Number of Transfers in the Current Period	K	
Total Adjustment	L= $I*(K-J)$	
<b>Total Adjustment</b>		
	M= $G+L$	
Population Adjustment	N	0.70%
Total Transfer Adjustment	O= $M*(1-N)$	

Hospital GBR Transfer Adjustments

Hospital's transfer cases will be monitored on a quarterly basis and the GBR revenues will be reduced on an annual basis by the increase in transfer cases weighted by the average adjusted cost. The average adjusted cost for these adjustments will be determined according to the formula stated in AMC adjustments. If cumulative payment adjustments to the AMCs exceed 5% of the base year transfer charges, HSCRC staff may adjust the transferring hospital GBR budgets during the course of the fiscal year. Increases in transfers will be netted against decreases in transfers except to the extent that the increase in a particular hospital is above a 10% threshold and there are at least 10 additional transfers. For hospitals with increases above a 10% threshold, those cases above the threshold will be charged to the budget of the GBR hospital, thereby reducing the GBR revenue for the preceding year for that hospital. If the net amount of transfers for the entire State does not exceed an increase of 5% of the base transfers, then no reductions will be made for transfers below a 10% threshold. If the net transfer amount exceeds an increase of 5%, then the excess over 5% will be deducted on a per case basis for those hospitals with increases in transfer cases between 5% and 10%. Table 2 below illustrates the sample calculation.

The trends in transfers will be monitored using monthly case-mix data submissions using CRISP master patient index. Annual adjustments for FY 2016 will be based on comparing July 1<sup>st</sup> 2013-December 30<sup>th</sup> 2013 to July 1<sup>st</sup> 2014-December 30<sup>th</sup> 2014 time periods depending on the progress on data validation.

Table 2: GBR Revenue Transfer Adjustment

Hospital Name	Annualized Transfer Cases based on CY2013 Jan-May -CY2014 Jan-May						Total Transfer Cost			GBR Revenue Transfer Adjustment			
	2013			2014			2013	2014	% Cost Growth	\$ Growth	10 % Threshold \$	Additional Transfer Cases	Threshold Adjustment
	From ED	From IP	Total	From ED	From IP	Total							
A	B	C=A+B	D	E	F=D+E	$G=(A*EDCOST)+(B*INP.COST)$	$H=(D*EDCOST)+(E*INP.COST)$	$G=H/G-1$	$I=H-G$	$J=G*10\%$	$K=F-C$	$L=IF K>=10; I-J$	
GARRETT COUNTY	7	0	7	2	7	10	\$173,948	\$392,761	125.8%	\$218,813	\$17,395	2	\$ -
ST. MARY	46	17	62	82	34	115	\$1,882,819	\$3,533,708	87.7%	\$1,650,889	\$188,282	53	-\$1,462,607
BALTIMORE WASHINGTON MEDICAL CENTER	110	19	130	106	65	170	\$3,559,943	\$5,564,241	56.3%	\$2,004,299	\$355,994	41	-\$ 1,648,304
CHARLES REGIONAL	31	10	41	31	19	50	\$1,200,145	\$1,646,517	37.2%	\$446,371	\$120,015	10	-\$326,357
FT. WASHINGTON	7	10	17	7	14	22	\$620,319	\$843,505	36.0%	\$223,186	\$62,032	5	\$ -
JOHNS HOPKINS	34	7	41	41	12	53	\$1,146,535	\$1,543,668	34.6%	\$397,133	\$114,654	12	-\$282,480
HARFORD	31	7	38	41	10	50	\$1,088,552	\$1,432,076	31.6%	\$343,523	\$108,855	12	-\$ 234,668
CALVERT	89	58	146	144	60	204	\$4,823,584	\$6,268,777	30.0%	\$1,445,193	\$482,358	58	-\$962,834
UNIVERSITY OF MARYLAND	48	36	84	58	43	101	\$2,833,545	\$3,400,254	20.0%	\$566,709	\$283,354	17	-\$283,354
UPPER CHESAPEAKE HEALTH	89	29	118	118	26	144	\$3,484,470	\$4,068,669	16.8%	\$584,198	\$348,447	26	-\$235,751
SOUTHERN MARYLAND	31	29	60	48	26	74	\$2,092,888	\$2,387,173	14.1%	\$294,285	\$209,289	14	-\$84,997
NORTHWEST	132	77	209	168	72	240	\$6,760,014	\$7,406,568	9.6%	\$646,553	\$676,001	31	\$ -
MERITUS	170	118	288	235	103	338	\$9,584,814	\$10,480,787	9.3%	\$895,973	\$958,481	50	\$ -
WESTERN MARYLAND HEALTH SYSTEM	60	46	106	58	50	108	\$3,569,829	\$3,735,032	4.6%	\$165,203	\$356,983	2	\$ -
CARROLL COUNTY	386	96	482	355	118	473	\$13,798,913	\$14,049,475	1.8%	\$250,562	\$1,379,891	-10	\$ -
EASTON	89	14	103	67	26	94	\$2,814,913	\$2,851,034	1.3%	\$36,121	\$281,491	-10	\$ -
HARBOR	233	77	310	209	91	300	\$9,195,284	\$9,285,015	1.0%	\$89,731	\$919,528	-10	\$ -
CHESTERTOWN	38	5	43	43	2	46	\$1,150,907	\$1,155,280	0.4%	\$4,372	\$115,091	2	\$ -
ST. AGNES	283	156	439	343	120	463	\$14,095,482	\$13,871,155	-1.6%	-\$224,327	\$1,409,548	24	\$ -

Hospital Name	Annualized Transfer Cases based on CY2013 Jan-May -CY2014 Jan-May						Total Transfer Cost			GBR Revenue Transfer Adjustment			
	2013			2014			2013	2014	% Cost Growth	\$ Growth	10 % Threshold \$	Additional Transfer Cases	Threshold Adjustment
	From ED	From IP	Total	From ED	From IP	Total							
UM ST. JOSEPH	31	19	50	29	19	48	\$1,646,517	\$1,588,534	-3.5%	-\$57,983	\$164,652	-2	\$ -
QUEEN ANNES	67	0	67	65	0	65	\$1,623,513	\$1,565,530	-3.6%	-\$57,983	\$162,351	-2	\$ -
UNION HOSPITAL OF CECIL COUNT	48	41	89	38	43	82	\$3,056,730	\$2,936,393	-3.9%	-\$120,338	\$305,673	-7	\$ -
WASHINGTON ADVENTIST	46	43	89	26	50	77	\$3,110,341	\$2,981,258	-4.2%	-\$129,082	\$311,034	-12	\$ -
FREDERICK MEMORIAL	190	185	374	204	161	365	\$13,173,274	\$12,405,241	-5.8%	-\$768,033	\$1,317,327	-10	\$ -
HOWARD COUNTY	139	70	209	161	48	209	\$6,599,183	\$6,116,691	-7.3%	-\$482,492	\$659,918	0	\$ -
SHADY GROVE	84	79	163	53	86	139	\$5,711,955	\$5,292,959	-7.3%	-\$418,995	\$571,195	-24	\$ -
MERCY	192	70	262	163	72	235	\$7,874,801	\$7,290,602	-7.4%	-\$584,198	\$787,480	-26	\$ -
G.B.M.C.	142	79	221	91	94	185	\$7,103,537	\$6,555,460	-7.7%	-\$548,078	\$710,354	-36	\$ -
ANNE ARUNDEL	235	185	420	235	161	396	\$14,274,944	\$13,159,015	-7.8%	-\$1,115,928	\$1,427,494	-24	\$ -
FRANKLIN SQUARE	288	151	439	259	139	398	\$13,988,261	\$12,734,506	-9.0%	-\$1,253,755	\$1,398,826	-41	\$ -
PRINCE GEORGE	36	58	94	46	46	91	\$3,547,967	\$3,221,933	-9.2%	-\$326,034	\$354,797	-2	\$ -
LAUREL REGIONAL	108	50	158	79	55	134	\$4,952,667	\$4,480,061	-9.5%	-\$472,606	\$495,267	-24	\$ -
SINAI	151	101	252	106	103	209	\$8,339,803	\$7,349,727	-11.9%	-\$990,077	\$833,980	-43	\$ -
GOOD SAMARITAN	310	62	372	202	79	281	\$10,381,170	\$8,553,103	-17.6%	-\$1,828,068	\$1,038,117	-91	\$ -
PENINSULA REGIONAL	262	151	413	254	103	358	\$13,350,453	\$10,944,648	-18.0%	-\$2,405,804	\$1,335,045	-55	\$ -
UNION MEMORIAL	180	46	226	94	60	154	\$6,468,959	\$5,051,143	-21.9%	-\$1,417,817	\$646,896	-72	\$ -
REHAB & ORTHO	0	10	10	0	7	7	\$446,371	\$334,778	-25.0%	-\$111,593	\$44,637	-2	\$ -
HOPKINS BAYVIEW MED CTR	22	12	34	14	10	24	\$1,079,808	\$794,267	-26.4%	-\$285,541	\$107,981	-10	\$ -
DOCTORS COMMUNITY	48	94	142	58	53	110	\$5,511,773	\$3,846,625	-30.2%	-\$1,665,148	\$551,177	-31	\$ -
BON SECOURS	238	82	319	173	50	223	\$9,534,434	\$6,518,197	-31.6%	-\$3,016,237	\$953,443	-96	\$ -
SUBURBAN	7	10	17	7	5	12	\$620,319	\$397,133	-36.0%	-\$223,186	\$62,032	-5	\$ -



**Table 2: GBR Revenue Transfer Adjustment**

Hospital Name	Annualized Transfer Cases based on CY2013 Jan-May -CY2014 Jan-May						Total Transfer Cost			GBR Revenue Transfer Adjustment			
	2013			2014			2013	2014	% Cost Growth	\$ Growth	10 % Threshold \$	Additional Transfer Cases	Threshold Adjustment
	From ED	From IP	Total	From ED	From IP	Total							
<b>MONTGOMERY GENERAL</b>	43	38	82	41	17	58	\$2,829,172	\$1,766,854	-37.5%	-\$1,062,318	\$282,917	-24	\$ -
<b>UMMC MIDTOWN</b>	31	12	43	24	5	29	\$1,311,738	\$803,012	-38.8%	-\$508,726	\$131,174	-14	\$ -
<b>HOLY CROSS</b>	43	60	103	14	36	50	\$3,833,508	\$2,021,788	-47.3%	-\$1,811,720	\$383,351	-53	\$ -
<b>ATLANTIC GENERAL</b>	84	55	139	46	26	72	\$4,596,026	\$2,329,191	-49.3%	-\$2,266,836	\$459,603	-67	\$ -
<b>DORCHESTER</b>	24	0	24	7	2	10	\$579,826	\$285,541	-50.8%	-\$294,285	\$57,983	-14	\$ -
<b>MCCREADY</b>	17	0	17	0	0	0	\$405,878	\$0	-100.0%	-\$405,878	\$40,588	-17	\$ -
<b>BOWIE HEALTH</b>	12	0	12	0	0	0	\$289,913	\$0	-100.0%	-\$289,913	\$28,991	-12	\$ -
<b>Total</b>	<b>4,992</b>	<b>2,570</b>	<b>7,562</b>	<b>4,644</b>	<b>2,431</b>	<b>7,075</b>	<b>\$233,302,893</b>	<b>\$214,102,658</b>	<b>-8.2%</b>	<b>-\$19,200,235)</b>	<b>\$ 23,330,289</b>	<b>-487</b>	<b>-\$5,521,353</b>

## Data Analysis Results

Table 3: Same and Next Day Transfers Exclusions , CY 2013							
	Receiving Hospital				Total	Percent Total	AMC Percent
	UMMS	MIEMSS	JHH	Non-AMC			
<b>Total Same and Next Day Transfers</b>	8,230	2,402	7,446	35,622	53,700	100%	34%
<b>Transfer Exclusions</b>							
<b>1. Same Hospital</b>	633	58	1309	11937	13,937	26%	-
<b>2. Same System</b>	2,853	765	1,583	6,329	11,530	21%	-
<b>3. Non-Resident</b>	194	113	197	829	1,333	2%	-
<b>4. MDC 5</b>	679	31	722	2548	3,980	7%	<b>36%</b>
<b>5. Rehab</b>	0	0	8	1963	1,971	4%	<b>0%</b>
<b>6. Pysch</b>	575	1	255	3940	4,771	9%	<b>17%</b>
<b>7. Categorical Exclusions</b>	161	0	270	122	553	1%	<b>78%</b>
<b>Transfers Included in the Analysis</b>	3,135	1,434	3,102	7,954	15,625	<b>29%</b>	<b>49%</b>

Counts are mutually exclusive in hierarchical order as displayed in the table. \*Burn cases at Johns Hopkins Bayview Hospital.

Table 4: Same and Next Day Transfers by Source CY 2013									
Receiving Hospital	Number of Transfers			Average Charge			Total Charge		
	Source		All	Source		All	Source		All
	From ED	From Inpatient		From ED	From Inpatient		From ED	From Inpatient	
<b>UMMS</b>	1,687	1,448	3,135	\$23,037	\$42,998	\$32,257	\$38,863,914	\$62,261,525	\$101,125,439
<b>MIEMSS</b>	1,165	269	1,434	\$30,147	\$70,573	\$37,730	\$35,121,246	\$18,984,038	\$54,105,284
<b>JHH</b>	2,106	996	3,102	\$21,746	\$45,081	\$29,239	\$45,797,245	\$44,900,834	\$90,698,079
<b>Total</b>	4,958	2,713	7,671	\$24,159	\$46,497	\$ 32,060	\$ 119,782,405	\$ 126,146,397	\$ 245,928,802
<b>Non-AMC</b>	5,684	2,270	7,954	\$10,800	\$18,383	\$12,964	\$61,389,173	\$41,728,338	\$103,117,510

Table 5: AMC Transfers DRGS with 5 or more Cases

APR DRG Code	APR DRG NAME	Total charges			Average Age
		N	Mean	Sum	
720	Septicemia & disseminated infections	224	\$45,466	\$10,184,359	51.82
45	CVA & precerebral occlusion w infarct	188	\$21,788	\$4,096,208	59.32
53	Seizure	179	\$16,508	\$2,954,986	25.68
21	Craniotomy except for trauma	164	\$80,177	\$13,149,086	52.46
55	Head trauma w coma >1 hr or hemorrhage	162	\$14,945	\$2,421,057	55.08
254	Other digestive system diagnoses	158	\$10,086	\$1,593,621	34.98
141	Asthma	155	\$8,440	\$1,308,269	6.45
315	Shoulder, upper arm & forearm procedures	132	\$19,458	\$2,568,419	26.08
58	Other disorders of nervous system	126	\$12,667	\$1,595,999	47.5
44	Intracranial hemorrhage	125	\$24,033	\$3,004,159	61.79
347	Other back & neck disorders, fractures & injuries	121	\$10,251	\$1,240,380	58.57
383	Cellulitis & other bacterial skin infections	118	\$9,737	\$1,148,932	36.13
710	Infectious & parasitic diseases including HIV w O.R. procedure	113	\$98,346	\$11,113,045	53.58
4	ECMO or tracheostomy w long term mechanical ventilation w extensive procedure	112	\$250,566	\$28,063,364	50.21
139	Other pneumonia	111	\$11,645	\$1,292,587	17.4
313	Knee & lower leg procedures except foot	103	\$38,359	\$3,951,020	46.91
282	Disorders of pancreas except malignancy	93	\$14,945	\$1,389,912	47.14
92	Facial bone procedures except major cranial/facial bone procedures	91	\$24,366	\$2,217,320	33.6
279	Hepatic coma & other major acute liver disorders	90	\$21,957	\$1,976,125	51.49
308	Hip & femur procedures for trauma except joint replacement	89	\$37,747	\$3,359,458	57.49
721	Post-operative, post-traumatic, other device infections	89	\$17,195	\$1,530,318	46.11
221	Major small & large bowel procedures	82	\$61,250	\$5,022,463	48.37
466	Malfunction, reaction, complic of genitourinary device or proc	81	\$21,955	\$1,778,353	49.83
420	Diabetes	80	\$9,210	\$736,768	21.75
284	Disorders of gallbladder & biliary tract	78	\$13,134	\$1,024,483	52.86
384	Contusion, open wound & other trauma to skin & subcutaneous tissue	77	\$7,606	\$585,659	36.14
813	Other complications of treatment	77	\$14,776	\$1,137,728	52.32
351	Other musculoskeletal system & connective tissue diagnoses	69	\$9,183	\$633,603	39.17
566	Other antepartum diagnoses	66	\$9,220	\$608,534	26.47
114	Dental & oral diseases & injuries	64	\$6,531	\$417,964	36.52
247	Intestinal obstruction	64	\$11,732	\$750,850	45.78
861	Signs, symptoms & other factors influencing health status	64	\$10,230	\$654,736	31.94
252	Malfunction, reaction & complication of GI device or procedure	62	\$16,171	\$1,002,623	49.77
5	Tracheostomy w long term mechanical ventilation w/o extensive procedure	59	\$143,937	\$8,492,270	55.54
82	Eye disorders except major infections	59	\$7,097	\$418,731	39.39
115	Other ear, nose, mouth,throat & cranial/facial diagnoses	59	\$11,429	\$674,299	39.08
138	Bronchiolitis & RSV pneumonia	59	\$12,051	\$710,982	1.51
143	Other respiratory diagnoses except signs, symptoms & minor diagnoses	59	\$14,586	\$860,564	38.9
249	Non-bacterial gastroenteritis, nausea & vomiting	59	\$7,633	\$450,370	25.29
342	Fractures & dislocations except femur, pelvis & back	57	\$6,690	\$381,340	40.6
57	Concussion, closed skull Fx nos,uncomplicated intracranial injury, coma < 1 hr or no coma	56	\$6,436	\$360,410	27.82
113	Infections of upper respiratory tract	56	\$6,442	\$360,738	12.93
130	Respiratory system diagnosis w ventilator support 96+ hours	56	\$85,660	\$4,796,986	43.77
283	Other disorders of the liver	56	\$19,481	\$1,090,931	45.2

Table 5: AMC Transfers DRGS with 5 or more Cases

APR	APR DRG NAME	Total charges		Average	
711	Post-op, post-trauma, other device infections w O.R. procedure	56	\$50,271	\$2,815,199	50.64
133	Pulmonary edema & respiratory failure	53	\$36,403	\$1,929,351	39.53
248	Major gastrointestinal & peritoneal infections	53	\$21,358	\$1,131,998	46.09
662	Sickle cell anemia crisis	52	\$17,048	\$886,473	26.38
253	Other & unspecified gastrointestinal hemorrhage	51	\$15,299	\$780,224	58.37
812	Poisoning of medicinal agents	50	\$10,963	\$548,165	20.94
22	Ventricular shunt procedures	49	\$60,302	\$2,954,781	32.04
463	Kidney & urinary tract infections	49	\$8,368	\$410,027	32.86
54	Migraine & other headaches	47	\$8,549	\$401,820	36.11
317	Tendon, muscle & other soft tissue procedures	47	\$54,234	\$2,548,985	43.94
23	Spinal procedures	46	\$72,623	\$3,340,663	53.72
241	Peptic ulcer & gastritis	46	\$15,904	\$731,587	50.83
281	Malignancy of hepatobiliary system & pancreas	45	\$17,338	\$780,225	64.62
137	Major respiratory infections & inflammations	43	\$25,515	\$1,097,140	47.6
791	O.R. procedure for other complications of treatment	43	\$38,957	\$1,675,137	51.21
135	Major chest & respiratory trauma	42	\$12,870	\$540,550	62.14
225	Appendectomy	42	\$17,554	\$737,250	12
346	Connective tissue disorders	41	\$29,912	\$1,226,377	39.56
460	Renal failure	41	\$25,509	\$1,045,864	54.71
912	Musculoskeletal & other procedures for multiple significant trauma	41	\$68,099	\$2,792,063	48.39
52	Nontraumatic stupor & coma	40	\$32,704	\$1,308,144	51.33
121	Other respiratory & chest procedures	40	\$48,684	\$1,947,367	45.08
243	Other esophageal disorders	39	\$12,045	\$469,737	40.87
280	Alcoholic liver disease	38	\$22,794	\$866,153	51.97
663	Other anemia & disorders of blood & blood-forming organs	38	\$12,435	\$472,513	27.03
930	Multiple significant trauma w/o O.R. procedure	38	\$13,951	\$530,128	51.58
561	Postpartum & post abortion diagnoses w/o procedure	35	\$5,050	\$176,767	27.8
20	Craniotomy for trauma	34	\$53,024	\$1,802,808	54.71
48	Peripheral, cranial & autonomic nerve disorders	34	\$16,143	\$548,849	45.53
251	Abdominal pain	34	\$6,471	\$220,024	40.71
24	Extracranial vascular procedures	33	\$70,349	\$2,321,531	50.91
724	Other infectious & parasitic diseases	33	\$21,104	\$696,434	34.52
41	Nervous system malignancy	32	\$18,108	\$579,459	58.41
56	Brain contusion/laceration & complicated skull Fx, coma < 1 hr or no coma	32	\$8,447	\$270,289	40.41
950	Extensive procedure unrelated to principal diagnosis	32	\$67,934	\$2,173,898	52.13
144	Respiratory signs, symptoms & minor diagnoses	32	\$12,675	\$405,586	33.78
844	Partial thickness burns w or w/o skin graft	32	\$4,475	\$143,194	3.44
305	Amputation of lower limb except toes	31	\$81,572	\$2,528,718	52.74
220	Major stomach, esophageal & duodenal procedures	30	\$60,726	\$1,821,786	54.43
301	Hip joint replacement	30	\$53,705	\$1,611,164	69.13
309	Hip & femur procedures for non-trauma except joint replacement	30	\$54,462	\$1,633,867	41.57
425	Electrolyte disorders except hypovolemia related	30	\$15,950	\$478,506	46.57
468	Other kidney & urinary tract diagnoses, signs & symptoms	30	\$9,622	\$288,651	43.1
304	Dorsal & lumbar fusion proc except for curvature of back	29	\$101,162	\$2,933,691	57.83
364	Other skin, subcutaneous tissue & related procedures	29	\$22,526	\$653,241	35.45
816	Toxic effects of non-medicinal substances	29	\$16,269	\$471,792	40.41
98	Other ear, nose, mouth & throat procedures	28	\$17,585	\$492,385	32.61
321	Cervical spinal fusion & other back/neck proc exc disc excis/decomp	28	\$66,079	\$1,850,219	63.96

Table 5: AMC Transfers DRGS with 5 or more Cases

APR	APR DRG NAME	Total charges		Average	
344	Osteomyelitis, septic arthritis & other musculoskeletal infections	28	\$29,148	\$816,150	49.14
660	Major hematologic/immunologic diag exc sickle cell crisis & coagul	28	\$46,869	\$1,312,322	42.32
951	Moderately extensive procedure unrelated to principal diagnosis	27	\$48,283	\$1,303,631	43.07
134	Pulmonary embolism	27	\$19,082	\$515,222	47.52
723	Viral illness	27	\$10,060	\$271,624	25.19
49	Bacterial & tuberculous infections of nervous system	26	\$41,704	\$1,084,316	50.19
245	Inflammatory bowel disease	26	\$12,479	\$324,441	31.46
260	Major pancreas, liver & shunt procedures	26	\$69,436	\$1,805,325	53.42
263	Laparoscopic cholecystectomy	26	\$22,839	\$593,823	37.46
424	Other endocrine disorders	25	\$18,677	\$466,924	50.84
43	Multiple sclerosis & other demyelinating diseases	24	\$33,447	\$802,721	43.88
136	Respiratory malignancy	24	\$31,122	\$746,917	63.5
240	Digestive malignancy	24	\$18,958	\$454,983	60.46
890	HIV w multiple major HIV related conditions	24	\$36,710	\$881,045	46.96
314	Foot & toe procedures	22	\$28,465	\$626,222	42.68
385	Other skin, subcutaneous tissue & breast disorders	22	\$9,607	\$211,360	36.27
722	Fever	22	\$10,292	\$226,417	38.36
42	Degenerative nervous system disorders exc mult sclerosis	21	\$28,885	\$606,581	59.71
690	Acute leukemia	21	\$62,222	\$1,306,669	61.67
631	Neonate birthwt >2499g w other major procedure	21	\$79,492	\$1,669,341	0
229	Other digestive system & abdominal procedures	20	\$43,213	\$864,267	48.35
634	Neonate, birthwt >2499g w resp dist synd/oth maj resp cond	20	\$56,262	\$1,125,245	0
223	Other small & large bowel procedures	19	\$34,715	\$659,579	30
224	Peritoneal adhesiolysis	19	\$30,221	\$574,197	34.84
244	Diverticulitis & diverticulosis	19	\$15,702	\$298,341	69.74
815	Other injury, poisoning & toxic effect diagnoses	19	\$22,700	\$431,307	22.58
50	Non-bacterial infections of nervous system exc viral meningitis	18	\$43,090	\$775,618	48.39
73	Eye procedures except orbit	18	\$32,272	\$580,897	39
422	Hypovolemia & related electrolyte disorders	18	\$10,087	\$181,562	42.83
560	Vaginal delivery	18	\$11,538	\$207,687	24.22
661	Coagulation & platelet disorders	18	\$28,616	\$515,095	28.33
775	Alcohol abuse & dependence	18	\$14,512	\$261,224	45.72
142	Interstitial lung disease	17	\$27,546	\$468,284	56.24
228	Inguinal, femoral & umbilical hernia procedures	17	\$22,102	\$375,731	22
633	Neonate birthwt >2499g w major anomaly	17	\$57,848	\$983,415	0
911	Extensive abdominal/thoracic procedures for mult significant trauma	17	\$103,346	\$1,756,888	39.82
40	Spinal disorders & injuries	16	\$23,232	\$371,716	59.06
340	Fracture of femur	16	\$7,455	\$119,287	31.19
380	Skin ulcers	15	\$16,497	\$247,452	46.53
513	Uterine & adnexa procedures for non-malignancy except leiomyoma	15	\$18,683	\$280,240	38.87
691	Lymphoma, myeloma & non-acute leukemia	15	\$37,047	\$555,707	59.67
892	HIV w major HIV related condition	15	\$23,987	\$359,800	41.13
26	Other nervous system & related procedures	14	\$45,818	\$641,457	38.43
222	Other stomach, esophageal & duodenal procedures	14	\$33,000	\$461,998	6.93
320	Other musculoskeletal system & connective tissue procedures	14	\$58,442	\$818,186	54.29
588	Neonate bwt <1500g w major procedure	14	\$271,803	\$3,805,239	0
47	Transient ischemia	13	\$6,221	\$80,873	59.31
70	Orbital procedures	13	\$16,202	\$210,623	41.23

Table 5: AMC Transfers DRGS with 5 or more Cases

APR	APR DRG NAME	Total charges		Average	
120	Major respiratory & chest procedures	13	\$100,765	\$1,309,951	37.46
343	Musculoskeletal malignancy & pathol fracture d/t musckel malig	13	\$24,126	\$313,637	54.38
540	Cesarean delivery	13	\$15,784	\$205,189	30.46
811	Allergic reactions	13	\$6,126	\$79,631	35.85
80	Acute major eye infections	12	\$16,200	\$194,404	45.83
310	Intervertebral disc excision & decompression	12	\$50,855	\$610,262	44.5
341	Fracture of pelvis or dislocation of hip	12	\$10,164	\$121,973	56.25
349	Malfunction, reaction, complic of orthopedic device or procedure	12	\$17,081	\$204,972	58.08
481	Penis procedures	12	\$28,635	\$343,620	46.92
132	BPD & oth chronic respiratory diseases arising in perinatal period	11	\$25,146	\$276,604	2.09
242	Major esophageal disorders	11	\$21,748	\$239,231	46.82
312	Skin graft, except hand, for musculoskeletal & connective tissue diagnoses	11	\$98,163	\$1,079,798	37.36
316	Hand & wrist procedures	11	\$19,274	\$212,018	22.73
401	Pituitary & adrenal procedures	11	\$62,635	\$688,982	57
423	Inborn errors of metabolism	11	\$18,126	\$199,390	12.82
443	Kidney & urinary tract procedures for nonmalignancy	11	\$24,954	\$274,498	47.45
446	Urethral & transurethral procedures	11	\$29,460	\$324,061	53.27
894	HIV w one signif HIV cond or w/o signif related cond	11	\$12,188	\$134,067	34.09
97	Tonsil & adenoid procedures	10	\$23,112	\$231,122	23.1
111	Vertigo & other labyrinth disorders	10	\$5,989	\$59,890	57.3
952	Nonextensive procedure unrelated to principal diagnosis	10	\$30,784	\$307,843	49
140	Chronic obstructive pulmonary disease	10	\$9,392	\$93,918	63.9
246	Gastrointestinal vascular insufficiency	10	\$18,020	\$180,202	52.7
264	Other hepatobiliary, pancreas & abdominal procedures	10	\$51,188	\$511,883	55.9
421	Malnutrition, failure to thrive & other nutritional disorders	10	\$16,720	\$167,201	28.4
483	Testes & scrotal procedures	10	\$58,375	\$583,746	52.9
531	Female reproductive system infections	10	\$7,524	\$75,242	29.2
640	Neonate birthwt >2499g, normal newborn or neonate w other problem	10	\$7,026	\$70,264	0
46	Nonspecific CVA & precerebral occlusion w/o infarct	9	\$5,827	\$52,445	41.11
51	Viral meningitis	9	\$12,359	\$111,232	17.89
131	Cystic fibrosis - pulmonary disease	9	\$36,218	\$325,963	21.22
226	Anal procedures	9	\$20,263	\$182,364	33.56
227	Hernia procedures except inguinal, femoral & umbilical	9	\$41,909	\$377,184	63.89
681	Other O.R. procedures for lymphatic/hematopoietic/other neoplasms	9	\$50,028	\$450,249	61.56
773	Opioid abuse & dependence	9	\$6,901	\$62,109	42.22
110	Ear, nose, mouth, throat, cranial/facial malignancies	8	\$17,974	\$143,791	52.25
501	Male reproductive system diagnoses except malignancy	8	\$21,296	\$170,372	42.13
532	Menstrual & other female reproductive system disorders	8	\$10,215	\$81,721	38.88
544	D&C, aspiration curettage or hysterotomy for obstetric diagnoses	8	\$14,835	\$118,677	27.5
609	Neonate bwt 1500-2499g w major procedure	8	\$183,274	\$1,466,190	0
639	Neonate birthwt >2499g w other significant condition	8	\$10,114	\$80,915	0
694	Lymphatic & other malignancies & neoplasms of uncertain behavior	8	\$52,109	\$416,875	47.63
630	Neonate birthwt >2499g w major cardiovascular procedure	8	\$133,889	\$1,071,109	0
262	Cholecystectomy except laparoscopic	7	\$45,620	\$319,338	72.43
442	Kidney & urinary tract procedures for malignancy	7	\$30,527	\$213,690	50.14
465	Urinary stones & acquired upper urinary tract obstruction	7	\$9,739	\$68,173	35.71
774	Cocaine abuse & dependence	7	\$12,824	\$89,769	46.14

Table 5: Transfers to AMCs by Sending Hospital , CY2013

Sending Hospital		Receiving Hospital						All
		UMMS		MIEMSS		JHH		
		Source		Source		Source		
		ED	INPT	ED	INPT	ED	INPT	
Provider ID	HOSPITALNAME							
210033	CARROLL COUNTY	114	73	152	5	133	34	511
210011	ST. AGNES	102	75	96	20	109	52	454
210015	FRANKLIN SQUARE	137	75	53	28	88	38	419
210019	PENINSULA REGIONAL	55	63	79	13	140	60	410
210005	FREDERICK MEMORIAL	47	119	57	9	90	79	401
210023	ANNE ARUNDEL	43	66	46	18	131	84	388
210056	GOOD SAMARITAN	137	48	63	14	79	34	375
210001	MERITUS	92	73	59	14	61	24	323
210034	HARBOR	80	63	77	4	55	20	299
210013	BON SECOURS	105	56	74	4	32	25	296
210008	MERCY	104	51	18	8	83	19	283
210012	SINAI	46	44	10	12	80	45	237
210048	HOWARD COUNTY	87	54	73	15	.	.	229
210044	G.B.M.C.	27	26	34	6	67	64	224
210040	NORTHWEST	47	40	28	5	57	41	218
210024	UNION MEMORIAL	57	25	30	7	82	14	215
210039	CALVERT	61	43	16	8	36	15	179
210055	LAUREL REGIONAL	38	40	41	8	24	10	161
210051	DOCTORS COMMUNITY	19	74	17	8	14	21	153
210057	SHADY GROVE	13	35	15	9	34	32	138
210061	ATLANTIC GENERAL	26	47	19	5	31	10	138
210049	UPPER CHESAPEAKE HEALTH	.	.	.	.	108	29	137
210043	BALTIMORE WASHINGTON MEDICAL CENTER	.	.	.	.	101	26	127
210027	WESTERN MARYLAND HEALTH SYSTEM	19	17	12	6	47	26	127
210003	PRINCE GEORGE	31	47	12	9	7	8	114
210004	HOLY CROSS	12	36	7	5	20	20	100
210062	SOUTHERN MARYLAND	19	27	9	8	22	10	95
210032	UNION HOSPITAL OF CECIL COUNT	18	27	7	7	22	6	87
210037	EASTON	.	.	.	.	67	15	82
210016	WASHINGTON ADVENTIST	22	35	6	2	8	8	81
210002	UNIVERSITY OF MARYLAND	.	.	.	.	52	29	81
210028	ST. MARY	24	15	10	3	16	11	79
210088	QUEEN ANNES	23	.	25	.	21	.	69
210018	MONTGOMERY GENERAL	13	14	2	4	18	8	59
210063	UM ST. JOSEPH	.	.	.	.	27	23	50
210009	JOHNS HOPKINS	35	7	6	.	.	.	48
210006	HARFORD	.	.	.	.	30	14	44
210038	UMMC MIDTOWN	.	.	.	.	27	15	42
210035	CHARLES REGIONAL	.	.	.	.	28	10	38
210029	HOPKINS BAYVIEW MED CTR	17	11	2	2	.	.	32
210030	CHESTERTOWN	.	.	.	.	26	2	28
210060	FT. WASHINGTON	3	10	2	2	6	2	25
210010	DORCHESTER	.	.	.	.	18	2	20
210022	SUBURBAN	5	9	2	1	.	.	17
210045	MCCREADY	5	1	2	.	5	.	13
210058	REHAB & ORTHO	.	.	.	.	.	10	10
210333	BOWIE HEALTH	3	.	3	.	3	.	9
210017	GARRETT COUNTY	1	2	1	.	1	1	6
<b>Total</b>		<b>1,687</b>	<b>1,448</b>	<b>1,165</b>	<b>269</b>	<b>2,106</b>	<b>996</b>	<b>7,671</b>

<b>Table 6: CY 2013 and CY 2014 5 Month Trends</b>				
		Calendar Year		% CHANGE
		2013	2014	
		Jan-May	Jan-May	
<b>Number of Cases</b>	<b>Receiving Hospital</b>			
	UMMS	1227	1158	-5.62%
	MIEMSS	615	477	-22.44%
	JHH	1309	1313	0.31%
	Non-AMC	3610	2910	-19.39%
<b>Average Charge</b>	UMMS	\$32,346	\$37,968	17.38%
	MIEMSS	\$37,222	\$44,971	20.82%
	JHH	\$28,304	\$26,032	-8.03%
	Non-AMC	\$13,047	\$13,036	-0.09%
<b>Total Charge</b>	UMMS	\$39,688,623	\$43,967,223	10.78%
	MIEMSS	\$22,891,474	\$21,451,188	-6.29%
	JHH	\$37,049,552	\$34,179,858	-7.75%
	Non-AMC	\$47,099,801	\$37,934,418	-19.46%

Based on March-May Preliminary Data 7/31/2014



Table 7: CY 2013 and CY 2014 5-Month Trends by Hospital									
SENDING HOSPITAL NAME	Receiving Hospital								% Total Change
	1_UMMS		2_MIEMSS		3_JHH		Total		
	Jan-May		Jan-May		Jan-May		Jan-May		
	2013	2014	2013	2014	2013	2014	2013	2014	
ST. MARY	10	16	8	6	8	26	26	48	85%
CALVERT	38	38	9	14	14	33	61	85	39%
GARRETT COUNTY	1	2	1	1	1	1	3	4	33%
HARFORD	.	.	.	.	16	21	16	21	31%
CHARLES REGIONAL	.	.	.	.	17	21	17	21	24%
BALTIMORE WASHINGTON MEDICAL CENTER	.	.	.	.	54	71	54	71	31%
JOHNS HOPKINS	15	22	2	.	.	.	17	22	29%
SOUTHERN MARYLAND	12	13	5	4	8	14	25	31	24%
UPPER CHESAPEAKE HEALTH	.	.	.	.	49	60	49	60	22%
MERITUS	65	84	26	26	29	31	120	141	18%
UNIVERSITY OF MARYLAND	.	.	.	.	35	42	35	42	20%
NORTHWEST	29	49	20	16	38	35	87	100	15%
FT. WASHINGTON	4	3	2	4	1	2	7	9	29%
CHESTERTOWN	.	.	.	.	18	19	18	19	6%
ST. AGNES	70	79	44	48	69	66	183	193	5%
WESTERN MARYLAND HEALTH SYSTEM	11	14	7	7	26	24	44	45	2%
BOWIE HEALTH	.	.	3	.	2	.	5	0	0%
HOWARD COUNTY	52	51	35	36	.	.	87	87	0%
FREDERICK MEMORIAL	63	56	28	24	65	72	156	152	-3%
HARBOR	58	61	42	21	29	43	129	125	-3%
CARROLL COUNTY	71	62	65	62	65	73	201	197	-2%
QUEEN ANNES	7	9	8	8	13	10	28	27	-4%
UM ST. JOSEPH	.	.	.	.	21	20	21	20	-5%
PRINCE GEORGE	28	26	7	2	4	10	39	38	-3%
ANNE ARUNDEL	45	43	24	29	106	93	175	165	-6%
UNION HOSPITAL OF CECIL COUNT	22	18	6	2	9	14	37	34	-8%
EASTON	.	.	.	.	43	39	43	39	-9%
FRANKLIN SQUARE	100	88	33	20	50	58	183	166	-9%
MERCY	64	48	9	10	36	40	109	98	-10%
WASHINGTON ADVENTIST	24	22	4	3	9	7	37	32	-14%
PENINSULA REGIONAL	43	36	39	20	90	93	172	149	-13%
SHADY GROVE	23	31	11	7	34	20	68	58	-15%
G.B.M.C.	18	23	18	6	56	48	92	77	-16%
LAUREL REGIONAL	30	31	24	17	12	8	66	56	-15%
SINAI	42	37	8	10	55	40	105	87	-17%
DOCTORS COMMUNITY	31	20	9	11	19	15	59	46	-22%
GOOD SAMARITAN	68	50	36	23	51	44	155	117	-25%
REHAB & ORTHO	.	.	.	.	4	3	4	3	-25%
MONTGOMERY GENERAL	16	7	6	1	12	16	34	24	-29%
HOPKINS BAYVIEW MED CTR	12	9	2	1	.	.	14	10	-29%
SUBURBAN	6	5	1	.	.	.	7	5	-29%
BON SECOURS	69	54	38	16	26	23	133	93	-30%
UNION MEMORIAL	26	26	18	12	50	26	94	64	-32%
UMMC MIDTOWN	.	.	.	.	18	12	18	12	-33%
ATLANTIC GENERAL	29	16	10	7	19	7	58	30	-48%
HOLY CROSS	23	9	6	3	14	9	43	21	-51%
DORCHESTER	.	.	.	.	10	4	10	4	-60%
MCCREADY	2	.	1	.	4	.	7	0	-100%
<b>Total</b>	<b>1227</b>	<b>1158</b>	<b>615</b>	<b>477</b>	<b>1309</b>	<b>1313</b>	<b>3151</b>	<b>2948</b>	<b>-6.4%</b>

**Table 8: AMC Transfers by Product Line (HSCRC revised)**

Product Line	Total charges			Average Age
	N	Mean	Sum	
Neurology	1072	\$17,608	\$18,876,257	47.5
Gastroenterology	987	\$14,712	\$14,520,854	45.19
General Surgery	715	\$49,745	\$35,567,517	44.7
Pulmonary	642	\$21,934	\$14,081,457	25.05
Orthopedic Surgery	562	\$43,711	\$24,565,366	44.57
Infectious Disease	505	\$30,327	\$15,315,083	44.05
Neurological Surgery	294	\$70,985	\$20,869,664	48.47
General Medicine	220	\$11,773	\$2,590,059	24.65
Orthopedics	218	\$9,486	\$2,067,951	51.71
Oncology	217	\$28,675	\$6,222,439	59.43
Nephrology	207	\$17,374	\$3,596,420	45.46
Ventilator Support	171	\$213,776	\$36,555,635	52.05
Trauma	140	\$40,481	\$5,667,279	52.21
ENT Surgery	139	\$24,004	\$3,336,513	32.09
Hematology	136	\$23,429	\$3,186,403	30.1
Otolaryngology	125	\$8,759	\$1,094,928	28.82
Neonatology	125	\$97,768	\$12,221,014	0
Injuries/complic. of prior care	120	\$23,441	\$2,812,865	51.93
Dermatology	117	\$9,001	\$1,053,098	37.16
Other Obstetrics	116	\$8,282	\$960,716	26.86
Rheumatology	110	\$16,909	\$1,859,980	39.32
Endocrinology	94	\$15,889	\$1,493,583	41.11
Diabetes	80	\$9,210	\$736,768	21.75
Spinal Surgery	74	\$70,147	\$5,190,882	57.59
Ophthalmology	71	\$8,636	\$613,135	40.48
Dental	64	\$6,531	\$417,964	36.52
Urological Surgery	56	\$38,176	\$2,137,877	47.2
HIV	54	\$26,458	\$1,428,732	42.35
Thoracic Surgery	53	\$61,459	\$3,257,317	43.21
Substance Abuse	42	\$11,230	\$471,669	43.93
Obstetrics/Delivery	34	\$14,731	\$500,861	27.15
Ophthalmologic Surg	31	\$25,533	\$791,520	39.94
Gynecological Surg	25	\$15,966	\$399,162	32.92
Gynecology	18	\$8,720	\$156,963	33.5
Endocrinology Surgery	17	\$62,699	\$1,065,875	58.41
Urology	15	\$15,903	\$238,545	39.13
Ungroupable	5	\$1,290	\$6,452	31.6

**Table 9: AMC Transfer Trends by Product Line (HSCRC revised)**  
**Jan-May 5-Month Trends**

Product Line	Number of Transfers			Average Charge			Total Charge		
	2013	2014	% Change	2013	2014	% Change	2013	2014	% Change
Dental	34	7	-79%	\$7,220	\$15,847	119%	\$245,487	\$110,929	-55%
Dermatology	56	27	-52%	\$7,421	\$11,195	51%	\$415,592	\$302,255	-27%
HIV	31	17	-45%	\$26,758	\$36,131	35%	\$829,504	\$614,226	-26%
Ophthalmologic Surg	16	9	-44%	\$30,644	\$27,458	-10%	\$490,297	\$247,123	-50%
Other Obstetrics	61	35	-43%	\$10,169	\$10,586	4%	\$620,316	\$370,523	-40%
Gynecology	11	7	-36%	\$5,646	\$14,898	164%	\$62,103	\$104,287	68%
Orthopedics	91	58	-36%	\$9,029	\$14,570	61%	\$821,605	\$845,063	3%
Ophthalmology	36	23	-36%	\$8,465	\$8,340	-1%	\$304,735	\$191,822	-37%
Gynecological Surg	9	6	-33%	\$19,863	\$27,807	40%	\$178,771	\$166,841	-7%
Injuries/complic. of prior care	58	40	-31%	\$21,047	\$27,211	29%	\$1,220,741	\$1,088,440	-11%
Otolaryngology	61	44	-28%	\$8,353	\$9,777	17%	\$509,539	\$430,193	-16%
Neonatology	57	42	-26%	\$101,238	\$56,881	-44%	\$5,770,588	\$2,388,992	-59%
Rheumatology	33	25	-24%	\$15,307	\$18,739	22%	\$505,145	\$468,466	-7%
Diabetes	42	32	-24%	\$7,404	\$8,724	18%	\$310,958	\$279,170	-10%
Obstetrics/Delivery	13	10	-23%	\$12,435	\$31,927	157%	\$161,658	\$319,269	97%
Endocrinology Surgery	5	4	-20%	\$57,325	\$20,283	-65%	\$286,627	\$81,130	-72%
ENT Surgery	54	50	-7%	\$26,276	\$25,990	-1%	\$1,418,886	\$1,299,477	-8%
Gastroenterology	404	375	-7%	\$13,548	\$16,233	20%	\$5,473,475	\$6,087,480	11%
Neurology	445	417	-6%	\$17,657	\$17,083	-3%	\$7,857,237	\$7,123,448	-9%
Ventilator Support	77	73	-5%	\$213,169	\$235,058	10%	\$16,413,986	\$17,159,210	5%
Infectious Disease	184	179	-3%	\$30,097	\$28,437	-6%	\$5,537,840	\$5,090,155	-8%
Neurological Surgery	122	119	-2%	\$69,015	\$64,684	-6%	\$8,419,847	\$7,697,404	-9%
Orthopedic Surgery	210	208	-1%	\$46,538	\$47,029	1%	\$9,773,054	\$9,782,039	0%
Endocrinology	36	36	0%	\$11,852	\$15,929	34%	\$426,655	\$573,431	34%
Pulmonary	258	264	2%	\$20,102	\$24,084	20%	\$5,186,293	\$6,358,043	23%
Urological Surgery	26	27	4%	\$35,791	\$44,683	25%	\$930,562	\$1,206,438	30%
Nephrology	90	95	6%	\$16,850	\$24,839	47%	\$1,516,475	\$2,359,710	56%
General Surgery	287	304	6%	\$46,529	\$50,769	9%	\$13,353,738	\$15,433,866	16%
General Medicine	90	96	7%	\$10,126	\$11,279	11%	\$911,366	\$1,082,831	19%
Trauma	50	54	8%	\$50,663	\$40,460	-20%	\$2,533,135	\$2,184,825	-14%
Thoracic Surgery	20	22	10%	\$54,681	\$52,699	-4%	\$1,093,613	\$1,159,369	6%
Substance Abuse	17	19	12%	\$10,734	\$6,770	-37%	\$182,481	\$128,629	-30%
Hematology	49	56	14%	\$14,115	\$28,566	102%	\$691,619	\$1,599,722	131%
Spinal Surgery	27	31	15%	\$74,129	\$64,346	-13%	\$2,001,492	\$1,994,728	0%
Oncology	86	99	15%	\$35,636	\$29,131	-18%	\$3,064,698	\$2,883,946	-6%
Urology	6	7	17%	\$20,567	\$9,253	-55%	\$123,404	\$64,773	-48%
Ungroupable	.	21	.	.	\$7,577	.	.	\$159,117	.

## Appendix- Categorical Cases Definitions

### 1. Categorical Case Exclusions

- 1.1. Solid Organ Transplants APR DRGS = 001, 002, 003, 006 or 440  
(any procedure = 5280, 5282 or 5283 or any procedure = 5280, 5282, 5283, 4100, 4101, 4102, 4103, 4104, 4105, 4106, 4107, 4108 or 3751 Heart Transplantation 4109 or 336 or 3350 , 3351, 3352, 5569, 5561, 5281, 5051, or 5059)
- 1.2. Melodysplastic - Any Diagnosis = 2387 for Johns Hopkins Oncology Center
- 1.3. JHU Pediatric Burn Cases (Age < 18) - 3rd Degree Burns
- 1.4. Johns Hopkins and University Oncology Center
  - 1.4.1. Transplant Cases (Reserve Flag = 1)
  - 1.4.2. Research Cases (Reserve Flag = 2)
  - 1.4.3. Hematological Cases (Reserve Flag = 3)
  - 1.4.4. Transfer in Cases (Reserve Flag = 4)