DOCTORS MEDICAL CENTER

West Contra Costa Healthcare District
Doctors Medical Center
Governing Body
Board of Directors

Wednesday, July 24th, 2013
4:30 PM
Doctors Medical Center Auditorium
2000 Vale Road
San Pablo, CA

DOCTORS MEDICAL CENTER

WEST CONTRA COSTA HEALTHCARE DISTRICT
DOCTORS MEDICAL CENTER

GOVERNING BODY
BOARD OF DIRECTORS

WCCHD DOCTORS MEDICAL CENTER
GOVERNING BODY BOARD OF DIRECTORS
JULY 24, 2013 – 4:30 P.M.
Doctors Medical Center - Auditorium
2000 Vale Road
San Pablo, CA 94806

Governing Body Members
Eric Zell, Chair
Supervisor John Gioia, Vice Chair
Irma Anderson
Wendel Brunner, M.D.
Deborah Campbell
Nancy Casazza
Sharon Drager, M.D.
Pat Godley
Richard Stern, M.D.
William Walker, M.D.
Beverly Wallace

AGENDA

1. **CALL TO ORDER** — E. Zell
2. **ROLL CALL**
3. **APPROVAL OF MINUTES OF JUNE 26, 2013** — E. Zell
4. **PUBLIC COMMENTS** — E. Zell
   [At this time persons in the audience may speak on any items not on the agenda and any other matter within the jurisdiction of the of the Governing Body]
5. **FINANCIALS – JUNE 2013** — J. Boatman
   a. Presentation
   b. Discussion
   c. Public Comment
   d. *ACTION: Acceptance of the June 2013 Financials*
6. **QUALITY MANAGEMENT REPORT** — B. Ellerston
   a. Presentation
   b. Discussion
   c. Public Comment
   d. ACTION: Acceptance of Quality Management Report

7. **PATIENT SATISFACTION REPORT AND WORK UNIT PRESENTATIONS** B. Redlo
   a. Presentation
   b. Discussion
   c. Public Comment
   d. *ACTION: For Information Only*

8. **CAPITAL APPROVAL REQUEST: PROVATION MEDICAL, INC.** J. Boatman
   a. Presentation
   b. Discussion
   c. Public Comment
   d. *ACTION: Approval of the Capital Purchase Request for ProVation Medical Inc. Software*

9. **PROFESSIONAL SERVICES CONTRACT – G.I. SERVICES** D. Gideon
   a. Presentation
   b. Discussion
   c. Public Comment
   d. *ACTION: Approval of the Contract Terms for Northern California Gastroenterology Associates*

10. **CEO REPORT** D. Gideon
   a. Discussion
   b. Presentation
   c. Public Comment
   d. *ACTION: For Information Only*

11. **MEDICAL EXECUTIVE REPORT** L. Hodgson, M.D.
   a. Presentation
   b. Discussion
   c. Public Comment
   d. *ACTION: Approval of the MEC presented Policies and Procedures, the new Privileges Forms, and the report of the Credentials Committee.*

ADJOURN TO CLOSED SESSION

A. Reports of Medical Staff Audit and Quality Assurance Matters Pursuant to Health and Safety Code Section 32155.

B. Conference with Labor Negotiators (pursuant to Government Code Section 554957.6) Agency negotiators: Bob Redlo, VP of Patient Relations, Labor Relations & Workforce Development, John Hardy, Vice President of Human Resources: California Nurses Association, NUHW, PEU Local One and Local 39.

C. Discussion involving Trade Secrets Pursuant to Health and Safety Code Section 32106. Discussion will concern new programs, services, facilities.

ANNOUNCEMENT OF REPORTABLE ACTION(S) TAKEN IN CLOSED SESSION, IF ANY.

DOCTORS
MEDICAL CENTER

MINUTES
June 26, 2013

TAB 3

DOCTORS MEDICAL CENTER

WCCHD DOCTORS MEDICAL CENTER
GOVERNING BODY BOARD OF DIRECTORS

June 26, 2013, 4:30 P.M.
Doctors Medical Center - Auditorium
2000 Vale Road
San Pablo, CA 94806

MINUTES

1. CALL TO ORDER

The meeting was called to order at 4:35 P.M.

2. ROLL CALL

Quorum was established and roll was called: 4:35 PM

Present:
Eric Zell, Chair
Supervisor John Gioia, Vice Chair
Pat Godley
Deborah Campbell
Richard Stern, M.D.
Sharon Drager, M.D.
Beverly Wallace
Irma Anderson
William Walker, M.D.

Excused:
Nancy Casazza
Wendel Brunner, M.D.

3. **APPROVAL OF MAY 30, 2013 MINUTES**

The motion made by Director Beverly Wallace and seconded by William Walker, M.D. to approve the May 30, 2013 minutes passed unanimously.

4. **PUBLIC COMMENTS**

Tami Roncskevitz, R.N., Maria Sahagun R.N., Charlene Arrington, R.N. and Paulette Jackson, R.N. spoke regarding concerns of proposed management changes with the elimination of the charge nurse and the lack of communication from management on these and other changes. Ms. Roncskevitz also expressed dismay over recent layoff of nurses that are qualified to provide telemetry care. They asked for more communications from management.

Karen Bolden, Case Manager, reported on the low morale of the nurses and case mangers due to lack of communication from management. She agrees with the need to improve patient satisfaction, but without a happy workforce, patient satisfaction will suffer.

Director Deborah Campbell asked all nurses to continue to focus on care for the patient.

5. **DOCTORS MEDICAL CENTER SERVICE LEAGUE REPORT**

Ms. Pam Moreno, President of the Service League presented an update on recent activities of the League. She reported the "Wish List Program" donates more than $10,000 in equipment to support patient-centered services annually. Funding from this program is raised through the gift shop proceeds and donations are made based on department requests. For the current fiscal year, the League received an unprecedented number of requests and they have voted to donate more than $12,000 in equipment to Same Day Surgery, the Cardiac Cath Lab and the Surgery Departments. Items include a specialized wound-prevention mattress and several pieces of equipment for the Operating Rooms.

The Service League held an annual blood drives at the hospital's Towne Center site earlier this month. We exceeded donation goals and the Red Cross was delighted with our outcomes. Due to dwindling wheelchair availability, the Service League Board voted in May to purchase ten more wheelchairs. This will support the experience at DMC for patients, their loved ones, and our own volunteers and staff. The new Service League Officers for 2013 – 2014 were installed earlier this month. They are: President – Pam Moreno, Vice President – Russell Stith, Recording Secretary – Lucille Owens, Corresponding Secretary – Jean Sizemore, Treasurer – Nancy Miller and Program Director – Delores Berg-David. Currently, we have more than 90 active volunteers working throughout the hospital. Combined, the volunteers provide more 1,600 hours of service per month.

6. QUALITY MANAGEMENT REPORT MAY 2013

Ms. Bobbie Ellerston, Chief Nursing Officer, presented and sought acceptance of the May 2013 Quality Management Report. In June, CMS released hospital mortality data for select diagnoses for calendar years 2010 and 2011 for all hospitals nationally. For AMI, DMC's mortality **was half the state average**, and the best of the 17 hospitals in the region (noted in a recent article in the Times).

Ms Ellerston spoke about DMC in comparison to other Hospitals in the Region (17 Hospitals in Total) for each of the diagnosis. For Percutaneous Coronary Prevention, DMC had the highest risk adjusted mortality rate, although it was within the expected range. For AMI, DMC was identified as "better than expected", with mortality at only 2.7% - the lowest in region with all other hospital above 4%. Heart Failure was in the middle – 9 hospitals had lower risk adjusted mortality, 7 had higher risk adjusted mortality than DMC. Five (5) of the 17 hospitals had higher risk adjusted mortality for Stroke than DMC, and 3 of the 17 hospitals had higher risk adjusted mortality for GI Hemorrhage. Hip Fracture is in the middle, with 7 hospital reporting higher risk adjusted mortality, and 9 reporting lower mortality. Finally, for Pneumonia 3 of the 17 hospitals had a higher risk adjusted mortality than DMC.

A motion made by Sharon Drager, M.D. and seconded by Director Campbell to approve the May 2013 Quality Management Report passed unanimously.

7. FINANCIALS- MAY 2013

Mr. James Boatman, CFO, presented and sought acceptance of the May 2013 Financials. Doctors Medical Center had a Net Loss of $1,604,000 for the month of May. As a result, net income was worse than budget by $1,125,000.

Mr. Boatman reported that net patient revenue was under budget by $1,208,000 for the month. Inpatient gross charges were under budget by 14.8% with patient days and discharges at 22.2% and 18.0% under budget respectively. While total outpatient volume missed the target by 3.4%, ED outpatient visits continue to beat expectations by 5.2% in May. Surgeries were under budget by 13.5% and ancillary volumes were 11.0% under budget.

Mr. Boatman pointed out that Managed Care inpatient volume was 37% under budget, representing $959,000 in patient revenue. Regular Medicare and Medicare HMO combined was $1,151,000 or 20% under budget. Regular Medicare patient days and discharges were under budget by 21.2% and 18.1% respectively. Additionally, Medicare reimbursement was reduced by 2% or $74,000 due to mandatory sequestration.

Mr. Boatman updated everyone that Salaries and Benefits combined were under budget by $208,000. Salaries were favorable by $820,000 mainly due to continued flexing in all departments. Benefits were $612,000 over budget due to consistently higher than budgeted health insurance costs.

Mr. Boatman pointed out that the Supplies were under budget due to the underutilization of pacemakers and implants offset by higher pharmaceutical costs.

As part of the Governing Body education process, Mr. Boatman presented information on DMC costs in supplies and wage and salary compared to other bay area hospitals. DMC compares favorably in all areas.

A motion made by Director Anderson and seconded by Director Campbell to accept the May 2013 Financial report passed unanimously.

8. **CAPITAL EXSPENSE REQUEST: Fire Detection and Fuel Tank Storage Removal**

Mr. James Boatman, CFO and Mr. Tony Leon, Director of Plant Operations sought approval of a capital expense request; Fire Alarm Project. This project is to be completed in six (6) phases. This is the first of the six, with a cost of $227,089.00. The remaining, phases are to be completed within an approximate 12 month time frame. This project is driven by the Contra Costa County Fire Department, and this process of repair/upgrade to our current fire alarm system will meet all local, state and federal compliance standards including National Fire Protection Agency (NFPA), The Joint Commission (YJC), California Department of Health Services (CDHS) and the Center for Medicare Medicaid Services (CMS).

A motion made by Director Campbell and seconded by Director Wallace to approve the Fire Alarm Project request passed unanimously.

Mr. James Boatman, CFO and Mr. Tony Leon, Director of Plant Operations sought approval of a capital expense request; Removal of Underground Gas Tank. The removal of the underground gas tank is mandated by Contra Costa County. This contract is the result of multiple bids for the project as outlined and the submitted bid is the least expensive.

A motion made by Director Campbell and seconded by Director Anderson to approve the Removal of Underground Gas Tank request passed unanimously.

9. **PHYSICIAN CONTRACT: Clinical Resource Management Medical Director – Dr. Sharon Drager**

Dr. Sharon Drager stepped out of the meeting in order for the Governing Body members to review and approve the contract.

Ms. Kathy White, Chief Operating Officer, presented and sought acceptance of the Clinical Resource Management Medical Director contract. Dr. Sharon Drager will provide consulting and administrative services, shall be responsible for the overall supervision of Clinical Resource Management activities, and shall perform the specific duties and responsibilities set forth below. The services provided under this Agreement shall be

limited to administrative and teaching services provided to Hospital and shall not include any professional services to patients or any other services.

A motion made by Director Anderson and seconded by Director Campbell to approve the Physician Contract passed unanimously.

10. **CEO REPORT**

Ms. Dawn Gideon, Interim president and Chief Executive Officer pointed out that hospital census continues to be low. She also reported that the negotiations of a new contract with CNA will start in the upcoming month as the current contract will expire at the end of June. Accountability will be the key to success for the negations of the new contract.

Ms. Gideon highlighted DMC's continued participation in community activities, and pointed out that Dr. Carson continues to get the media and local attention for his excellence in patient care. Most recently he is being recognized in the media as the "Home Town Hero". She further reported that we have provided over 700 free health screenings to the community in the last month, this is part of the hospital's ongoing efforts to increase DMC's visibility in the community. The June meeting of the Patient Satisfaction Committee was very positive, with the participation of employees from throughout the facility. Within each work unit was have created teams focused on identification and implementation of strategies to improve the patient experience within each of those units. Each unit has two goals: improve the patient's rating of communication and of team work. At future meetings of the Governing Body, Ms. Gideon will invite teams to present their plans as examples of their positive work in improving the patient experience.

11. **MEDICAL EXECUTIVE REPORT**

Dr. Laurel Hodgson presented and sought approval of the Medical Executive Committee report. She pointed out that there were no new protocols or orders and none presented, and that Medical Staff Bylaws are under development and will be presented to the Governing Body for approval at a future meeting. Finally, she presented the report of the Credentials Committee and asked for Governing Body approval of the report as presented..

A motion made by William Walker M.D. and seconded by Director Campbell to approve the May Medical Executive Committee report and Credentials Report passed unanimously.

THE MEETING ADJOURNED TO CLOSED SESSION AT 6:15 PM

DOCTORS
MEDICAL CENTER

FINANCIALS
June 2013

TAB 5

DOCTORS MEDICAL CENTER

Board Presentation

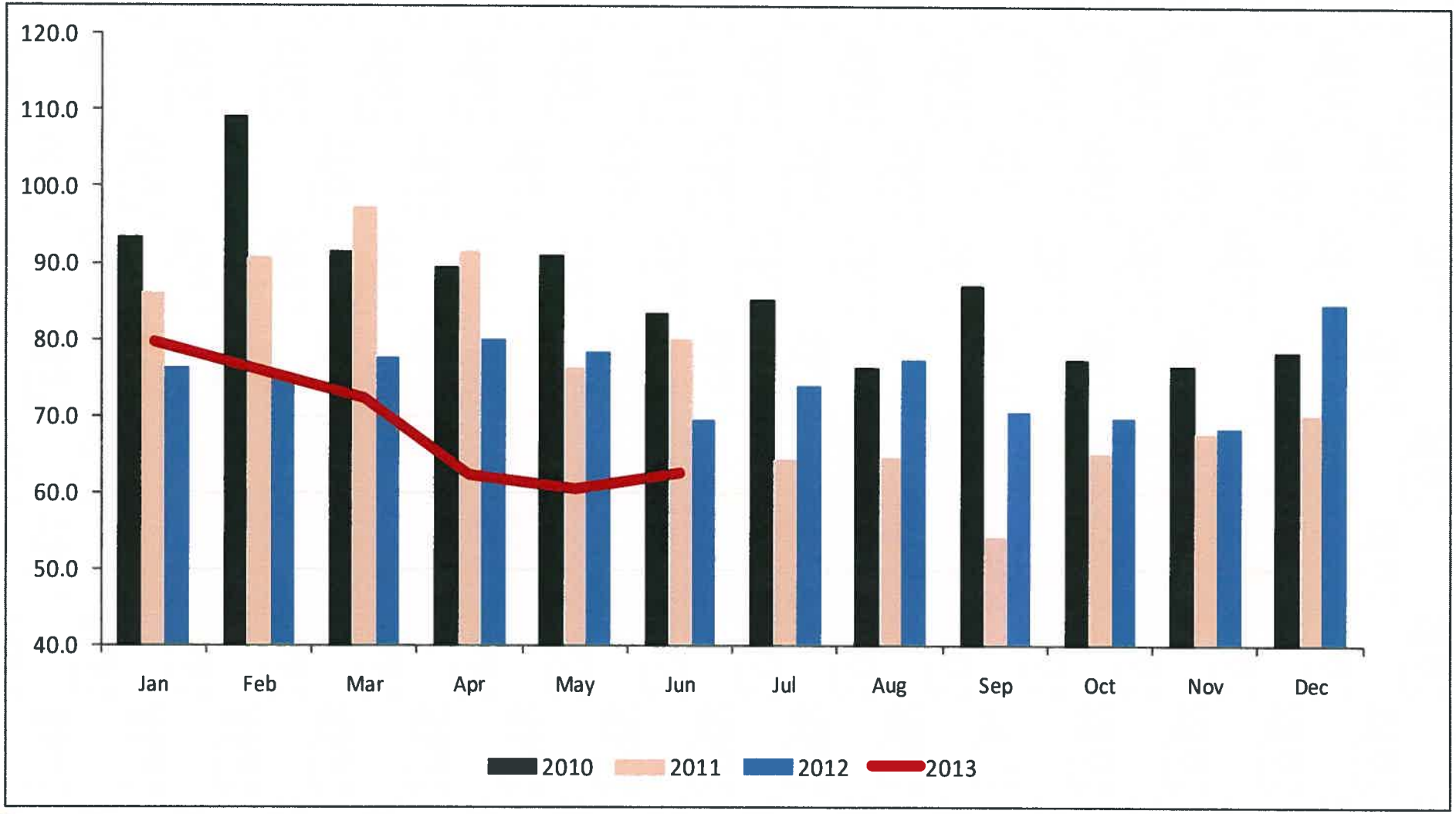
June 2013

Financial Report

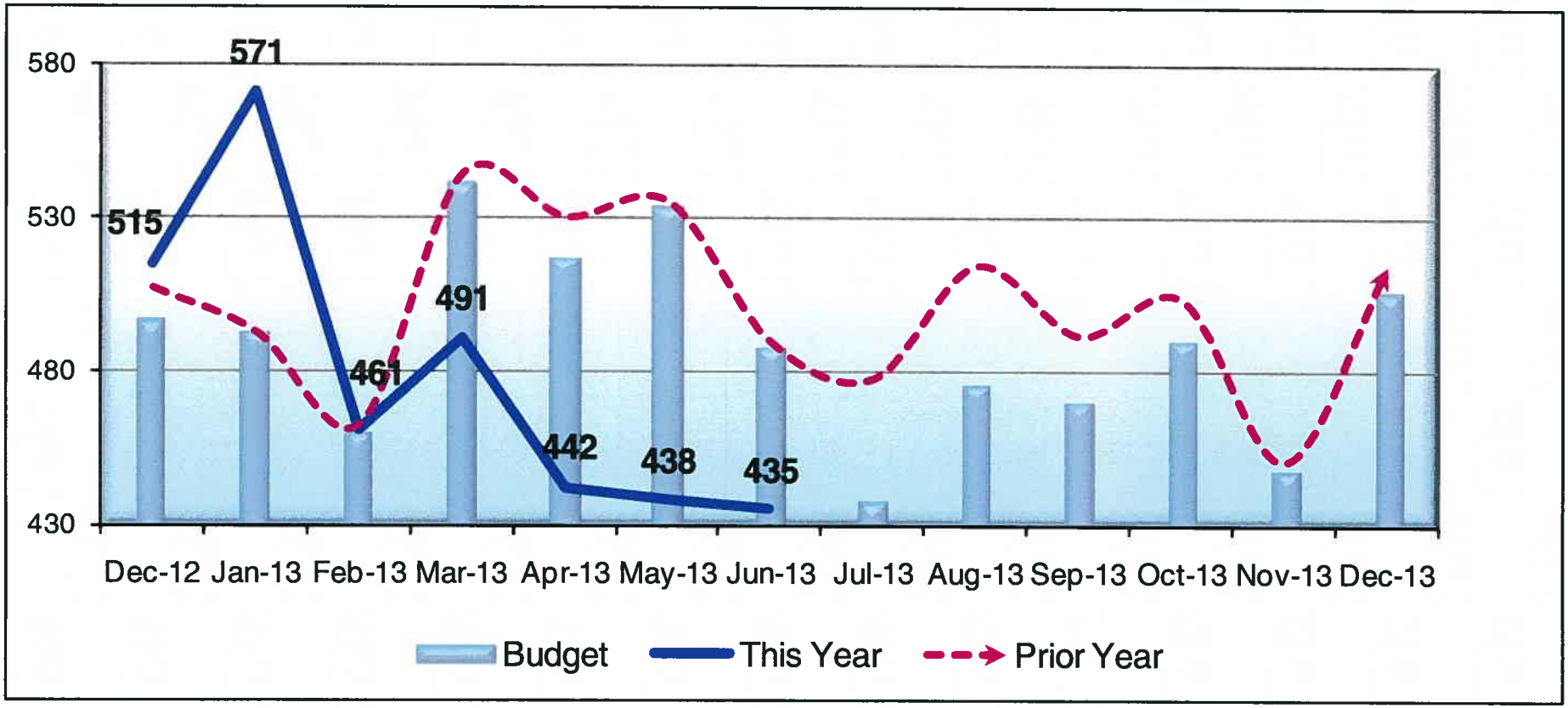
Financial Report Key Points

- Net loss was $2M in June, under budget by $951K.
- Net patient revenue was $1.2M under budget.
- Operating expenses were $310K under budget.

Average Daily Census
Jan-10 thru Jun-13



Inpatient Discharges



Statement of Activity – Summary

For the Period Ending

June 30, 2013

(Thousands)

Month to Date				Year to Date		
Actual	Budget	Var		Actual	Budget	Var
8,846	10,100	(1,254)	**Net Operating Revenues $**	58,476	63,451	(4,975)
11,559	11,869	310	**Total Operating Expenses $**	71,224	73,254	2,030
(2,713)	(1,769)	(944)	**Income/(Loss) from Operations $**	(12,748)	(9,803)	(2,945)
743	750	(7)	**Income from Other Sources $**	4,480	4,465	15
(1,970)	(1,019)	(951)	**Net Income / (Loss) $**	(8,268)	(5,338)	(2,930)
1,877	2,070	(193)	**Patient Days**	12,465	13,884	(1,419)
435	488	(53)	**Discharges**	2,838	3,033	(195)
5,952	5,963	(11)	**Outpatient Visits**	36,876	37,441	(565)
542	643	100	**Worked FTE's**	584	626	42
1.58	1.55	0.03	**Medicare CMI**	1.57	1.55	0.02

Budget Variances – Net Revenue

- Commercial / PPO / HMO – ($ 724K)
- Medicare / Medicare HMO – ($ 413K)
  - 2% Sequestration – ($79K)

Budget Variances – Expenses

- **Salaries & Benefits** $403K – Effective flexing primarily in nursing staff offset by higher health insurance costs.
- **Professional Fees** ($53K) – Higher physician and hospitalist fees.
- **Purchased Services** ($198K) – Expenses related to Revenue Cycle project, overlap in the change of vendors for equipment repair contract.

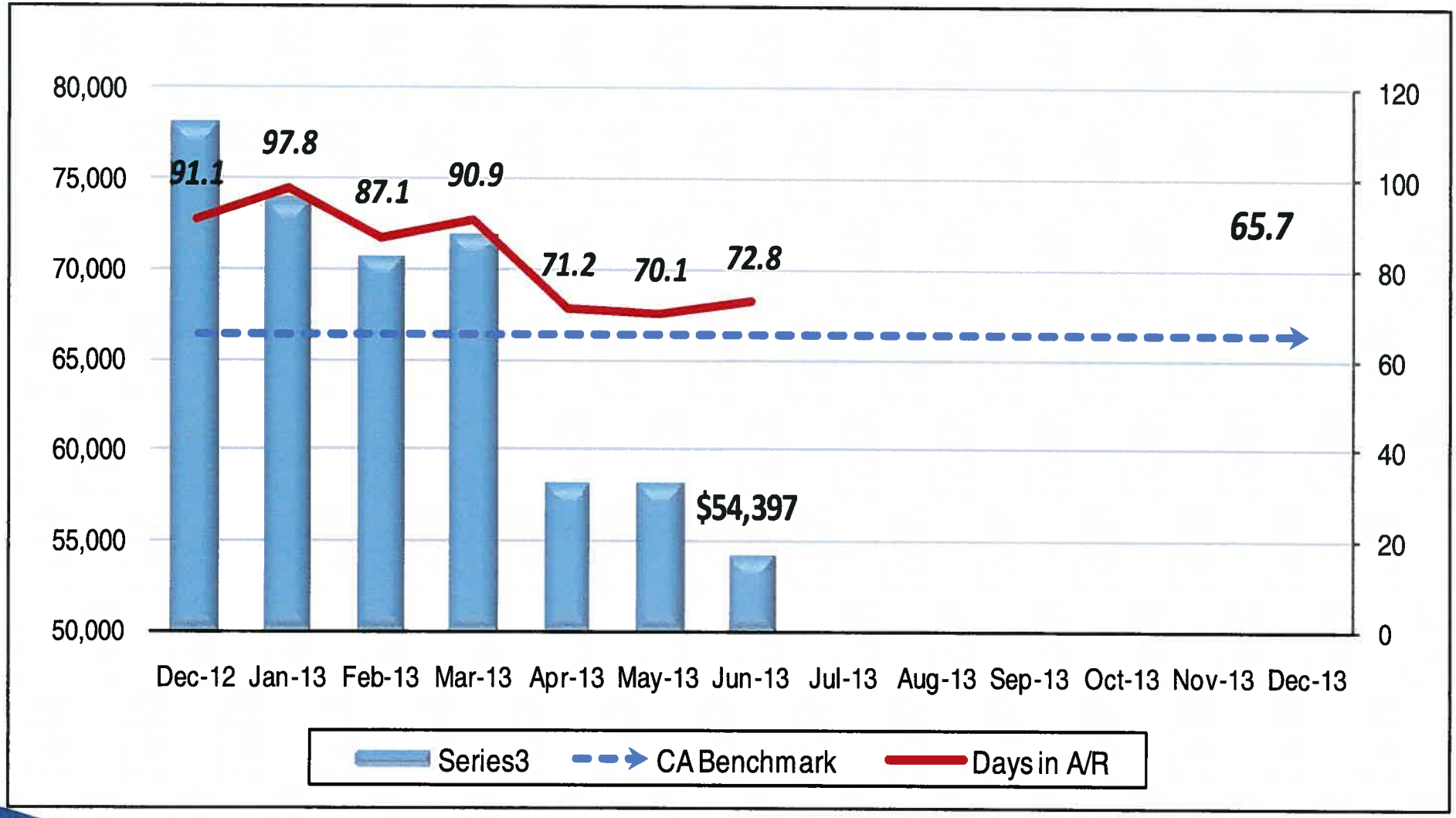
Cash Position
June 30, 2013

(Thousands)

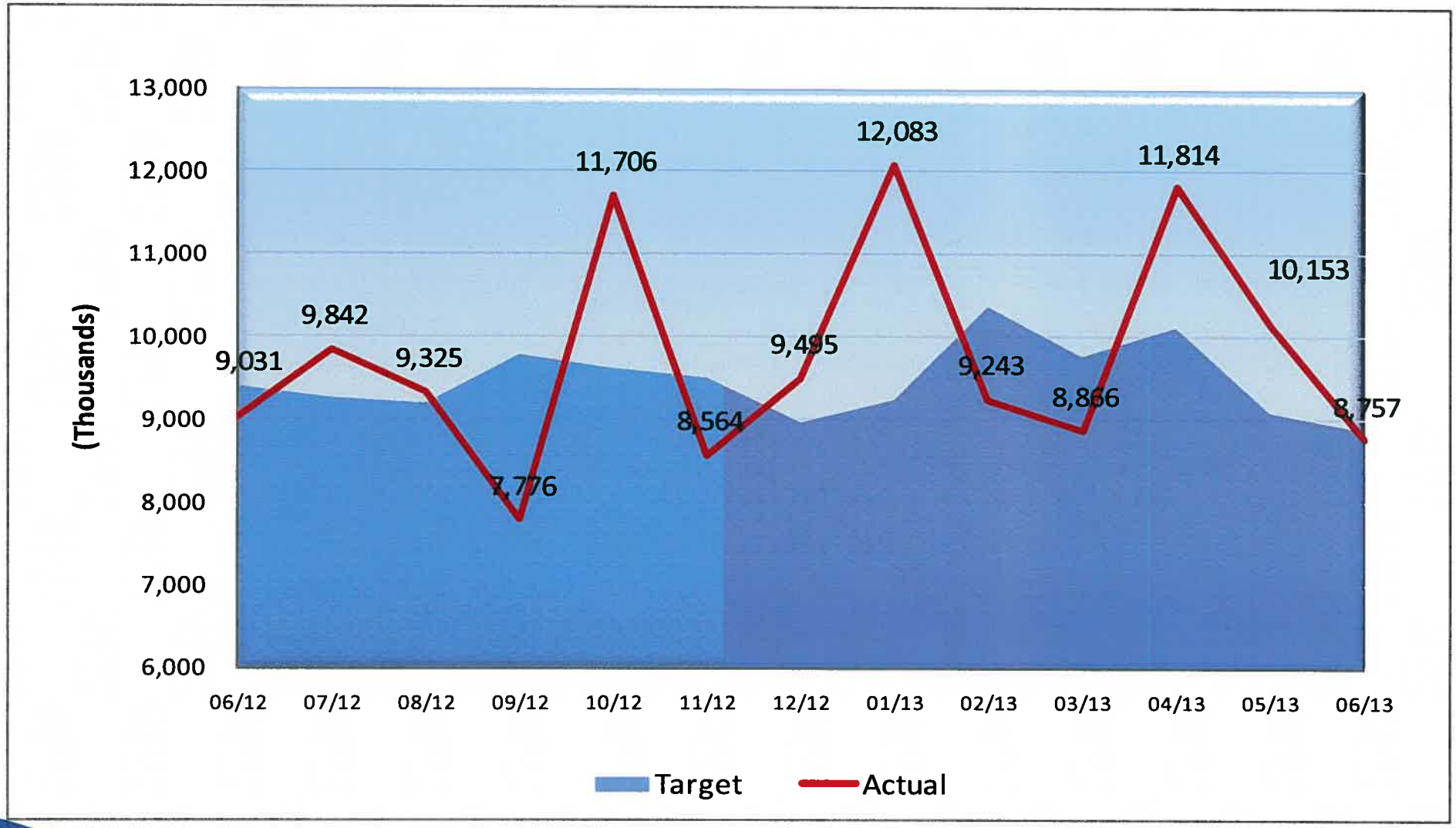
	June 30, 2013	December 31, 2012
Unrestricted Cash	$1,960	$5,059
Restricted Cash	$11,599	$11,612
Total Cash	$13,559	$16,671
Days Unrestricted Cash	5	11
Days Restricted	32	27
Total Days of Cash	37	39

California Benchmark Average	34
Top 25%	82
Top 10%	183

Net Days in A/R



Cash Collections



Capital Budget 2013

Listed Equipment	$1,493,000
Emergency Funds	507,000
Total Capital Budget:	$2,000,000
Commited To Date:	$1,114,000
Remaining Capital	$886,000

WEST CONTRA COSTA HEALTHCARE DISTRICT
DOCTORS MEDICAL CENTER
INCOME STATEMENT
June 30, 2013
(Amounts in Thousands)

CURRENT PERIOD ACTUAL	CURRENT PERIOD BUDGET	CURRENT PERIOD VAR	CURRENT PERIOD VAR %	PRIOR YEAR ACTUAL		CURRENT YTD ACTUAL	CURRENT YTD BUDGET	CURRENT YTD VAR	CURRENT YTD VAR %	PRIOR YEAR ACTUAL
					OPERATING REVENUE					
8,765	9,970	(1,205)	-12.1%	10,128	Net Patient Service Revenue	57,915	62,672	(4,757)	-7.6%	59,740
81	130	(49)	-37.6%	87	Other Revenue	561	779	(218)	-28.0%	1,587
8,846	10,100	(1,254)	-12.4%	10,215	**Total Operating Revenue**	58,476	63,451	(4,975)	-7.8%	61,327
					OPERATING EXPENSES					
4,336	4,931	595	12.1%	5,482	Salaries & Wages	28,823	31,159	2,336	7.5%	31,935
3,032	2,840	(192)	-6.7%	2,596	Employee Benefits	17,089	16,464	(625)	-3.8%	15,650
922	869	(53)	-6.2%	958	Professional Fees	6,014	5,702	(312)	-5.5%	5,810
1,271	1,311	40	3.1%	1,369	Supplies	7,900	8,033	133	1.7%	8,610
976	778	(198)	-25.4%	1,092	Purchased Services	5,236	5,194	(42)	-0.8%	4,954
256	281	25	8.9%	293	Rentals & Leases	1,629	1,736	107	6.2%	1,501
407	462	55	11.9%	403	Depreciation & Amortization	2,473	2,672	199	7.4%	2,362
359	396	37	9.5%	334	Other Operating Expenses	2,060	2,294	234	10.2%	1,871
11,559	11,869	310	2.6%	12,527	**Total Operating Expenses**	71,224	73,254	2,030	2.8%	72,693
(2,713)	(1,769)	(944)	53.4%	(2,312)	**Operating Profit / Loss**	(12,748)	(9,803)	(2,945)	30.0%	(11,366)
					NON-OPERATING REVENUES (EXPENSES)					
-	-	-	0.0%	-	Other Non-Operating Revenue	-	-	-	0.0%	1,200
1,123	1,136	(13)	1.1%	708	District Tax Revenue	6,738	6,816	(78)	1.1%	4,248
9	10	(1)	-5.9%	159	Investment Income	118	31	87	276.9%	181
(389)	(396)	7	0.0%	(507)	Less: Interest Expense	(2,376)	(2,382)	6	-0.3%	(1,882)
743	750	(7)	-0.9%	360	**Total Net Non-Operating**	4,480	4,465	15	0.3%	3,747
(1,970)	(1,019)	(951)	93.3%	(1,952)	**Income Profit (Loss)**	(8,268)	(5,336)	(2,930)	55%	(7,619)
					Profitability Ratios:					
-30.7%	-17.5%	75.3%		-22.6%	Operating Margin %	-21.8%	-15.5%	59.2%		-18.5%
-22.3%	-10.1%	-12.2%		-19.1%	Profit Margin %	-14.1%	-8.4%	-5.7%		-12.4%

WEST CONTRA COSTA HEALTHCARE DISTRICT
DOCTORS MEDICAL CENTER
INCOME STATEMENT
June 30, 2013
(Amounts in Thousands)

CURRENT PERIOD ACTUAL	CURRENT PERIOD BUDGET	CURRENT PERIOD VAR	CURRENT PERIOD VAR %	PRIOR YEAR ACTUAL		CURRENT YTD ACTUAL	CURRENT YTD BUDGET	CURRENT YTD VAR	CURRENT YTD VAR %	PRIOR YEAR ACTUAL
2,299	2,276	(23)	-1.0%	2,416	SWB / APD	2,297	2,162	(135)	-6.2%	2,208
63.7%	65.5%	130.2%		64.5%	SWB / Total Operating Expenses	64.5%	65.0%			65.5%
3,607	3,476	(130)	-3.7%	3,747	Total Operating Expenses / APD	3,564	3,326	(238)	-7.1%	3,373
29,644	32,243	(2,599)	-8.1%	32,464	I/P Gross Charges	202,460	216,836	(14,376)	-6.6%	208,917
20,970	20,936	34	0.2%	19,576	O/P Gross Charges	122,148	127,139	(4,991)	-3.9%	115,536
50,614	**53,180**	**(2,566)**	**-4.8%**	**52,060**	**Total Gross Charges**	**324,608**	**343,974**	**(19,366)**	**-5.6%**	**324,453**
					Payor Mix (IP and OP)					
41%	40%	1%		44%	Medicare %	43%	40%	3%		44%
4%	5%	-1%		5%	Medi-Cal %	4%	5%	-1%		5%
13%	13%	0%		12%	Managed Care HMO / PPO %	12%	13%	-1%		12%
13%	10%	3%		10%	Medicare HMO %	12%	10%	2%		10%
17%	17%	0%		16%	Medi-Cal HMO %	16%	17%	-1%		16%
0%	0%	0%		0%	Commercial %	0%	0%	0%		0%
1%	1%	0%		1%	Worker's Comp %	1%	1%	0%		1%
2%	2%	0%		2%	Other Government %	2%	2%	-1%		2%
9%	11%	-2%		10%	Self Pay /Charity %	10%	11%	-1%		10%
					STATISTICS					
452	477	(25)	-5.2%	477	Admissions	2,869	3,050	(181)	-5.9%	3,060
435	488	(53)	-10.9%	490	Discharges	2,838	3,033	(195)	-6.4%	3,058
1,877	2,070	(193)	-9.3%	2086	Patient Days	12,465	13,884	(1,419)	-10.2%	13,879
62.6	69.0	(6.4)	-9.3%	69.5	Average Daily Census (ADC)	68.9	76.7	(7.8)	-10.2%	76.3
4.31	4.24	(0.07)	-1.7%	4.26	Average Length of Stay (LOS)- Accrual Based	4.39	4.58	0.19	4.1%	4.54
30	30			30	Days in Month	181	181			182
743	805	(62)	-7.7%	785	Adjusted Discharges (AD)	4,550	4,811	(261)	-5.4%	4,749
3,205	3,414	(209)	-6.1%	3,343	Adjusted Patient Days (APD)	19,985	22,025	(2,039)	-9.3%	21,554
107	114	(7)	-6.1%	111	Adjusted ADC (AADC)	110	122	(11)	-9.3%	118
80	78	2	2.6%	73	Inpatient Surgeries	446	473	(27)	-5.7%	434
80	103	(23)	-22.3%	112	Outpatient Surgeries	484	560	(76)	-13.6%	574
160	**181**	(21)	-11.6%	**185**	**Total Surgeries**	**930**	**1,033**	(103)	-10.0%	**1,008**

WEST CONTRA COSTA HEALTHCARE DISTRICT
DOCTORS MEDICAL CENTER
INCOME STATEMENT
June 30, 2013
(Amounts in Thousands)

CURRENT PERIOD ACTUAL	CURRENT PERIOD BUDGET	CURRENT PERIOD VAR	CURRENT PERIOD VAR %	PRIOR YEAR ACTUAL		CURRENT YTD ACTUAL	CURRENT YTD BUDGET	CURRENT YTD VAR	CURRENT YTD VAR %	PRIOR YEAR ACTUAL
2,972	2,943	29	1.0%	3019	ED Outpatient Visits	19,073	17,871	1,202	6.7%	18,200
2,900	2,917	(17)	-0.6%	2987	Ancillary Outpatient Visits	17,319	19,010	(1,691)	-8.9%	19,144
80	103	(23)	-22.3%	112	Outpatient Surgeries	484	560	(76)	-13.6%	574
5,952	**5,963**	(11)	-0.2%	**6,118**	**Total Outpatient Visits**	**36,876**	**37,441**	(565)	-1.5%	**37,918**
413	427	(14)	-3.3%	439	Emergency Room Admits	2,626	2,730	(104)	-3.8%	2,784
13.9%	14.5%			14.5%	% of Total E/R Visits	13.8%	15.3%			15.3%
91.4%	89.5%			92.0%	% of Acute Admissions	91.5%	89.5%			91.0%
542	643	100	15.6%	613	Worked FTE	584	626	42	6.8%	623
662	763	101	13.2%	734	Paid FTE	689	726	37	5.1%	723
5.08	5.65	0.57	10.1%	5.50	Worked FTE / AADC	5.29	5.15	(0.14)	-2.8%	5.26
6.20	6.70	0.50	7.5%	6.58	Paid FTE / AADC	6.24	5.96	(0.28)	-4.6%	6.10
2,735	2,920	(185)	-6.3%	3,030	Net Patient Revenue / APD	2,898	2,846	52	1.8%	2,772
15,793	15,577	217	1.4%	15,572	I/P Charges / Patient Days	16,242	15,618	625	4.0%	15,053
3,523	3,511	12	0.3%	3,200	O/P Charges / Visit	3,312	3,396	(83)	-2.5%	3,047
1,353	1,444	91	6.3%	1,640	Salary Expense / APD	1,442	1,415	(27)	-1.9%	1,482
4.77	4.57	(0.20)	-4.4%	4.60	Medicare LOS - Discharged Based	4.68	5.07	0.39	7.7%	4.76
1.58	1.55	0.03	1.7%	1.48	Medicare CMI	1.57	1.55	0.02	1.2%	1.52
3.03	2.95	0.08	2.7%	3.11	Medicare CMI Adjusted LOS	2.98	3.27	(0.29)	-8.9%	3.13
4.31	4.24	(0.07)	-1.7%	4.26	Total LOS - Discharged Based	4.39	4.58	0.19	4.2%	4.56
1.53	1.48	0.05	3.6%	1.48	Total CMI	1.51	1.47	0.04	3.0%	1.47
2.81	2.86	(0.05)	-1.8%	2.88	Total CMI Adjusted LOS	2.91	3.13	(0.22)	-7.0%	3.11

WEST CONTRA COSTA HEALTHCARE DISTRICT
DOCTORS MEDICAL CENTER
BALANCE SHEET
June 30, 2013
(Amounts in Thousands)

	Current Month	Dec. 31, 2012
ASSETS		
Cash	1,960	5,059
Net Patient Accounts Receivable	21,716	31,007
Other Receivables	1,247	464
Inventory	1,681	1,731
Current Assets With Limited Use	11,599	11,612
Prepaid Expenses and Deposits	881	1,621
TOTAL CURRENT ASSETS	**39,084**	**51,494**
Assets With Limited Use	**642**	**642**
Property Plant & Equipment		
Land	12,120	12,120
Bldg/Leasehold Improvements	29,433	29,432
Capital Leases	10,926	10,926
Equipment	44,435	43,579
CIP	355	860
Total Property, Plant & Equipment	97,269	96,917
Accumulated Depreciation	-56,329	-53,887
Net Property, Plant & Equipment	**40,940**	**43,030**
Intangible Assets	**1,423**	**1,454**
Total Assets	**82,089**	**96,620**

		Current Month	Dec. 31, 2012
	LIABILITIES		
96	Current Maturities of Debt Borrowings	1,364	1,613
97	Accounts Payable and Accrued Expenses	13,546	16,509
98	Accrued Payroll and Related Liabilities	16,365	17,512
99	Deferred District Tax Revenue	3,090	3,091
100	Estimated Third Party Payor Settlements	1,606	1,868
101	**Total Current Liabilities**	**35,971**	**40,593**
	Other Liabilities		
102	Other Deferred Liabilities	1,364	2,804
103	Chapter 9 Bankruptcy	0	0
	Long Term Debt		
104	Notes Payable - Secured	61,201	61,242
105	Capital Leases	1,238	1,647
106	Less Current Portion LTD	-1,364	-1,613
107	**Total Long Term Debt**	**61,075**	**61,276**
108	**Total Liabilities**	**98,410**	**104,673**
	EQUITY		
109	Retained Earnings	-8,053	9,667
110	Year to Date Profit / (Loss)	-8,268	-17,720
111	**Total Equity**	**-16,321**	**-8,053**
112	**Total Liabilities & Equity**	**82,089**	**96,620**

Current Ratio (CA/CL)	***1.09***	***1.27***
Net Working Capital (CA-CL)	***3,113***	***10,901***
Long Term Debt Ratio (LTD/TA)	***0.74***	***0.63***
Long Term Debt to Capital (LTD/(LTD+TE)	***1.36***	***1.15***
Financial Leverage (TA/TE)	***-5.0***	***-12.0***
Quick Ratio	**0.66**	**0.89**
Unrestricted Cash Days	**5**	**11**
Restricted Cash Days	**32**	**27**
Net A/R Days	**72.8**	**92.6**

DOCTORS MEDICAL CENTER

June 2013 Executive Report

Doctors Medical Center had a Net Loss of $1,970,000 for the month of June. As a result, net income was worse than budget by $951,000. The following are the factors leading to the Net Income variance:

Net Patient Revenue Factors	**Positive / (Negative)**
Managed Care, Commercial, PPO	($724,000)
Medicare / Medicare HMO	($413,000)
Expenses	
Salaries & Benefits	$403,000
Professional Fees	($53,000)
Purchased Services	($198,000)

Net patient revenue was under budget by $1,205,000 for June. Inpatient gross charges were under budget by 8.1% with patient days and discharges at 9.3% and 10.9% under budget respectively. While total outpatient volume was on target for June, outpatient surgeries were under budget by 22.3%.

Total Managed Care inpatient volume was 22.0% under budget with outpatient volume down 6.6% representing $724,000 in patient revenue. Medicare patient days were under budget by 11.4% while discharges were over budget by 15.6%. Additionally, Medicare reimbursement was reduced by 2% or $79,000 due to mandatory sequestration.

Salaries and Benefits combined were under budget by $403,000 in June. Salaries were favorable by $595,000 mainly due to continued flexing in all departments. Benefits were $192,000 over budget as employee healthcare costs were $600,000 over budget.

Professional Fees were $53,000 over budget in June. The contract rate used in the budget along with higher than anticipated volume for the hospitalists' created the variance.

Purchased Services were over budget $198,000 due to continued analytical support services and the timing of expenses related to the revenue cycle project and software invoicing.

DOCTORS
MEDICAL CENTER

QUALITY REPORT

TAB 6

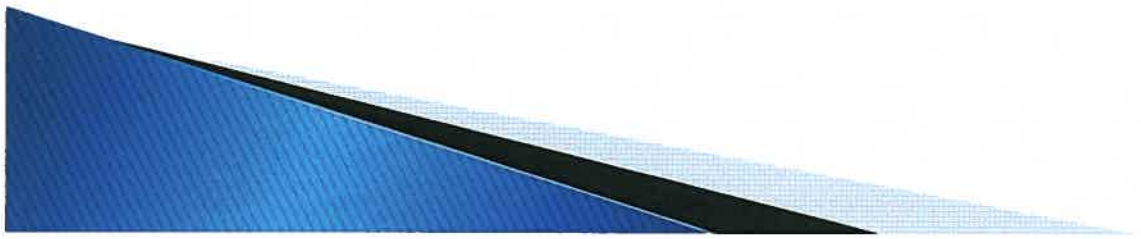
Quality Management Report

JULY 2013

Joint Commission Updates

45 Day Evidence of Standards Compliance

- The hospital manages risks associated with its utility systems.
- The hospital assesses and manages the patient's pain
- The hospital assesses and manages the patient's risks for falls



45 Day Evidence of Standards – Cont.

- The hospital provides the patient with care before initiating operative or other high-risk procedures, including those that require the administration of moderate or deep sedation or anesthesia
- The hospital provides care to the patient after operative or other high-risk procedures and/or the administration of moderate or deep sedation or anesthesia

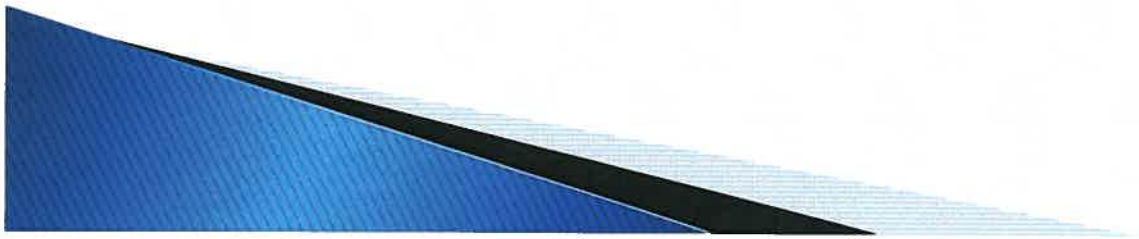
Joint Commission Updates

60 – Day Evidence of Standards Compliance

- The hospital implements its infection prevention and control plan
- Medical staff bylaws address self-governance and accountability to the governing body
- The organized medical staff oversees the quality of patient care, treatment, and services provided by practitioners privileged through the medical staff process

60 – Day Evidence of Standards – Cont.

- Ongoing professional practice evaluation information is factored into the decision to maintain existing privilege(s), to revise existing privilege(s), or to revoke an existing privilege prior to or at the time of renewal.
- The hospital initiates restraint or seclusion based on an individual order.
- The hospital maintains complete and accurate medical records for each individual patient.



60 - Day Evidence of Standards - Cont.

- The medical record contains a summary list for each patient who receives continuing ambulatory care services.
- The hospital honors the patient's right to give or withhold informed consent.

DOCTORS MEDICAL CENTER

PATIENT SATISFACTION REPORT AND WORK UNIT PRESENTATION

TAB 7

PATIENT SATISFACTION PROGRAM UPDATE

- Patient Satisfaction Board meetings (Committee) quarterly or (every other month) expanded to include co-leads of the PI teams.
- Three Training Modules Developed with the Assistance of Press Ganey
- Unit Based Performance Improvement Teams Established
- Communication Boards Installed
- Employee Recognition Program Initiated

DOCTORS MEDICAL CENTER

Patient Satisfaction Program Update

•Patient Experience Training Modules 1 and 2 have been completed, Module 3 in progress

- •Module : 275 attendees, Module 2: 236 attendees
- •Trainings offered across all shifts and on weekends
- •Set-up for pre-register established via HealthStream

•Unit based performance improvement teams established

- •9 multidisciplinary team with representation of frontline and physician leadership
- •Teams have selected initiatives to impact overall facility goals to improve communication and teamwork
- •Team facilitators/managers will present selected initiatives to peers for educational purposes and to increase teamwork between departments
- •Teams have selected representatives to participate on the Patient Satisfaction Committee

DOCTORS MEDICAL CENTER

Patient Satisfaction Program Update

- **COMMUNICATION BOARDS INSTALLED**
  - Feedback from frontline staff and leadership regarding communication was used to develop standardized communication boards
  - Boards have been installed in all staff lounges/break rooms for easy access
  - Hospital Priorities, Patient Satisfaction Scores, Employee Recognition, Hospital Updates and Department PI Initiatives have/will be posted
  - Streamlined process for updating board communication has been rolled out through managers/directors

- **EMPLOYEE RECOGNITION PROGRAM INITIATED**
  - The employee recognition policy and procedure has been revised, reviewed, approved and distributed
  - Permanent Recognition Committee formed including frontline, management and physician representation
  - Program outline was established to honor 1st employee in July 2013
  - Announcement of program released house wide on May 6th
  - Nomination process to begin May 30th

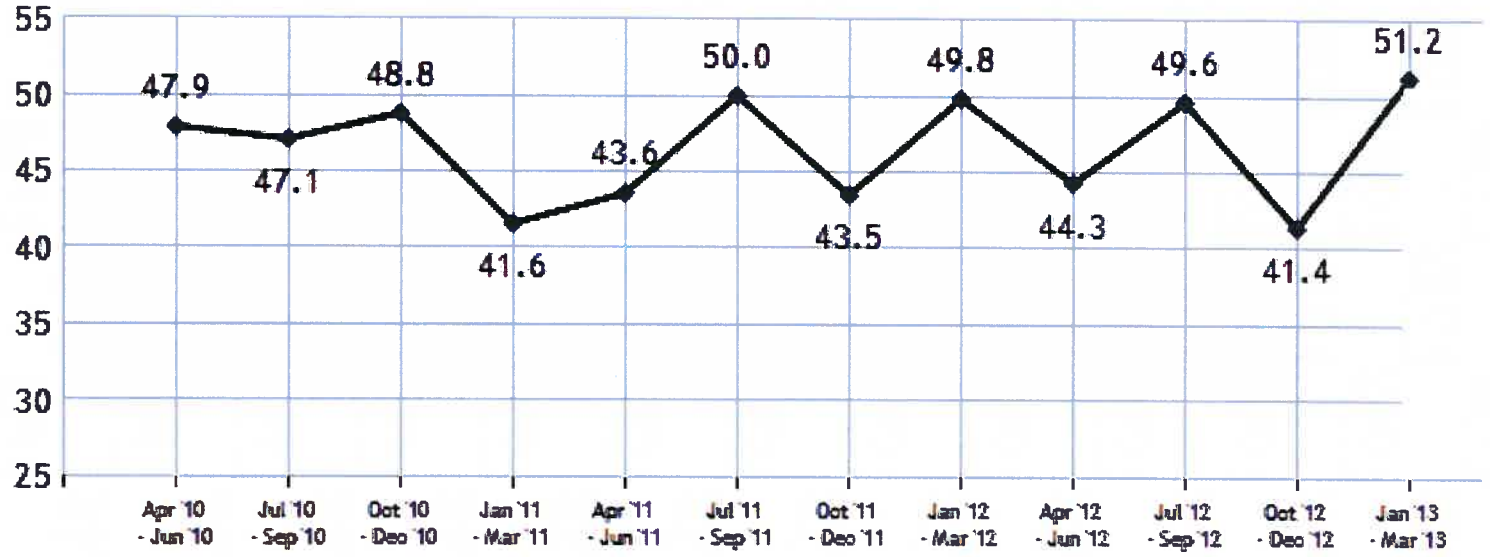
PRESS GANEY

Top Box Trends

Inpatient

Doctors Medical Center-San Pablo

Question - CAHPS - Rate hospital 0-10



Doctors Medical Center-San Pablo

Displayed by Discharged Date

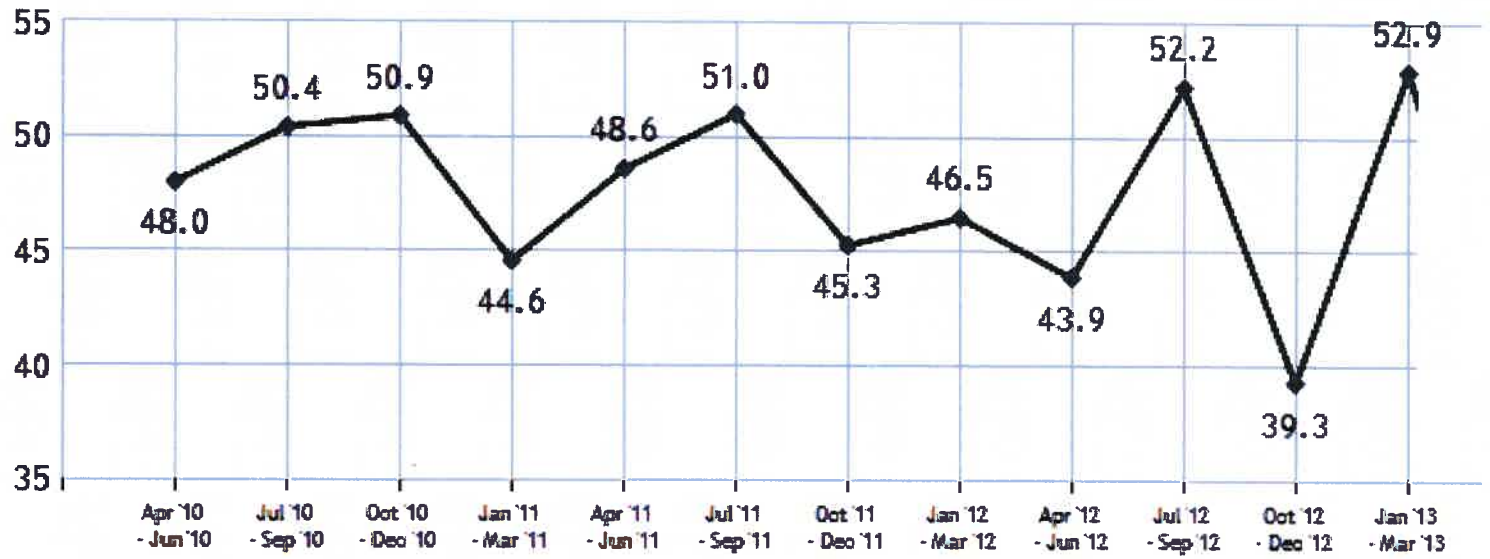
PRESS GANEY

Top Box Trends

Inpatient

Doctors Medical Center-San Pablo

Question - CAHPS - Recommend the hospital



Doctors Medical Center-San Pablo

Displayed by Discharged Date

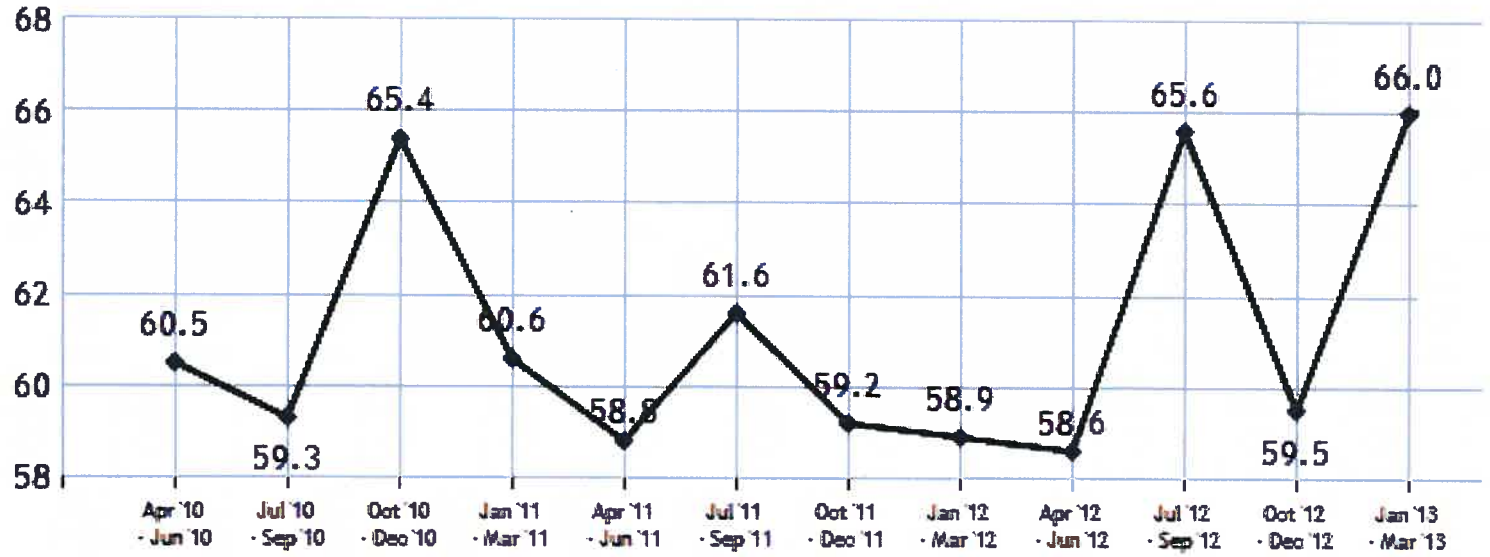
PRESS GANEY

Top Box Trends

Inpatient

Doctors Medical Center-San Pablo

Section - CAHPS - Comm w/ Nurses



Doctors Medical Center-San Pablo

Displayed by Discharged Date

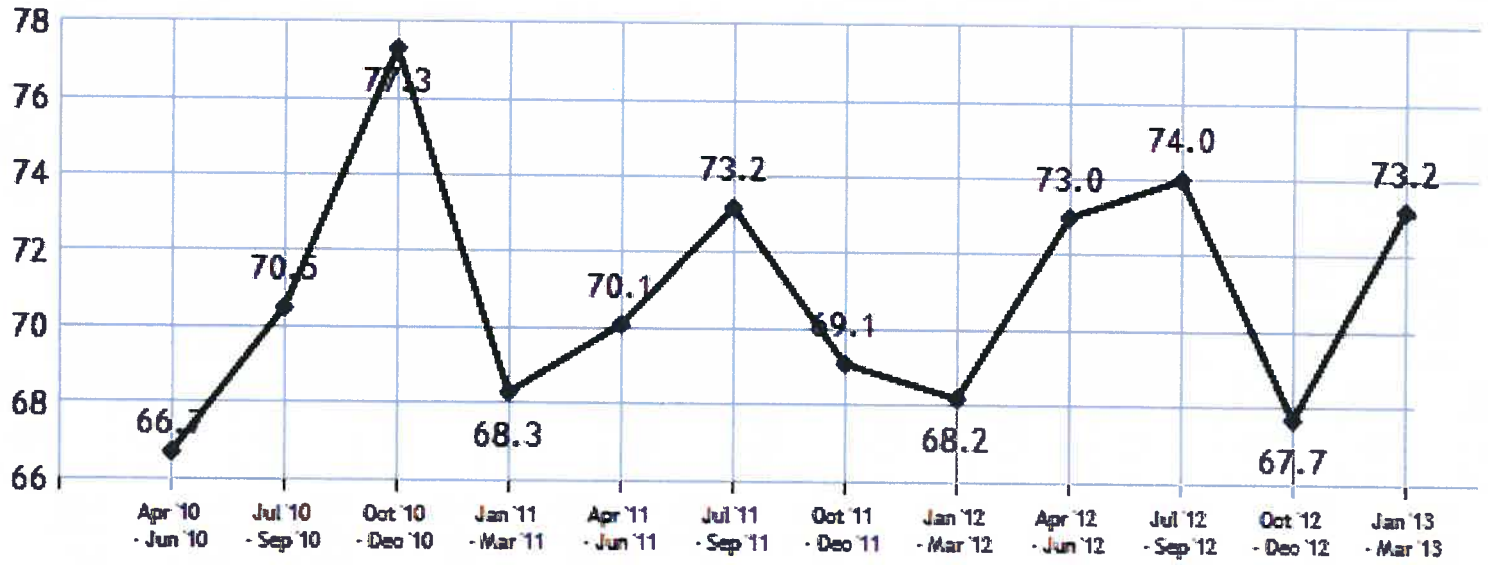
PRESS GANEY

Top Box Trends

Inpatient

Doctors Medical Center-San Pablo

Section - CAHPS - Comm w/ Doctors



Doctors Medical Center-San Pablo

Displayed by Discharged Date

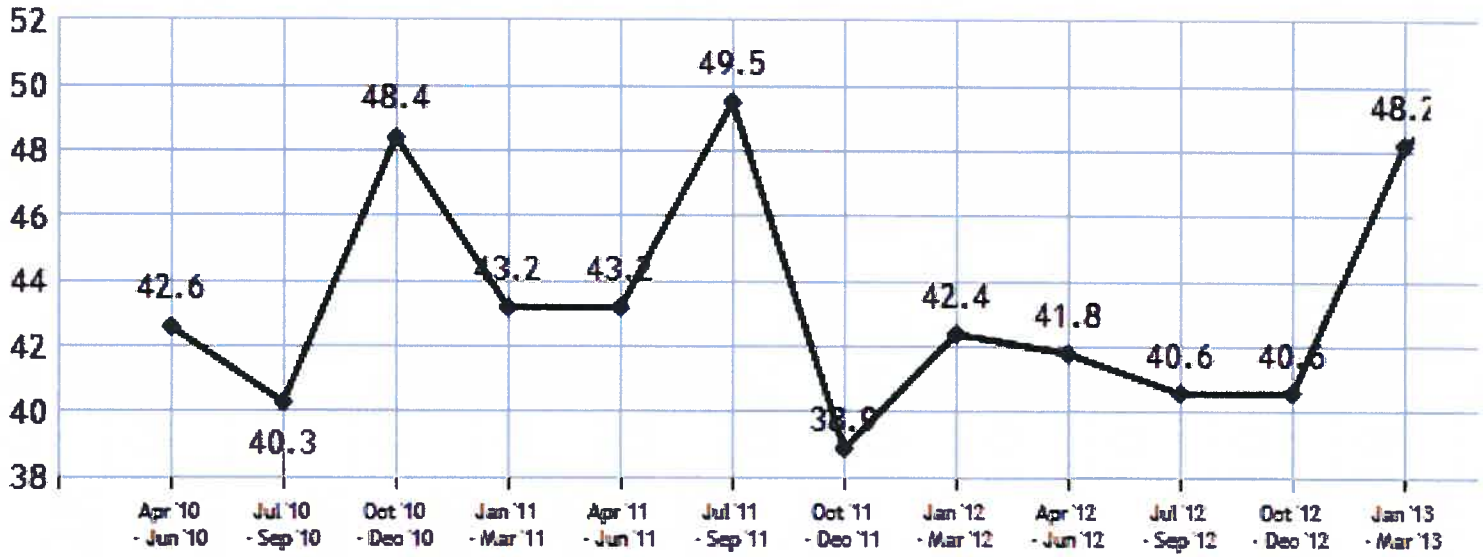
PRESS GANEY

Top Box Trends

Inpatient

Doctors Medical Center-San Pablo

Section - CAHPS - Response of Hosp Staff



Doctors Medical Center-San Pablo

Displayed by Discharged Date

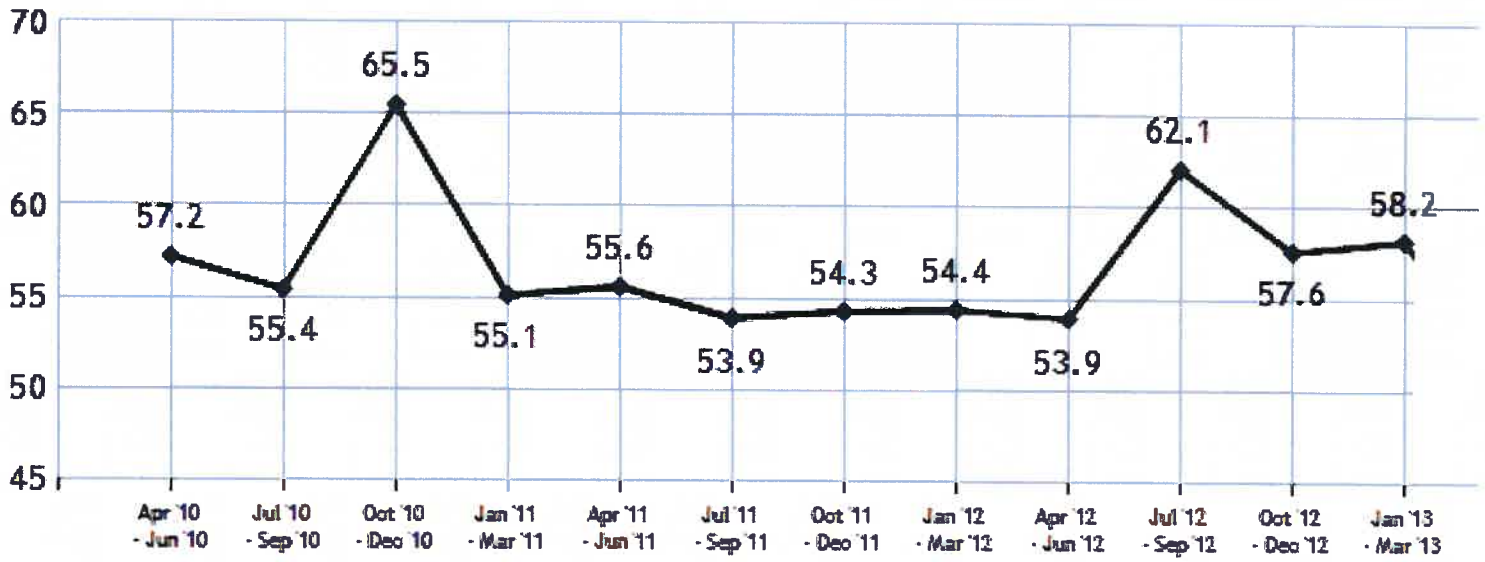
PRESS GANEY

Top Box Trends

Inpatient

Doctors Medical Center-San Pablo

Section - CAHPS - Pain Management



Doctors Medical Center-San Pablo

Displayed by Discharged Date

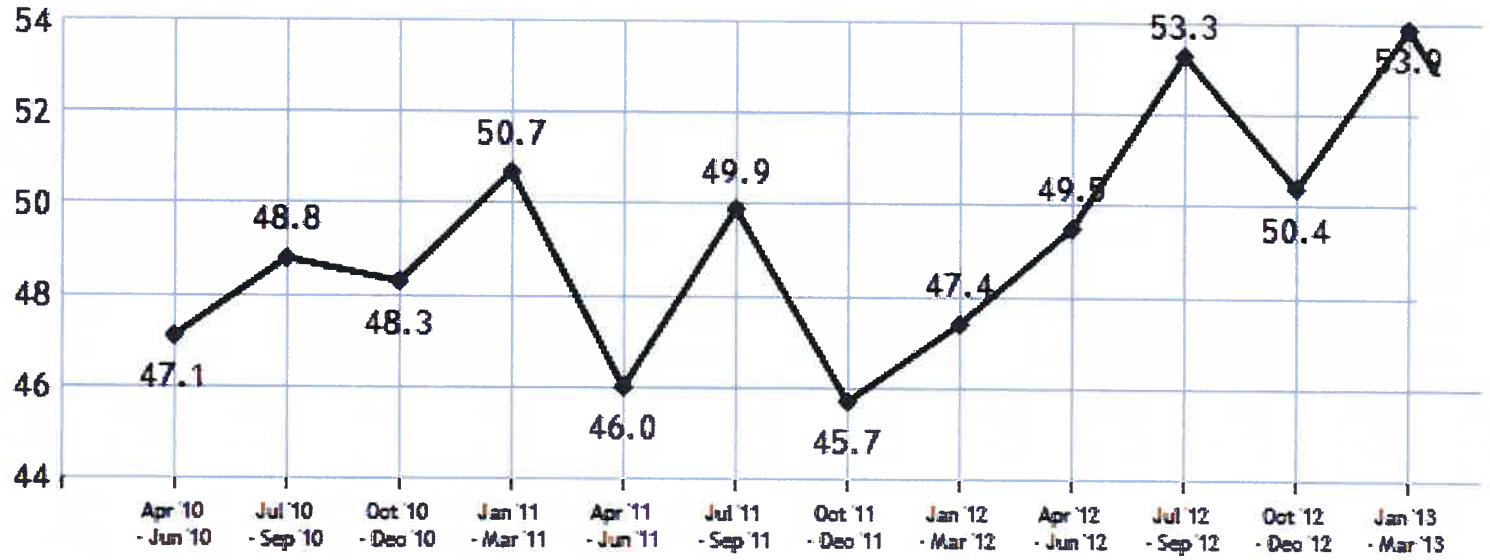
PRESS GANEY

Top Box Trends

Inpatient

Doctors Medical Center-San Pablo

Section - CAHPS - Comm About Medicines



Doctors Medical Center-San Pablo

Displayed by Discharged Date

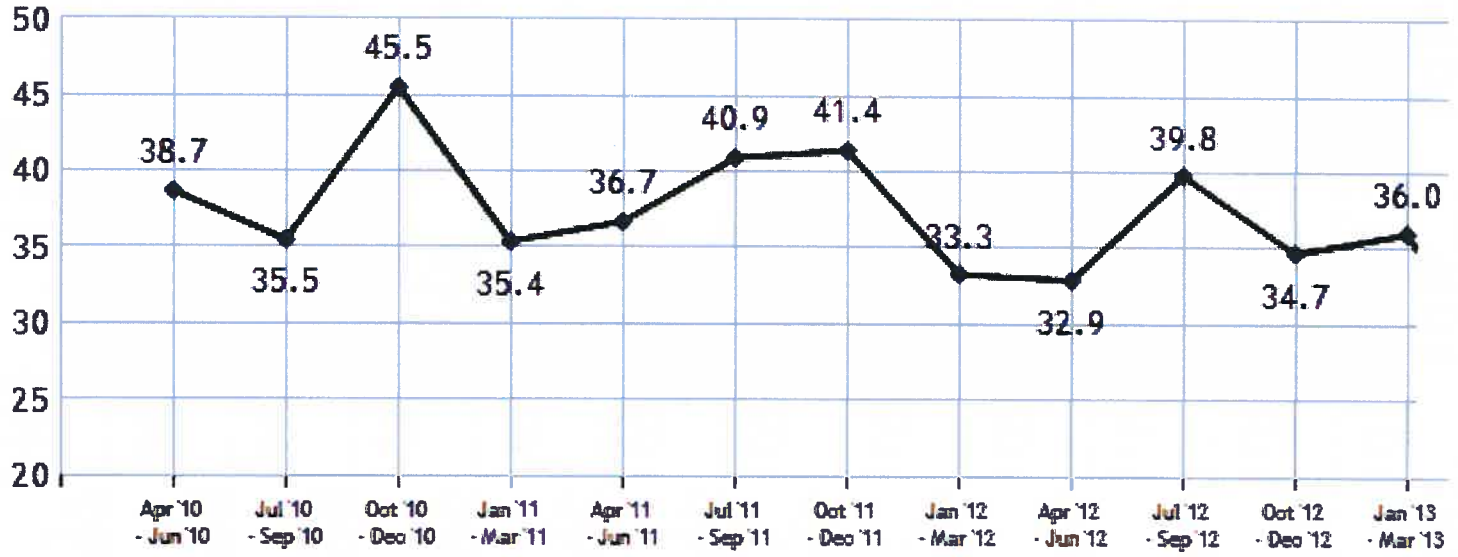
PRESS GANEY

Top Box Trends

Inpatient

Doctors Medical Center-San Pablo

Question - CAHPS - Quietness of hospital environment



Doctors Medical Center-San Pablo

Displayed by Discharged Date

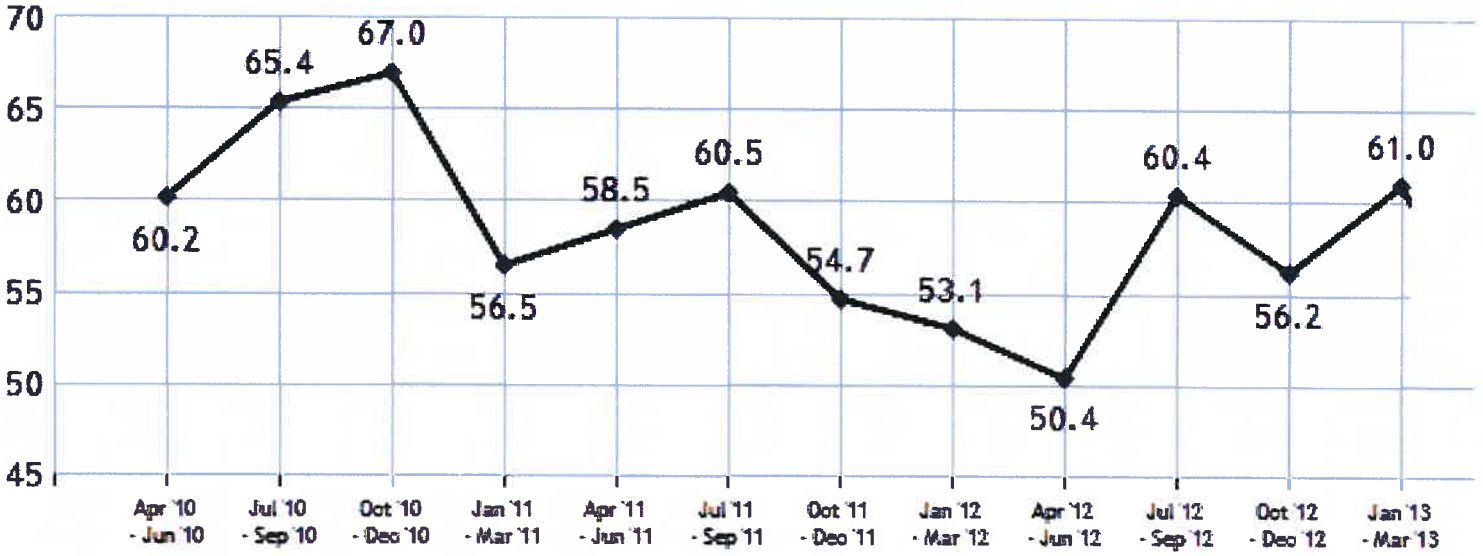
PRESS GANEY

Top Box Trends

Inpatient

Doctors Medical Center-San Pablo

Question - CAHPS - Cleanliness of hospital environment



Doctors Medical Center-San Pablo

Displayed by Discharged Date

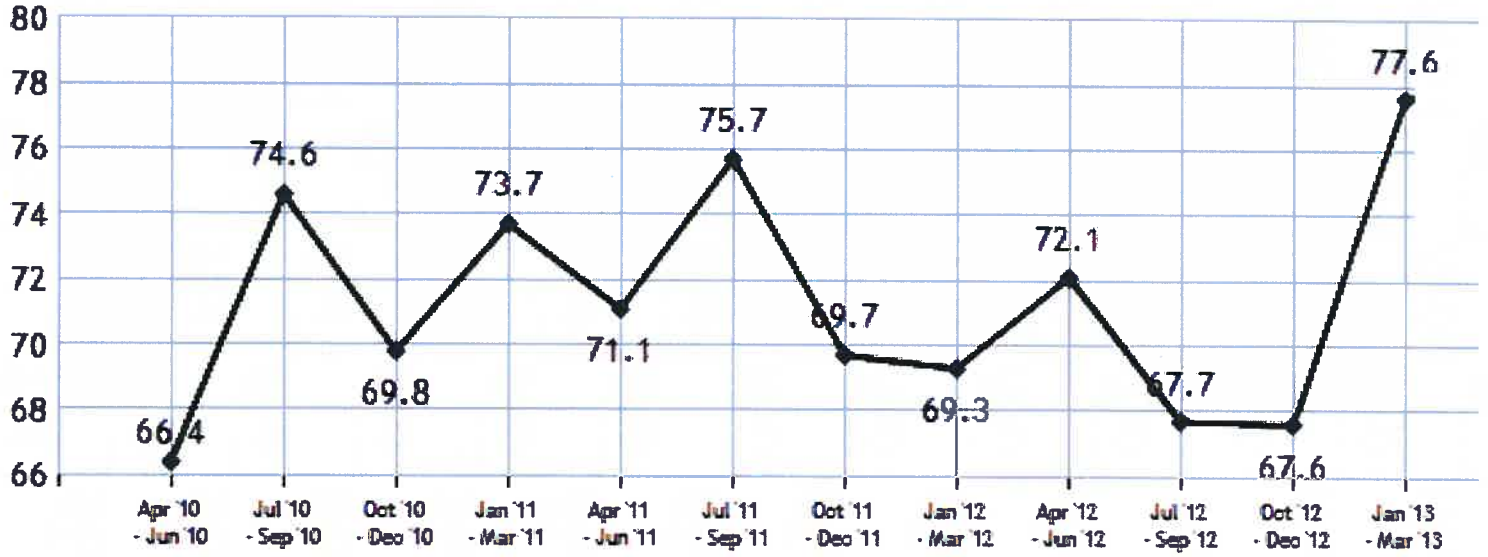
PRESS GANEY

Top Box Trends

Inpatient

Doctors Medical Center-San Pablo

Section - CAHPS - Discharge Information



Doctors Medical Center-San Pablo

Displayed by Discharged Date

DOCTORS MEDICAL CENTER

CAPITAL APPROVAL REQUEST: PROVATION MEDICAL, INC.

TAB 8

WEST CONTRA COSTA HEALTHCARE DISTRICT
DOCTORS MEDICAL CENTER
GOVERNING BODY
BOARD OF DIRECTORS
CONTRACT RECOMMENDATION FORM

TO: **GOVERNING BODY**
BOARD OF F DIRECTORS

FROM: **James Boatman**

DATE: **July 26, 2013**

SUBJECT: **ProVation Medical Inc. Software**

REQUEST / RECOMMENDATION(S): Recommend to the District Board to approve and authorize the Chief Financial Officer to execute on behalf of DMC, approval of the ProVation Contract.

FISCAL IMPACT: The cost of the software system is $212,700 with annual ongoing maintenance of $24,616.
Estimated annual savings:
Transcription -$50,000
Revenue Capture – $94,785
FTE reduction .5 RN - $60,000
Total Annual Savings - $204,785

STRATEGIC IMPACT: The Provation software will change the documentation of cases for Cath Lab, GI, EYE and Echo. As the physician documents the procedure it also creates the ICD- 9 or ICD-10 codes needed for billing. The software will improve coding, and enhance compliance thereby improving workflow in the Cath Lab and Medical Records departments. The system comes with data reporting tools for compliance reporting and eliminates time spent by staff creating the required reports.

REQUEST / RECOMMENDATION REASON, BACKGROUND AND JUSTIFICATION: The ProVation software is projected to pay for itself in just over one year. It improves documentation and the efficiency of the staff for reporting and coding as well as giving physician's tools for education of their patients. Our current method of documenting cases and reporting the results is manual and can lead to under billing for procedures performed as well as leaving us exposed for a RAC audit.

Presentation Attachments: Yes____No____

Requesting Signature: _____ Date: ___ / ___ / ___

SIGNATURE(S):

Action of Board on ___ / ___ / ___ Approved as Recommended _____ Other _____

Vote of Board Members:

____ Unanimous (Absent____)
Ayes: ____ Noes: ____
Absent: ____ Abstain: ____

I HEREBY ATTEST THAT THIS IS A TRUE AND CORRECT COPY OF AN ACTION TAKEN AND ENTERED ON THE MINUTES OF THE BOARD ON THE DATE SHOWN

Contact Person: James Boatman

Attested by: _____
Eric Zell, Chair, Governing Body Board of Directors

Cc: Accounts Payable, Contractor, CFO/Controller, Requestor

Wolters Kluwer Health

ProVation Medical

The Power of ProVation:

- ProVation **eliminates dictation**
- ProVation **accelerates revenue capture**
- ProVation **improves cash flow/reduces A/R days**
- ProVation is **unsurpassed in physician utilization**
- ProVation **enhances the quality of procedure documentation and compliance measures (eg. ICD10)**

ProVation Solution

ProVation Medical's Cardiovascular solution will integrate with Doctor's Medical Center existing infrastructure (e.g. McKesson, GE MacLab) filling the documentation gap and enabling the following...

Objectives

Elimination of dictation/transcription/manual typing

- Decrease inefficiencies and turnaround challenges
- Enhance workflow
- Improve resourcing

Improve source documentation at the point of care

- Improve basis for coding/ Increased technical revenue
- Enhance compliance

Improve physician satisfaction

- Increase cash flow resulting from faster turnaround time
- Improved basis for coding/ Increase professional revenue

Approach

Built by an in-house staff of more than 40 clinicians and coders, ProVation replaces dictation and allows physicians to efficiently document procedures at the point of care. ProVation software produces complete, coding-ready and image-enhanced documentation that result in greater efficiency, increased profitability and clinician satisfaction. ProVation leads clinicians through the procedure documentation process quickly and automatically with intuitive navigation that drives revenue recovery and offers greater protection against RAC audits by automatically tying procedure documentation to reimbursement coding. ProVation seamlessly interfaces with other IT systems and offers robust data reporting and analysis for Quality Indicators, PQRI, pay-for-performance and other reporting initiatives. Our award-winning customer service, rapid implementation and comprehensive training allow your site to be up and running within 6 months from purchase.

ProVation Medical ▫ 800 Washington Ave. N. ▫ Minneapolis, MN 55401 ▫ 888-952-6673

Michael DeRosier ▫ 612-418-9797 ▫ michael.derosier@provationmedical.com ▫

www.provationmedical.com

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ProVation Medical

ProVation - Qualitative Benefits - Quality, Compliance, Reporting

ProVation will deliver significant qualitative benefits to physicians impacting key quality, compliance and reporting initiatives.

- **Content** - Deep medical content built and updated quarterly by 40+ ProVation in-house physicians; eliminates need for physicians or hospitals to build and maintain content
- **Hemodynamic Integration** - ProVation pulls hemo data to physicians procedure note
- **Diagrams** - ProVation Docudiagrams® feature allows physicians to create color coded diagrams that automatically generate and populate text and codes within the note
- **Navigation** - Smart navigation features and automatic flags guide physicians to more complete and compliant documentation to support quality and coding appropriateness
- **Coding** - CPT, ICD-9 codes and CCI edits are automatically generated based on physician entries. ProVation's intelligent coding engine knows when additional CPT's are relevant within a complex coding environment. Automatically adds CPT anatomical site modifiers to ensure full payment. 7 full-time certified coders on ProVation staff.
- **Time Savings** - Create a single, complete, and easily retrieved electronic note for each procedure and consequently ProVation prepares referring MD letters, patient letters, CC letters, patient instructions, post-cath orders and coding reports to auto route via email/fax/print to patients, clinicians and your office
- **EMR Communication** - HL7 outbound results interface sends finalized procedure notes to EMR immediately post-procedure
- **Compliance** - Mitigate RAC audit risks as ProVation's coding engine generates both professional and technical codes; Route coding reports and procedure notes directly to the office; ProVation prompts physicians to document applicable major co-morbidities
- **Data Reporting** - Structured, discrete database for quality & compliance reporting (e.g. 80+ administrative/MD data reports and ease to use procedure data export tool)
- **Service & Support** - World-class, award winning customer support and service as recognized by the ProVation Medical #1 KLAS Ranking for the 7th consecutive year in the category of "Clinical Procedure Documentation"
- **ICD 10** - Seamless transition for physicians to ICD 10 as ProVation is busy developing content specificity and the associated codes in ProVation which will reduce physician documentation training and other inefficiencies when the deadline is determined
- **Physician Satisfaction** - Built by physicians for physicians; Easy to use; Best in KLAS solution

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Frequently Asked Questions (FAQ)

ProVation Cardiology Cath Module - Key Differentiators

ProVation Cardiology software is a documentation and coding software solution that leads physicians through their procedure documentation quickly. The software prompts the user with all the necessary detail and then automatically generates reimbursement codes.

1) How does ProVation differ in terms of Documentation and Coding?

Clients who select ProVation's physician reporting and coding solution do so for the following unparalleled benefits:

- Content within ProVation is built and maintained by ProVation's team of 40+ physicians and coders, therefore, client's are not heavily burden by this undertaking
- ProVation's anticipatory interface was developed by physicians, for physicians, therefore, ProVation's user interface is highly regarded with exceptional user adoption and satisfaction rates
- Indications, clinical findings, complications, and impressions are inextricably linked to mapped CPT and ICD codes, therefore, highly accurate preliminary codes are generated as the physician denotes findings - the impact on documentation and coding compliance is deemed significant
- Coding and Clinical content are updated by ProVation on a quarterly basis and included in ProVation's solution freeing clients from the burden of dedicating FTE's to maintain their physician's reporting solution
- ProVation delivers world-class, highly responsive customer support to satisfied customers as evidenced by a KLAS 2011 #1 ranking (for the 7th consecutive year) in the category of "Clinical Procedure Documentation"

2) How is content managed and maintained within ProVation?

Content within ProVation is built and maintained by ProVation's team of 40+ physicians; therefore, clients are not burdened by this undertaking. ProVation physicians are continuously updating the solution on a regular build cycle. Among items included in the update process are clinical content, functionality, and coding content to name a few. An example of where this process provides added value to clients is evident when registries change their definitions and requirements - ProVation's physicians continuously monitor and update content requirements relieving clients of this burden. This same methodology allows ProVation to be highly responsive to client's needs. To maintain coding compliance, ProVation updates on a quarterly basis.

Wolters Kluwer Health ProVation Medical

3) What do ProVation clients perceive as key value adds from incorporating ProVation into their current Cath Lab environment?

The common theme among clients is that their existing workflow does not meet the needs of the physicians, staff and organization. Whether it's missing or untimely documentation, a need for compliance improvement or a suboptimal workflow adversely impacting staff, time, cost, and revenue capture, all are reasons for turning to ProVation. Incorporating ProVation into one's current environment offers the following key value-adds:

- Pre-built medical content and coding built by 40+ physicians and coders, for your physicians to use immediately
- Improved documentation quality driving improved coding compliance
- Reduced costs and reduced staff and resource burden
- Revenue recovery through inextricable linking of ProVation documentation and coding
- Medical content and coding updated on a quarterly basis reducing IT resource burden
- ProVation coding tool ensures clients are ahead of upcoming major coding initiatives (Cath Code bundling and ICD 10 Transition)
- Content already built to document complex interventional and peripheral vascular cases (e.g. anomalous origins, congenital anomalies, jump grafts, collaterals, IVUS, FFR, etc.)
- Discrete data capture in ProVation allows for instant reporting and data export capabilities to improve benchmarking and quality initiatives
- Responsive and world-class implementation, training and support as evidenced by 2012 "Best in KLAS" rating
- Software delivers an immediate return on investment

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ProVation - Additional Benefits to Consider

1) Compliance Benefits - RAC Audits, Documentation supporting codes, "Appropriateness"

2) Outpatient Facility/Professional New Revenue and Improved Cash Flow from Reduced Rejections/Denials

3) New Facility Outpatient/Professional Revenue from Reduced Lost Charges

4) Increased Charting Efficiency

5) Professional Cash Flow Improvement from Reduced Days in Accounts Receivable

6) Savings in Physician Time (e.g. additional charting/work post-procedure)

7) "Appropriateness" Criteria

8) ACC Submission Cost & Time Savings and Benefits (ProVation Registry Reporter®)

9) Prompts to document Major Co-morbidities (estimated loss of $6,000/case if not documented)

10) Data extraction and reporting capabilities

11) ICD 10 Preparedness

- In October 2009, a report conducted by Nachimson Advisors on behalf of the ICD-10 Coalition, a range of organizations including MGMA, the American Academy of Professional Coders and the American Medical Association, sketched out the estimated costs for small, medium and large practices making the ICD-10 conversion. The report found that the costs are higher than what CMS had first projected for the conversion. The estimated costs per practice were:

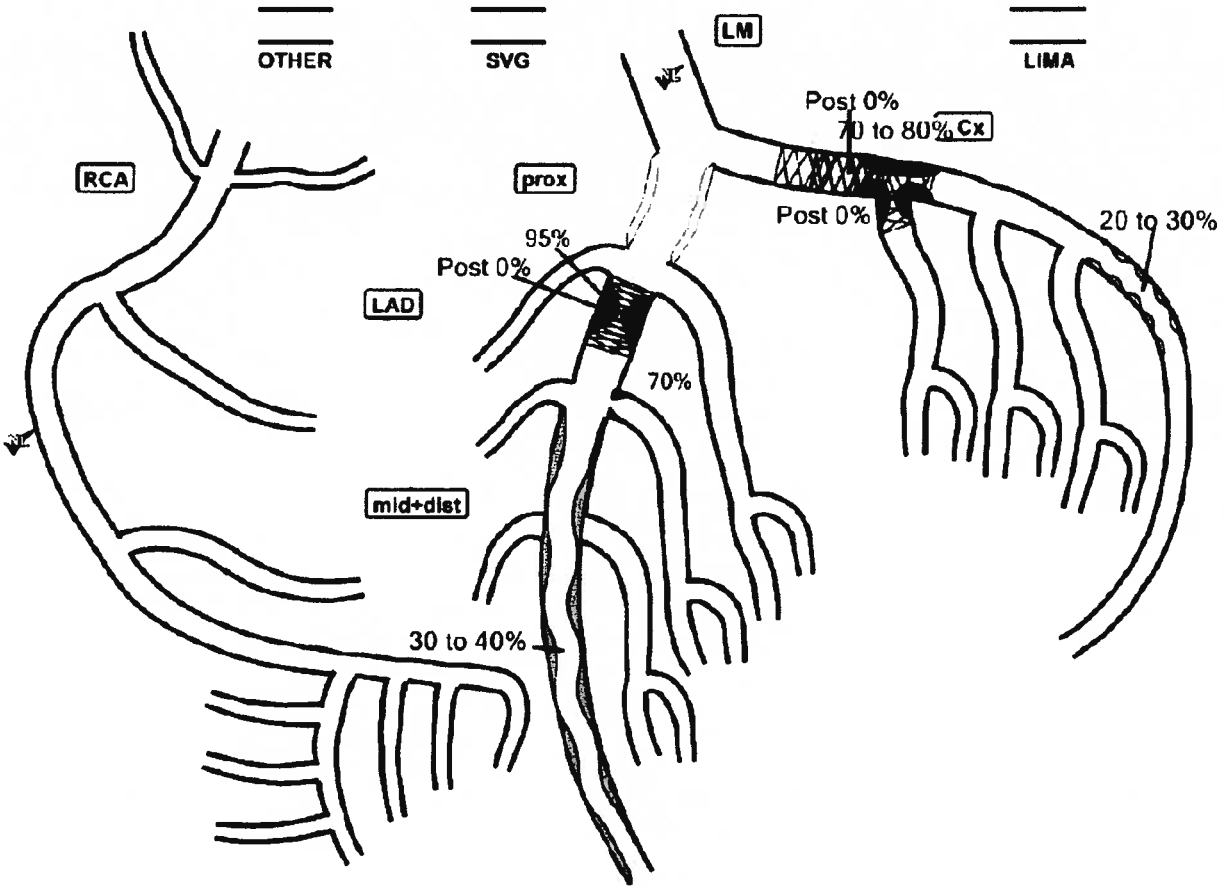
Estimated Costs of ICD-10 Transition
By Practice Size

	PRACTICE SIZE*		
Task	Small	Medium	Large
Education	$2,405	$4,745	$46,280
Process Analysis	$6,900	$12,000	$48,000
Changes to Superbills	$2,985	$9,950	$99,500
IT Costs	$7,500	$15,000	$100,000
Increased Documentation Costs	$44,000	$178,500	$1,785,000
Cash Flow Disruption	$19,500	$65,000	$650,000
Total	$83,290	$285,195	$2,728,780

Wolters Kluwer Health

ProVation Medical

ProVation Docu-diagrams®



ProVation Key Benefits

- Pulls Hemodynamic Data
- Deep Medical Content
- Docu-diagram® Interface
- Drives CPT/ICD Codes
- Ease of Use; MD Satisfaction

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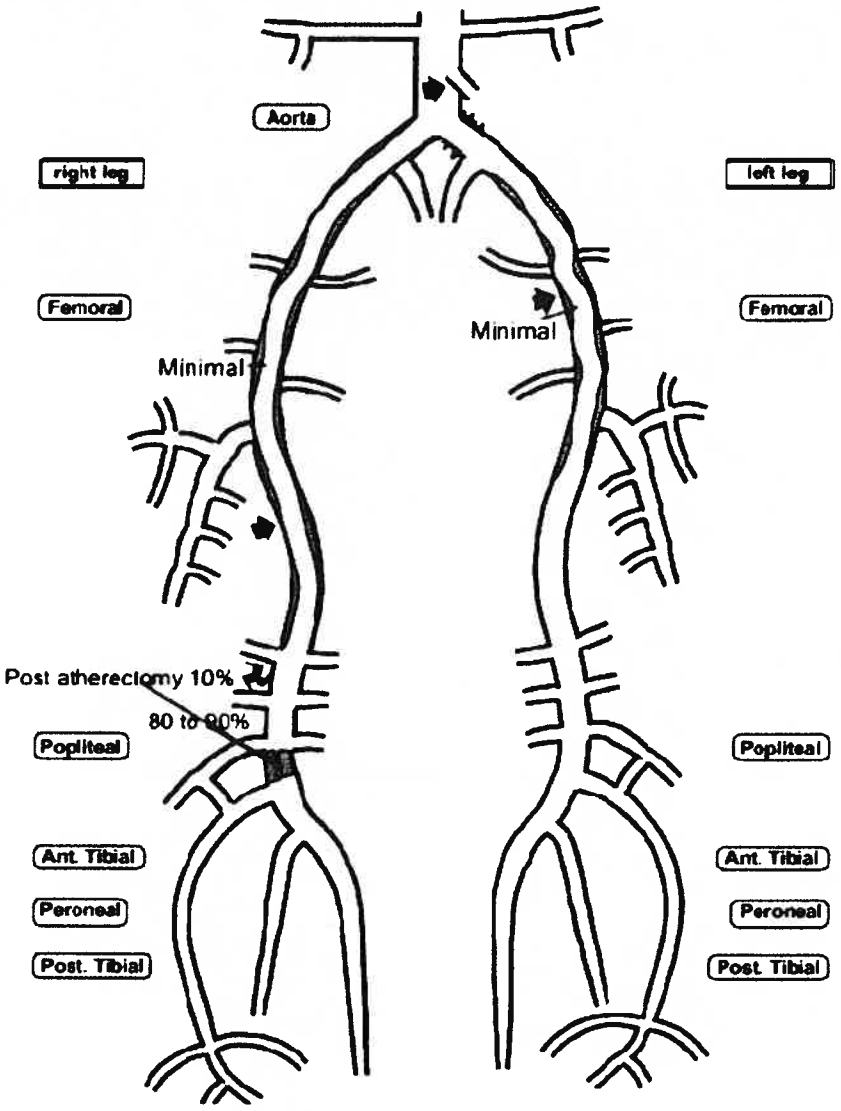
Wolters Kluwer Health

ProVation Medical



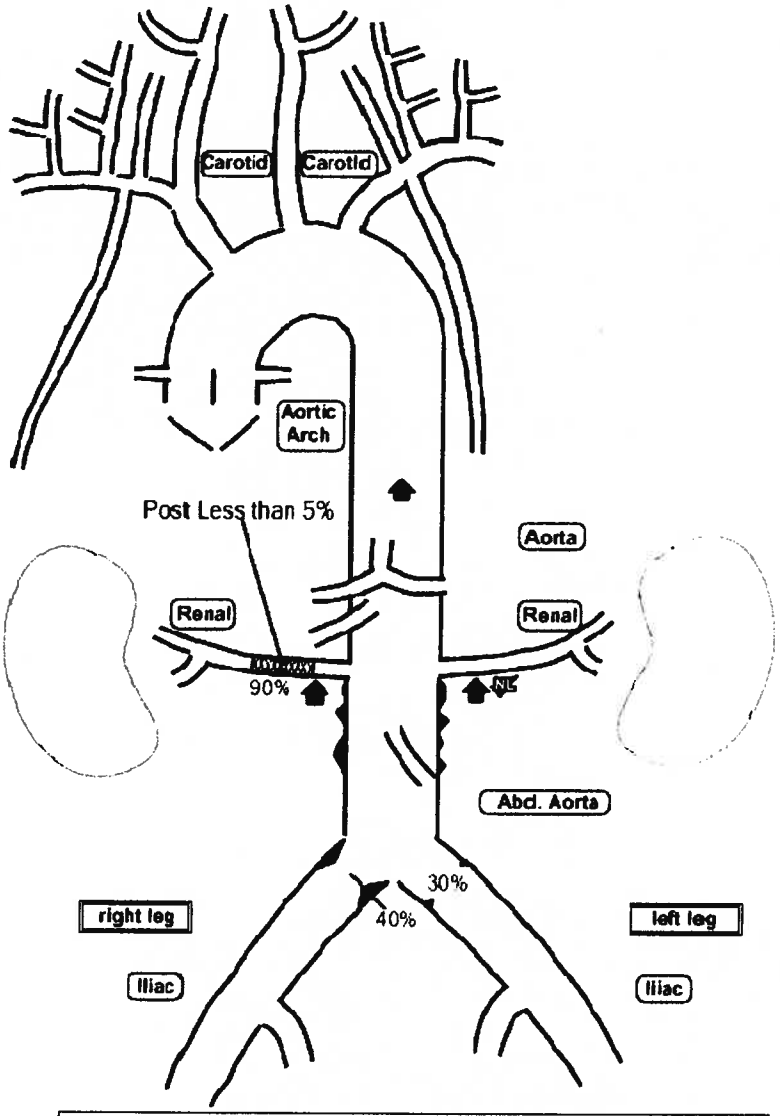
ProVation Key Benefits

- Pulls Hemodynamic Data
- Deep Medical Content
- Docu-diagram® Interface
- Drives CPT/ICD Codes
- Ease of Use; MD Satisfaction

ProVation Medical ▫ 800 Washington Ave. N. ▫ Minneapolis, MN 55401 ▫ 888-952-6673
Michael DeRosier ▫ 612-418-9797 ▫ michael.derosier@provationmedical.com ▫
www.provationmedical.com

Wolters Kluwer Health

ProVation Medical



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CONFIDENTIAL

ProVation Medical, Inc.
Software License and Maintenance Agreement

EFFECTIVE DATE:_____

BETWEEN:
ProVation Medical, Inc., a Delaware Corporation ("**ProVation**") and

("**Licensee**") Doctors Medical Center
2000 Vale Road
San Pablo, CA 94806

Contact:
Phone:
Email:

1. Grant of License. Licensee hereby purchases from ProVation, and ProVation grants to Licensee, a non-exclusive, non-transferable and non-assignable license to use the pre-packaged ProVation computer software listed on Exhibit A hereto and the associated user documentation (collectively, the "Licensed Software") in accordance with the terms and conditions of this Agreement. The "Licensed Software" also includes any new versions, revisions, updates or upgrades that ProVation furnishes to Licensee under this Agreement.

2. Term. The license granted herein will commence upon the Effective Date and will remain in effect in perpetuity unless terminated as provided in Section 8.

3. Scope of Permitted Use. Throughout the term of the license, Licensee may use the Licensed Software within the United States of America, in object code form only, solely for Licensee's own internal business purposes at the installation site(s) and in the number of rooms specified in Exhibit B. Licensee shall, in writing, promptly notify ProVation of any change in location of the Licensed Software. Licensee may not use the Licensed Software for any other purpose or to provide data processing services for any third party, including parent, subsidiary, or other affiliate unless specified in Exhibit B however Licensee may permit remote access via a remote access connection by Licensee's employees or contractors whose primary place of employment is specified in Exhibit B and whom are acting in the course of Licensee's business.

4. Proprietary Expression and Information. Except as set forth in Section 7, ProVation is the owner of all intellectual property rights in and to the Licensed Software, and the ideas, procedures, processes, systems, methods of operation, and concepts embodied within are trade secret information of ProVation. This license is not a sale of a copy and does not render Licensee the owner of a copy of the Licensed Software. Ownership and all components and copies thereof will at all times remain with ProVation, regardless of who may be deemed the owner of the tangible media in or on which the Licensed Software may be copied, encoded or otherwise fixed. Current Procedural Terminology ("CPT") is the exclusive registered trademark and copyrighted property of the American Medical Association ("AMA").

5. Restrictions on Use. Licensee may make copies of the Licensed Software for Licensee's own use as permitted under this Agreement, including for archival purposes. Any copy must bear the same copyright and other proprietary notices that appear on the copy furnished by ProVation. Licensee will not disassemble, decompile, reverse engineer nor permit any other person to do so. Licensee will prevent unauthorized copying, disclosure or use of ProVation trade secret information, and advise its employees, contractors, and agents permitted access to the Licensed Software of the restrictions in this Agreement as Licensee will

be liable for violation of the above by its employees, contractors or agents.

6. Restriction on Transfer. Licensee will not lease, rent, sell, pledge, assign, sublicense, loan or otherwise transfer any part of the Licensed Software or any copy thereof to a third party without the prior written consent of ProVation.

7. Third Party Software. The Licensed Software requires certain third party software ("Third Party Software"), including without limitation certain Oracle® software products (the "Oracle Software") and CPT. Except as provided on Exhibit C, the Third Party Software will be treated as Licensed Software under this Agreement.

8. Termination of License. The license granted herein will terminate automatically and immediately if: (a) Licensee violates any of the provisions of Sections 3, 5, 6, or 28 or fails to pay any license fees due and payable hereunder; (b) ProVation notifies Licensee of an election to terminate this license pursuant to Section 26; or (c) Licensee rejects the Licensed Software and returns the Licensed Software to ProVation pursuant to Section 10. In the event of termination of the license for any reason, within fifteen (15) days, Licensee will destroy the Licensed Software and certify to ProVation in writing of such destruction.

9. Installation. ProVation will install on Licensee's computer equipment the Licensed Software in Exhibit A however Licensee acknowledges its computer equipment must meet or exceed the minimum requirements set forth on Exhibit D. ProVation will assist Licensee in procuring hardware required to operate the Licensed Software pursuant to separate, mutually agreed terms in the Third Party Product Service Agreement.

10. Acceptance. Each piece of the pre-packaged Licensed Software will be deemed accepted upon delivery.

11. Professional Services. ProVation agrees to furnish the services in Exhibit A, if any (together with any future purchased services, excluding maintenance services), the "Professional Services"). Licensee agrees to work in good faith toward achieving all Professional Service milestones.

12. Purchase of Maintenance. Licensee hereby purchases and ProVation agrees to furnish maintenance services for the Licensed Software per the terms set forth herein.

13. Maintenance Term. The initial maintenance service term for interface Licensed Software will commence upon implementation of such piece of interface Licensed Software; all remaining Licensed Software maintenance services shall commence upon installation. Maintenance services will be in effect for an initial term that will expire on the one-year anniversary date and will automatically renew for successive one (1) year renewal terms until terminated as provided in Section 17.

14. Maintenance Services. Throughout the applicable maintenance term, subject to exclusions in Section 15, ProVation will provide the following for the Licensed Software: (a) correct reported failures of the Licensed Software to substantially perform per the Documentation; (b) furnish, at no additional charge new modules which ProVation does not charge a licensee fee, and versions, revisions, content updates, software updates or upgrades to the Licensed Software that ProVation distributes generally to licensees under maintenance (collectively, "Updates"); however, installation, implementation, and other services or out-of-pocket costs in connection with the Updates are not included in maintenance services; and (c) provide telephone support and/or remote access support per the Customer Support Handbook. ProVation's obligation described herein applies only to the current version of the Licensed Software and the immediate prior version and the maintenance services are further described in ProVation's Customer Support Handbook, which may be revised by ProVation, in its reasonable discretion, from time to time.

15. Exclusions. Maintenance services do not include: (a) resolution of problems resulting from: (i) modification of or damage to the Licensed Software or its operating environment, (ii) Licensee's failure to operate the Licensed Software in the proper and reliable network, hardware and software environment, (iii) Licensee's failure to operate the Licensed Software in accordance with ProVation's Documentation and/or instructions, or (iv) Licensee's failure to implement any updates, improvements, modifications, patches and/or bug fixes provided by ProVation; (b) new modules in

the Licensed Software for which ProVation establishes a separate license fee; (c) any Updates, if Licensee is in default with respect to payment of maintenance fees; or (d) Professional Services.

16. Licensee Duties. Throughout the maintenance term, Licensee will: (a) at Licensee's expense, maintain an approved, secure internet connection, with the ability to resolve DNS to enable ProVation to gain remote access to the computer system(s) on which the Licensed Software is installed for diagnostic, error correction, software downloading, error logging and other maintenance purposes; (b) cooperate with ProVation in identifying the cause of any claimed failure of the Licensed Software to perform as expected; and (c) allow ProVation reasonably free remote and on-site access to the Licensed Software and to Licensee's systems for the purpose of performing maintenance.

17. Termination of Maintenance. Either party may terminate maintenance services at the end of the initial term, or end of any renewal term, by written notice to the other party thirty (30) days prior to the end such term. If Licensee's license to use any Licensed Software is terminated for any reason, maintenance services will terminate. If the license termination is for a reason other than Licensee's breach of Sections 3, 5, 6, or 28, ProVation will refund maintenance fees already paid with respect to such Licensed Software beyond the effective date of termination. ProVation may suspend maintenance services if Licensee fails to pay maintenance fees within sixty (60) days of the date of ProVation invoice.

18. License Fees. Licensee will pay ProVation the license fee specified in Exhibit A. Twenty percent (20%) of the license fees will be due upon execution of this Agreement, 30% will be due upon first use in a live clinical setting in which the applicable piece of Licensed Software documents, reports or codes the results of an actual patient procedure (hereinafter "First Productive Use"), 10% 30 days post First Productive Use, 10% 60 days post First Productive Use, 10% 90 days post First Productive Use, 10% 120 days post First Productive Use and the final 10% 150 days post First Productive Use, however in any event all license fees shall be due no later than twelve (12) months from the Agreement Effective Date.

19. Professional Services Fees. Licensee will pay ProVation the fees specified in Exhibit A as delivered. Such fees are based on the assumption that Licensee will meet its obligations described in Exhibit E. If Licensee fails to meet such obligations Licensee agrees to pay ProVation at ProVation's standard hourly rates for additional time expended by ProVation as a result. Licensee agrees to pay a cancellation fee of $3,000 and all travel expenses incurred if Professional Services are cancelled by Licensee with less than two weeks notice to ProVation.

20. Maintenance Fees. For the initial maintenance term, Licensee will pay ProVation the maintenance fees specified in Exhibit A. Maintenance fees for subsequent renewal terms will be at ProVation's then established rates due annually in advance of the term.

21. Expenses. In addition to the Professional Services and maintenance fees, Licensee will pay (or reimburse ProVation for) all travel, lodging, meal and other incidental expenses reasonably incurred by ProVation in connection with furnishing Professional Services and maintenance services.

22. Payment Terms. Licensee will pay all undisputed invoiced amounts net thirty (30) from date of invoice. During such thirty (30) days Licensee shall notify ProVation of any disputed items. Licensee will pay or reimburse ProVation for all sales, use, excise and other taxes and governmental charges which ProVation is at any time required to pay or collect in connection with the sale, licensing or furnishing of products or services under this Agreement, excluding taxes based on ProVation's income or if Licensee is sales tax exempt then Licensee shall provide evidence to ProVation of its exemption from state sales tax requirements. Any amount not paid when due may be assessed a late fee of one and one-half percent (1½%) per month or the highest rate permitted by law, whichever is less, until fully paid in addition to any legal expenses incurred by ProVation to collect fees due hereunder. Placement on the ProVation schedule and commencement of the Professional Services shall not begin until ProVation receives a completed accounting packet which consists of the following: signed Agreement, purchase order covering all fees under the Agreement, initial Licensed Software payment, and Third Party Product Services Agreement, if applicable. With respect to any purchase made under this Agreement, the terms of Licensee purchase orders are void. Any changes in Licensee billing address shall be promptly noticed to ProVation in writing. If Licensee fails to pay any undis-

puted invoice amount within sixty (60) days following the date of the invoice, ProVation may suspend all Professional Services and maintenance services until paid in full.

23. Limited Warranties.

23.1 Ownership. ProVation warrants it is the lawful owner or licensee of the Licensed Software and has the right to grant the license granted herein.

23.2 Performance. While current under maintenance services, and provided Licensee is current on all payments owing hereunder, the Licensed Software, when used as permitted under this Agreement (including without limitation equipment that meets the minimum specifications in Exhibit D) and in accordance with both the then current Power User Set Up Guide and the User Manual (collectively "Documentation"), will perform in accordance with the Documentation. Notwithstanding the foregoing, this warranty does not apply to problems resulting from: (i) modification or damage (except caused by ProVation) to the Licensed Software or its operating environment, (ii) Licensee's failure to operate the Licensed Software in the proper hardware and software environment, (iii) Licensee's failure to operate the Licensed Software in accordance with ProVation's Documentation, or (iv) Licensee's failure to implement any updates, improvements, modifications, patches and/or bug fixes provided by ProVation. Licensee's sole remedy for a breach of ProVation's warranty under this Section will be limited to the performance and/or re-performance of maintenance services sufficient to cause the Licensed Software to so perform. In the event ProVation fails in respect of the foregoing sentence, Licensee may make a claim against ProVation for its actual damages up to the amounts set forth in Section 25 (Limitation of Liability).

23.2.1 Performance specific to ACC Interface Licensed Software. With respect to the ACC interface Licensed Software reflected in Exhibit A of the Agreement, the warranty in section 23.2 above does not apply, and instead the applicable warranty is that the ACC interface Licensed Software will deliver data to a 3rd party system via a standard HL7 interface. In the event ProVation fails in respect of the foregoing sentence, Licensee may make a claim against ProVation for its actual damages up to the amounts paid for the ACC Interface Licensed Software reflected in Exhibit A.

23.3 Intellectual Property. The Licensed Software does not infringe upon any issued United States patent, copyright or trademark.

23.4 Services. The services provided by ProVation hereunder will be performed in a professional manner by personnel appropriately trained in the performance of such services.

24. Disclaimer of Warranties. EXCEPT AS EXPRESSLY PROVIDED IN SECTION 23, ALL PRODUCTS AND SERVICES UNDER THIS AGREEMENT ARE FURNISHED BY PROVATION AND ACCEPTED BY LICENSEE "AS IS" AND WITHOUT ANY WARRANTY WHATSOEVER. ALL OTHER WARRANTIES, INCLUDING, WITHOUT LIMITATION, ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, TITLE AND/OR NON-INFRINGEMENT ARE SPECIFICALLY EXCLUDED AND DISCLAIMED. PROVATION DOES NOT WARRANT THAT THE PRODUCTS OR SERVICES WILL MEET LICENSEE'S REQUIREMENTS OR THAT THE OPERATION OF THE LICENSED SOFTWARE WILL BE UNINTERRUPTED OR ERROR FREE. EXCEPT AS EXPRESSLY PROVIDED ABOVE, ALL PRODUCTS AND SERVICES ARE PROVIDED WITH ALL FAULT, AND THE ENTIRE RISK AS TO THE QUALITY, PERFORMANCE, ACCURACY, AND EFFORT OF THE LICENSED SOFTWARE IS WITH LICENSEE.

25. Limitation of Liability. PROVATION WILL IN NO EVENT BE LIABLE TO LICENSEE OR ANY OTHER PERSON FOR ANY CONSEQUENTIAL, INCIDENTAL, INDIRECT, SPECIAL, PUNITIVE AND/OR EXEMPLARY DAMAGES, INCLUDING WITHOUT LIMITATION DAMAGES FOR LOST PROFITS, LOST SAVINGS AND/OR LOST DATA, ARISING OUT OF OR RELATING TO THIS AGREEMENT OR ANY PRODUCT OR SERVICE FURNISHED OR TO BE FURNISHED BY PROVATION UNDER THIS AGREEMENT OR THE USE THEREOF, EVEN IF PROVATION HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH LOSS OR DAMAGE; AND THE AGGREGATE LIABILITY OF PROVATION FOR ANY CLAIMS ARISING OUT OF OR RELATING

TO THIS AGREEMENT OR ANY PRODUCTS OR SERVICES FURNISHED OR TO BE FURNISHED BY PROVATION UNDER THIS AGREEMENT WILL IN NO EVENT EXCEED: (A) FOR CLAIMS ASSERTED DURING THE FIRST TWELVE (12) MONTHS FOLLOWING THE EFFECTIVE DATE, THE AMOUNT PAID BY LICENSEE TO PROVATION UNDER THIS AGREEMENT; OR (B) FOR CLAIMS ASSERTED AFTER TWELVE (12) MONTHS FOLLOWING THE EFFECTIVE DATE, THE AMOUNT OF THE MAINTENANCE FEES PAID BY LICENSEE TO PROVATION UNDER THIS AGREEMENT IN THE PRIOR TWELVE (12) MONTHS. THIS LIMITATION OF LIABILITY AND THE DISCLAIMERS SET FORTH IN SECTION 24 ARE INDEPENDENT OF ANY REMEDIES SET FORTH HEREIN, AND WILL SURVIVE AND APPLY EVEN IF SUCH REMEDIES ARE FOUND TO HAVE FAILED OF THEIR ESSENTIAL PURPOSE.

26. Intellectual Property Indemnity. ProVation will indemnify and hold Licensee harmless against costs, expenses and liabilities upon a claim by a third party that the Licensed Software infringes or violates a United States copyright right, *provided:* (a) Licensee notifies ProVation promptly in writing of a notice of such claim; (b) Licensee cooperates with ProVation in all reasonable respects in connection with the investigation and defense of such claim; (c) ProVation will have sole control of the defense and negotiations for its settlement or compromise; and (d) Licensee will permit ProVation, at ProVation's option and expense, either to: (i) procure for Licensee the right to continue using the Licensed Software, (ii) replace or modify the same so that it becomes non-infringing; or (iii) terminate Licensee's license as to the affected Licensed Software, accept the return of the affected Licensed Software, and grant to Licensee a pro-rata refund of the license fee paid hereunder for the affected Licensed Software, amortized on a straight-line basis over a three (3) year period. Notwithstanding anything herein to the contrary, ProVation will have no obligation or liability to Licensee under this Section if any otherwise covered claim is based upon: (w) use of the Licensed Software in a manner other than that for which it was furnished by ProVation; (x) any Licensed Software which has been modified by or for Licensee in such a way as to cause it to become infringing; (y) Licensee's failure to implement any Update delivered by ProVation to Licensee that is designed to avoid such claim; or (z) use of the Licensed Software in conjunction with systems, products or components not furnished by ProVation. This Section states ProVation's exclusive liability for infringement or other violation of the intellectual property rights of any third party.

27. ProVation Not Engaged in Practice of Medicine; Indemnity. ProVation does not, nor does it intend to, engage in the performance or delivery of medical or health care services. All products and services provided by ProVation under this Agreement should not, in any case, be deemed or understood as a recommendation, endorsement, guarantee or warranty of the professional services of any providers who render health care services. The Licensed Software is not intended as a substitute for professional medical judgment in patient diagnosis or treatment.

28. Proprietary Information.

28.1 Proprietary Information. Both parties have and will continue to make available to the other confidential and proprietary materials and information ("Proprietary Information"). Except as provided below, all material and information is designated as Proprietary Information. Notwithstanding the foregoing, Proprietary Information does not include information that: (i) is already, or otherwise becomes, generally known by third parties as a result of no act or omission of the receiving party; (ii) subsequent to disclosure hereunder, is lawfully received from a third party having the right to disseminate the information without restriction on disclosure; (iii) is generally furnished to others by the disclosing party without restriction on disclosure; (iv) was already known by the receiving party prior to receiving it from the disclosing party and was not received from a third party in breach of that third party's obligations of confidentiality; (v) is independently developed by the receiving party without the use of Proprietary Information of the disclosing party; or (vi) constitutes Protected Health Information (as that term is defined in the Privacy Regulations), which is subject to Section 31.

28.2 Restrictions on Use and Disclosure. Each party will maintain the confidentiality of the other's Proprietary Information (including this Agreement and Exhibits) and will not use or disclose without the written consent of the other party, except as permitted hereunder.

28.3 Access by Regulatory Agencies. Neither of the parties' obligations of confidentiality will prevent or prohibit the parties from providing access to Proprietary Information upon request of a state or federal regulatory agency or authority as may be required by law or judicial or administrative process provided such party complies with the terms of Section 28.5.

28.4 Public Disclosures. ProVation will have the right to issue public statements pertaining to the existence of the business relationship between ProVation and Licensee, including the right to the limited use of Licensee's name, logo and other reasonable non-confidential information in press releases, web pages, advertisements, and other marketing materials. ProVation will not claim Licensee's endorsement of ProVation's products or services without Licensee's prior written consent.

28.5 Notification Obligation. If a party receiving Proprietary Information hereunder has knowledge of any unauthorized use or disclosure of the Proprietary Information the receiving party promptly and fully will notify the disclosing party of all facts known to it. In addition, if the receiving party or any of its employees, contractors or agents are requested or required (by oral questions, interrogatories, requests for information or documents in legal proceedings, subpoena, civil investigative demand or other similar process) to disclose any of the Proprietary Information of the disclosing party, the receiving party will not disclose such Proprietary Information without providing the disclosing party with reasonable prior written notice of any such request or requirement so that the disclosing party may seek a protective order or other appropriate remedy and/or waive compliance with the provisions of this Agreement. Notwithstanding the foregoing, the receiving party will exercise its reasonable efforts to preserve the confidentiality of the Proprietary Information including, without limitation, by cooperating with the disclosing party to obtain an appropriate protective order or other reliable assurance that confidential treatment will be accorded the Proprietary Information by such tribunal.

29. INTENTIONALLY DELETED.

30. Government Access to Records. The parties agree that the Comptroller General of the United States, the United States Department of Health and Human Services ("**HHS**") and their duly authorized representatives will have, pursuant to 42 CFR § 420.302, upon request, until the expiration of four (4) years after the services under this Agreement are furnished, access to this Agreement and any other contract for the performance of any part of this Agreement, the cost or value of which is $10,000 or more, between a party and a subcontractor, or any organization related to a party. The Comptroller General of the United States, HHS, and their duly authorized representatives will also have access to the books, documents, and records of a party relating to this Agreement and of any subcontractor, or organization related to a party, which a party contracts with to perform any part of this Agreement and which contract has a cost or value of ten thousand dollars ($10,000) or more. Any contract between a party and a subcontractor with a value of ten thousand dollars ($10,000) or more will contain a provision with language substantially similar to the language of this Section. Notwithstanding the foregoing, nothing contained herein will be deemed to grant a party the right to assign this Agreement or the license granted hereunder, or to subcontract any of the services hereunder, except as expressly set forth herein.

31. HIPAA. The parties will comply, to the extent applicable, with Exhibit F. ProVation make no representations or warranty that the Licensed Software shall operate in such as fashion as to permit or ensure Licensee's compliance with HIPAA as a Covered Entity, as defined by HIPAA.

32. Non-Waiver. The failure by either party at any time to enforce any of the provisions of this Agreement or any right or remedy available hereunder or at law or in equity, or to exercise any option herein provided, will not constitute a waiver of such provision, right, remedy or option or in any way affect the validity of this Agreement. The waiver of any default by either party will not be deemed a continuing waiver, but will apply solely to the instance to which such waiver is directed.

33. Severability. Every provision of this Agreement will be construed, to the extent possible, so as to be valid and enforceable. If any provision of this Agreement so construed is held by a court of competent jurisdiction to be invalid, illegal or otherwise unenforceable, such provision will be deemed severed from this

Agreement, and all other provisions will remain in full force and effect.

34. Notice. All notices and other communications pursuant to this Agreement will be in writing and deemed to have been received: (a) upon delivery if delivered by a courier service; (b) upon transmission if sent via telecopier, with a confirmation copy sent via overnight mail; (c) on the business day following dispatch, if sent by a nationally recognized overnight courier, and (d) on the third business day following mailing, if sent via United States registered or certified mail, return receipt requested, postage pre-paid; in each case addressed to the recipient at the following addresses:

To ProVation:

ProVation Medical, Inc.
800 Washington Avenue North
Suite 400
Minneapolis, MN 55401
Attn: Contracts
Fax: (612) 313-1592

To Licensee:

Company Name: _____
Company Address: _____
_____
Attn: _____
Fax: _____

35. Dispute Resolution.

35.1 Negotiation. In the event that either party (a "Claiming Party") has a dispute with the other (the "Defending Party") under this Agreement, the Claiming Party will, as promptly as practicable, notify the Defending Party in writing of the dispute, specifying with reasonable particularity the issues in dispute and the information known to the Claiming Party that leads it to believe it has or may have a claim against the Defending Party ("Notice of Dispute"). The dispute will immediately be referred to senior management of both parties who will meet either in person or by phone within five (5) business days and make a good faith effort to resolve the dispute. If senior management is unable to reach a resolution, both parties will cooperate and give each other such access to such information and materials in their respective possession and control as is requested by the other party and/or is reasonably necessary to investigate and resolve such dispute. As promptly as is practicable following the Defending Party's receipt of such notice and access to information and materials, the Defending Party will provide to the Claiming Party a written response, specifying with reasonable particularity any areas in which the Defending Party disagrees with the Claiming Party's written notice, and the information known to the Defending Party that supports its position. The parties will continue to share information and access, and cooperate and negotiate to resolve such dispute as promptly as possible. If the parties cannot reach a resolution within thirty (30) days of the Claiming Party's first delivery of notice of dispute to the Defending Party, or such other time period as the parties mutually agree upon in writing, either party may initiate arbitration of the dispute as provided below.

35.2 Arbitration. Except as set forth below, any controversy or claim arising out of or relating to this Agreement, the breach, termination, or validity thereof, or the transactions contemplated herein (including without limitation any claim for indemnification), if not settled by negotiation as provided in the preceding Section, will be settled by private, non-administrative arbitration consistent with the rules of the American Arbitration Association ("AAA") for commercial disputes, by a single arbitrator, who will have experience in the software development and consulting business and with whom neither party has any prior or existing relationship. Additionally, if the dispute concerns the functions or operations of the Licensed Software, the arbitrator will have specific technical proficiency in software. The arbitrator will be mutually agreed to by the parties however, if the parties cannot so agree within 40 days of the Claiming Party's first delivery of notice of dispute to the Defending Party then the matter shall be submitted to an administrative arbitration before the AAA with the fees of the AAA split equally between the parties. The arbitration shall be governed by the United States Arbitration Act, 9 U.S.C. § 1-16, and the award rendered by the arbitrator will be final and binding on the parties and may be entered in any court having jurisdiction thereof. Each party shall bear the cost of its own attorney fees rendered in connection with the arbitration. The arbitrator will not have the authority to award punitive damages, costs or attorneys fees. In disputes related to claims involving: (i) ownership of the Licensed Software or any other ProVation-owned, licensed, operated or provided software (including the Licensed Software); or (ii) collection actions for fees,

costs, or charges owed hereunder, ProVation shall have the option to initiate any legal proceedings in state or federal court of its choice, or seek any other available legal remedy. The place of arbitration will be Minneapolis, Minnesota, USA, if arbitration is initiated by Licensee, and within 100 miles of Licensee's address set forth in Section 34 (Notice), if arbitration is initiated by ProVation.

35.3 Equitable Relief. Notwithstanding anything contained in this Agreement to the contrary, the parties will be entitled to seek injunctive or other equitable relief whenever the facts or circumstances would permit a party to seek such equitable relief in a court of competent jurisdiction.

36. Choice of Law. This Agreement will in all respects be governed by and interpreted, construed and enforced in accordance with the laws of the state of Minnesota without respect to its choice of law provisions. The parties agree that the Uniform Computer Information Transactions Act, or any version thereof, adopted by any state in any form ("UCITA") will not apply to this Agreement and, to the extent that UCITA is applicable, the parties agree to opt out of the applicability of UCITA pursuant to the opt-out provision(s) contained therein. The parties expressly agree that the United Nations Convention on Contracts for the International Sale of Goods does not apply to this Agreement.

37. Assignment. Neither party may assign, delegate and/or otherwise transfer this Agreement or its rights and obligations hereunder without the prior written consent of the other; provided, however, that ProVation may assign, delegate, or otherwise transfer this Agreement or any of its rights or obligations hereunder to any person or entity which purchases or otherwise succeeds to substantially all of the assets of ProVation or obtains a right to control ProVation through the acquisition of stock or otherwise.

38. Binding Effect; No Third Party Beneficiaries. This Agreement will be binding upon and inure to the benefit of the parties and their respective successors and permitted assigns. With the exception of Oracle®, which is deemed a third party beneficiary hereunder, no third party beneficiaries are intended or will be construed as created by virtue of this Agreement.

39. Credentialing. In the event that Licensee requires ProVation to register with a vendor credentialing program all fees incurred by ProVation as a result shall be invoiced and reimbursed by Licensee to ProVation. Further, any representations made by ProVation or its employees in such credentialing shall not be deemed as a representation or warranty by ProVation.

40. Survival. Any terms of this Agreement that would, by their nature, survive the expiration or termination of this Agreement will so survive.

41. Entire Agreement, Amendment. This Agreement, including Exhibits, which are incorporated herein by reference, sets forth the entire agreement between ProVation and Licensee. Licensee acknowledges that it has not been induced to enter into this Agreement by any representations or statements, oral or written, not expressly contained in this Agreement. This Agreement may only be modified or amended by a writing signed by both parties.

42. Future Licensed Software. Licensee shall be entitled to purchase via Addendum to this Agreement a ProVation MD Multi-Specialty Licensed Software package consisting of the following ProVation MD specialties: Pulmonology, General Surgery, Plastics, Orthopedics, Pain Management, ENT and Urology Licensed Software at the pricing set forth below for the same Installation Site(s) and in the same quantities as shown in Exhibit B for ProVation MD for Gastroenterology, any fees not specifically shown below will be at then list price, such pricing shall only be valid if such Addendum is signed on or before December 31, 2014. The associated annual maintenance, travel and Third Party Software and hardware shall be additional and at Licensee's expense.

- ProVation MD Multi-Specialty (as defined above) Licensed Software fee of $51,500
- ProVation MD Multi-Specialty Professional Service (for 15 weeks of physician training) fee of $28,000
- ProVation MD Multi-Specialty Interface Professional Service fee of $10,500

43. Expiration. This Agreement shall be null and void if not executed by Licensee and received by ProVation via fax at 612-677-3058 or email at cs-pvm-dl-

contracts@wolterskluwer.com by 5pm CST
on July 31, 2013.

IN WITNESS WHEREOF, authorized representatives of the parties have executed this Agreement as of the Effective Date and warranty by signature their authority to bind the above organizations to this Agreement.

PROVATION MEDICAL, INC.

By (Print):_____

Position:_____

Signature:_____

LICENSEE

Name (Print):_____

Position (Print):_____

Signature:_____

EXHIBIT A
Fees

All sales are subject to sales tax, if applicable.

Description	Part #	Qty	License Fee
ProVation MD for Gastroenterology	swgi	1	$ -
ProVation MD for EYE	sweye	1	$ -
ProVation MD for Cath Lab	swcath	1	$ 44,100
ProVation MD for Echo	swecho	1	$ 12,250
HL7 ADT Interface	swifadt	1	$ 5,850
HL7 SIU Interface	swifsiu	1	$ 5,850
HL7 ORU/PDF Export Interface	swiforu	1	$ 5,850
HL7 DFT (Charging) Interface	swifdft	1	$ 5,850
Interface from Echo	swiforuecho	1	$ 9,000
Hemodynamics Interface (includes test system licensing)	swifhemo	1	$ 13,000
TOTAL SOFTWARE FEE			**$ 101,750**

Description	Part #	Qty	License Fee
HL7 NCDR Cath PCI Results	Swiforuacc	1	$ 12,000
TOTAL SOFTWARE FEE			**$ 12,000**

Description	Part #	Mo's	Fee
ProVation MD for GI Maintenance	mtgi	12	$ 2,937
ProVation MD for Eye Maintenance	mteye	12	$ 781
ProVation MD for Cath Lab Maintenance	mtcath	12	$ 7,319
ProVation MD for Echo Maintenance	mtecho	12	$ 2,033
HL7 ADT Interface Maintenance	mtadt	12	$ 1,494
HL7 SIU Interface Maintenance	mtsiu	12	$ 1,494
HL7 ORU/PDF Export Interface Maintenance	mtoru	12	$ 1,494
HL7 DFT Interface Maintenance	mtdft	12	$ 1,494
Interface from Echo Maintenance	mtoruecho	12	$ 1,494
Hemodynamics Interface Maintenance	mthemo	12	$ 2,157
Telephone Support/ Updates	*rolled into fees above*		
Updates	*rolled into fees above*		
TOTAL MAINTENANCE			**$ 22,696**

Description	Part #	Mo's	Fee
HL7 NCDR Cath PCI Results Maintenance	Mtoruacc	12	$ 1,920
Telephone Support/ Updates	*rolled into fees above*		
Updates	*rolled into fees above*		
TOTAL MAINTENANCE			**$ 1,920**

EXHIBIT A (continued)
Fees

Description	Part #	Qty	Fee
Interface Services:			
Interface Imp. ADT	svifadt	1	$ 1,336
Interface Imp. SIU	svifsiu	1	$ 1,336
Interface Imp. ORU - PDF Export	sviforu	1	$ 1,336
Interface Imp. DFT	svifdft	1	$ 2,672
Multi-Site - Multi-Specialty Interface Services	svifmulti	12	$ 4,008
Interface from Echo	svifecho	1	$ 1,336
Interface Imp. Hemodynamics	svifhemo	1	$ 10,000
ProVation MD Implementation Services:			
Project Management	svprjmgt	8.0	$ 3,237
Planning Meeting	svpmeet	4.0	$ 1,618
Software Installation	svdeliv	4.0	$ 1,618
Go-Live Technical Services	svinstl	5.0	$ 2,023
Go-Live Implementation Services	svimp	16.0	$ 6,474
On-Site Implementation Services - Follow Up Training	svimp	26.0	$ 10,520
Power User Training	svputrn	5.0	$ 2,023
Software Admin Training	svsatrn	1.0	$ 405
TOTAL SERVICES			**$ 49,943**

Description	Part #	Qty	Fee
Interface Services:			
HL7 NCDR Cath PCI Results Services	Sviforuacc	1	$ 4,000
TOTAL SERVICES			**$ 4,000**

***All travel, meal, lodging and related expenses incurred as a result of Licensee's attendance of training at ProVation's corporate location shall be at Licensee's expense. Up to 3 attendees allowed at Power User Training and 1 attendee at Software Admin Training.**

"Qty" noted above is fixed meaning that even if it takes ProVation more or less time that indicated above the fees shall still remain fixed.

If Interfaces were purchased under this Agreement it only includes the HL7 Licensed Software and professional services required to test and deploy the ProVation component of the proposed Integration. Licensee understands that any applicable or required software and/or services for another vendor's components of the proposed HL7 Integration is not contemplated herein and is the responsibility of Licensee.

Description	Part #	Est. Cost
Travel Technical	trvtec	$ 4,455
Travel Implementation	trvimp	$ 22,795
TOTAL TRAVEL EXPENSE ESTIMATE (for budgeting purposes*)		**$ 27,250**

Description	Part #	Est. Cost
Travel Implementation	trvimp	$ 5,440
TOTAL TRAVEL EXPENSE ESTIMATE (for budgeting purposes*)		**$ 5,440**

EXHIBIT B
Installation Site / Number and Type of Workstations

Installation Site(s):

Doctors Medical Center
2000 Vale Road
San Pablo, CA 94806

Number and Type of Procedure Rooms / Workstations:

1 ProVation MD for GI Image Capture Procedure Room
1 ProVation MD for EYE Procedure Room
1 ProVation MD for Cath Lab
2 ProVation MD for Echo Labs

EXHIBIT C
Third Party Software – Additional Terms

1. **Escrow.** No provision requiring the deposit or placement in escrow of source code materials will apply to Third Party Software.

2. **Excluded Provisions.** The terms and conditions of Sections 23 (Warranties) and 26 (Intellectual Property Indemnity) of the Agreement will not apply to the Third Party Software.

3. **Additional Oracle Restrictions.** In addition to restrictions set forth in the Agreement Licensee may not: a) use except in conjunction with the Licensed Software; b) use for any purpose other than the use as permitted under the Agreement; c) publish any benchmark tests or any other test results run on the Oracle; d) assign, give, rent, lease, timeshare, subscribe, service, host, outsource or transfer Oracle; (e) remove or modify any proprietary notices or transfer title; (f) make available in any manner to any third party.

4. **Termination.** Licensee's right to use the Third Party Software will terminate if (i) Licensee's license to use the Licensed Software is terminated for any reason, (ii) Oracle requires ProVation to terminate Licensee's license to use the Oracle Software for any reason, (iii) the Oracle Software is no longer included in a supported version of the Licensed Software according to the terms of the Agreement; or (iv) ProVation's license to use any Third Party Software is terminated for any reason.

5. **CPT Updates.** Updates to CPT are dependent upon ProVation's ongoing contractual relations with the AMA.

6. **Oracle Warranty.** The Oracle Software will operate in all material respects as described in the applicable program documentation for one (1) year from delivery (via physical shipment or electronic download) provided any such deficiency from the documentation is reported during the one year warranty period.

7. **Disclaimer of Warranties.** ANY WARRANTY SET FORTH IN THIS EXHIBIT DOES NOT GUARANTEE THAT THE THIRD PARTY SOFTWARE WILL PERFORM ERROR-FREE OR UNINTERRUPTED, OR THAT ALL PROGRAM ERRORS WILL BE CORRECTED. ANY WARRANTY SET FORTH IN THIS EXHIBIT IS EXCLUSIVE AND TAKES THE PLACE OF ALL OTHER EXPRESS OR IMPLIED WARRANTIES OR CONDITIONS, INCLUDING WITHOUT LIMITATION WARRANTIES OR CONDITIONS OF MERCHANTABILITY, SATISFACTORY QUALITY, AND FITNESS FOR A PARTICULAR PURPOSE. THE DISCLAIMERS OF WARRANTY SET FORTH IN THIS AGREEMENT WILL ACCRUE TO THE BENEFIT OF THE AMA AS WELL AS PROVATION.

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11. **Audit.** Licensee agrees that, upon thirty (30) days' written notice, Oracle (whom may designate ProVation) may audit Licensee's use and distribution of the Oracle Software, at no cost. Licensee agrees to cooperate with any such audit and provide reasonable assistance and access to information.

12. **Oracle Third Party Technology.** As applicable, third party technology that may be appropriate or necessary for use with some Oracle programs as specified in the program documentation, readme files, notice files, installation details and is licensed under the terms of such third party technology.

EXHIBIT D
Hardware and Third Party Software Minimum Specifications

Hardware and 3rd Party Software Specifications (v 50-14)

The following information outlines the recommended hardware and 3rd party software needed for a *typical* installation of version 5.0 of ProVation Medical software. These specifications will change based on a number of factors including but not limited to:

• Number of annual procedures	• Number of concurrent users
• Number of images stored per procedure	• Annual growth of procedure volume
• Features being implemented	• Tape back-up methodology/strategy
• Number of scanned pages per procedure	• Image quality desired

- **Servers**

Database Server

- ProVation database resides on this server
  - Client must work with ProVation Medical to size the server appropriately
- Windows Server 2008 R1 32 bit or 2008 R2 64 bit
  - Standard or Enterprise Editions
- Two Multi-Core Processors
  - See Oracle in 3rd Party Software section below for more information regarding Oracle CPU licensing
- 4 GB RAM
- 15K RPM hard drives (SAS recommended)
  - Refer to ProVation for a drive space estimate
  - RAID controller
    - RAID 1 or RAID 0 + 1 fault Tolerance implemented
    - RAID 5 is not recommended for the Oracle database because of performance degradation
    - Separate physical drive volume required for backup storage
- 100/1000 Mbps switched Ethernet connection (full duplex)
- Display with 1024 X 768 or greater resolution
- Dual Power Supply for fault tolerance
- Tape Backup Unit w/ backup software (or comparable alternative backup method)
- Uninterruptible Power Supply (UPS)
- Unix/Linux can be used to house the Oracle database
  - Refer to Oracle website for a complete list of supported operating systems
  - Unix and DBA expertise are to be provided entirely by the client
  - Refer to ProVation Database Requirements paper
- Server must be named using Unicode character support [(A-Z) (a-z) (0-9) and hyphens]
- Antivirus scanning must exclude Oracle database files

Application Server

- ProVation MD client, Oracle client, Oracle Data Provider for .NET 2.0, ProVation MultiCaregiver Website, ProVation MD .NET Web Services, ProVation HL7 Interface services, ProVation DICOM Application, ProVation Video Service and RMAN services.
  - Client must work with ProVation Medical to size the server appropriately
- Windows Server 2008 R1 32 bit or 2008 R2 64 bit
  - Standard or Enterprise Editions
- Internet Information Services (IIS)
- Microsoft .NET Framework 3.5 SP1 (5.0.150 or lower) or .NET 4.0 (5.0.160 or greater)
- Two Multi-Core Processors
- 4 GB RAM
- Refer to sizing model available from ProVation for an estimate of how much drive space will be needed - Recommend a minimum of 30 GB on the primary partition
- RAID 1 or RAID 5 fault tolerance implemented
- 100/1000 Mbps switched Ethernet connection (full duplex)

- Display with 1024 X 768 or greater resolution
- Dual Power Supply for fault tolerance
- CD/DVD drive (or access to device with DVD drive for installation media)
- Uninterruptible Power Supply (UPS)
- ProVation MD .NET Services can be configured to run under SSL. Client is responsible for obtaining and configuring SSL certificate
- Server cannot be configured as a domain controller
- Server must be named using Unicode character support [(A-Z) (a-z) (0-9) and hyphens]
- Microsoft Media Services (MMS) - Add-on component for Streaming Video feature
- Windows Fax Services (add-on component)
    - Fax modem is required if faxing from the application server
    - Supported fax modems can be found on the Windows Hardware Compatibility list (http://www.windowsservercatalog.com)
- Permissions note: ASPNET (2003), NETWORK SERVICE (2008), IIS_WPG, and IUSR users must have full control of any ProVation application directories and files in the Inetpub\wwwroot root. Check the files themselves and not just the folders.
- Antivirus scanning must exclude locations where ProVation log files are written

ProVation WebView Server

- Feature provides secure access to patient information via external website
- Network requirements:
    - Server must reside on customer network that allows end users to access without using a client VPN connection
    - Static IP address
    - Firewall must include access from outside, inside, and DMZ
    - Domain Name Registry
    - DNS Host
    - SSL Certificate
- Windows Server 2008 32 bit or 2008 R2 64 bit Standard or Enterprise Edition
- SQL Server 2008 Express Edition
- Internet Information Services (IIS)
- Microsoft .NET Framework 3.5 SP1 (5.0.150 or lower) or .NET 4.0 (5.0.160 or greater)
- Single Multi-Core Processor
- 4 GB RAM
- Hard drive sizing—1 GB drive space per 15,000 pages required
    - Includes all scanned documents, ProVation MD and MultiCaregiver notes
    - Files are encrypted and stored within the server file system
- SAS 10k or better and RAID 1 or RAID 5 fault tolerance implemented
- 100/1000 Mbps switched Ethernet connection (full duplex)
- Display with 1024 X 768 or greater resolution
- Dual Power Supply for fault tolerance
- Uninterruptible Power Supply (UPS)
- Server cannot be configured as a domain controller
- Server cannot be shared with ProVation database or application server
- Server must be named using Unicode character support [(A-Z) (a-z) (0-9) and hyphens]

Test Server (Required for customers with interfaces and/or MultiCaregiver)

- **Includes all software and applications residing on Database and Application Server from above**
- Client must work with ProVation Medical to size the server appropriately
- Windows Server 2008 R1 32 bit or 2008 R2 64 bit
    - Standard or Enterprise Editions
- Single Multi-Core Processor (2.6 GHz or better)
- 4 GB RAM
- Drive space should be similar to production database server
- 100 Mbps switched Ethernet connection
- THIS SERVER IS NOT SIZED TO BE USED IN A PRODUCTION ENVIRONMENT

- **Workstations/Laptops**

ProVation MD: Standard Definition Image Capture Workstation Specifications

- Windows XP Pro 32 bit or Windows 7 Professional/Ultimate 32 or 64 bit
- Microsoft .NET Framework .NET 3.5 SP1 (5.0.150 or lower) or .NET 4.0 (5.0.160 or greater)
- Pentium multi-core processor
- 2 GB RAM
- 20 GB free hard drive space
- Video card capable of 1024 x 768 display at 32-bit color
- dPict Aexeon PCI image capture card for procedure rooms only (standard definition still images)
    - PCI slot is full height and length
    - Spare Image Capture card recommended per physical location
- 1 serial port
- 100 Mbps switched Ethernet connection
- 17" or larger monitor (must support 1024 x 768 resolution)
- Internet Explorer 6.0, 7.0, 8.0 or 9.0
- Adobe Acrobat Reader v7.0 or greater

ProVation MD: High Definition Still Image Capture Workstation Specifications (No Streaming Video)

- Windows XP Pro 32 bit or Windows 7 Professional/Ultimate 32 or 64 bit
- Microsoft .NET Framework .NET 3.5 SP1 (5.0.150 or lower) or .NET 4.0 (5.0.160 or greater)
- Pentium multi-core processor
- 4 GB RAM
- 80 GB free hard drive space
- 1 GB graphics card
- Blackmagic Design DeckLink HD Extreme capture board
    - Requires PCIe x4 slot (board can run in 4, 8, or 16 lane PCI Express slot)
    - Board size is full height/length
    - Accepts SDI high definition and composite standard definition video signals
- 1 serial port
- 100 Mbps switched Ethernet connection
- 20" or larger monitor (must support 1024 x 768 resolution)
- Internet Explorer 6.0, 7.0, 8.0 or 9.0
- Adobe Acrobat Reader v7.0 or greater
- ProVation recommends a "workstation class" device

ProVation MD: Note Documentation Workstation Specifications

- Windows XP Pro 32 bit or Windows 7 Professional/Ultimate 32 or 64 bit
- Microsoft .NET Framework .NET 3.5 SP1 (5.0.150 or lower) or .NET 4.0 (5.0.160 or greater)
- Pentium multi-core processor
- 2 GB RAM
- 20 GB free hard drive space
- Video card capable of 1024 x 768 display at 32-bit color
- 100 Mbps switched Ethernet connection
- 17" or larger monitor (must support 1024 x 768 resolution)
- Internet Explorer 6.0, 7.0, 8.0 or 9.0
- Adobe Acrobat Reader v7.0 or greater
- Windows Fax Services (add-on component)
    - Only required if not faxing from the application server
    - Fax modem is required if faxing from a dedicated ProVation MD documentation workstation
    - Supported fax modems can be found on the Windows Hardware Compatibility list (http://www.windowsservercatalog.com).

ProVation MultiCaregiver: Desktop/Laptop Specifications (ProVation MD not supported)

- Windows XP Pro 32 bit or Windows 7 Professional/Ultimate 32 or 64 bit

- Internet Explorer 6.0, 7.0, 8.0 or 9.0
- Adobe Acrobat Reader v7.0 or greater- Windows Journal Viewer cannot be used in conjunction with Acrobat Reader
- Pentium D processor or better
- Minimum of 1 USB Port
- 1 serial port (used for interface to vitals monitor)
- 1 GB of RAM
- Display must support 1024 x 768 resolution
- 100 Mbps Ethernet connection

General Security and Power Setting Configurations

ProVation MD
• Power settings disabled (both OS and BIOS) [1] • Screen savers (of any kind) disabled [2] • Write access to COM1 [3] • Read/Write/Modify/Delete to C:\Documents and Settings\All Users\Application Data\ProVation Medical (XP) [4] • Read/Write/Modify/Delete to C:\ProgramData\ProVation Medical (Win7) [4] • Read/Write/Modify/Delete to the <Install_drive:\Program Files\ProVation Medical\5.0> directory [5] • Roaming profiles that would revoke any of the above, disabled [6] • Windows 7 UAC disabled[8]

ProVation MultiCaregiver
• Internet Explorer 6.0/7.0/8.0/9.0 settings [7] o Ability to download and run signed ActiveX controls o Check for newer versions of stored pages every visit to the page o No passwords should be saved o Pop-up blockers disabled for ProVation MultiCaregiver website o MultiCaregiver website may need to be added to your firewall rules o PCs should be enabled to sync time with Application Server • XP: Read/Write/Modify/Delete to C:\Documents and Settings\CurrentUser\Application Data\ProVation Medical[4] • Win 7: Read/Write/Modify/Delete to C:\Users\CurrentUser\AppData\Roaming\ProVation Medical[4]

- **Printers**

ProVation MD/MultiCaregiver: Color Network Printer Specifications

- Capable of printing high resolution/photo quality
- 10/100 Base TX Ethernet connection
- 128 MB RAM
- Capable of collating

ProVation MD/MultiCaregiver: Black & White Network Printer Specifications

- 10/100 Base TX Ethernet connection
- >10 ppm

ProVation MultiCaregiver: Label Printer Specifications (required model)

- 300 dpi Thermal Printer
- USB connection
- Required Model - Dymo LabelWriter 400 series

Image Capture Cards

Still Image Capture Cards - Windows XP, Win 7

- dPict Aexeon PCI
  - Most current available image capture card available to new installations
  - Requires full height/length PCI slot
  - Board size is 5.00"(length) x 4.20" (height)
  - Standard definition still images only

- Blackmagic Design DeckLink 4K Extreme capture board
  - Requires PCIe x4 slot (board can run in 4, 8, or 16 lane PCI Express slot)
  - Board size is full height/length
  - Captures standard and high definition stills and video

Legacy Still Image Capture Cards

- Matrox Orion PCI Image Capture Card for procedure rooms only (still images)
  - Legacy image capture card no longer available for purchase
  - PCI slot needs to accommodate Board Dimension: 6.9" (L) X 4.5" (H)
  - Note: The image capture card will typically only fit into minitower computers and not desktop or small form factor PCs
  - Card requires 2 PCI slots
  - Standard definition video input only
  - Capture card may not function in late model computers due to hardware incompatibilities
  - Windows XP Pro 32 bit only

- Integral Flashbus MV Pro capture card for procedure rooms only (still images)
  - Legacy image capture card no longer available for purchase
  - Standard definition video input only
  - Capture card may not function in late model computers due to hardware incompatibilities
  - Windows XP Pro 32 bit only

- Integral Flashbus Spectrim Pro
  - Legacy image capture card no longer available for purchase
  - PCI slot needs to accommodate Board Dimension: 4 3/16" (H) X 5 3/8" (L)
  - Most current available image capture card available to new installations
  - Standard definition video input only
  - Windows XP Pro or 7 Pro/Ultimate 32 bit only

- Blackmagic Design DeckLink HD Extreme 3D capture board
  - Requires PCIe x4 slot (board can run in 4, 8, or 16 lane PCI Express slot)
  - Board size is full height/length
  - Captures standard and high definition stills and video

DICOM Capable Image Capture Devices

- Stryker SDC Pro2
- Stryker SDC HD
  - Stryker DICOM software sold separately. Consult your Stryker rep to verify your device is DICOM enabled
- Linvatec VP1500
  - Requires Linvatec software version 2.0.1.7 or later
- GE OEC 9800 Series Fluoroscopic C-arm
  - C-arms purchased starting in Jan. 2005 come with DICOM software. Consult your GE sales rep to verify your c-arm has this installed
- Siemens Orbic 3-D Fluoroscopic C-arm
  - Consult your Siemens rep to verify your device is DICOM enabled.

- *Consult your ProVation technical representative for more specifics to ensure your device is DICOM enabled. ProVation only accepts still DICOM images.

- **3rd Party Software**

Oracle Database Specifications
• Oracle Database Standard Edition version 10.2.0.3/10.2.0.4/11.2.0.1/11.2.0.2 • Named User licensing (check with your ProVation Sales Representative to ensure an accurate count) • CPU licensing is available for clients where there are more than 100 named-users or it is not possible to get an accurate count of users • Value Based Pricing is available for large scale virtual environments • Refer to the ProVation Database Requirements Guide available from ProVation for a more detailed outline of database requirements
Adobe Specifications
Acrobat Standard Edition • Required for ProVation MCG print spooling and the MCG ORU interface reference pointer • Required for Pathology Import Utility (one per Pathology Import Utility workstation) • Required for ProVation MD workstation(s) dedicated to printing entire patient chart • v9.0 or v10 required • Required for Production and Test Environments • Acrobat Reader required for all MultiCaregiver and PVMD workstations
Orion Symphonia Specifications
• Version 3 • HL7 Message Mapper • Required for HL7 Interfaces • Must be purchased directly from ProVation
Lead Technologies
• Required for DICOM Enabled Image Capture Devices and Outbound DICOM interface • Must be purchased directly from ProVation
Nuance Dragon Naturally Speaking Medical v9.5 License
• Licensed per user • Must be purchased directly from ProVation
PixTools Scanning software
• Required for scanning documents into the ProVation Patient Chart • Licensed per scanning workstation • Must be purchased directly from ProVation

- **Miscellaneous Hardware**

- Remote Image Capture Foot Pedal
- Water resistant interior sealed switch
- 30' cord
- Required model - custom made and available only from ProVation Medical
- Used for signalling computer to capture image

- Fax Modem
- Fax modem is required on the ProVation application server or a designated ProVation MD documentation workstation
    - NOTE: If fax modem is attached to a PVMD documentation workstation, the Oracle client and Oracle Data Provider for .NET 2.0 are required.
- Supported fax modems can be found on the Windows Hardware Compatibility list (http://www.windowsservercatalog.com)

- Signature Capture Pad
- ProVation MD physician signature capture
    - Two Supported Models -
        - Topaz SignatureGem 4x5 (Z-T-S751-B-R)
            - Connects via serial port
            - Not supported with MultiCaregiver

- Windows XP only
- Topaz SignatureGem 4x5 LCD (T-LBK766SE-BHSB-R)
  - Connects via USB
  - Windows XP, Win 7 supported

- ProVation MultiCaregiver patient consent forms and ProVation MD physician signature capture
  - Connects via USB
  - Used for capturing electronic patient signatures for consent forms and provider electronic bitmap signatures
  - Required Model - Topaz SignatureGem 4x5 LCD (T-LBK766SE-BHSB-R)

- Fluoroscopy/Endoscopic Ultrasound Switchbox
- 2 to 4-way S-Video or Composite switch box
- Includes composite and/or S-Video cables
- May include S-Video-Composite Converters

Scanning Hardware

- ISIS certified scanners are supported
  - Visit https://www.scannerdrivers.com/scannerdrivers/index.asp for complete list of supported scanning hardware
- NOTE: Not all scanners listed on the above website come standard with ISIS drivers. Drivers may be purchased by the customer directly from EMC.

- Consult your ProVation technical representative for an estimate of drive space that will be needed to store scanned documents.

Speech Recognition Hardware

- Microphone
- Philips SpeechMike Pro USB 5276 (Recommended model)
- Includes: professional dictation microphone, a speaker, and a trackball mouse

Remote Connectivity Requirements

- Symmetric up and down bandwidth of at least 256 kbps
- Minimal restrictions; if the ISP allows PPTP tunnelling, this is an indication that they are not highly restrictive

Supported 3rd Party VPNs

- Nortel
- Cisco
- Checkpoint Secure Remote
- Sonic Wall
- Juniper
- Aventail
- Microsoft PPTP VPN

Remote Access Options

- RDP with console option
- GoToAssist
  - Users may go to http://www.provationmedical.com/support.aspx from their browser and follow instructions. This will allow a ProVation Customer Support representative to take remote control of their computer. This tool may be used on pc's and servers, however, the end user is required to initiate the connection

ProVation Event/Error Report Sending and Get Updates Requirements

- High Speed Internet Connectivity
- Ability to resolve DNS
- The ProVation MD software has the ability to send error message logs and upgrade/update information automatically via http to ProVation. Message logs are sent to https://ugli.provationmedical.com.
- This aids ProVation in proactively identifying and resolving software problems.
- If users are required to connect to the Internet through a Proxy server, this connection must be established before beginning an upgrade/update on your server(s).
- The Get Updates feature allows the customer to retrieve available updates for ProVation via the internet. For this to function, access to https://ugli.provationmedical.com and http://updates.installshield.com are required.
- Email notifications—success and failures of automated nightly database maintenance jobs can be sent via email. Feature requires ability to access 64.247.206.238 on port 25.

Approved Clientless ProVation Software Deployment Solutions

NOTE: Procurement, setup, licensing, and support of Citrix and Terminal Server environments are the sole responsibility of the customer.

Solution	Hardware Requirements	Software Requirements	Configuration Requirements	Solution Benefits
Citrix	• Per Citrix hardware requirements • ProVation testing has shown memory usage for each instance of ProVation MD to be 300 MB to 350 MB of RAM	• Per Citrix software requirements • Also requires Windows Terminal Services (see software requirements below)	• Per Citrix configuration requirements	• Full access* low bandwidth option • Centralized deployment * **Not available for**: MultiCaregiver, image capture, document scanning, electronic signature capture using the Topaz signature pad and vitals monitor interface.
Windows Terminal Services	• Per Windows Terminal Services hardware requirements • Recommend a separate Windows Terminal Services server	• Software Included w/ Windows 2003/2008 Server • Requires 2003/2008 Windows Terminal Services licensing per Microsoft licensing requirements	• Requires secure access consistent with customer's security policy for remote network access	• Full access* low bandwidth option • Centralized deployment * **Not available for**: MultiCaregiver, image capture, document scanning, electronic signature capture using the Topaz signature pad and vitals monitor interface.

Citrix

ProVation MD has been successfully deployed to customer locations using Citrix versions 5.0, 6.0 and 6.5. Procurement, setup, licensing and support of Citrix environments are the sole responsibility of the customer. Memory usage is approximately 300-350 Mb per user session.

MISC

The ProVation Tech Spec is based on current available hardware from common, commercial vendors (e.g. Dell, HP, IBM). If you have existing hardware that you feel may meet ProVation's hardware requirements for the deployment of the ProVation solution please work with the ProVation technical resource to discuss options.

Refer to your Customer Support Handbook for a more detailed description of the roles and responsibilities of the client for installation, maintenance, and support of hardware and 3rd party software.

For a customized hardware specification please contact the site's ProVation Medical Account Manager at 1-888-952-6673.

Appendix A - Workstations/Laptops: General Configurations

The purpose of this appendix is to provide further information and details related to the *Workstations/Laptops: General Configurations* recommendations and requirements outlined on page 4 within this document.

[1] **Power settings disabled (both OS and BIOS)**

To ensure the PC does not hibernate due to lack of user interaction, which would interrupt the image capture view and processing during a procedure. Applies only to pc's used for image capture.

[2] **Screen savers (of any kind) disabled**

To ensure the PC does not introduce a screensaver due to lack of user interaction, which would interrupt the image capture view and processing during a procedure. Applies only to pc's used for image capture.

[3] **Write access to COM1**

To enable the image capture cable from the scope image processing device to communicate with the ProVation MD image capture PC; sending the image capture signal from the scope button to the ProVation MD image capture PC. Applies only to pc's used for image capture.

[4] **Directory specific access (varies by OS)**

ProVation temporarily writes files to these directories during image capture, vitals capture and note generation.

[5] **Read/Write/Modify/Delete to the <Install_drive:\Program Files\ProVation Medical\5.0> directory (ProVation MD client)**

This access enables ProVation MD to run properly and to process the quarterly software maintenance updates.

[6] **Roaming profiles that would revoke any of the above, disabled**

This relates to Active Directory whereby roaming files should be disabled to insure the roaming files would not overwrite settings like disabling the screen saver, etc.

[7] **Internet Explorer 6.0/7.0/8.0/9.0 settings**

- **Ability to download and run signed ActiveX controls** - *required for the initial installation and ongoing for quarterly software maintenance updates. A quarterly software update could potentially change these files, and if they are not able to download them the application would not work as designed.*
- **Check for newer versions of stored pages every visit to the page** -- *Refreshing the page at each visit helps to prevent cached data from a previous screen/page to carry over to a new screen/poge (from patient to patient).*
- **No passwords should be saved** -- *Having access to the ProVation MCG page with just a username allows any user to document erroneous data on any patient under another user's security profile.*
- **Pop-up blockers disabled for ProVation MCG website** -- *When the user closes out a ProVation MCG note a pop up appears within the application. If that pop up is blocked it keeps the note in a locked status. The pop up that comes up closes once the note is unlocked.*
- **MCG website may need to be added to your firewall rules** -- *In the event that the website is blocked - the customer may have to edit firewall rules to enable ProVation MCG access.*
- **PC's should be enabled to sync time with Application Server** -- *ProVation MCG utilizes date/timestamps within certain parts of the application. Enabling PC/Application server time sync, this ensures accurate and consistent timestamps.*

[8] **Windows 7 UAC disabled**

When running ProVation MD 5.0 on a Windows 7 device turn off UAC by going to Control Panel>Clicking the word Users Accounts> Clicking the word Users Accounts> and then change user account control settings. Turn this off. If this is not turned off when you try to open PVMD you will get an error message when it tries to check for update

EXHIBIT E

Licensee Responsibilities, as applicable:
(1) provide sufficient qualified resources to perform its obligations hereunder (estimate of resources are outlined below in the Implementation Project Resource Grid)
(2) access to facilities
(3) cooperation as needed to enable ProVation to fulfil its obligations under this Agreement
(4) without limiting the generality of the foregoing, the following activities:

Implementation Planning

Participate in planning meeting with ProVation representatives

Identify Licensee project team members and communicate roles & responsibilities

Participate in regular conference calls and follow up on action items as needed

Obtain approval of ProVation MultiCaregiver/EHR notes by Medical Records department (if purchased)

Collect ProVation MultiCaregiver/EHR notes work flow paperwork (if purchased)

Utilize Basecamp (web-based project tracking application)

Interface Implementation (if purchased)

Receive and review interface specifications

Participate in interface specification review call with ProVation

Sign-off on interface specifications

Design & build test environment

Define test plan and scenarios

Conduct interface testing

Complete necessary interface modifications to system ProVation is interfacing with

Clinical and IS involvement and verification of interface functionality

Deploy interface code to production environment

Technical Preparation

Review ProVation hardware & third party software requirements
Review cabling requirements; Order scope processor cables from scope vendor if applicable
Provide remote access for ProVation support via secure high speed internet connection prior to software installation date

Order hardware & ensure delivery by date that meets timeline (if hardware not ordered through ProVation)

Operating systems installed on server & workstations

Servers installed on network, OS patches and service packs applied
Local administrator account available on servers and workstations prior to software installation date
Install image capture cards in the ProVation procedure room workstations and travel carts

Workstations installed on network and communicating with server prior to ProVation installation
Fax modem and analog phone line installed prior to software installation if applicable
Access to procedure rooms and equipment including cabling necessary to test image capture during software installation
Backup protocol established and ready to be tested at install

Ongoing deployment of ProVation software updates
Third party hardware items available for software installation including but not limited to signature pad, scanners, printers, label printers, Adobe Acrobat, foot pedals, etc.

Trainer and End User Education

Minimum of one full-time equivalent Power User committed at the time of the planning meeting and continuing through such time that end users are able to use the ProVation software independently
Power-User co-trains nurses alongside ProVation staff

Power-User co-trains administrative staff alongside ProVation staff

Power-User co-trains physicians alongside ProVation staff

Power User and Software Administrator attend Power User and Software Administrator classroom training

Ensure end users are informed of on-site ProVation visits and are scheduled and available to work with ProVation staff during such on-site visits
Power User scheduled to be available to work with ProVation staff at all times during on-site visits

Power User is responsible for all ongoing end user training after services in Exhibit E have been delivered including but not limited to training new users and refresher training for existing users as needed. Such additional services can be purchased from ProVation if so desired.

EXHIBIT E - PROVATION MD IMPLEMENTATION PROJECT RESOURCE GRID

Description of Role	*Est % of FTE req. for impl	*Est % of FTE req for ongoing maint	Description of Responsibilities	Description of Requirements
Project Manager	30%	0%	Participate in regularly scheduled project conference calls; complete follow up tasks as needed to ensure customer project tasks are completed on-schedule	Leadership and organizational skills; strong attention to detail; availability to make necessary time commitment during the implementation project; ability to make decisions and coordinate efforts of al team members
Power User	100%	25%	Clinical application expert; 100% availability required during end user training phase to develop and manage and user training plan and to provide training to end users including physicians; 25% long term to assist new physicians and infrequent users and to optimize use of advanced software functions **(for GI implementations 50% availability is required)**	Knowledge of medical procedures and terminology; computer aptitude; ability to learn new software and teach others; ability to develop positive rapport with physicians who may be resistant to change. Must have time available to work one on one with physicians.
Software Administrator	20%	15%	Ongoing software maintenance and in house technical assistance with software updates and technical troubleshooting including integration with associated medical equipment (scopes, cameras, etc.)	Hardware, software and biomedical expertise; troubleshooting skills; available during hours when procedures are scheduled
Physician Champion	5%	5%	Work with peers to gain buy-in and acceptance. Enforce training requirements and implementation processes as defined by ProVation. Provide physician input regarding workflow decisions.	Leadership skills and well-respected within the organization.
IT Resource	20%	5%	Establish and maintain stable, secure environment for software installation and ongoing operation; responsible for hardware, network, operating system, remote support access, and network security including operating system security updates and antivirus protection	General IT expertise in networking, hardware, and operating systems.
HL7 Interface Specialist (if applicable)	20%	5%	Testing, implementation and support of HL7 interfaces	General HL7 interface expertise
HIM Representative	20%	10%	Make decisions needed to incorporate ProVation documentation and coding software into coding/billing workflow; establish feedback loop to communicate documentation needs to physicians	Understanding of current coding and billing procedures; ability to gain buy-in and compliance with new workflow
Executive Sponsor	5%	5%	Review software implementation plan and executive project summary reports (if applicable); participate in executive review meetings/calls as needed; assist in eliminating obstacles to project success	Authority to allocate resources; ability to gain support of key constituents such as HIM, physician end users, etc.

***Actual required hours will vary depending on the size of the facility and the scope of the project.**

EXHIBIT F

BUSINESS ASSOCIATE TERMS

Under the Agreement, as may be amended from time to time in accordance with its terms, ProVation (as "Business Associate") or as applicable, ProVation's agents or subcontracts may have access to Protected Health Information ("PHI") from or on behalf of Covered Entity pursuant to the Agreement ("Covered Entity's PHI"). To the extent applicable, the parties desire to meet their respective obligations under the Health Insurance Portability and Accountability Act of 1996, as amended (the "Act"), including the "HIPAA Rules." The HIPAA Rules shall mean the Privacy, Security, Breach Notification, and Enforcement Rules at 45 CFR Part 160 and Part 164. The HIPAA Privacy Rule is the Standards for Privacy of Individually Identifiable Health Information at 45 CFR, part 160 and part 164, subparts A and E. The HIPAA Security Rule is the HIPAA Security Standards (45 C.F.R. Parts 160 and 164, Subpart C). The HIPAA Breach Notification Rule is the Notification in the Case of Breach of Unsecured Protected Health Information, as set forth at 45 CFR Part 164 Subpart D. Unless otherwise defined herein, capitalized terms will have the meanings set forth in HIPAA.

1. **Applicability**. If Business Associate is performing services on behalf of Covered Entity for which Business Associate may create, receive, maintain or transmit PHI in order to perform such services, then consistent with the provisions of HIPAA, the parties agree as follows. In these situations, Business Associate may be a "Business Associate" as that term is defined in HIPAA.

2. **Disclosure and/or Use of PHI**. Business Associate may disclose and use Covered Entity's PHI as permitted or required by the Agreement or this Business Associate Agreement or as otherwise required or permitted by law. Business Associate further may perform data aggregation services, as that term is defined in the HIPAA rules, and may de-identify information consistent with the HIPAA Rules. Business Associate may further use and disclose the PHI for the proper management and administration of Business Associate's business or to carry out the legal responsibilities of Business Associate, provided that any third party to which Business Associate discloses PHI for management, administration or to carry out legal responsibilities of Business Associate, signs a Business Associate Agreement in advance stating that: (i) the PHI will be held confidentially and used or further disclosed only as required by law; (ii) the PHI will be used only for the purpose for which it was disclosed to the third party; and (iii) the third party promptly will notify Business Associate of any instances of which it becomes aware in which the confidentiality of the PHI has been breached.

3. **Safeguards Against Misuse of PHI**. Business Associate will implement appropriate administrative, physical and technical safeguards to prevent the use or disclosure of Covered Entity's PHI, other than as permitted or required by this Business Associate Agreement.

4. **Safeguards Related to Electronic PHI ("ePHI")**. Business Associate will implement administrative, physical, and technical safeguards that reasonably and appropriately protect the confidentiality, integrity, and availability of Covered Entity's PHI that is ePHI. Business Associate further agrees to comply with the Security Rule requirements forth in 45 C.F.R. §§ 164.308, 164.310, 164.312, 164.314 and 164.316 as of the compliance date for the applicability of these provisions to Business Associate.

5. **Breach & Reporting of Unauthorized Uses/Disclosures of Unsecured PHI**. Business Associate will report to Covered Entity any use or disclosure of Covered Entity's PHI not provided for by the BA Terms. Business Associate further will report to Covered Entity any Security Incident affecting Covered Entity's ePHI of which Business Associate becomes aware. Business Associate will also report to Covered Entity without unreasonable delay, and in no event later than fifteen (15) calendar days after Discovery, any Breach of Unsecured PHI as required by the HIPAA Breach Notification Rule. The notification shall include, to the extent possible and subsequently as the information becomes available, the identification of all Individuals whose Unsecured PHI was, or is reasonably believed to have been, breached and any other available information that the Covered Entity is required to include in notification to Individuals (if known to Business Associate).

6. **Business Associate's Agents and Subcontractors**. Business Associate will enter into a Business Associate Agreement with each of Business Associate's subcontractors and agents who have access to Covered Entity's PHI in connection with the performance of services on behalf of Covered Entity. Business Associate will ensure that these subcontractors and agents agree to be bound by substantially the same restrictions, terms and conditions on the use of PHI and ePHI that apply to Business Associate.

7. **Availability of Books and Records**. Business Associate hereby agrees to make Business Associate's internal practices, books, and records relating to the use and disclosure of Covered Entity's PHI reasonably

available to the Secretary of Health and Human Services (the "Secretary") upon the Secretary's request for purposes of determining Covered Entity's compliance with HIPAA.

8. **Mitigation**. Business Associate will make commercially reasonable efforts to mitigate, to the extent practicable, any harmful effects known to Business Associate resulting from an unauthorized use or disclosure of Covered Entity's PHI in violation of this Business Associate Agreement.

9. **Minimum Necessary**. In using, disclosing or requesting PHI, Business Associate will make reasonable efforts to utilize a Limited Data Set if practicable or otherwise to use, disclose or request only the minimum amount of PHI necessary to accomplish the purpose of the use, disclosure or request. Business Associate also agrees to implement and follow appropriate minimum necessary policies in the performance of its obligations under this Business Associate Agreement.

10. **Obligations regarding Individuals' Rights**. Business Associate agrees to document and within thirty (30) business days after receiving a written request from Covered Entity, make available to Covered Entity information necessary for Covered Entity or the applicable Covered Entity to make an accounting of disclosures of PHI about an Individual in accordance with 45 C.F.R. 164.528, if any. In addition, to the extent (if any) that Business Associate maintains a Designated Record Set, Business Associate agrees, at Covered Entity's sole cost and expense, to make available PHI in a Designated Record Set necessary for Covered Entity to respond to an Individuals' request for access to their PHI in accordance with 45 C.F.R. 164.524. Further, Business Associate shall to the extent (if any) that Business Associate maintains a Designated Record Set, Business Associate shall make available PHI for amendment and incorporate any amendments or corrections to the PHI as directed by Covered Entity, all in accordance with 45 C.F.R. 164.526. In the event any Individual requests access to PHI directly from Business Associate pursuant to any of the foregoing sections of the Privacy Rule, Business Associate will, within fifteen (15) business days, forward such request to Covered Entity. Any response to such requests or denials of access to or amendment of, an Individual's PHI will be the responsibility of Covered Entity.

11. **Sale of PHI**. Business Associate agrees to not directly or indirectly receive remuneration in exchange for any PHI except where permitted by the HIPAA Privacy Rule.

12. **Use of PHI for Marketing**. Business Associate agrees to not make or cause to be made any communication about a product or service that requires an authorization pursuant to the HIPAA Privacy Rule.

13. **Use of PHI for Fundraising**. Business Associate agrees to not make or cause to be made any written communication for fundraising purposes.

14. **Covered Entity Obligations**. Covered Entity agrees to inform Business Associate in writing of any PHI that is subject to any arrangements permitted or required of Covered Entity under the Privacy Rule that may materially impact in any manner the use and/or disclosure of PHI by Business Associate under this Business Associate Agreement, including, but not limited to, restrictions on the use and/or disclosure of PHI as provided for in 45 C.F.R. 164.522 and agreed to by Covered Entity. Covered Entity shall not request Business Associate to make any use or disclosure of PHI that would not be permitted under HIPAA if made by Covered Entity directly. Covered Entity agrees to fulfill its obligations under this Business Associate Agreement in a timely manner.

15. **No Third party Beneficiaries**. Nothing expressed or implied in this Business Associate Agreement or the Agreement is intended to confer, nor will it confer, upon any person any rights, remedies, obligations or liabilities other than those explicitly detailed in this Business Associate Agreement or in the Agreement.

16. **Amendment.** To the extent applicable, amendments or modification to HIPAA may require amendments to certain provisions of this Business Associate Agreement. Amendments shall only be effective if executed in writing and signed by a duly authorized representative of each party.

17. **Termination**.

17.1 Notwithstanding any term of the Agreement, if Covered Entity knows of a pattern of activity or practice of Business Associate that constitutes a material breach or violation of this Business Associate Agreement or HIPAA then the Covered Entity shall provide written notice of the breach or violation to Business Associate that specifies the nature of the breach or violation. Business Associate will have thirty (30) business days after its receipt of such written notice to cure the breach or end the violation. In the absence of a cure reasonably satisfactory to Covered Entity within the specified timeframe, or in the event that the breach is reasonably incapable of cure in the mutual agreement

of the parties, then Covered Entity may terminate this Business Associate Agreement and the Agreement or, if termination of is infeasible, may report the problem to the Secretary.

17.2 Upon the later of the termination or expiration of this Business associate Agreement or the Agreement, Business Associate will return or destroy all PHI received from, or created or received by Business Associate on behalf of, Covered Entity that remains in Business Associate's possession or control and will retain no copies of that PHI, or, if the return or destruction is not feasible in Business Associate's determination, extend the protections of the Business Associate Agreement to the retained PHI and limit further uses and disclosures to those purposes that make the return or destruction infeasible.

18. **Construction of Terms**. To the extent that the terms of this Business Associate Agreement are not clear in satisfying the parties' intention to comply with the applicable requirements of the HIPAA Rules, these terms shall be construed so as to allow for compliance by both parties with the applicable requirements of HIPAA.

19. **Integration**. The parties hereby agree that these terms supersede and replace any prior written or oral agreements (if any) between the parties related to the subject matter of this Business Associate Agreement.

In the event any term described herein conflicts with any term of the Agreement, the terms herein shall take precedence as of the last date set forth below.

ProVation Medical, Inc.
Third Party Product Services Agreement

This Third Party Product Services Agreement ("Agreement") is effective as of _____, 201__, by and between ProVation Medical, Inc. ("ProVation"), a Delaware Corporation, and Doctors Medical Center ("Customer").

WHEREAS, ProVation and Customer are parties to a Software License and Maintenance Agreement dated _____, (the "License Agreement") for certain ProVation software licensed to Customer (the "ProVation Software"); and

WHEREAS, Customer wishes to acquire certain third party hardware and software (collectively, "Third Party Products") to use in connection with the ProVation Software, and while ProVation is neither a manufacturer, reseller or licensed distributor of Third Party Products, ProVation, as a convenience to Customer and to provide certain products to be used in connection with the ProVation Software, agrees to assist Customer in procuring such Third Party Products from Vendor ("Vendor");

NOW, THEREFORE, the parties hereby agree as follows:

1. Procurement. ProVation agrees to assist Customer in procuring the Third Party Products described on Exhibit A. Title and risk of loss with respect to each item will pass from the Vendor(s) directly to Customer pursuant to the terms and conditions of the Vendors' contracts. Any future purchases of Third Party Products shall be subject to this Agreement and may require an addendum to this Agreement.

2. Returns. If Customer rejects and returns the ProVation Software pursuant to the terms of the License Agreement, then: (a) at the time of such rejection, Customer may request and ProVation will provide assistance in returning the undamaged Third Party Products to the Vendor(s) and obtaining a refund therefore; and (b) if the Vendor(s) is unwilling to accept the return of the Third Party Products, ProVation will purchase undamaged Third Party Products at the price paid by Customer hereunder.

3. Payment. The fees for the Third Party Products are set forth in Exhibit A. Customer will pay such fees directly to ProVation as delivered, and ProVation will pay Vendor(s) on Customer's behalf. Customer will pay all invoices issued by ProVation within thirty (30) days of the date of invoice. The terms of any Customer purchase orders are void. Payment terms related to Oracle Support shall be as set forth below. If Customer fails to pay any undisputed invoice within sixty (60) days following the date of the invoice, ProVation will have the right to withhold all Oracle Support and ProVation Software maintenance services under the License Agreement until such time as said fees are paid in full.

4. Disclaimer of Warranties. ALL PRODUCTS AND SERVICES UNDER THIS AGREEMENT ARE ACCEPTED BY CUSTOMER "AS IS" WITHOUT ANY WARRANTY WHATSOEVER. ALL OTHER WARRANTIES, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, TITLE AND/OR NON-INFRINGEMENT, ARE SPECIFICALLY EXCLUDED AND DISCLAIMED. PROVATION DOES NOT WARRANT THAT THE PRODUCTS OR SERVICES WILL MEET CUSTOMER'S REQUIREMENTS. PROVATION IS NOT RESPONSIBLE FOR ANY THIRD PARTY PRODUCT WARRANTY GIVEN BY ANY OTHER PARTY.

5. Limitation of Liability. PROVATION WILL NOT BE LIABLE TO CUSTOMER OR ANY OTHER PERSON FOR ANY LOST PROFITS, LOST SAVINGS, LOST DATA, OR OTHER SPECIAL, CONSEQUENTIAL OR INCIDENTAL DAMAGES ARISING OUT OF OR RELATING TO THIS AGREEMENT OR ANY PRODUCT OR SERVICE FURNISHED OR TO BE FURNISHED UNDER THIS AGREEMENT OR THE USE THEREOF, EVEN IF PROVATION HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH LOSS OR DAMAGE. THE AGGREGATE LIABILITY OF PROVATION UPON ANY CLAIMS ARISING OUT OF OR RELATING TO THIS AGREEMENT OR ANY PRODUCTS OR SERVICES FURNISHED OR TO BE FURNISHED UNDER THIS AGREEMENT WILL BE ABSOLUTELY LIMITED TO THE AMOUNT PAID BY CUSTOMER FOR THIRD PARTY PRODUCTS AS SET FORTH ON EXHIBIT A TO THIS AGREEMENT.

6. Government Access to Records. The parties agree that the Comptroller General of the United States, the United States Department of Health and Human Services ("HHS") and their duly authorized representatives will have, pursuant to 42 CFR § 420.302, upon request, until the expiration of four (4) years after the services under this Agreement are furnished, access to this Agreement and any other contract for the performance of any part of this Agreement, the cost or value of which is $10,000 or more, between a party and a subcontractor, or any organization related to a party. The Comptroller General of the United States, HHS, and their duly authorized representatives will also have access to the books, documents, and records of a party relating to this Agreement and of any subcontractor, or organization related to a party, which a party contracts with to perform any part of this Agreement and which contract has a cost or value of ten thousand dollars ($10,000) or more. Any contract between a party and a subcontractor with a value of ten thousand dollars ($10,000) or more will contain a provision with language substantially similar to the language of this paragraph.

7. **Non-Waiver.** No failure by either party at any time to enforce any provision of, or right under, this Agreement will constitute a waiver of such provision or right. Any waiver by either party will not be deemed a waiver of any other provision or right or a continuing waiver of the same provision or right under this Agreement.

8. **Severability.** Every provision of this Agreement will be construed so as to be valid and enforceable. If any provision of this Agreement is held by a court of competent jurisdiction to be invalid, illegal or otherwise unenforceable, such provision will be deemed severed from this Agreement, and all other provisions will remain in full force and effect.

9. **Choice of Law.** This Agreement will in all respects be governed by and interpreted, construed and enforced in accordance with the laws of the state of Minnesota without respect to its choice of law provisions.

10. **Assignment.** ProVation may assign, delegate or otherwise transfer this Agreement or its rights and obligations hereunder to any person or entity. Customer may not assign, delegate or otherwise transfer this Agreement or any of its rights or obligations hereunder without the prior written consent of ProVation.

11. **Oracle Licensing.** Customer hereby wishes to procure Oracle licenses, as shown below, through ProVation. Customer acknowledges that ProVation is assisting Customer in procuring Oracle on Customer's behalf and responsibility for maintaining adequate quantities and types of Oracle licenses remains solely with Customer.

12. **Oracle® Support.** Oracle® support ("Oracle Support"), as reflected herein, is an annual pre-paid fee associated with support of the Oracle licenses purchased hereunder only as applicable to the ProVation Software which includes: (a) furnishing electronically all new major Oracle versions (e.g.10g to 11g) that are furnished by Oracle and supported by ProVation; and (b) telephone support and/or remote access support to assist Customer in its use of Oracle. Oracle Support excludes: a) modification or damages to ProVation Software including the Oracle database schema; b) Customer's failure to operate ProVation Software including Oracle in accordance with the License Agreement; or c) Oracle database services such as, but not limited to archive log mode, performance tuning, and providing/applying Oracle security and patch updates.

13. **Oracle Support Termination.** Oracle Support shall immediately terminate without refund if: a) Customer's license to use Oracle is terminated by Oracle; b) Customer's right to use ProVation Software licensed under separate License Agreement is terminated; or c) Customer fails to pay ProVation the annual Oracle Support fees per the terms herein or fails to pay the maintenance service fee on the ProVation Software per the terms of the License Agreement. In the event Customer does not pay Oracle Support continuously year after year Customer's right to receive Oracle Support terminates permanently and Customer would be required to purchase new Oracle licenses.

14. **Oracle Support Term.** The initial term for Oracle Support commences upon installation and expires on the one-year anniversary date and will automatically thereafter renew for successive one year terms until terminated as provided herein.

15. **Oracle Support Fees.** For the initial Oracle Support term, Customer will pay ProVation the Oracle Support fee specified in Exhibit A. Oracle Support fees for subsequent renewal terms will be at Oracle's then current rate, which ProVation does not set nor have the ability to negotiate on Customer's behalf. Oracle Support fees shall be invoiced and paid by Customer to ProVation annually in advance of each year on such Oracle licenses subject to termination rights as set forth in the Oracle Support Termination section above.

16. **Virtual Server Oracle Licensing.** Any subsequent ProVation Software purchase by Customer under the License Agreement will result in additional Oracle licensing and support fees hereunder which shall be documented via addendum to this Agreement.

17. **Public Sector.** Additionally, the terms set forth in this section apply if Customer is a "public sector end user", which Oracle defines as: (a) a government, legislature or decision making body, judiciary, instrumentality, department, or agency at any level (national, local, municipal or otherwise); entities managed, controlled or majority owned by government interests; public organizations or foundations of any kind (including political parties, political organizations, or political candidates); and any public international organization, such as, but not limited to, the International Red Cross, United Nations, or the World Bank.

a) Oracle Support is governed by Oracle's technical support policies in effect at the time Oracle Support services are provided found at http://oracle.com/contracts and Customer hereby a cknowledge such policies are incorporated herein by reference.

b) Any third party firms retained by Customer to provide computer consulting services are independent and Oracle is not liable for nor bound.

c) Customer has not relied on future availability of Oracle in entering into this Agreement however, (a) if Customer has purchased annual Oracle Support, this statement does not relieve Oracle of its obligation per Oracle's then current Oracle support policies, and (b) does not change the rights granted under the License Agreement.

18. Entire Agreement. This Agreement, including Exhibit A, which is incorporated herein by reference, sets forth the entire agreement and understanding between ProVation and Customer regarding the subject matter hereof and supersedes any prior discussions or agreements regarding the same subject matter. This Agreement may not be modified or amended except by a writing signed by the party against whom the same is sought to be enforced.

PROVATION MEDICAL, INC.	**CUSTOMER**
By (Print Name) Mark Zimmerman Position: Director of Finance Signature: _____	By (Print Name):_____ Position:_____ Signature:_____

EXHIBIT A
Third Party Products

Description	Part #	Qty	Fee
Virtual Server Oracle Licensing	ORACLEVBP-PVMD	1	$ 7,397
Annual Oracle Support	ORACLESUPPORT	1	$ 1,405
Symphonia (Interface Enabling Software)	SYMPHONIA	1	$ 1,035
Topaz Signature Pads for E-sign with Bitmap Signatures	Sigpad	1	$ 225
dPict Aexeon PCI Framegrabber (SD Image Capture Card)	10011-001	1	$ 748
Aexeon Extended Cable (SD Image Capture Card Cable)	99018	1	$ 167
GLK - Go Live Kit (Incl Misc Cables & Switchboxes, etc)	GLK	1	$ 300
Subtotal			**$ 11,278**

Related to HL7 NCDR Cath PCI Results ProVation Software (swiforuacc):

Description	Part #	Qty	Fee
Virtual Server Oracle Licensing	ORACLEVBP-PVMD	1	$ 873
Annual Oracle Support	ORACLESUPPORT	1	$ 166
Subtotal			**$ 1,039**

DOCTORS
MEDICAL CENTER

PROFESSIONAL SERVICES CONTRACT- G.I. SERVICES

TAB 9

DOCTORS MEDICAL CENTER

TRANSACTION SUMMARY
PHYSICIAN TRANSACTIONS AND ARRANGEMENTS

NORTHERN CALIFORNIA GASTROENTEROLOGY ASSOCIATES
Contract Effective August 1, 2013

A. Parties

- Identify the physician/group and indicate the specialty/practice area and administrative expertise.

  Northern California Gastroenterology Associates (NCGA) for the provision of emergency and inpatient gastroenterology coverage, and Medical Direction.

- Will the arrangement be with the physician as an individual, or with his/her group?

  The arrangement is with a group/corporation

B. Purpose/Reasons to Pursue the Arrangement

- Describe how the arrangement meets a community need.

  The arrangement provides emergency and inpatient consult and procedure coverage on a 24 hour/7 day basis to meet the GI medical needs of the community.

- Indicate whether the arrangement is new or is a renewal of an existing arrangement.

  The arrangement is for the renewal of an existing arrangement. Terms have changed from the existing contract.

C. Services to be Provided

- Describe the services to be provided by the physician/group.

NCGA will provide 24/7 physician call coverage for the emergency department and for inpatient consults, medical direction for GI services, and participation in and support for all appropriate quality, compliance and related activities and initiatives of DMC.

- Describe the time commitment of physician/group (e.g., FTE, part-time, # of hours)

NCGA shall provide a sufficient number of qualified Providers to be available to provide services listed under the contract. It is anticipated that this will initially include three physicians, increases to four in the future.

- Describe how the services actually provided will be tracked and documented by hospital management.

For medical director and call coverage services, the DMC approved administrative services and call coverage services schedule and payment forms will be utilized. For inpatient procedures, the DMC approved uncompensated care reimbursement form will be utilized.

D. Financial Terms

- Describe the compensation methodology (hourly fee, monthly or annual salary, etc.). Indicate the aggregate compensation to be paid.

The aggregate compensation is projected to be approximately $450,000, composed of the following: $775/diem for emergency call coverage, $45,000 annually for Medical Director services, and $350/procedure for care for MediCal and uninsured inpatients. Currently, DMC reimburses two separate groups (NCGA and an Alta Bates based GI group) a total of $301,125 for coverage, but does not receive the benefit of 24/7 ED coverage as part of those contracts. As a result, we do transfer patients out of the ED and lose the revenue associated with keeping those patients on site. In addition, this is a significant inconvenience to our patients and their families when inpatient admissions are sent to other facilities

- Describe any other benefits payable to, or provided to (space, services, equipment, etc.), the physician.

DMC will provide clinical space in the GI lab to the physicians to necessary to carry out their responsibilities under the contract.

- Describe the methodology for determining that the financial terms meet Fair Market Value requirements.

The Governing Body approved MD Ranger report was used to determine Fair Market Value. In addition, a separate written opinion was obtained from Penny Stroud, President of MD Ranger, regarding the terms and the aggregate payment. Ms. Stroud has determined that the terms do not exceed Fair Market Value.

E. Other Terms

- Indicate whether the arrangement will be structured as an employment or independent contractor relationship.

Independent Contract relationship

- Indicate the term of the arrangement (dates) and describe the termination provisions.

The arrangement is effective August 1, 2013 with a three year term

- Indicate insurance coverage arrangements.

NCGA, at its sole cost and expense, shall procure and maintain throughout the entire term of this Agreement, professional liability insurance coverage for services rendered by NCGA in the minimum amount of one million dollars ($1,000,000) per occurrence and three million dollars ($3,000,000) in the annual aggregate covering NCGA, Medical Director, and all Physicians. NCGA shall provide Hospital with certificates of insurance evidencing the insurance coverage required under this Section at the time this Agreement is executed. Such insurance policy or policies shall also provide for not less than thirty (30) days notice to Hospital of any cancellation, reduction, or other material change in the amount of scope of any

F. Business and Financial Risk

- Identify any specific business and financial risks of the arrangement.

None identified

- Identify any conflicts of interest that have been identified through application of the Conflict of Interest Policy.

None identified

G. Special Terms

- List any special requests or conditions proposed by the physician.

None

Recommended for Approval:

_____ Dated: _____

Chief Executive Officer
Doctors' Medical Center – San Pablo

Attachment: Fair Market Value analysis

Fair Market Value Analysis

Northern California Gastroenterology Associates Medical Group

Services Contract

Date completed: July 18, 2013

Contract Payment Terms: The aggregate compensation is projected to be approximately $450,000, composed of the following: $775/diem for emergency call coverage, $45,000 annually for Medical Director services, and $350/procedure for care for MediCal and uninsured inpatients.

Comparison Information Source: MDRanger Compensation Survey, supplemented by written opinion by Penny Stroud, President of MD Ranger

Findings:

Compensation as outlined does not exceed Fair Market Value

Emergency Call Coverage - Per Diem	50%	75%	90%
All Hospitals	$ 480	$ 520	$ 620
Urban Hospitals	$ 470	$ 500	$ 820
DSH Share Percentage <30%	$ 480	$ 520	$ 1,050
Medical Director - Annual			
All Hospitals	$ 36,000	$ 67,100	$ 72,000
Urban Hospitals	$ 36,000	$ 67,100	$ 72,000
DSH Share Percentage <30%	$ 36,000	$ 72,000	$ 77,100
Per Procedure/Medical Specialty			
All Hospitals (only data available)	$270	$400	$500

From: Penny Stroud [mailto:pstroud@mdranger.com]
Sent: Thu 7/18/2013 3:34 PM
To: Gideon, Dawn
Cc: Caughman, Noel
Subject: Re: GI Coverage

Yes, I feel comfortable and no, I don't think there needs to be a cap.

On 7/18/2013 10:24 AM, Gideon, Dawn wrote:
> Thank you Penny.
>
> Upon further review and based upon your input, I plan suggest to the physicians a slight modification. Please let me know if you can continue to support as not exceeding fair market value:
>
> Call payment: no change - leave at $775/day
> Medical Director: I see no strong justification for pushing this to the 90% and will instead suggest $45,000 annually
> Per Procedure: I would like to propose $350/procedure.
>
> Based upon projected volume for the inpatient, this total is $450,375. Do you feel comfortable with this number? Do you believe that we need to cap the inpatient procedure number?
>
> _____
>
> From: Penny Stroud [mailto:pstroud@mdranger.com]
> Sent: Wed 7/17/2013 5:59 PM
> To: Gideon, Dawn
> Cc: Caughman, Noel
> Subject: Re: GI Coverage
>
>
> Dawn,
> I am familiar with the challenges faced by Doctor's Medical Center due to its difficult payer mix, financial situation and limited medical staff. These types of conditions are what frequently result in situations in which a hospital must pay more than the standard benchmark ranges for coverage and direction services. For example, your hospital reports 45% of its patients meet DSH criteria and more than 45% are Medicare.
>
> Based on these factors, and my knowledge of the local market:
>
>
> * The $775 is slightly over the 90th percentile of the All Hospital benchmark, however it is between the 75th and 90th for hospitals with more than 150 beds and for all Urban hospitals. Based on the unique situation you have described, I believe the proposed amount would not exceed fair market value.
> * The $70,000 medical directorship fee falls just below the 90th percentile for all hospitals, as well as for the benchmarks based on urban, non-trauma and bed size. Based on the unique situation you have described, I believe the proposed amount would not exceed fair market value.
> * The proposed payment per inpatient procedure of $225 is between the 25th and 50th percentile for per episode payments for medical specialties. There are a number of hospitals that pay both a per diem rate and a per episode rate for physicians covering call. Based on the the unique situation you have described, I believe the proposed amount would not exceed fair market value.
>
> Let me know if you need further clarification.
> Best regards,
> Penny
>

>
>
> On 7/16/2013 3:52 PM, Gideon, Dawn wrote:
>
>
> Penny:
>
>
>
> In follow up to our conversation of today regarding compensation for GI services, including ED call coverage, coverage of inpatient cases, and administrative medical director services, I am considering the following provisions and would like your opinion regarding the appropriateness of the proposed comp approach. As we discussed, there is only one GI group at Doctors Medical Center, and I have been unsuccessful in attracting other practices to the hospital. Two of my predecessors have had similar difficulty.
>
>
>
> In order to ensure the availability of GI services for the emergency department as well as for procedures on inpatients, I am considering the following:
>
>
>
> $775/day Emergency Department call coverage
>
> $70,000 Medical Director fee
>
> $225/inpatient procedure
>
>
>
> I believe that these numbers are consistent with the 90% as outlined in your Physician Contract Benchmarks Report. As discussed, I would appreciate your opinion on this proposed compensation package.
>
>
>
>
>
> Dawn Gideon
>
> Interim Chief Executive Officer
>
> Doctors Medical Center
>
> 2000 Vale Road, San Pablo, CA 94806
>
> Email: dgideon@dmc-sp.org <mailto:jhardy@dmc-sp.org>
>
> 510-970-5107
>
>
>
>

--
Penny Stroud, President
MD Ranger, Inc.

DOCTORS MEDICAL CENTER

MEDICAL EXECUTIVE REPORT

TAB 11

MEDICAL EXECUTIVE COMMITTEE REPORT
TO THE
GOVERNING BODY OF THE BOARD OF DIRECTORS
JULY 24, 2013

The Medical Executive Committee of the Medical Staff met on July 8, 2013. Kathy White provided an administrative update. The MEC approved the following policies and is seeking Governing Body approval at this time:

- Nutrition Screening Policy
- IV Administration Guidelines (Updated 2013)
- Therapeutic Substitution/Restrictions (Updated 2013 Revised Antibiotic List)
- ER SEPSIS Order Set (New Form)
- DKA Order Set (Revisions)
- Lasix/Albumin
- Critical Care Insulin Infusion Protocol

Each of the policies and the routing sheet for the Committee approval process is attached.

At the recommendation of The Joint Commission, the medical staff is revising privilege forms within each of the departments to outline a set of "core" privileges that are granted to all members of the department, and expanded privileges that are granted only upon request and based on evidence of proficiency. The MEC approved the new privilege forms for Internal Medicine/Family Practice and for Emergency Medicine, and is seeking Governing Body approval at this time of the attached privileges forms.

The MEC reviewed and approved the report of the Credentials Committee, the Credentials Report is attached for review and approval by the Governing Body.

APPROVAL ROUTING SHEET FOR POLICIES AND PROCEDURES

DOCTORS MEDICAL CENTER

All items marked with † must be completed, and or required routing

†TITLE: Nutrition Screening	†CHECK ONE: ☐ New ☒ Reviewed ☒ Revised : ☐ Major ☒ Minor
† ☐ Administrative ☐ Clinical ☒ Department Food and Nutrition	
†SUBMITTED BY: Denise Jow, Registered Dietitian	
†NEW POLICY - REASON FOR SUBMISSION: ☐ Change in Law ☐ New Regulation: CMS CDPH TJC Other	
†REVIEWED OR REVISED - SUMMARY OF POLICY / PROCEDURE CHANGES: Removal of Albumin, and adding Cancer under Priority 1 & 2. Verbiage added under Policy section stating medication interaction be reviewed by the Registered Dietitian and to be addressed in the screening of food-Drug Interactions policy	

	MEETING DATE	APPROVAL
Manager or Department Director†		
☒ **Medical Staff Department(s):**	June 20, 2013	Approved w/ Minor Changes
☐ Cancer Committee ☐ CV Surgery Committee		
☐ Infection Control Committee ☐ IDP Committee		
☐ Medical Ethics Committee ☐ Patient Safety Committee		
☐ Radiation Safety Committee ☒ P&T Committee		
☐ Respiratory/Critical Care/ED Committee		
☐ Quality Improvement Team: ☐ EM Committee		
☐ EOC/Safety Committee ☐ Other:		
☐ **Nursing Department:** ☐ Nursing Practice:		
☐ **Forms Committee** (as applicable)		
☐ **Administrative Policy Review Committee (APRC)**†		
☐ **Executive Leadership**		
☒ **Medical Executive Committee (MEC)** (as applicable)	July 8, 2013	Approved
☐ **Board of Trustees** *(automatic from MEC)* *(as applicable)*		

DOCTORS MEDICAL CENTER

Manual: FOOD & NUTRITION	**Sub Folder: Clinical Nutrition**
Title: Nutrition Screening	**Reviewed: 10/01, 2/02, 1/05,1/09 Revised: 4/26/02, 5/07/03, 9/15/03, 3/2/06, 4/07, 3/09, 6/12, 4/13**
Effective Date: 5/94 Expiration Date:	**Page 1 of 3**

PURPOSE: To plan for the nutritional care of the patient based on his/her specific needs through the process of screening and assessment.

POLICY: Nutrition screening will be completed within 24 hours of a patient's admission to the hospital in order to determine patient's nutritional risk and need of medical nutrition therapy. Medication/Food interaction review by the Registered Dietitian is addressed in the Screening for Food-Drug Interactions policy.

DEFINITION/OVERVIEW: (If Needed)
RD - Registered Dietitians
IBW - ideal body weight
UBW - usual body weight

PROCEDURE:

1. New inpatient admissions at Doctors Medical Center will be screened:

   A. Initial nutrition screen by nursing Admission Assessment in electronic medical record.

   B. Nutrition Screen by the Nutritional Assistant within 24 hours of admission using the Nutrition Evaluation and Prioritizing Protocol.

   Based on this information (Admission Assessment and Nutrition Evaluation and Prioritizing Protocol), the Nutritional Assistant will prioritize patients into one of three nutrition care levels:
   a. Priority #1 - High Nutrition Risk Potential
   b. Priority #2 - Moderate Nutrition Risk Potential
   c. Priority #3 - Low Nutrition Risk Potential

2. Screenings are documented in the Medical Nutrition Therapy #1 section of the electronic medical record by the Nutritional Assistant.

4. The Nutritional Assistant will re-screen potential low nutrition risk patients within 7 days. Moderate to high risk patients will be referred to RD. Patients identified as needing medical nutrition education will be referred to RD.

5. Patients with orders of NPO and Clear Liquids shall be re-screened in 3 days.

Nutrition Evaluation and Prioritizing Protocol

The initial nutrition screen is completed by nursing on the Initial Assessment. The Nutritional Assistant reviews the Nursing Initial Assessment and uses the criteria listed below to identify nutrition risk priority within 24 hours of admission. The RD is notified of patients at potential moderate to high nutrition risk.

	PRIORITY 1: Potential High Nutrition Risk	**PRIORITY 2: Potential Moderate Nutrition Risk**	**PRIORITY 3: Potential Low Nutrition Risk**
INTAKE		<50% ≥5 days	>75%
% IBW	<80%	80-90%	>90%
%UBW	<90% or >10% change x1month	90-95% or >5% change x1month	>95% stable wt
~~Albumin g/dl~~	~~<2.0~~	~~2.0 – 2.5~~	~~>2.5~~
WEIGHT LOSS (Unintentional weight loss upon admission)		>2% x 1 week >5% x 1 month >7.5% x 3 month	
BMI		<19	
	NPO/CL ≥ 5 days Diarrhea ≥ 1 week Vomiting ≥ 1 week	NPO/CL 3-4 days	
DIAGNOSIS	Burns >15%TSA Cancer: (Head & Neck, Esophageal, Gastric) Dysphagia Enteral/Parenteral Failure to Thrive Gestational Diabetes Malnutrition Necrotizing Fascitis Pancreatitis Pressure Ulcer - *(Stage III or IV)* Vent Patient	Burns <15% TSA Cancer: (Small Intestine, Colon, Rectal, Liver, Pancreas) CHF: New/exacerabation Diabetes: *(New onset, out of control w/glu >250 on admission or HbA1c>7)* Dialysis/ESRD Liver Failure Non healing wound Pregnancy/Lactating Pressure Ulcer - *(Stage I or II)*	H/O CHF – Nutrition Assistant to see if pt follows low sodium diet. Refer pts that need education to RD.
ASSESSMENT GUIDELINES RD has the discretion to change a patient's nutrition risk level.	RD to provide Medical Nutrition Therapy Assessment within 48 hours.	RD to provide Medical Nutrition Therapy Assessment within 72 hours	Nutritional Assistant has the discretion to change a patient's nutrition risk level when rescreening priority III pts.
FOLLOW-UP	Initial follow-up is documented within 5 days by RD. Additional F/U as per RD discretion.	Initial follow-up is documented within 7 days by RD. Additional F/U as per RD discretion.	Rescreened by Nutritional Assistant within 7 days. NPO & Clear Liquids rescreened in 3 days.

REFERENCES:
Academy of Nutrition and Dietetics The Nutrition Care Manual®
TJC Std PC01.02.01

Responsible for review/updating (Title/Dept)	Director Food & Nutrition Services Clinical Nutrition Manager	Food and Nutrition Services

APPROVAL ROUTING SHEET FOR POLICIES AND PROCEDURES

DOCTORS MEDICAL CENTER

All items marked with † must be completed, and or required routing

†TITLE: IV Drug Administration Guidelines	†CHECK ONE: ☐ New ☐ Reviewed ☒ Revised : ☐ Major ☒ Minor
† ☐ Administrative ☒ Clinical ☐ Department _____	
†SUBMITTED BY: Therese Helser, RPh	
†NEW POLICY - REASON FOR SUBMISSION: ☐ Change in Law ☐ New Regulation: CMS CDPH TJC Other Change in Drug Guidelines	
†REVIEWED OR REVISED - SUMMARY OF POLICY / PROCEDURE CHANGES: IV Drug Administration Guideline Approved (See attached) with some medications to be dropped from list.	

	MEETING DATE	APPROVAL
Manager or Department Director†		
☒ **Medical Staff Department(s):**	June 20, 2013	Approved w/ Minor Changes
☐ Cancer Committee ☐ CV Surgery Committee		
☐ Infection Control Committee ☐ IDP Committee		
☐ Medical Ethics Committee ☐ Patient Safety Committee		
☐ Radiation Safety Committee ☒ P&T Committee		
☐ Respiratory/Critical Care/ED Committee		
☐ Quality Improvement Team: ☐ EM Committee		
☐ EOC/Safety Committee ☐ Other:		
☐ **Nursing Department:** ☐ Nursing Practice:		
☐ **Forms Committee** (as applicable)		
☐ **Administrative Policy Review Committee (APRC)**†		
☐ **Executive Leadership**		
☒ **Medical Executive Committee (MEC)** (as applicable)	July 8, 2013	Approved
☐ **Board of Trustees** *(automatic from MEC)* *(as applicable)*		

IV DRUG ADMINISTRATION GUIDELINES

(excludes chemotherapeutic agents, this is not a comprehensive list, for IV medications not on this list please consult with pharmacist or physician)

DRUG	DIRECT IV PUSH	IV INFUSION	MONITORED AREA (CARDIAC MONITORING) ICU, ED, PACU, OR, CCL, TELE (3RD & 4TH)	SUGGESTED MONITORING PARAMETERS
Abciximab (Reopro)	YES, Loading dose (see protocol)	YES, See protocol	YES	Vital signs Labs: platelets, PTT/ACT
Acetaminophen (Ofirmev)	NO	YES, over 15mins	NO	LFT
AcetaZOLAMIDE (Diamox)	YES	YES	NO	Urine output, vital signs
Acetylcysteine (Acetadote)	NO	YES	NO	See protocol
ACTH (corticotrophin)	NO	YES	NO	Vital signs Labs: plasma cortisol level
Acyclovir (Zovirax)	NO	YES	NO	Urine output, vital signs Labs: renal function
Adenosine (Adenocard)	YES, Over 1-2 seconds	NO	YES	EKG, Vital signs
Albumin	NO	YES	NO	Vital signs
Alteplase (Activase/TPA)	YES, Bolus dose (in AMI)	YES	YES	See specific protocol (interventional radiology)
Alteplase (Cathflo)	YES, Catheter clearance	NO	NO	Bleeding, vital signs Labs: platelets
Amikacin	NO	YES, Over 30 to 60 minutes	NO	Ototoxicity, vital signs Labs: Scr, BUN, C/S
Aminocaproic Acid (Amicar)	NO	YES	NO	Vital signs Labs: coagulation studies
Aminophylline	NO	YES	NO	Vital signs Labs: Serum theophylline level Drug interactions (multiple)
Amiodarone (Cordarone)	NO	YES, Requires in-line filter	YES (see protocol)	CXR, pulmonary function tests, ophthalmic exam, FiO2 delivery to tissues, EKG, vital signs Labs: LFT, thyroid function

IV DRUG ADMINISTRATION GUIDELINES

(excludes chemotherapeutic agents, this is not a comprehensive list, for IV medications not on this list please consult with pharmacist or physician)

DRUG	DIRECT IV PUSH	IV INFUSION	MONITORED AREA (CARDIAC MONITORING) ICU, ED, PACU, OR, CCL, TELE (3RD & 4TH)	SUGGESTED MONITORING PARAMETERS
Amphotericin B (includes lipid forms)	NO	YES, D5W for IV use, infuse over 4-6 hours, protect from direct sunlight	NO	Fever & chills (premedicate as needed), vital signs Labs: Scr, BUN, electrolytes (including Mag, K+)
Ampicillin (+- sulbactam) Unasyn	NO	YES, Infuse over 30 minutes	NO	Vital signs, Signs of anaphylaxis Labs: C/S
Argatroban	NO, Continuous infusion only	YES, Continuous infusion only	NO	Refer to protocol, bleeding, vital signs Labs: PTT
Atenolol (Tenormin)	YES, Slowly over 5 minutes	YES	YES (for IV push)	EKG, vital signs
Atracurium	YES, Respiratory support required	YES	YES	Respiratory support required, nerve stimulation, vital signs
Atropine	YES	NO	NO- Unless atropine given in cardiac doses	EKG (for cardiac doses), vital signs
Azithromycin (Zithromax)	NO	YES, Infuse over 60 minutes	NO	Vital signs Labs: C/S
Aztreonam (Azactam)	YES, Slowly over 3-5 minutes	YES, Infuse over 30-60 minutes	NO	Vital signs, Signs of anaphylaxis Labs: C/S
Benztropine (Cogentin)	YES	NO	NO	Anticholineric effects, vital signs
Bivalirudin (Angiomax)	YES, Bolus dose (refer to cath lab protocol)	YES, Refer to cath lab protocol	YES	Vital signs Labs: PTT/ACT, PT
Bumetanide (Bumex)	YES, Slowly over 1-2 minutes	YES	NO	Urine output, vital signs Labs: Scr, electrolytes
Calcitrol	YES	NO	NO	Labs: Serum phosphorus and calcium
Calcium IV (various forms)	---, Calcium gluconate (1.5 ml/min) - avoid extravasation Calcium Chloride (0.5-1.5 ml/min)- avoid extravasation Avoid injecting calcium into same iv line as phosphate containing solutions	YES, Intermittent infusion over 1 hour	NO	Rash, flushing, GI toxicity, vital signs Labs: Scr, BMP, serum calcium, albumin

IV DRUG ADMINISTRATION GUIDELINES

(excludes chemotherapeutic agents, this is not a comprehensive list, for IV medications not on this list please consult with pharmacist or physician)

DRUG	DIRECT IV PUSH	IV INFUSION	MONITORED AREA (CARDIAC MONITORING) ICU, ED, PACU, OR, CCL, TELE (3RD & 4TH)	SUGGESTED MONITORING PARAMETERS
Ceftaroline (Teflaro)	NO	YES	NO	Vital signs, Signs of anaphylaxis, Scr/BUN Labs: C/S
Cephalosporin antibiotics: Cefazolin (Ancef) Cefepime (Maxipime) Cefotetan (Cefotan) Cefotaxime (Claforan) Ceftazadime (Fortaz) Ceftriaxone (Rocephin) Cefuroxime (Zinacef)	---, Refer to individual cephalosporin product information At DMC- IVPB is the parenteral route of choice	YES, Over 30-60 minutes or slower preferred	NO	Vital signs, Signs of anaphylaxis, Labs: C/S
Cimetidine (Tagamet)	YES, Dilute to 20 mL Infuse over 5 minutes	YES, Over 15 minutes	NO	Vital signs Drug interactions (multiple)
Ciprofloxacin (Cipro)	NO	YES, Over 60 minutes	NO	Vital signs Labs: C/S Drug interactions (NSAID's Warfarin, theophylline)
Clindamycin (Cleocin)	NO	YES, Over 30 minutes	NO	Bowel frequency change Labs: C/S
Cyanocobalamin	YES, Not recommended as excretion is faster than SC or IM	YES, IM or SC preferred	NO	Labs: Serum K+ (early in therapy)
Cyclosporine (Sandostatin, Neoral)	NO	YES, Over 2-6 hours	NO	Vital signs Labs: Scr, BUN, LFT, K+ Drug interactions (multiple)
Dantrolene (Dantrium)	YES	YES	NO	Extravasation, muscle weakness, EKG (overdose only), vital signs Labs: LFT

IV DRUG ADMINISTRATION GUIDELINES

(excludes chemotherapeutic agents, this is not a comprehensive list, for IV medications not on this list please consult with pharmacist or physician)

DRUG	DIRECT IV PUSH	IV INFUSION	MONITORED AREA (CARDIAC MONITORING) ICU, ED, PACU, OR, CCL, TELE (3RD & 4TH)	SUGGESTED MONITORING PARAMETERS
Daptomycin (Cubicin)	NO	YES, Over 30 minutes	NO	Vital signs Labs: C/S, CPK levels
Darbepoetin (Aranesp)	---, Post dialysis via dialysis tubing only otherwise SC preferred	NO	NO	Vital signs Labs: CBC, renal function, iron status
Desmopressin (DDAVP)	YES	YES, Slowly over 15–30 minutes	NO	Urine output Labs: clotting factors (at risk patients)
Dexamethasone	YES Doses under 10mg may be given undiluted over at least 1 min	YES Doses above 10 mg should be diluted and administered over 15 minutes	NO	Vital signs
Diazepam (Valium)	YES, Slowly Max: 5 mg/minute	NO, Yes if patient on a ventilator	NO FOR IVP (YES for a continuous drip)	Respiratory depression (closely monitor for one hour), phlebitis, local irritation, vital signs
Dicyclomine (Bentyl)	NO, IM only	NO, IM only	NO	Vital signs
Digoxin	YES	NO	NO - Unless multiple loading doses are to be given	EKG, vital signs Labs: Scr, electrolytes, serum digoxin Drug interactions (multiple)
Digoxin immune FAB (DigiFab)	YES	YES, Over 30 minutes	**YES**	Vital signs Labs: serum digoxin, serum potassium
Diltiazem (Cardizem)	YES, Slowly over 2 minutes	YES	**YES** (see protocol)	EKG, vital signs
Diphenhydramine (Benadryl)	YES	NO	NO	Vital signs
Dobutamine (Dobutrex)	NO	YES	**YES** (for IV push)	Extravasation, EKG, vital signs
Dopamine	NO	YES	**YES** (see protocol)	Extravasation, EKG, vital signs
Doripenem	NO	YES, Over 60 minutes	no	Signs of anaphylaxis, Myoclonic activity, vital signs Labs: Scr, C/S

IV DRUG ADMINISTRATION GUIDELINES

(excludes chemotherapeutic agents, this is not a comprehensive list, for IV medications not on this list please consult with pharmacist or physician)

DRUG	DIRECT IV PUSH	IV INFUSION	MONITORED AREA (CARDIAC MONITORING) ICU, ED, PACU, OR, CCL, TELE (3RD & 4TH)	SUGGESTED MONITORING PARAMETERS
Doxycycline	NO	YES, Over 60 minutes	NO	Phlebitis, vital signs
Edrophonium (Tensilon)	YES	NO	NO	Neuromuscular, cardiovascular, neurologic response, vital signs
Enalaprilat (Vasotec)	YES, Slowly over 5 minutes	NO	NO	Vital signs Labs: Scr, electrolytes
Enoxaparin (Lovenox)	YES, Cardiac Cath Lab only Lovenox 0.3mg/kg IV	NO	NO- CATH LAB ONLY	Bleeding, vital signs Labs: platelets Do NOT give IM
Ephedrine	YES, Slowly 5-25 MG/dose SLOW IVP Repeat after 5-10 min prn then q3-4hr NTE 150mg/24hrs	NO	NO - Unless vasopressive dose	Vital signs, ECG
Epinephrine	YES	YES	YES - (only if given as drip)	EKG, vital signs
Eptifibatide (Integrilin)	YES, Load over 1-2 minutes	YES	YES	Vital signs Labs: Scr, platelets, Hgb/Hct, PTT/ACT (refer to protocol)
Ertrapenem (Invanz)	NO	YES, Over 30 minutes In normal saline only	NO	Vital signs, Signs of anaphylaxis Labs: CBC, C/S
Erythromycin	NO	YES, In NS only	NO	Phlebitis, local irritation, vital signs Labs: C/S
Esmolol (Brevibloc)	YES, 10 mg/ml conc, only as loading dose	YES	YES	EKG, vital signs
Estrogen, conjugated (Premarin IV)	YES, Not to exceed 5 mg/minute	YES, Dilute in NS Infuse over 30-40 minutes	NO	Vital signs
Ethacrynic acid (Edecrin)	YES, Slowly over several minutes, max: 100 mg bolus dose	YES, Over 30 minutes	NO	Urine output, vital signs Labs: Scr, electrolytes
Famotidine (Pepcid)	YES, Dilute to 5-10 mL Inject over at least 2 minutes	YES	NO	Vital signs
Fentanyl	YES	YES	YES	Vital signs, pulse oximeter recommended
Ferric Iron Gluconate (Ferrlecit)	YES, Not to exceed 12.5 mg/minute	YES, Infuse over 1 hour	NO	Hypersensitivity, hypotension, vital signs Labs: ferritin, transferrin saturation

IV DRUG ADMINISTRATION GUIDELINES

(excludes chemotherapeutic agents, this is not a comprehensive list, for IV medications not on this list please consult with pharmacist or physician)

DRUG	DIRECT IV PUSH	IV INFUSION	MONITORED AREA (CARDIAC MONITORING) ICU, ED, PACU, OR, CCL, TELE (3RD & 4TH)	SUGGESTED MONITORING PARAMETERS
Filgrastim (Neupogen)	NO, SC preferred	—, With dialysis over 15-30 minutes	NO	Labs: CBC, platelets
Fluconazole (Diflucan)	NO	YES, Max rate: 200mg/hr	NO	Skin rash, vital signs Labs: LFT, K+,
Flumazenil (Romazicon)	YES, Over 30 seconds; wait 30 sec. For 2nd dose, may repeat at 1 minute intervals for max recommended dose of 3 mg If re-sedation occurs, up to 1mg doses can be repeated at 20 minute intervals, max 3 mg/hr	NO	NO	Vital signs (for one hour post administration)
Folic Acid	YES, No more than 5 mg/minute	YES	NO	Labs: blood indices, serum folate
Fosphenytoin (Cerebryx)	YES, For doses < 500 mg, not to exceed 100 –150 mg/minute Dosed in phenytoin equivalents	YES, Not to exceed 150mg/minute Dosed in phenytoin equivalents	**YES** - If dose is above 500 mg phenytoin equivalents	EKG (loading dose), local irritation, paresthesia, vital signs Labs: serum phenytoin Levels Drug interactions (multiple)
Furosemide (Lasix)	YES, Slowly over 1-2 minutes for doses less than or equal to 100 mg, do not exceed 20 mg/min	YES, 4 mg/min max recommended rate for doses > 100mg	NO	Urine output, vital signs Labs: Scr, electrolytes
Ganciclovir (Cytovene)	NO	YES, Infuse over 1 hour, handle as chemotherapy agent	NO	Vital signs Labs: Scr, WBC, serum levels (if renal Insufficiency)
Gentamicin	NO	YES, Over 60 minutes	NO	Vital signs Labs: Scr, gentamicin level
Glucagon	YES	YES	NO	Vital signs Labs: blood glucose
Glycopyrrolate (Robinul)	YES	NO	NO	Vital signs
Haloperidol (Haldol)	NO	NO	NO	Extrapyramidal reactions, vital signs
Heparin	YES	YES	NO	vital signs Labs: platelets, Hgb/Hct, PTT/ACT
Hydralazine (Apresoline)	YES	NO	NO	Vital signs

IV DRUG ADMINISTRATION GUIDELINES

(excludes chemotherapeutic agents, this is not a comprehensive list, for IV medications not on this list please consult with pharmacist or physician)

DRUG	DIRECT IV PUSH	IV INFUSION	MONITORED AREA (CARDIAC MONITORING) ICU, ED, PACU, OR, CCL, TELE (3RD & 4TH)	SUGGESTED MONITORING PARAMETERS
Hydrocortisone (Solu-cortef)	YES	YES	NO	Vital signs
Hydromorphone (Dilaudid)	YES	YES	NO	Vital signs, pulse oximeter recommended
HydrOXYzine	NO, IM only (can cause tissue extravasation/abscess)	NO, Can cause tissue extravasation/abscess		
Ibutilide (Corvert)	NO	YES, over 10 minutes	YES	EKG, vital signs
Infliximab (Remicade)	NO	YES, Over at least 2 hours, use non-PVC bags and tubing only	NO	Vital signs
Insulin	YES, Regular insulin only	YES	NO	Vital signs Labs: blood or urine glucose
Isoproterenol (Isuprel)	YES, Slowly, dilute 1 mg to 10 mL	YES	YES	EKG, vital signs
Itraconazole (Sporanox)	NO	YES, Over 60 minutes	NO	Neuropathy, CHF, vital signs Labs: Scr, LFT
Kanamycin	NO	YES, Over 60 minutes	NO	Vital signs Labs: Scr, C/S
Ketorolac (Toradol)	YES	NO	NO	Bleeding Labs: Scr
Labetalol (Trandate)	YES, Slowly over 2 minutes May repeat doses at 10 minute intervals	YES, Start at 2mg/minute MAX dose 300mg/day IV	YES (For IV push and continuous infusion)	EKG, vital signs
Levofloxacin (Levaquin)	NO	YES, Over 60 minutes	NO	Vital signs Labs: C/S, glucose (for diabetics)
Levothyroxine	YES	NO	NO	Vital signs Labs: thyroid function tests
Lidocaine	YES, Over 1 minute	YES	YES	EKG, vital signs Labs: serum lidocaine level
Linezolid (Zyvox)	NO	YES, Over 30–120 minutes	NO	Vital signs Labs: C/S, CBC
Lorazepam (Ativan)	YES, Slowly	YES, Patients on a ventilator	NO - ICU (monitored area for continuous drip)	Respiratory depression (closely monitor for one hour), vital signs

DRUG	DIRECT IV PUSH	IV INFUSION	MONITORED AREA (CARDIAC MONITORING) ICU, ED, PACU, OR, CCL, TELE (3RD & 4TH)	SUGGESTED MONITORING PARAMETERS
Magnesium	YES, Over 1-2 minutes for dysrhythmia Over 4 minutes for life-threatening low Mag level (Must dilute to less than or equal to 10 % solution)	YES, Over 3 hours for severely low Mag level	NO- Yes for L&D monitoring for cardiac dysrhythmia	EKG, vital signs Labs: magnesium level
Mannitol	YES, Test dose IV push given (3-5 ml) first (slowly over 20-30 minutes) Use with in line filter provided Inspect vial for crystals	YES, Test dose IV push given (3-5 ml) first Use with in-line filter provided	NO	Urine output, vital signs Labs: electrolytes
Meperidne (Demerol)	YES	YES	NO	Vital signs, pulse oximeter recommended
Methylprednisolone (Solu-medrol)	YES, For dose less than 2 mg/kg or 250 mg	YES, For dose above 2 mg/kg or 250 mg	NO	Vital signs Labs: blood sugar
Metoclopramide (Reglan)	YES, 10 mg or less: give slowly over 1-2 minutes For doses > 10 mg: dilute and infuse over 15 minutes	YES	NO	Extrapyramidal symptoms, vital signs
Metoprolol (Lopressor)	YES	NO	YES (for IV push)	EKG, vital signs
Metronidazole (Flagyl)	NO	YES, Infuse over 1 hour, do not refrigerate IVPB	NO	Vital signs
Midazolam (Versed)	YES, Slowly DO NOT GIVE AS A FAST BOLUS (give no faster than 2.5 mg over at least 2 minutes as a 1 mg/mL or more dilute solution) Patients > 60 years of age, debilitated, or chronically ill should receive lower doses, repeated doses after 2 minutes if needed	YES, Monitored area for continuous drip Respiratory support required	YES	Respiratory depression (closely monitor for one hour post IVP dose), respiratory support required for continuous drip, vital signs
Milrinone (Primacor)	YES, Loading dose	YES	YES	Urine output, EKG, vital signs Labs: Scr, platelets, electrolytes
Morphine	YES	YES	NO	Vital signs, pulse oximeter recommended

IV DRUG ADMINISTRATION GUIDELINES

(excludes chemotherapeutic agents, this is not a comprehensive list, for IV medications not on this list please consult with pharmacist or physician)

DRUG	DIRECT IV PUSH	IV INFUSION	MONITORED AREA (CARDIAC MONITORING) ICU, ED, PACU, OR, CCL, TELE (3RD & 4TH)	SUGGESTED MONITORING PARAMETERS
Nalbuphine (Nubain)	YES	YES	NO	Vital signs, pulse oximeter recommended
Naloxone (Narcan)	YES	YES	NO	Respirations (continued surveillance after response), vital signs
Nicardipine (Cardene)	NO	YES	YES	Phlebitis (change peripheral site Q12h), EKG, vital signs Labs: baseline electrolytes and lipids, renal function, uric acid, plasma rennin
Nitroglycerin (Tridil)	NO	YES	YES	Symptom relief, wedge pressures as needed, EKG, vital signs
Nitroprusside (Nitropress)	NO	YES	YES	Wedge pressures as needed, monitor for signs of cyanogens toxicity, EKG, vital signs
Norepinephrine (Levophed)	NO	YES	YES	EKG, vital signs
Octreotide (Sandostatin)	YES, Emergency only (e.g, carcinoid crisis)	YES, Over 15-30 minutes	YES	EKG, vital signs Note: octreotide suspension should NOT be given I.V. or SQ, IM is the only route
Ondansetron (Zofran)	YES, For doses < 5 mg: over at least 30 seconds	YES	NO	Vital signs
Oxytocin (Pitocin)	NO	YES	NO	Fetal monitoring, uterine contractions, vital signs
Pancuronium	YES, Respiratory support required	---, Not recommended	YES	Respiratory support required, nerve stimulation, vital signs
Pantoprazole (Protonix)	YES	YES, Intermittent: 15 minutes or continuous	NO	Vital signs
Papaverine	YES, Slowly over 1-2 minutes	NO	NO	Vital signs
Penicillin	NO	YES	NO	Anaphylaxis, vital signs Labs: C/S
Pentamidine	NO	YES, Over at least 60 minutes	NO	Phlebitis, vital signs Labs: Scr, CBC, ca++lcium, glucose

IV DRUG ADMINISTRATION GUIDELINES

(excludes chemotherapeutic agents, this is not a comprehensive list, for IV medications not on this list please consult with pharmacist or physician)

DRUG	DIRECT IV PUSH	IV INFUSION	MONITORED AREA (CARDIAC MONITORING) ICU, ED, PACU, OR, CCL, TELE (3RD & 4TH)	SUGGESTED MONITORING PARAMETERS
Phenobarbital	YES, Slowly 25-50 mg/minute 100 mg/min for initial status epilepticus dose	NO	NO	Vital signs Labs: phenobarbital level
Phenylephrine (Neo-Syneprine)	YES, Slowly	YES	YES	EKG, vital signs
Phenytoin (Dilantin)	YES, Not to exceed 50 mg/minute	YES, Dilute in NS 50ml (mix in normal saline only) Not to exceed 50mg/min Use0.22micron filter	YES (if loading dose is above 500 mg)	Local irritation, EKG, vital signs Labs: phenytoin level (loading dose) Drug interactions (multiple)
Phytonadione (Vitamin K)	NO	YES, Dilute in NS 50-100ml to be given over 30-60 minutes. Not to exceed 1mg/min. IVPB preferred route for INR reversal	NO	Vital signs (BP especially), hypersensitivity reaction (when given IV) labs: PT NOTE: Should NOT be given IM
Piperacillin / +-tazobactam (Zosyn)	NO	YES	NO	Vital signs, Signs of anaphylaxis Labs: C/S
Plasma protein fraction (Plasmanate 5%)	NO	YES	NO	Vital signs
Potassium chloride	NO	YES, Use Protocol	NO - See Protocol	Vital signs Labs: potassium level
Procainamide	YES, 100mg: do not exceed 50 mg/minute	YES, 500 mg can be infused over 25-30 minutes	YES	EKG, vital signs Labs: CBC, procainamide + NAPA levels, ANA titer (if lupus-like reaction occurs)
Prochlorperazine (Compazine)	YES, Not more than 5 mg/minute	NO	NO	Vital signs
Promethazine (Phenergan)	YES, Must dilute with NS 10ml first and give via a running IV line. Large vein preferred (max: 25 mg/minute) IM route preferred (IV may cause extravasation injury)	NO	NO	Local irritation, extravasation injury (IV route), vital signs
Propofol (Diprivan)	YES	YES, Discard infusion bottles after 12 hours	YES	Respiratory support required, EKG, vital signs
Propranolol	YES, Slowly over 2-10 minutes	YES, 2-3 mg/hr	YES	EKG, vital signs

DRUG	DIRECT IV PUSH	IV INFUSION	MONITORED AREA (CARDIAC MONITORING) ICU, ED, PACU, OR, CCL, TELE (3RD & 4TH)	SUGGESTED MONITORING PARAMETERS
Protamine	YES, Slowly over 10 minutes Max 50 mg recommended dose	NO	NO	Labs: coagulation effects
Pyridoxine	YES	YES	NO	
Quinidine	NO	YES	YES	Vital signs (BP especially), EKG Labs: quinidine level
Rifampin	NO	YES, Over 30 min to 3 hours	NO	Flu-like syndrome Labs: CBC, LFT Drug interactions (multiple)
Rocuronium (Zemuron)	YES, Respiratory support required	YES, Respiratory support required	YES (except in emergency intubation)	Respiratory support required, nerve stimulation , vital signs
Sargramostim (GM-CSF)	NO	YES, In NS over 2 hours	NO	Labs: CBC, platelets
Sodium Bicarbonate	YES	YES	NO	Labs: blood gases
Succinylcholine	YES	NO	YES (except in emergency intubation)	Respiratory support required, nerve stimulation, vital signs Labs: serum potassium
Tenecteplase (TNKase)	YES, Over 5 seconds	NO	YES	Bleeding, EKG, vital signs Labs: platelets, Hgb/Hct, coagulation tests
Terbutaline (Brethine)	YES, Slowly over 10 minutes for life-threatening asthma	YES	YES	Vital signs
Thiamine	NO	YES	NO	Vital signs
Tigecyline (Tygacil)	NO	YES, Over 30-60 minutes	NO	Vital signs Labs: C/S
Tobramycin	NO	YES, Over 60 minutes	NO	Vital signs Labs: Scr, C/S, tobramycin levels
Trimethoprim-sulfamethoxazole (Bactrim, Septra)	NO	YES, Over 60-90 minutes	NO	Vital signs Labs: C/S
Valproate sodium (Depacon)	NO	YES, Over 60 minutes (not to exceed 20 mg/min)	NO	Vital signs Labs: LFT, valproate level
Vancomycin	NO	YES	NO	Vital signs Labs: Scr, CBC, vancomycin levels

IV DRUG ADMINISTRATION GUIDELINES

(excludes chemotherapeutic agents, this is not a comprehensive list, for IV medications not on this list please consult with pharmacist or physician)

DRUG	DIRECT IV PUSH	IV INFUSION	MONITORED AREA (CARDIAC MONITORING) ICU, ED, PACU, OR, CCL, TELE (3RD & 4TH)	SUGGESTED MONITORING PARAMETERS
Vasopressin (Pitressin)	YES, Cardiopulomary arrest	YES, Refer to specific dosing protocols, Sepsis dosing and GI bleeding	YES	EKG, vital signs
Vecuronium (Norcuron)	YES, Respiratory support required	YES, Refer to protocol Respiratory support required	YES (except in emergency intubation)	Respiratory support required, nerve stimulator, vital signs
Verapamil (Calan)	YES, 2.5 - 5 mg slowly over 3 minutes	NO	YES - If used with bedside monitor	EKG, vital signs
Voriconazole (VFEND)	NO	YES	NO	Visual function, rash, vital signs Labs: Scr, LFTs, bilirubin Drug interactions (multiple)

Legend

ABG	arterial blood gases	EKG	electrocardiogram	NAPA	N-acetylprocainamide
ACT	activated clotting time	HCT	hematocrit	NS	normal saline
ANA	antinuclear antibodies	Hgb	hemoglobin	PT	prothrombin
BNP	brain natriuretic peptide	HR	heart rate	PTT	partial thromboplastin time
BUN	blood urea nitrogen	I.V	intravenous	PVC	polyvinyl chloride
C/S	culture and sensitivity	K+	Potassium	SCr	serum creatine
CA++	calcium	KCL	potassium chloride	SQ	subcutaneously
CBC	complete blood count	L&D	labor and delivery	TPN	total parenteral nutrition
CHF	congestive heart failure	LFT	liver function tests	UO	urine output
CXR	chest X-ray	Mag	magnesium		

References:

1. Lexicomp Drug Information Handbook [22th edition (2013-14)]
2. Clinical Pharmacology [on-line edition (2013)]
3. Handbook on Injectable Drugs [17th edition (2013)]

APPROVAL ROUTING SHEET FOR POLICIES AND PROCEDURES

DOCTORS MEDICAL CENTER

All items marked with † must be completed, and or required routing

†TITLE: Therapeutic Substitution / Restrictions	†CHECK ONE: ☐ New ☐ Reviewed ☒ Revised : ☐ Major ☒ Minor
† ☐ Administrative ☒ Clinical ☐ Department _____	
†SUBMITTED BY: Therese Helser, RPh	
†NEW POLICY - REASON FOR SUBMISSION: ☐ Change in Law ☐ New Regulation: CMS CDPH TJC Other	
†REVIEWED OR REVISED - SUMMARY OF POLICY / PROCEDURE CHANGES: Changes in Drug formulary. Changes consisted of the following: Advair diskus vs. Advair HFA will have different doses of Symbicort substituted, and Docusate substituted with Docusate Sodium 250 mg oral.	

	MEETING DATE	APPROVAL
☐ Manager or Department Director†		
☒ Medical Staff Department(s):	June 20, 2013	Approved w/ minor changes
☐ Cancer Committee ☐ CV Surgery Committee		
☐ Infection Control Committee ☐ IDP Committee		
☐ Medical Ethics Committee ☐ Patient Safety Committee		
☐ Radiation Safety Committee ☒ P&T Committee		
☐ Respiratory/Critical Care/ED Committee		
☐ Quality Improvement Team: ☐ EM Committee		
☐ EOC/Safety Committee ☐ Other:		
☐ Nursing Department: ☐ Nursing Practice:		
☐ Forms Committee (as applicable)		
☐ Administrative Policy Review Committee (APRC)†		
☐ Executive Leadership		
☒ Medical Executive Committee (MEC) (as applicable)	July 8, 2013	Approved
☐ Board of Trustees *(automatic from MEC)* *(as applicable)*		

DOCTORS MEDICAL CENTER SAN PABLO
DRUG FORMULARY – THERAPEUTIC SUBSTITUTIONS AND RESTRICTIONS
THERAPEUTIC SUBSTITUTIONS – 2013 draft

1. **5Ht3 receptor antagonist**

Orders received for Dolasetron or Granisetron for post-operative nausea and vomiting (PONV) or ordered as a general anti-nausea agent will be substituted with Ondansetron 4 mg iv or po q8h prn (higher doses or more frequent dosing is not recommended).

- The substitution will occur unless the patient has a documented allergy or has experienced treatment failure with ondansetron.
- A clarification order will not be sent by the pharmacy (a message will appear on the MAR, indicating the substitution).
- A clarification order will be obtained by the pharmacy for inpatients scheduled to receive chemotherapy.
- Dolasetron and Granisetron will be removed from Automated Cabinets and anesthesia trays.
- ONDANSETRON (Zofran) IV or SL (ODT) form – all orders for doses greater than 4mg or frequency greater than 8 hrs – will have an autosubstitution of 4mg IV or SL every 8hrs or every 8 hrs as needed for nausea. (Exceptions: patients with CINV, PONV, or in patients with documented history of a dose or frequency exceeding these amounts

The long acting Palonosetron (Aloxi), available only for cancer center patients is excluded from this therapeutic substitution*

2. **Darbepoetin Alfa (ARANESP)** (weekly dosing) will be substituted for orders of epoetin alfa (Procrit) per the following table:
CONVERSION TABLE- for epoetin dosed once, twice or three times per week. (Orders for every day, every other day will not be filled until the prescriber is contacted for clarification.)
Darbepoetin alfa will be scheduled every Wednesday at 17:00. Estimated Aranesp starting doses (mcg/week) based on previous epoetin alfa dose (units/week)[1]. Dosage increases should not be made more frequently than every 4 weeks.

Previous weekly epoetin alfa dose (units/week)	Weekly Aranesp dose (mcg/week)
<2,500	6.25
2,500-4,999	12.5
5,000-10,999	25

[1] Aranesp product package insert- 2004

11,000-17,999	**40**
18,000-33,999	**60**
34,000-89,999	**100**
≥90,000	**200**

3. **H2 BLOCKERS** will be substituted with equivalent IV or PO dosages of FAMOTIDINE (PEPCID) any time a non-formulary H2 Blocker is ordered (Ranitidine, Cimetidine, Nizatidine)

4. **PROTON PUMP INHIBITORS (PPI's)** – PANTOPRAZOLE (PROTONIX is the PPI of choice. Pantoprazole is substituted for both PO, NG/PEG and IV dosing. Pharmacy will substitute Pantoprazole based on the following equivalent dosages:
   Prevacid 15mg= Prilosec 10mg = Aciphex 20mg=Nexium 20 mg
   Prevacid 30 mg=Prilosec 20 mg=Protonix 40 mg= Aciphex 20 mg=Nexium 40 mg
   Prevacid 60 mg=Prilosec 40 mg=Protonix 80 mg= Aciphex 40 mg=Nexium 40 mg
5. **HYDROCODONE/ACETAMINOPHEN COMBINATIONS** will be substituted with the following:
   - **VICODIN (5 mg of hydrocodone and 500 mg acetaminophen) will be dispensed as NORCO-5 or its generic equivalent.**
   - **VICODIN ES (7.5 mg hydrocodone and 750 mg acetaminophen) will be dispensed as NORCO-7.5**
     7.5 (7.5 mg hydrocodone and 500 mg of acetaminophen) or its generic equivalent. VICODIN HP, LORCET 10, or LORTAB 10 (10 mg of hydrocodone and 500-750 mg acetaminophen) will be dispensed as NORCO-10 (10 mg hydrocodone and 325 mg of acetaminophen) or its generic equivalent.

6. **ALBUTEROL/IPRATROPIUM HFA AND NEBULIZATION orders written for ALBUTEROL (PROVENTIL/VENTOLIN) and IPRATROPIUM (ATROVENT) with the same directions will be automatically substituted with DUONEB (nebulizations) or COMBIVENT (MDI) (ALBUTEROL/IPRATROPIUM combinations).**

7. **FLURAZEPAM (DALMANE)** will be automatically substituted with TEMAZEPAM (RESTORIL)

8. **ANTACIDS**:
   - **MYLANTA, GELUSIL, or MAALOX PLUS will be supplied for all orders or combination aluminum/magnesium liquid antacids. All products contain SIMETHICONE 20-25mg/5ml)**
   - **MYLANTA II or MAALOX TC or generic equivalent will be supplied for all high potency combination products.**
   - **MYLANTA or generic equivalent will be supplied in the equivalent dose for all combination oral solids**
   - **ALUMINUM HYDROXIDE 500mg will be supplied for DIALUME, ALUCAPS and AMPHOGEL tablets.**

9. **ORAL PHOSPHATE PRODUCTS**
   K-Phos –Neutral tablets (250mg phosphorous) will be supplied for all orders of Neutra – Phos powder or Neutra-Phos- K powder (packet).

10. **PRIMAXIN IV will be automatically substituted DORIPENEM IV**

    Orders for Primaxin 500mg q6 or q8h (or higher) will be switched to Doripenem 500mg iv q8h or based on current renal function (see below):

    - **CrCl above 50 ml/min:** No dose adjustment needed – dose 500mg iv q8h.
    - **CrCl 30—50 ml/min:** 250 mg IV (over 1 hour) every 8 hours.
    - **CrCl 10—30 ml/min:** 250 mg IV (over 1 hour) every 12 hours.
    - **CrCl below 10 ml/min and :** Specific dosage adjustment recommendations are not available due to insufficient data. (Although not published, Doripenem 250mg IV q12h for HD and 500mg IV q8h for CVVHD/CVVHDF/CVVH/CRRT has been used).

11. **ADVAIR will be automatically substituted with SYMBICORT.**
    NOTE: ADVAIR diskus vs. ADVAIR HFA will have different doses of Symbicort substituted.

Advair (Fluticasone/Salmeterol)	Symbicort (Budesonide/Formoterol)
Advair 100/50 1 puff daily or bid	Symbicort 80/4.5 2 puff s daily or bid
Advair 250/50 1 puff daily or bid	Symbicort 160/4.5 2 puffs daily or bid
Advair 500/50 1 puff daily or bid	Symbicort 160/4.5 2 puffs daily or bid
Advair 45mcg/21 mcg 2 puffs bid	Symbicort 80mcg/4.5mcg 2 puffs bid
Advair 115 mcg/21 mcg 2 puffs bid	Symbicort 160mcg/4.5mcg 2 puffs bid
Advair 230mcg/21 mcg 2 puffs bid	Symbicort 160mcg/4.5mcg 2puffs bid

12. A general substitution for **EXTENDED RELEASE PRODUCTS (GENERIC IF AVAILABLE)** will be made by the pharmacy without notification unless MD specifies to not substitute branded extended release product-

    Example. Md order for Adalat CC 60 mg can be substituted with Nifedipine 60mg extended release generic

13. **CASPOFUNGIN will automatically be substituted with MICAFUNGIN - Action:** Automatic substitution for all Caspofungin orders with Micafungin 100 mg IV daily initially. Dose of up to 150mg per day can be used in certain infections.
    - Voriconazole injection was removed from the formulary per Dr. Afsari. We will still keep the oral voriconazole. Substitute for the injection is Micafungin inj. instead.

14. **MOXIFLOXACIN IV/PO will be automatically substituted with LEVAQUIN IV/PO -**
    Action: Therapeutic substitution of Moxifloxacin to Levaquin 500mg IVC or PO q24h or (renally adjusted if required), pharmacist will obtain diagnosis prior to substitution.

15. **COMBIVENT HFA will be automatically substituted with DUONEB**
    Action: Automatic substitution for all Combivent orders to Duoneb.
    - Pharmacy will automatically switch to Duoneb 1 unit dose neb at same frequency (no chart order will be written, substitution will be reflected on MAR).
    - FOR ventilator patients, all order for Duoneb will be changed to Albuterol HFA (Metal tip) as per RT protocol, switch will be made upon written order from RT.

16. **LEVALBUTEROL HFA/NEBULIZER will be automatically substituted with ALBUTEROL -**
    Action: Delete Levalbuterol HFA from formulary and automatic substitution for all Levalbuterol orders with Albuterol neb or HFA (dosing conversion is for adult patients):
    - Levalbuterol 0.63mg neb will be switched to Albuterol 1.25mg at same dosing frequency
    - Levalbuterol 1.25mg neb will be switched to Albuterol 2.5mg at same dosing frequency
    - Levalbuterol 45mcg/puff HFA will be switched to Albuterol HFA 90mcg/puff at same dosing frequency (number of puffs will be doubled per dose)

17. **Cefotaxime/Ceftizoxime**- All inpatient orders will be automatically substituted with Ceftriaxone 1 gm IV q24h. If dosing for meningitis, pharmacy will automatically substitute with Ceftriaxone 2 gm IV q12h. No chart order will be written.
18. **Docusate Calcium** – All inpatient orders for Docusate Calcium 240mg will be automatically substituted with Docusate Sodium 250mg oral.

RESTRICTIONS

- Daptomycin – restricted to Infectious Disease practice
- Dantolene IV – restricted for Malignant Hyperthermia
- Ranolazine – restricted to Cardiology practice

Updated 5/13

APPROVAL ROUTING SHEET FOR POLICIES AND PROCEDURES

DOCTORS MEDICAL CENTER

All items marked with † must be completed, and or required routing

†TITLE: ED Adult Sepsis Screening and Orders	†CHECK ONE: ☒ New ☐ Reviewed ☐ Revised : ☐ Major ☐ Minor
† ☐ Administrative ☒ Clinical ☒ Department Emergency	
†SUBMITTED BY: Jim Malicka	Pharm D. and Malcolm Johnson, MD
†NEW POLICY - REASON FOR SUBMISSION: ☐ Change in Law ☐ New Regulation: CMS CDPH TJC Other	
†REVIEWED OR REVISED - SUMMARY OF POLICY / PROCEDURE CHANGES: New form with Nurse Sepsis Screening Tool, Physician order, and minor changes to be added to Antibiotics list	

	MEETING DATE	APPROVAL
☐ Manager or Department Director†		
☒ Medical Staff Department(s):	June 20, 2013	Approved w/ minor changes
☐ Cancer Committee ☐ CV Surgery Committee		
☐ Infection Control Committee ☐ IDP Committee		
☐ Medical Ethics Committee ☐ Patient Safety Committee		
☐ Radiation Safety Committee ☒ P&T Committee		
☐ Respiratory/Critical Care/ED Committee		
☐ Quality Improvement Team: ☐ EM Committee		
☐ EOC/Safety Committee ☐ Other:		
☐ Nursing Department: ☐ Nursing Practice:		
☐ Forms Committee (as applicable)		
☐ Administrative Policy Review Committee (APRC)†		
☐ Executive Leadership		
☒ Medical Executive Committee (MEC) (as applicable)	July 8, 2013	Approved
☐ Board of Trustees *(automatic from MEC)* *(as applicable)*		

ED Adult Sepsis Screening and Orders

Nurse Sepsis Screening Tool

Initial Vital Signs

A. **Two or More** Systemic Inflammatory Response Syndrome (SIRS) Signs (check all present):

☐ Temp > 101°F (38.3°C) or < 96.8°F (36°C) ☐ WBC > 12,000 or < 4,000 or > 10% bands

☐ HR > 90 beats/min ☐ RR > 20 breaths/min or $PaCO_2$ < 32mmHg

B. Suspected Source of Infection Likely to Require IV Antibiotics **and** Hospitalization:

☐ Pulmonary ☐ Urinary Tract ☐ Pelvic ☐ Intra-Abdominal

☐ CNS ☐ Soft Tissue/Bone ☐ Unknown ☐ Other: _____

Notification of Positive Sepsis Screen

If both boxes A & B are checked, notify MD/PA immediately to consider ordering sepsis panel & interventions:

☐ **Activate Sepsis Orders:** Checked box indicates authorization by MD/PA. Complete the following orders STAT.
☐ **Do Not Activate Sepsis Orders:** Reviewed by MD/PA; further evaluation necessary prior to activation.

RN Signature _____ Date _____ Time _____ MD/PA _____

Physician Orders

1. Order **ED Sepsis** Order Set: CBC, CMP, UA, Lactate, Urine Culture, Blood Culture X 2, EKG, Portable CXR
2. Start continuous cardiac and pulse oximetry monitoring. Give O_2 at 2 Liters/min PRN O_2 sat ≤ 92%.
3. Start **two** peripheral IVs, **18 gauge or larger**.
4. Insert Foley catheter. Record hourly urine output.
5. **IV Fluids STAT:**
   - ☐ **Bolus:** ☐ Normal saline 1 Liter ☐ Normal saline 2 Liters ☐ Other: _____
   - ☐ Continuous infusion: ☐ Normal saline @ _____mL/hr or ☐ _____ @ _____mL/hr
   - ☑ **If systolic BP (SBP) < 90 mmHg OR serum lactate ≥ 4:** Normal saline 1 Liter Bolus and notify MD.
6. For severe sepsis or septic shock **(systolic BP (SBP) < 90 mmHg, serum lactate ≥ 4 OR evidence of end-organ dysfunction)** consider central venous catheter, CVP monitoring (≥ 10) and IV pressor support.

Extra Labs;: ABG, Sputum culture, C-Reactive Protein and coags

1. Urine Output <120q4hrs call MD 2.What about using intra-abdominal Pressure monitor for suspected abdominal distension.

Antibiotics (x 1 dose, then initiate Inpatient Sepsis orders)

Allergies: _____ **Weight** (kg): _____

☐ Pneumonia	☐ Urinary Tract	☐ Abdominal	☐ Skin/Soft Tissue	☐ Meningitis
☐ Ceftriaxone 1g IV ☐ Ceftriaxone 2g IV **AND** Azithromycin 500mg IV **OR** **If PCN Allergic** ☐ Aztreonam 1g IV **AND** Levofloxacin 750mg IV **OR** ☐ _____	**Choose One:** ☐ Ceftriaxone 1g IV **OR** **If PCN Allergic** ☐ Aztreonam 2g IV OR ☐ _____	**Choose One Regimen:** ☐ Ceftriaxone 1gm IV **AND** Metronidazole 500mg IV **OR** **IF PCN Allergic** ☐ Aztreonam 2g IV **AND** Metronidazole 500mg IV **OR** ☐ _____	☐ Ceftriaxone 1gm IV **AND** Vancomycin ___mg (15mg/kg,max dose 2gm) IV **OR** **IF PCN Allergic** ☐ Clindamycin 900mg IV **and** ☐ Vancomycin___mg (15mg/kg,max dose 2gm) IV **OR**	☐ Dexamethasone 10mg IV (given before or with 1st dose of antibiotics) **AND** ☐ Ceftriaxone 2g IV **AND** ☐ Vancomycin ____ mg (25mg/kg, max dose 2gm) IV **AND** ☐ If age > 50 or immunocompromised give Ampicillin 2g IV

AND **If at risk for MRSA PNA** ☐ Linezolid 600mg IV		**AND** **If at risk for MRSA** ☐ Vancomycin ____ mg (25mg/kg, max dose 2gm) IV	☐ _____	

Other Orders: _____

Date: _____ **Time:** _____ **Physician Signature:** _____

APPROVAL ROUTING SHEET FOR POLICIES AND PROCEDURES

DOCTORS MEDICAL CENTER

All items marked with † must be completed, and or required routing

†TITLE: Diabetic Ketoacidosis	†CHECK ONE: ☐ New ☐ Reviewed ☒ Revised : ☐ Major ☒ Minor
† ☐ Administrative ☒ Clinical ☐ Department _____	
†SUBMITTED BY: Therese Heiser, Pharmacy Director	
†NEW POLICY - REASON FOR SUBMISSION: ☐ Change in Law ☐ New Regulation: CMS CDPH TJC Other	
†REVIEWED OR REVISED - SUMMARY OF POLICY / PROCEDURE CHANGES: Md Orders on Diabetic Ketoacidosis.	

	MEETING DATE	APPROVAL
☐ **Manager or Department Director**†		
☐ **Medical Staff Department(s):**		
☐ Cancer Committee ☐ CV Surgery Committee		
☐ Infection Control Committee ☐ IDP Committee		
☐ Medical Ethics Committee ☐ Patient Safety Committee		
☐ Radiation Safety Committee ☒ P&T Committee	6/20/13	approved
☐ Respiratory/Critical Care/ED Committee		
☐ Quality Improvement Team: ☐ EM Committee		
☐ EOC/Safety Committee ☐ Other:		
☐ **Nursing Department:** ☐ Nursing Practice:		
☐ **Forms Committee** (as applicable)		
☐ **Administrative Policy Review Committee (APRC)**†		
☐ **Executive Leadership**		
☒ **Medical Executive Committee (MEC)** (as applicable)	7/8/13	approved
☐ **Board of Trustees** *(automatic from MEC)* *(as applicable)*		

DOCTORS MEDICAL CENTER
2000 Vale Road
San Pablo, CA 94806

MD ORDERS

DIABETIC KETOACIDOSIS 6/13

Patient Sticker Here

Height: _____ Weight:_____ Allergies/Reactions:

These orders are not to be used in patients with hyperosmolar coma

1. **Admit to the Intensive Care Unit:** Initiate DKA nursing flowsheet.
2. **Stat Labs:** if not done in the Emergency department.
   - ☐ CBC, CMP, Amylase, ABG, Lipase, Lactate level, Magnesium, Phosphorus, Acetone and Urine ketones
3. **Routine Labs:**
   - ☐ BMP 2 hours after stat lab drawn x 1
   - ☐ BMP, Anion gap, Magnesium and Phosphorus every 6 hours until anion gap less than or equal to 13, then daily
   - ☐ ABG every_____ hours
4. **Blood Glucose Testing:** Finger stick blood sugar testing stat then, hourly or _____.
5. **Initial IV Fluid Replacement:** (7 to 14 ml/kg/hr depending on hydration status)
   - ☐ Normal saline or _____ at _____ml/hr x _____hours
6. **After initial IV replacement:** (average fluid loss = 3-6 liters)

- 0.45 NS at _____ ml/hr for blood sugar greater than or equal to 250 mg/dl
  Additive: KCL_____mEq/L Potassium Phosphate _____mMol/L.
- Change to D5/0.45 sodium chloride or _____ at a rate of _____ml/hr when blood sugar less than 250 mg/dl
  Additive: KCL_____mEq/L Potassium Phosphate _____mMol/L.
  Potassium Phosphate _____mMol/L.

6. **Electrolytes Replacement**

- **Potassium replacement-** repeat serum potassium level 2 hours after last infusion

Current serum Potassium level	Use premixed KCL piggyback
Between 3.0 to 4 mmol/L	KCL 10mEq/100 ml infused over 1 hour via pump x 2 doses.
Below or equal to 3 mmol/L	KCL 10mEq/100 ml infused over 1 hour via pump x 4 doses.

- **Magnesium Replacement -** repeat serum magnesium level 2 hours after infusion is complete.

Current serum magnesium level	Total Magnesium replacement (in 100 ml 0.9%NaCl)
1.2 – 1.4 mg/dL	2 grams magnesium sulfate IV over 60 minutes
0.9 – 1.1 mg/dL	3 grams magnesium sulfate IV over 90 minutes

- **Phosphorus Replacement-** repeat serum phosphorus level 2 hours after infusion is complete. Maximum recommended infusion rate is 7 mmol of phosphate per hour.

Current serum phosphorus level	Total phosphorus replacement (in 250 ml of 0.9%NaCl)
2 – 2.5 mg/dL	• If serum K^+ is BELOW or equal to 4.5 mEq/L, give 0.12 mmol/kg Potassium phosphate IV over 4 hours **(max. dose 20 mmole).** • If serum K^+ is ABOVE 4.5 mEql/L, give 0.12 mmol/kg Sodium phosphate IV over 4 hours **(max dose 20 mmole).**
1 – 1.9 mg/dL	• If serum K^+ is BELOW or equal to 4.5 mEq/L, give 0.25 mmol/kg Potassium phosphate IV over 6 hours **(max. dose 30 mmole).** • If serum K^+ is ABOVE 4.5 mEq/L, give 0.25 mmol/kg Sodium phosphate IV over 6 hours **(max. dose 30 mmole)**

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San Pablo, CA 94806

Patient Sticker Here

MD ORDERS

DIABETIC KETOACIDOSIS 6/13

7. **Insulin Infusion Algorithm:** Adjust insulin infusion based upon blood glucose and algorithm below.
Mix 125 units of regular insulin in 250 ml of normal saline (concentration = 0.5 units/ml).

Glucose Mg/dL	Initial insulin infusion$^{\Sigma}$	1st adjustment infusion if blood sugar greater than 200 mg/dl x 3 hours$^{\nabla}$	2nd adjustment infusion if blood sugar greater than 200 mg/dl x 3 hours
Greater than or = to 500	CALL physician and order stat BMP	CALL physician and order stat BMP	CALL physician and order stat BMP
401-499	5 units/hr (10ml/hr)	8 units/hr (16ml/hr)	10 units/hr (20ml/hr)
301-400	4 units/hr (8ml/hr)	5 units/hr (10ml/hr)	8 units/hr (16ml/hr)
201-300	3 units/hr (6ml/hr)	4 units/hr (8ml/hr)	6 units/hr (12 ml/hr)
151-200	2 units/hr (4ml/hr)	2 units/hr (4ml/hr)	3 units/hr (6ml/hr)
100-150	1 unit/hr (2ml/hr)	1 unit/hr (2ml/hr)	1 unit/hr (2ml/hr)
Less than/equal to 100	Hold Insulin infusion and call physician	Hold Insulin infusion and call physician	Hold Insulin infusion and call physician

Σ -If blood glucose remains greater than 200 for 3 consecutive hours at initial infusion, adjust rate based on last reading per 1st adjustment infusion column (do not add new rate with old rate).
∇ -If blood glucose remains greater than 200 for an additional 3 consecutive hours, adjust rate based on last reading per 2nd adjustment infusion column (do not add new rate with old rate).
If blood sugar remains above 200 for 3 consecutive readings at 2nd adjustment, contact MD for further orders.

- Continue insulin infusion until ketoacidosis is controlled (anion gap of less than or equal to 13 mEq/L).

ANION GAP in mEq/L = serum sodium – (serum chloride + serum bicarbonate)

- Continue insulin infusion for 2 hours after subcutaneous insulin started.

8. **If anion gap is less than or equal to 13 mEq/L:**
   - Give _____units of_____insulin subcutaneous (SC) 2 hours before discontinuing insulin infusion
   - SC sliding scale (once DKA resolved), HAVE PHYSICIAN COMPLETE SUBCUTANEOUS SLIDING SCALE INSULIN FORM
     - ☐ **Mild** SC sliding scale insulin protocol (regular insulin)
     - ☐ **Moderate** SC sliding scale insulin protocol (regular insulin)
     - ☐ **Intense** SC sliding scale insulin protocol (regular insulin)

9. **Long acting Insulin orders:** _____

10. **Others**
    a. O_2 by nasal cannula at 2 to 4 liters per minute to maintain saturation greater than or equal to 93%.
    b. Hourly vital signs, hourly input & output (document on DKA flow sheet), Foley catheter if needed. Call MD if
       - pH less than 7.1, notify physician for sodium bicarbonate replacement orders.
       - O2 saturation less than 93%
       - Anion gap rises on 2 consecutive calculations
       - Urine output less than 30ml/hr or greater than total amount of IV fluid given
       - MAP less than 60 mm Hg
    c. NPO. Advance to clear liquid diet, full liquids, and the controlled carbohydrate diet as tolerated.
    d. ☐ Bed rest.
    e. ☐ Progress to chair as tolerated.

Physician Signature: _____ Date and Time: _____

☐ Read back Verified: _____, RN Date and Time: _____

Nurse Noted:_____ Date and Time: _____

APPROVAL ROUTING SHEET FOR POLICIES AND PROCEDURES

DOCTORS MEDICAL CENTER

All items marked with † must be completed, and or required routing

†TITLE: Continuous Infusion of Furosemide	†CHECK ONE: ☒ New ☐ Reviewed ☐ Revised : ☐ Major ☐ Minor
† ☐ Administrative ☒ Clinical ☐ Department _____	
†SUBMITTED BY: Therese Hallser, Pharmacy Director	
†NEW POLICY - REASON FOR SUBMISSION: ☐ Change in Law ☐ New Regulation: CMS CDPH TJC Other	
†REVIEWED OR REVISED - SUMMARY OF POLICY / PROCEDURE CHANGES: memo regarding continuous infusion of Furosemide/Bumetadine w/albumin.	

	MEETING DATE	APPROVAL
☐ Manager or Department Director†		
☐ Medical Staff Department(s):		
☐ Cancer Committee ☐ CV Surgery Committee		
☐ Infection Control Committee ☐ IDP Committee		
☐ Medical Ethics Committee ☐ Patient Safety Committee		
☐ Radiation Safety Committee ☒ P&T Committee	6/20/13	approved
☐ Respiratory/Critical Care/ED Committee		
☐ Quality Improvement Team: ☐ EM Committee		
☐ EOC/Safety Committee ☐ Other:		
☐ Nursing Department: ☐ Nursing Practice:		
☐ Forms Committee (as applicable)		
☐ Administrative Policy Review Committee (APRC)†		
☐ Executive Leadership		
☒ Medical Executive Committee (MEC) (as applicable)	7/8/13	approved
☐ Board of Trustees *(automatic from MEC)* *(as applicable)*		

DOCTORS MEDICAL CENTER

DATE: 6/21/2013

TO: DMC Medical Staff

FROM: P&T committee
R.Pagtalunan, MD

RE: Continuous infusion of Furosemide/Bumetidine with Albumin

There is little to no data that indicates a continuous infusion of a loop diuretic (furosemide, bumetidine) plus albumin is more effective than a continuous infusion of a loop diuretic alone in patients with acute decompensated heart failure, Cirrhosis, or nephrotic syndrome[12]. In the limited number of trials, patients had a serum albumin between 2-3. It is thought that patients with hypoalbuminemia are somewhat resistant to conventional diuretic therapy and that a mixture of furosemide and albumin may increase the delivery of furosemide to the kidney. Due to the conflicting or limited data, high cost of albumin and limited stability of the infusion (albumin is only good for 4 hours after opening) or lack of compatibility (bumetidine is not compatible in the same container as albumin), the P&T committee with input from Nephrology service has approved the following:

- The pharmacist will contact the prescriber of the above data.
- Pharmacy will only process Loop diuretic/albumin if the serum albumin is less than 2

  Orders for loop diuretic/albumin in patients with a serum albumin above 2 will be substituted with a loop diuretic drip mixed in 250ml d5w. No albumin will be infused. A pharmacist written chart order will be provided.
- Orders for loop diuretic/albumin drip in patients with a serum albumin less than 2 will be processed in the following manner:

  250ml 5% albumin infused over 4 hrs daily and the loop diuretic will be infused separately due to short stability and or incompatibility in albumin. A pharmacist written chart order will be provided.

---

[1] Effects of albumin/furosemide mixtures on responses to furosemide in hypoalbuminemic patients. Chalasani N, Gorski JC, Horlander JC Sr, Craven R, Hoen H, Maya J, Brater DC
J Am Soc Nephrol. 2001;12(5):1010.

[2] Coadministration of albumin and furosemide in patients with the nephrotic syndrome.
Fliser D, Zurbrüggen I, Mutschler E, Bischoff I, Nussberger J, Franek E, Ritz E
Kidney Int. 1999;55(2):629.

[3] Uptodate.com

APPROVAL ROUTING SHEET FOR POLICIES AND PROCEDURES

DOCTORS MEDICAL CENTER

All items marked with † must be completed, and or required routing

†TITLE: Critical care Insulin Infusion Protocol	†CHECK ONE: ☐ New ☐ Reviewed ☒ Revised : ☐ Major ☒ Minor
† ☐ Administrative ☒ Clinical ☐ Department _____	
†SUBMITTED BY: Therese Haelser, Pharmacy Director	
†NEW POLICY - REASON FOR SUBMISSION: ☐ Change in Law ☐ New Regulation: CMS CDPH TJC Other	
†REVIEWED OR REVISED - SUMMARY OF POLICY / PROCEDURE CHANGES: Protocal on Critical care Insulin Infusion.	

	MEETING DATE	APPROVAL
☐ **Manager or Department Director**†		
☐ **Medical Staff Department(s):**		
☐ Cancer Committee ☐ CV Surgery Committee		
☐ Infection Control Committee ☐ IDP Committee		
☐ Medical Ethics Committee ☐ Patient Safety Committee		
☐ Radiation Safety Committee ☒ P&T Committee	6/20/13	approved
☐ Respiratory/Critical Care/ED Committee		
☐ Quality Improvement Team: ☐ EM Committee		
☐ EOC/Safety Committee ☐ Other:		
☐ **Nursing Department:** ☐ Nursing Practice:		
☐ **Forms Committee** (as applicable)		
☐ **Administrative Policy Review Committee (APRC)**†		
☐ **Executive Leadership**		
☒ **Medical Executive Committee (MEC)** (as applicable)	7/8/13	approved
☐ **Board of Trustees** *(automatic from MEC)* *(as applicable)*		

DOCTORS MEDICAL CENTER
2000 Vale Road
San Pablo, CA 94806

MD ORDERS

CRITICAL CARE INSULIN INFUSION PROTOCOL 6/13

Patient Sticker Here

Height:_____ **Weight:**_____ **Allergies/Reactions:**_____

1. **Goal:** Blood Glucose = 120-150mg/dl
2. **General Principles:**
   a. This protocol applies only to patients in an ICU setting.
   b. This protocol does not apply to patients with diabetic ketoacidosis or hyperosmolar coma.
   c. The attending doctor must renew the protocol daily.
   d. Nursing will sign out that patient is on "Insulin Infusion Protocol" and the insulin drip is "Concentrated".
   e. Diabetic Patients: Start protocol
   f. Non- diabetic Patients: check blood glucose every 2 hours x 3. If blood glucose above 150mg/dl, start protocol
   g. Discontinue all other insulin coverage and oral anti-hyperglycemic agents. Do not add insulin to TPN or PPN.
   h. Use lab glucose when:
      - Hematocrit below 25 or above 60.
      - Discrepancy between laboratory and bedside above 30 mg/dl
   i. Mix a standard solution of 125 units of Regular (Human) insulin in 250 ml of NS. Use infusion pump in a dedicated IV line.
3. **Bedside Glucose Monitoring:**
   a. Check blood glucose on arrival to the critical care unit.
   b. Hourly blood glucose monitoring
      - Until stable at 120-150mg/dl x 3, then every 2 hours
      - If patient falls out of range, until blood glucose returns to goal range x 3, then every 2 hours
   c. Check blood glucose
      - With any dietary changes
      - Any symptoms of hypoglycemia
      - Significant change in patient status or vital signs
4. **Other Laboratory Monitoring:**
   a. BMP, calcium and phosphorus every 24 hours during insulin infusion
5. **Initial Infusion Rate (concentration: 1 unit = 2 ml):**

Blood Glucose (mg/dl)	Infusion Rate (units/hr)
151-200	2 units = 4 ml
201-250	4 units = 8ml
251-300	5 units = 10ml
301-350	6 units = 12ml
Above 351	8 units = 16ml

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MD ORDERS

CRITICAL CARE INSULIN INFUSION PROTOCOL 6/13

Patient Sticker Here

6. **Modify Rate:**
   - ☐ Routine Adjustment (after EACH scheduled glucose measurement)

Blood Glucose (mg/dl)	Infusion Rate (units/hr)	Customized Infusion Rate (units/hr)
Above 200	Increase by 1unit=2ml	
151-200	No change	
120-150	Decrease by 1 unit = 2ml	
Below 120	Stop insulin drip	
Below/= 70	Follow Hypoglycemia Protocol	

   - ☐ Insulin Sensitivity (round off rate to a whole number)

Blood Glucose	Infusion Rate (units/hr)
Fall above 50%	Decrease 50%; recheck glucose every 15 minutes x 2

7. **Resumption Rate:**
   a. Resume insulin infusion at ½ previous rate when blood glucose above 150 mg/dl
8. **HYPOGLYCEMIA PROTOCOL TO BE USED DURING INSULIN INFUSION:**
   a. Stop insulin drip, start hypoglycemia protocol
   b. Start D10W at 40 ml/hr or _____.
   c. Give 25 ml of $D_{50}W$ IVP for blood glucose below/= 70mg/dl. Give 50 ml $D_{50}W$ IVP for blood glucose below 60mg/dl.
9. **Notify Dr.** _____ if:
   a. Hypoglycemia occurs when insulin infusion is below 2 ml/hr
   b. Unable to reach blood glucose goal (120-150) in first 24 hours.
   c. Change in diet, steroids, or another diabetes medication is started.
   d. Blood glucose is in range (120-150) greater than 36 hours
   e. Patient is ready to eat.
10. **IV Fluids:**
   a. Continue present IV Fluids or _____
   b. If blood glucose below/= 70mg/dl change basal IV to D10W at 40 ml/hr
   c. Mix all infusions in 0.9% NS (check with pharmacist for compatibility).
11. **Conversion to SQ:**
   a. Continue IV insulin for 2 hours after conversion to maintenance subcutaneous insulin
   b. Initial SQ insulin dose should be below the stable 24 -hour infusion rate
   c. SQ Insulin to start on: _____
   Please refer to **SUBCUTANEOUS SLIDING SCALE INSULIN ORDERS**

Physician Signature: _____ Date and Time: _____

☐ Read back Verified: _____, RN Date and Time: _____

Nurse Noted: _____ Date and Time: _____

Doctors Medical Center
DEPARTMENT OF MEDICINE
Request for Clinical Privileges – Internal Medicine

SCOPE OF SERVICES

The Department of Medicine/Family Practice provides comprehensive and continued non-surgical care and treatment for diseases and conditions generally in patients 18 years old through geriatrics. This care encompasses a broad spectrum of health services, ranging from preventive health care to the diagnosis and treatment of acute nd chronic diseases. Sections included within the Department of Medicine/Family Practice are: Internal Medicine, Emergency Medicine (patients of all ages), Family Practice, Cardiology, Critical Care, Gastroenterology, Hematology/Oncology, Nephrology, Neurology, and Pulmonology. The Department of Medicine services are available 24 hours a day, 7 days per week.

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CORE PRIVILEGES FORMAT

This delineation of privileges represents those most commonly performed within the specialty area and the scope of services provided. The privileges are described in the core privilege (or bundling) format, which, by necessity, is not a detailed list. Each bundle denotes a level of clinical expertise as defined by the department based on evidence of documented education, training and experience. It is assumed that other medical illnesses and problems may require medical management within the Practitioner's scope of care and commensurate with the qualifications of a Practitioner's medical licensure.

Procedures outside the scope of those listed for this department must be obtained on an individual basis through the appropriate department(s) of this facility, upon recommendation of the Chairman of the Department of Medicine/Family Practice.

STANDARDS FOR PRIVILEGES

Applicants need note that initial and reappointments to this department will be based on a system of performance appraisal. This performance appraisal will utilize information regarding clinical activity and from monitoring and evaluation activities.

HEALTH STATUS

Applicants must certify at time of initial appointment and reappointment, that there are no problems of health or mental status, which will interfere with the exercise of the clinical privileges requested.

OBSERVATION REQUIREMENTS

All provisional appointees shall undergo a period of observation to determine clinical/technical competence prior to the granting of privileges to independently perform requested procedures. Members of the staff requesting additional or new privileges are required to be proctored for such privileges. The terms and methods of proctoring are predetermined by each clinical department, however, procedures crossing departmental lines have uniform proctoring requirements.

MINIMUM THRESHOLD CRITERIA

In order to be eligible to request clinical privileges for both initial appointment and reappointment a practitioner must meet the following minimum threshold criteria:

Education: M.D. or D.O.

Minimum Formal Training: All applicants requesting privileges in ***INTERNAL MEDICINE*** must have successfully completed an Internal Medicine residency training program accredited by the Accreditation Council for Graduate Medical Education (ACGME) or the American Osteopathic Association (AOA) with documented evidence of active hospital-related practice for at least five years.

Required Clinical Experience: The applicant must be able to demonstrate current clinical competence and adequate volume of current experience with acceptable results. Applicants must provide evidence of a level of clinical expertise based on training, experience, judgment and demonstrated competence.

Documented Proficiency: Where indicated, the applicant must substantiate the request for privileges by providing evidence of current competence. This can be accomplished in one or more of the following ways:

1) a letter from the program director verifying training,
2) copies of proctor reports from another JCAHO accredited facility where the privileges have been granted,
3) attendance at continuing education programs that include both didactic and laboratory sessions or
4) procedure logs with outcomes to support privileges for procedures not attested to in postgraduate training.

DOCTORS MEDICAL CENTER

DEPARTMENT OF MEDICINE
Delineation of Privileges
INTERNAL MEDICINE

NAME:	**CATEGORY:** __ACTIVE __COURTESY ___ AFFILIATE ACTIVE ___ AFFILIATE ASSOCIATE

I HEREBY REQUEST ☐ **INITIAL** PRIVILEGES ☐ **RENEWAL** OF PRIVILEGES*

Privileges in INTERNAL MEDICINE are granted for both clinical cognitive areas and specific procedures. All practitioners requesting privileges in INTERNAL MEDICINE must be have successfully completed an Internal Medicine residency training program accredited by the Accreditation Council for Graduate Medical Education (ACGME) or the American Osteopathic Association (AOA)

Recent clinical experience is required of all applicants for appointment and reappointment.

Initial Appointment Requirement:
Recent clinical experience for initial appointment is defined as having performed, within the last 24 months at least **20** admissions, procedures, or clinical consultations from a - hospital that is accredited by a recognized surveying body (e.g., Joint Commission, DNV) with acceptable outcomes.

Reappointment Requirement:
For reappointment, **10** admissions, procedures, or clinical consultations are required from a hospital that is accredited by a recognized surveying body (e.g., Joint Commission, DNV) with acceptable outcomes

EMERGENCIES: It should be recognized that in the case of an emergency, any individual who is a member of the medical staff or who has been granted clinical privileges is permitted to do everything possible within the scope of his/her license, to save a patient's life or to save a patient from serious harm, regardless of staff status or privileges granted.

CONSULTATIONS: Consultations are expected to be obtained when the diagnosis or management is in doubt for an unduly long period of time, when complications arise or when specialized treatments or procedures are contemplated, that are different from privileges granted.

Instructions: Request only those privileges for which you can provide documentation that you meet requirements and are currently clinically competent to perform. Please see attached "Criteria/Standards for Clinical Privileges" prior to completing this privilege delineation request. Check (√) the appropriate box for each procedure requested. It is recognized that in emergency situations, the best judgment of the practitioner may require the performance of procedures not requested. However, if under normal circumstances, you will not be performing a procedure/privilege, please leave it blank

"Write-In" privileges are not accepted
If you wish to request a privilege not listed on this form, please contact the Medical Staff Office for further instructions.

Practitioner Name:_____ From: _____ To: _____

CORE PRIVILEGES

❑ **CORE INTERNAL MEDICINE PRIVILEGES: AFFILIATE ASSOCIATE STAFF ONLY**

Affiliate Associate Staff shall consist of members how meet all of the criteria for membership in the Department of Medicine and Family Practice – Internal Medicine, but who may not meet the requirements for privileges and/or may not have the level of clinical activity to qualify for another staff category, but who appear likely to provide a distinct service to the Hospital, Medical Staff or Hospital patients.

- No Clinical Privileges granted
- Permitted access to the medical record for refer and follow purposes only
- May not write orders or perform any entries into the medical record
- May not admit and/or treat patients.

This Staff Category may not request "Additional or Advanced" privileges.

❑ **CORE INTERNAL MEDICINE PRIVILEGES: AFFILIATE ACTIVE STAFF ONLY**

Affiliate Active Staff shall consist of members who meet all of the criteria for membership in the Department of Medicine and Family Practice – Internal Medicine, but only maintain clinical privileges to perform histories and physicals. Affiliate Active Staff may also have medical record access.

- Perform History & Physical
- Permitted access to the medical record
- May not write orders or perform any entries into the medical record
- May not admit and/or treat patients.

This Staff Category may not request "Additional or Advanced" privileges.

❑ **CORE INTERNAL MEDICINE PRIVILEGES: ACTIVE & COURTESY ONLY**

Privileges include admission, evaluation, diagnosis, and provision of non-surgical treatment, including consultation, for adult patients (18 years and older) in need of care to treat general medical conditions. These privileges include the provision of consultation as well as the ordering of diagnostic studies and procedures related to the adult patient.

These privileges include, but are not limited to procedures such as those listed below. This list is a sampling of procedures included in the core and is not intended to be all-encompassing but reflective of the categories and/or types of core procedures.

Please CROSS OUT & INITIAL any privileges listed below that you are NOT requesting in this core set of Internal Medicine Privileges

PROCEDURE	*INITIAL*
Perform history and physical examination	
Arterial Puncture	
Arthrocentesis and joint injection, small joint	
Arthrocentesis and joint injection, large joint	
Therapeutic injection, large & small joint	
Aspiration of intra, subcutaneous cysts, furuncles, etc.	
Electrocardiogram (performance & bedside interpretation)	
Skin biopsy	
Suture minor lacerations	
Ventilator Management (less than 24 hours)	
Incision & Drainage of cysts, abscesses, etc	
Anoscopy	
Simple Excision Skin Lesion	

These privileges do not include "Additional or Advanced" privileges.

Practitioner Name:_____ From: _____ To: _____

NON-CORE PRIVILEGES

Criteria: Practitioners requesting any of the follow Non-Core Privileges must have successfully completed an approved residency training program in Internal Medicine WITH document evidence of active hospital-related practice for at least five (5) years. In addition, for each privilege requested below, documentation of current training and or experience must be submitted for each new applicant, as well as, reappointment and professional staff members requesting a change in privileges.

R	Priv #	PRIVILEGES/PROCEDURES
☐	#1	**Arterial line placement, percutaneous – *New applicants*** must provide documented evidence of performance of at least six (6) procedures within the past 24-months without any quality of care issues. ***Reappointment*** - must provide documented evidence of performance of at least three (3) procedures within the past 24-months without any quality of care issues.
☐	#2	**Central venous line placement** - ***New applicants*** must provide documented evidence of performance of at least six (6) procedures within the past 24-months without any quality of care issues. ***Reappointment*** - must provide documented evidence of performance of at least three (3) procedures within the past 24-months without any quality of care issues.
☐	#3	**Diagnostic and therapeutic paracentesis** - ***New applicants*** must provide documented evidence of performance of at least six (6) procedures within the past 24-months without any quality of care issues. ***Reappointment*** -must provide documented evidence of performance of at least three (3) procedures within the past 24-months without any quality of care issues.
☐	#4	**Diagnostic therapeutic thoracentesis** - ***New applicants*** must provide documented evidence of performance of at least six (6) procedures within the past 24-months without any quality of care issues. ***Reappointment*** -must provide documented evidence of performance of at least three (3) procedures within the past 24-months without any quality of care issues.
☐	#5	**Lumbar puncture** - ***New applicants*** must provide documented evidence of performance of at least six (6) procedures within the past 24-months without any quality of care issues. ***Reappointment*** -must provide documented evidence of performance of at least three (3) procedures within the past 24-months without any quality of care issues.
☐	#6	**Management of mechanical ventilator (less than 24-hours)** - ***New applicants*** must provide documented evidence of performance of at least six (6) procedures within the past 24-months without any quality of care issues. ***Reappointment*** -must provide documented evidence of performance of at least three (3) procedures within the past 24-months without any quality of care issues.
☐	#7	**TPN** – ***New applicants*** must provide documented evidence of performance of at least ten (10) procedures within the past 24-months without any quality of care issues. ***Reappointment*** -must provide documented evidence of performance of at least five (5) procedures within the past 24-months without any quality of care issues and a minimum of 2 cases reviewed by nephrologist at initial appointment.
☐	#8	**Flexible Sigmoidoscopy with Biopsy** – ***New applicants*** must provide documented evidence of performance of at least ten (10) procedures within the past 24-months without any quality of care issues. ***Reappointment*** -must provide documented evidence of performance of at least five (5) procedures within the past 24-months without any quality of care issues.
☐	#9	**Bone Marrow Biopsy** – ***New applicants*** must provide documented evidence of performance of at least six (6) procedures within the past 24-months without any quality of care issues. ***Reappointment*** - must provide documented evidence of performance of at least three (3) procedures within the past 24-months without any quality of care issues.
☐	#10	**Intubation** – ***New applicants*** must provide documented evidence of performance of at least eight (8) procedures within the past 24-months without any quality of care issues. ***Reappointment*** -must provide documented evidence of performance of at least four (4) procedures within the past 24-months without any quality of care issues.

Practitioner Name:_____ From: _____ To: _____

I certify that I have had the necessary education training and experience to provide the treatment evaluation and/or procedures requested. I agree to abide by the Medical Staff Bylaws Medical Staff Rules and Regulations and Medical Staff and Hospital policies and procedures and will provide only those services within the scope of my licensure and/or practice.

Applicant Signature	Date

Practitioner Name:_____ From: _____ To: _____

PRACTITIONER:

RECOMMENDATIONS		
All privileges delineated have been individually considered and have been recommended based upon the Physician's specialty, licensure, specific training, experience, health status, current competence and peer recommendations. ☐ *APPLICANT MAY PERFORM PRIVILEGES AND PROCEDURES WITHOUT EXCEPTIONS/LIMITATIONS* ☐ *APPLICANT MAY PERFORM PRIVILEGES AND PROCEDURES WITH THE FOLLOWING EXCEPTIONS/LIMITATIONS (Indicate the Privilege # on page 4)* _____ _____ _____		
DIVISION CHIEF (if applicable)		*DATE*
DEPARTMENT CHAIRMAN *(Signature required)*		*DATE*
CREDENTIALS COMMITTEE *(No Signature required – See meeting minutes)*		*Meeting Date:*_____
MEDICAL EXECUTIVE COMMITTEE *(No Signature required – See meeting minutes)*		*Meeting Date:*_____
APPROVAL		
BOARD OF DIRECTORS *(No Signature required – See meeting minutes)*		*Meeting Date:*_____

Doctors Medical Center
DEPARTMENT OF MEDICINE
Request for Clinical Privileges – Emergency Medicine

SCOPE OF SERVICES

The Department of Internal Medicine provides comprehensive and continued non-surgical care and treatment for diseases and conditions generally in patients 18 years old through geriatrics. This care encompasses a broad spectrum of health services, ranging from preventive health care to the diagnosis and treatment of acute and chronic diseases. Subspecialties included within the Department of are: Internal Medicine, Emergency Medicine (patients of all ages), Family Practice, Cardiology, Critical Care, Gastroenterology, Hematology/Oncology, Nephrology, Neurology, and Pulmonology. The Department of Medicine services are available 24 hours a day, 7 days per week.

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CORE PRIVILEGES FORMAT

This delineation of privileges represents those most commonly performed within the specialty area and the scope of services provided. The privileges are described in the core privilege (or bundling) format, which, by necessity, is not a detailed list. Each bundle denotes a level of clinical expertise as defined by the department based on evidence of documented education, training and experience. It is assumed that other medical illnesses and problems may require medical management within the Practitioner's scope of care and commensurate with the qualifications of a Practitioner's medical licensure.

Procedures outside the scope of those listed for this department must be obtained on an individual basis through the appropriate department(s) of this facility, upon recommendation of the Chairman of the Department of MEDICINE.

STANDARDS FOR PRIVILEGES

Applicants need note that initial and reappointments to this department will be based on a system of performance appraisal. This performance appraisal will utilize information regarding clinical activity and from monitoring and evaluation activities.

HEALTH STATUS

Applicants must certify at time of initial appointment and reappointment, that there are no problems of health or mental status, which will interfere with the exercise of the clinical privileges requested.

OBSERVATION REQUIREMENTS

All provisional appointees shall undergo a period of observation to determine clinical/technical competence prior to the granting of privileges to independently perform requested procedures. Members of the staff requesting additional or new privileges are required to be proctored for such privileges. The terms and methods of proctoring are predetermined by each clinical department; however, procedures crossing departmental lines have uniform proctoring requirements.

MINIMUM THRESHOLD CRITERIA – Emergency Medicine

In order to be eligible to request clinical privileges for both initial appointment and reappointment a practitioner must meet the following minimum threshold criteria:

Education: M.D. or D.O.

Minimum Formal Training: All applicants requesting privileges in EMERGENCY MEDICINE must have successfully completed an Emergency Medicine residency training program accredited by the Accreditation Council for Graduate Medical Education (ACGME) or the American Osteopathic Association (AOA) with documented evidence of active hospital-related practice for at least five years.

Required Clinical Experience: The applicant must be able to demonstrate current clinical competence and adequate volume of current experience with acceptable results. Applicants must provide evidence of a level of clinical expertise based on training, experience, judgment and demonstrated competence.

Documented Proficiency: Where indicated, the applicant must substantiate the request for privileges by providing evidence of current competence. This can be accomplished in one or more of the following ways:

1) a letter from the program director verifying training,
2) copies of proctor reports from another JCAHO accredited facility where the privileges have been granted,
3) attendance at continuing education programs that include both didactic and laboratory sessions or
4) procedure logs with outcomes to support privileges for procedures not attested to in postgraduate training.

DOCTORS MEDICAL CENTER

DEPARTMENT OF MEDICINE
Delineation of Privileges
EMERGENCY MEDICINE

NAME:	**CATEGORY:** ___ ACTIVE ___ ADMINISTRATIVE

I HEREBY REQUEST ☐ **INITIAL** PRIVILEGES ☐ **RENEWAL** OF PRIVILEGES*

Privileges in EMERGENCY MEDICINE are granted for both clinical cognitive areas and specific procedures. All practitioners requesting privileges in EMERGENCY MEDICINE must be have successfully completed an Emergency Medicine residency training program accredited by the Accreditation Council for Graduate Medical Education (ACGME) or the American Osteopathic Association (AOA)

Recent clinical experience is required of all applicants for appointment and reappointment.

Initial Appointment Requirement:
Recent clinical experience for initial appointment is defined as having participated in the care of at least 300 emergency room patients within the last 24 months from a hospital that is accredited by a recognized surveying body (e.g., Joint Commission, DNV) with acceptable outcomes.

Reappointment Requirement:
For reappointment, the applicant must provide documentation of participation in the care of at least 500 emergency room patients within the past 24 months from a hospital that is accredited by a recognized surveying body (e.g., Joint Commission, DNV) with acceptable outcomes.

EMERGENCIES: It should be recognized that in the case of an emergency, any individual who is a member of the medical staff or who has been granted clinical privileges is permitted to do everything possible within the scope of his/her license, to save a patient's life or to save a patient from serious harm, regardless of staff status or privileges granted.

CONSULTATIONS: Consultations are expected to be obtained when the diagnosis or management is in doubt for an unduly long period of time, when complications arise or when specialized treatments or procedures are contemplated, that are different from privileges granted.

Instructions: Request only those privileges for which you can provide documentation that you meet requirements and are currently clinically competent to perform. Please see attached "Criteria/Standards for Clinical Privileges" prior to completing this privilege delineation request. Check (√) the appropriate box for each procedure requested. It is recognized that in emergency situations, the best judgment of the practitioner may require the performance of procedures not requested. However, if under normal circumstances, you will not be performing a procedure/privilege, please leave it blank.

"Write-In" privileges are not accepted
If you wish to request a privilege not listed on this form, please contact the Medical Staff Office for further instructions.

Practitioner Name:_____ From: _____ To: _____

CORE PRIVILEGES

❑ **CORE EMERGENCY MEDICINE PRIVILEGES: ADMIMISTRATIVE STAFF ONLY**

Administrative Staff shall consist o members who meet all of the criteria for membership in the Department of Medicine/ Family Practice and Emergency Medicine. Physicians in this Staff Category are practitioners retained by the Hospital or Medical Staff to perform ongoing medical administrative activities.

- No Clinical Privileges granted
- Permitted access to the medical record
- May not write orders or perform any entries into the medical record
- May not admit and/or treat patients.

This Staff Category may not request "Additional or Advanced" privileges.

❑ **CORE EMERGNECY MEDICINE PRIVILEGES: ACTIVE STAFFONLY**

Privileges include assess, evaluate, diagnose and initially treat patient of all ages, who present in the ED with any symptom, illness, injury or condition. Provide immediate recognition, evaluation, care, stabilization, and disposition in response to acute illness and injury. Privileges include the performance of history and physical examinations, the ordering and interpretation of diagnostic studies including laboratory, diagnostic imaging and electrocardiographic examinations, and the administration of medications normally considered part of the practice of emergency medicine. Privileges do not include admitting privileges, long-term care of patients on an in-patient basis or the performance of scheduled elective procedures. The core privileges in this specialty include, but are not limited to procedures such as those listed below. This list is a sampling of procedures included in the core and is not intended to be all-encompassing but reflective of the categories and/or types of core procedures.

Please CROSS OUT & INITIAL any privileges listed below that you are NOT requesting in this core set of Internal Medicine Privileges

PROCEDURE	*INITIAL*
Airway Techniques: • Airway Adjuncts • Cricothyrotomy • Foreign body removal • Intubation • Mechanical ventilation • Percutaneous transtracheal ventilation • Capnometry • Non-invasive ventilator management	
Anesthesia: • Local • Regional nerve block • Sedation-analgesia for procedures (in accordance with hospital policy)	
Blood, Fluid, and Component Therapy Administration	
Genital/Urinary: • Bladder catheterization (foley catheter, suprapubic) • Testicular detorsion	
Diagnostic Procedures: • Anoscopy • Arthrocentesis • Cystourethrogram • Lumbar Puncture • Nasogastric tube • Paracentesis	

Practitioner Name:_____ From: _____ To: _____

		• Pericardiocentesis • Peritoneal lavage • Slit lamp examination • Throacentesis • Tonometry • Compartment pressure measurement		
		Head and Neck: • Control of epistaxis • Laryngoscopy • Drainage of peritonsillar abscess • Removal of rust ring • Tooth stabilization • Lateral canthotomy		
		Hemodynamic Techniques: • Arterial catheter insertion • Central venous access • Intraosseous infusion • Peripheral venous cutdown		
		Obstetrics: • Delivery of newborn		
		Other Techniques: • Excision of thrombosed hemorrhoids • Foreign body removal • Gastric lavage • Gastrostomy tube replacement • Incision/drainage • Pain management (see anesthesia) • Violent patient management/restraint • Sexual assault examination • Trephination nails • Would closure techniques • Wound management • Escharotomy/burn management		
		Resuscitation: • Cardiopulmonary resuscitation (CPR) • Neonatal resuscitation		
		Skeletal Procedures: • Fracture/dislocation immobilization techniques • Fracture/dislocation reduction techniques • Spine immobilization techniques		
		Thoracic: • Cardiac pacing (cutaneous, transvenous) • Defibrillation/cardioversion • Thoracostomy • Thoracotomy		
		Universal Precautions		
		Biohazard Decontamination		

These privileges do not include "Additional or Advanced" privileges.

Practitioner Name:_____ From: _____ To: _____

NON-CORE PRIVILEGES:

Criteria: Practitioners requesting the following privileges must have successfully completed an approved residency training program in Emergency Medicine **WITH** documented evidence of active hospital-related practice for at least five years (within the most recent seven years). In addition, for each privilege requested below, documentation of current training and/or experience must be submitted by each new applicant, as well as, professional staff members requesting a change in privileges. *See attached "Criteria/Standards for Clinical Privileges".*

R	Priv #	PRIVILEGES/PROCEDURES
☐	#1	**Emergency Bedside Ultrasound** – must provide documented evidence of successful completion of an accredited postgraduate training program in emergency medicine that included training in emergency ultrasound, or completion of the practice based pathway and training that meets ACEP recommendations for emergency ultrasound interpretation. This training should have included a minimum of 25 ultrasounds per core application with a range of 25-50 cases (10 for US guided procedures). A minimum of 150-250 total cases is recommended for general emergency ultrasound competency depending upon and reflective of the number of applications being requested. **Current Experience**: Demonstrated current competence and evidence of the performance of at least 15 ultrasound interpretations, reflective of the scope of privileges requested, in the past 12 months. **Reappointment (Renewal of Privileges):** Demonstrated current competence and evidence of the performance of at least 30 ultrasound interpretations, reflective of the scope of privileges requested, in the past 24 months based on results of ongoing professional practice evaluation and outcomes (Source: ACEP Emergency Ultrasound Guidelines, 2008) *General applications: trauma, pregnancy, abdominal aorta, appendicitis, cardiac, biliary, urinary tract, deep venous thrombosis, thoracic, soft-tissue/musculoskeletal, ocular, and procedural guidance.*

I certify that I have had the necessary education training and experience to provide the treatment evaluation and/or procedures requested. I agree to abide by the Medical Staff Bylaws Medical Staff Rules and Regulations and Medical Staff and Hospital policies and procedures and will provide only those services within the scope of my licensure and/or practice.

Applicant Signature _____ Date _____

Approved by Governing Board:

Practitioner Name:_____ From: _____ To: _____

PRACTITIONER:

RECOMMENDATIONS		
All privileges delineated have been individually considered and have been recommended based upon the Physician's specialty, licensure, specific training, experience, health status, current competence and peer recommendations. ☐ *APPLICANT MAY PERFORM PRIVILEGES AND PROCEDURES WITHOUT EXCEPTIONS/LIMITATIONS* ☐ *APPLICANT MAY PERFORM PRIVILEGES AND PROCEDURES WITH THE FOLLOWING EXCEPTIONS/LIMITATIONS (indicate the Privilege # on page 5):* _____ _____ _____		
DIVISION CHIEF (if applicable)		*DATE*
DEPARTMENT CHAIRMAN SIGNATURE REQUIRED		*DATE*
CREDENTIALS COMMITTEE *(No Signature required – See meeting minutes)*		*Meeting Date:*
MEDICAL EXECUTIVE COMMITTEE *(No Signature required – See meeting minutes)*		*Meeting Date:*
APPROVAL		
_____ *BOARD OF DIRECTORS* *(No Signature required – See meeting minutes)*		_____ *Meeting Date*

MEDICAL STAFF COMMITTEE RECOMMENDATIONS	*DATE*
CREDENTIALS COMMITTEE	June 27, 2013
MEDICAL EXECUTIVE COMMITTEE	July 8, 2013
BOARD OF DIRECTORS APPROVAL	July 24, 2013

DOCTORS MEDICAL CENTER
CREDENTIALS REPORT
JUNE 2013

REAPPOINTMENTS

The following practitioners have applied for reappointment to the Medical Staff. This summary includes factors that determine membership; licensure, DEA, professional liability insurance, required certifications (if applicable), etc. Qualitative/quantitative factor, developed through on-going professional performance evaluation, include peer review, quality performance, clinical activity, privileges, competence, technical skills, behavior, health, medical records, blood review, medication usage, litigation history, utilization and continuity of care. ***Membership requirements are met, unless specified below.***

NAME	*DEPARTMENT/SPECIALTY*	*CATEGORY*	*REAPPOINTMENT TERM*	*RECOMMENDATION*
Akbar, Jamila, MD	Med./Family Practice/Internal Medicine	Active	08/09/13 – 06/30/15	Approval
Block, Donald, MD	Med./Family Practice/Nephrology	Courtesy	08/09/13 – 06/30/15	Approval
Bruch, Herman, MD	Med./Family Practice/Pulmonary Medicine	Active	08/09/13 – 06/30/15	Approval
Costello, Patrick, MD	Med./Family Practice/HBO	Active	08/25/13 – 07/31/15	Approval
Dang, Tuan, DO	Med./Family Practice/Internal Medicine	Active	08/25/13 – 07/31/15	Approval
Drasin, T. Eric, MD	Med./Family Practice/Radiology	Courtesy	08/25/13 – 07/31/15	Approval
Lee, Christopher, MD	Med./Family Practice/Radiology	Active	08/25/13 – 07/31/15	Approval
Maung, Kyaw, Kyaw, MD	Med./Family Practice/Internal Medicine	Active	08/09/13 – 06/30/15	Approval
Morford, Michael, MD	Med./Family Practice/Family Practice	Affiliate Active	08/25/13 – 07/31/15	Approval

Park, Jacqueline, MD	Med./Family Practice/Gastroenterology	Active	08/25/13 – 07/31/15	Approval
Thakur, Dineshkumar, MD	Med./Family Practice/Cardiology	Active	08/25/13 – 07/31/15	Approval
Shetti, Madhu, MD	Med./Family Practice/Radiation Oncology	Active	08/09/13 – 06/30/15	Approval
Cogen, Lorna, MD	Surgery/General Surgery	Active	08/09/13 – 06/30/15	Approval
Mampalam, Thomas, MD	Surgery/Neurosurgery	Active	08/25/13 – 07/31/15	Approval
Mbanugo, Collin, MD	Surgery/General Surgery	Active	08/25/13 – 07/31/15	Approval
Wren, David, MD	Surgery/Orthopedic	Active	08/25/13 – 07/31/15	Approval

VOLUNTARY RESIGNATIONS

NAME	DEPARTMENT/SPECIALTY	EFFECTIVE DATE
Barnes, Paul Thomas, PA	Medicine/Physician Assistant (ER)	April 1st, 2013
Hsu, Jonathan, MD	Medicine/Cardiology	April 1st , 2013
Jacka, Ciaran, DPM	Surgery/Podiatry	April 1st , 2013
Lee, chi Keung, MD	Surgery/Urology	April 1st , 2013
Liem, LionG, MD	Medicine/Family Practice	April 1st , 2013
Pienky, Andrew, MD	Surgery/Urology	April 1st , 2013
Piser, Joel, MD	Surgery/Urology	April 1st , 2013
Tracy, Martha, MD	Medicine/Oncology	April 1st , 2013
Wexler, Ann, MD	Medicine/Oncology	April 1st , 2013
Wieder, Jeffre, MD	Surgery/Urology	April 1st , 2013
Niles, Gabriel, MD	Medicine/Internal Medicine	April 1st , 2013
Shratter, lee, MD	Medicine/Radiology	April 1st , 2013
Sandler, Maurice, MD	Surgery/Urology	April 1st , 2013