# **APPENDICES**

## **APPENDIX 1. EVIDENCE TABLE OF SURGICAL STUDIES**

			VA Sampl	e	]	Non-VA San	nple				
Author;	_	Data	Sample	Years	Data	Sample	Years		_		Final
Year	Category	Level	Size	Collected	Level	Size	Collected	Conditions	Outcomes	Primary Findings	Grade
										VA patients had increased mortality rates as assessed	
										by Kaplan-Meier curves.	
										However after adjusting for	
										gender, donor age, recipient	
										age, etiology of liver disease	
										and MELD score, hospital	
Austin,	Solid Organ									status was not a significant	
G.L., et al.;	Transplant-	Single			Single			Other	mortality at	predictor of mortality RR	
20046	ation	ctr	149	1991-2000	med ctr	285	1991-2000	Surgical	1,3,5 years	1.15 (95% CI 0.94-1.43)	A
										Unadjusted and adjusted	
										mortality rates at 60days and	
										3 years were comparable	
								General		between VA, academic and	
Bilimoria,								surgical,		community hospital settings	
K.Y., et al.;						12,756/		Surgical	60 day and 3	for resection of stage I and II	
20077	Oncology	Nat'l	513	1985-2004	Nat'l	18,299	1985-2004	Oncology	year mortality	pancreatic cancer.	В
										VA patients were more likely	
										than non-VA patients to note	
										a problem with patient care;	
										when analysis limited to	
									perceptions	teaching hospital settings,	
									of various	VA patients remained more	
Feria, M.I.,					Mult			IHD, Car-	dimensions of	likely to note a problem with	
et al.; 2003 <sup>8</sup>	Cardiac	Nat'l	808	1995-1998	ctrs	18,299	1996-1998	diothoracic	care	care in 5 dimensions.	В

			VA Samp	le		Non-VA Sar	nple				
Author;	·	Data	Sample	Years	Data	Sample	Years				Final
Year	Category	Level	Size	Collected	Level	Size	Collected	Conditions	Outcomes	Primary Findings	Grade
										Risk adjusted mortality rates	
										are comparable between PS	
										and VA patients, although	
										setting of care did not enter	
									20.1	the mortality regression	
									30 day	model. Risk adjusted	
Einle A C					N 414			C 1	postoperative	morbidity was higher in the	
Fink, A.S.,	Comoral	NI-421	E157	2001 2004	Mult. Ctrs	27467	2001 2004	General	morbidity and	PS compared with the VA	D
et al.; 2007 <sup>9</sup>	General	Nat'l	5157	2001-2004	Ctrs	27467	2001-2004	surgical	mortality	OR 0.8 (CI 0.71-0.90)	В
										Both VA-insured and	
										Medicare/Medicaid-insured	
										patients were approximately	
										35% less likely to receive	
										transplants than patients with private insurance (hazard	
										ratio [HR] 0.65; 95% CI	
										0.60 to 0.70; P 0.0001).	
										Most of this difference was	
										explained by the fact that VA	
										patients were less likely to be	
										placed on the wait-list (HR	
										0.71; 95% CI 0.67 to 0.76),	
										but even listed VA patients	
										received transplants less	
	Solid Organ									frequently than those insured	
Gill, J.S., et	Transplan-					144651/		Other	time to	privately (HR 0.89; 95% CI	
al.; 2007 <sup>10</sup>	tation	Nat'l	7395	1995-2004	Nat'l	357345	1995-2004	surgical	treatment	0.82 to 0.96).	A
										Adjusting for case mix	
										differences, postoperative	
										morbidity and mortality rates	
										for pancreatectomy were	
									postoperative	higher in the VA compared	
									outcomes	with the PS (OR 1.581,	
Glasgow,					N 414			Other	(primarily	95% CI 1.084-2.307 and	
R.E., et al.; 2007 <sup>11</sup>	Onaclass	No+'1	377	2001 2004	Mult.	692	2001 2004	Other	morbidity and	2.533 95% CI 1.020– 6.290	<sub>A /D</sub>
2007	Oncology	Nat'l	3//	2001-2004	Ctrs	092	2001-2004	surgical	mortality)	respectively).	A/B

			VA Samp	le	-	Non-VA Sar	nple				
Author; Year	Category	Data Level	Sample Size	Years Collected	Data Level	Sample Size	Years Collected	Conditions	Outcomes	Primary Findings	Final Grade
Hall, B.L., et al.; 2007 <sup>12</sup>	Endocrine	Nat'l	2814	2001-2004	Mult. Ctrs	357345	2001-2004	General surgical, head and neck	30 day morbidity and mortality; specific adverse event rates, LOS	Overall 30day morbidity and mortality do not differ significantly in the VA vs PS in risk adjusted model. Mortality event rate is too low to accurately evaluate, odds ratio for morbidity associated with VA care is 1.25 ( 95% CI 0.87-1.78)	B
Henderson, W.G., et al.; 2007 <sup>13</sup>	General	Nat'l	9409818	2001-2004	Mult. Ctrs	18399	2001-2004	General surgical	30 day postoperative morbidity and mortality	After risk adjustment for patient comorbidities and severity of illness, the odds of mortality at 30days were higher in the VA compared with the PS (OR 1.23, 95% CI). There was no significant difference in morbidity at 30days among the sites.	A/B
Hutter, M.M., et al.; 2007 <sup>14</sup>	Vascular	Nat'l	5174	2001-2004	Mult. Ctrs	30058	2001-2004	Vascular	30 day postoperative morbidity and mortality	Risk adjusted mortality was comparable among the two groups, although hospital site/type did not enter the stepwise regression model.  Accounting for comorbidities and severity of illness, postoperative morbidity rates were lower in the VA population, OR 0.84 (95% CI 0.78-0.92)	A/B

			VA Samp	le		Non-VA Sar	nple				
Author; Year	Category	Data Level	Sample Size	Years Collected	Data Level	Sample Size	Years Collected	Conditions	Outcomes	Primary Findings	Final Grade
Johnson, R.G., et al.; 2007 <sup>15</sup>	Vascular	Nat'l	458	2001-2004	Mult. Ctrs	3535	2001-2004	Vascular	30 day postoperative morbidity and mortality	After risk adjustment, no significant difference in 30 day mortality rates among VA and PS female vascular patients. After adjusting for severity of illness, 30 day complication/morbidity rates were significantly lower in the VA compared with the PS (OR 0.60, 95% CI 0.44-0.81)	В
Lancaster, R.T., et al.;					Mult.			General	post-operative morbidity and mortality at 30 days; also evaluated LOS, need for re- operation and occurrence of 18 specific	Risk adjusted outcomes suggest that 30day post-operative morbidity and mortality rates in the VA compared with the PS for hepatic resections do not vary significantly. (after risk adjustment, morbidity rates and mortality were comparable in VA and PS. Comparing Morbidity of VA w/ PS OR was 0.94 (95% CI 0.62-1.42) and Mortality OR was 1.623 (95% CI 0.61-	
2007 <sup>16</sup>	General	Nat'l	237	2001-2004	Ctrs	783	2001-2004	Surgical	postoperative events	0R was 1.623 (95% C1 0.61-4.32))	A/B

			VA Samp	le	]	Non-VA San	nple				
Author;		Data	Sample	Years	Data	Sample	Years				Final
Year	Category	Level	Size	Collected	Level	Size	Collected	Conditions	Outcomes	Primary Findings	Grade
										No significant difference	
										in postop morbidity or	
										mortality among women	
										in the VA versus non-VA	
										settings (16.07 vs 12.02 %	
										p = 0.21 and 0.89 vs 0.42%,	
										p=0.47). Unadjusted and	
										adjusted morbidity rates	
										were higher among men	
									30 day	treated at the VA versus	
									postoperative	non-VA (OR 2.77, 95% CI	
									outcomes:	1.78-4.31 unadjusted and	
									morbidity	OR 2.29, 95% CI 1.28-	
									(overall,	4.10 adjusted). Unadjusted	
									specific adverse	mortality rates significantly	
Lautz,									events, #	higher among men treated at	
D.B., et al.;					Mult.			Other	complications),	VAversus non-VA((1.91% vs	
200717	General	Nat'l	374	2001-2004	Ctrs	2064	2001-2004	surgical	mortality, LOS	0.25% p=0.03).	A/B
										No significant difference	
										in graft or patient survival	
										in liver, heart, or kidney	
										between veteran and	
									graft survival;	nonveteran patients, and	
Moore,	Solid Organ								patient survival,	survival statistics were	
D., et al.;	Transplant-	Single			Single			Other	Karnofsky	consistent with recently	
200318	ation	ctr	380	1990-2002	med ctr	1429	1990-2002	surgical	score, SF36	published national data	A
										After adjusting for	
										comorbidities and	
										preoperative factors, there	
										was no significant difference	
										in 30day morbidity or	
									30day	mortality in female patients	
Neumayer,									postoperative	at the VA compared with	
L., et al.;					Mult.			General	morbidity and	the PS (OR 1.404, 95% CI	_
200719	Oncology	Nat'l	644	2001-2004	Ctrs	3179	2001-2004	surgical	mortality, LOS	0.894-2.204).	В

			VA Samp	le	]	Non-VA San	nple				
Author;		Data	Sample	Years	Data	Sample	Years	a		5 · 5 · 1	Final
Year	Category	Level	Size	Collected	Level	Size	Collected	Conditions	Outcomes	Primary Findings	Grade
Rosenthal, G.E., et al.;					Lrg geo	44247/		Cardio-	in hospital	Adjusting for patient-level predictors and volume, the odds of death was higher in VA patients, relative to private sector patients (OR, 1.34; 95% CI, 1.11-1.63; P	
200320	Cardiac	Nat'l	19266	1993-1996	area	9696	1993-1996	thoracic	mortality	<0.001).	A
Turrentine F.E., et al.; 2007 <sup>21</sup>	Endocrine	Not?1	178	2001-2004	Mult. Ctrs	271	2001 2004	Other	30 day morbidity and	Unadjusted morbidity and mortality rates were higher in VA compared with PS (16.3% vs 6.7%, p=0.003 and 2.8% vs. 0.4%, p=0.0074). Mortality event rate was too low for adjustment. Adjusting for comorbidities, the 30day postoperative morbidity ratio in the VA versus the PS was no longer significant (adjusted OR1.33, 95%CI 0.49-3.6 compared with unadjusted OR 2.75, 95%	D
200721	Endocrine	Nat'l	1/8	2001-2004	Ctrs	371	2001-2004	surgical	mortality	CI: 1.55-4.91).	В
Weiss, J.S., et al.;		One							perioperative mortality, stroke and cardiac	After risk adjustment, having surgery at the VA was not a significant predictor of death (OR 2.98, 95% CI 0.51-17.6), stroke (OR .95, 95% CI 0.3-3.4) or cardiac complications(OR 1.07 95%	
2006 <sup>22</sup>	Vascular	VISN	140	1997-2002	Lrg geo	6949	1997-2002	Vascular	complications	CI 0.37-3.1)	В

## APPENDIX 2. EVIDENCE TABLE OF MEDICAL AND NON-SURGICAL STUDIES

			VA Samp	le		Non-VA San	nple				
Author; Year	Category	Data Level	Sample Size	Years Collected	Data Level	Sample Size	Years Collected	Conditions	Outcomes	Primary Findings	Final Grade
Asch, S.M., et al.; 2004 <sup>23</sup>	General, mult conditions	Mult. VISNs	596	1997-1999	Nat'l	992	1996-2000	CHF, DM, IHD, HTN, Pulmonary Disease, Preventive Care, Cancer, Osteo- arthritis, Depression, TIA/Stroke	adherence to 348 indicators targeting 26 conditions	VA scored better on adjusted overall quality 67% vs 51%; chronic disease care (72 vs 59) and preventive care (64 vs 44), but not acute care.	A
Bansal, D., et al.; 2005 <sup>24</sup>	Cardio- vascular	Single ctr	92/117	2002	Nat'l	not described	2002	IHD	use of aspirin, betablockers, aceinhibitors, heparin, gp2a3b inhibitors among pts with MI	Use of all these agents were higher in the Little Rock VA compared to the rest of Arkansas and the entire US	В
Barnett, M.J., et al.; 2006 <sup>25</sup>	Other	Nat'l	123633	2002-2003	Nat'l	157517	2000-2001	Other safety	use of potentially inappropriate medications among the elderly	Compared with private sector patients, VA patients were less likely to receive any inappropriate medication (21% vs. 29%, P <0.001), and in each classification: always avoid (2% vs. 5%, P <0.001), rarely appropriate (8% vs. 13%, P<0.001), and some indications (15% vs. 17%, P <0.001).	В

			VA Samp	le	-	Non-VA Sar	nple				,
Author; Year	Category	Data Level	Sample Size	Years Collected	Data Level	Sample Size	Years Collected	Conditions	Outcomes	Primary Findings	Final Grade
Berlowitz, D.R., et al.; 2005 <sup>54</sup>	Hospital and nursing home care	One VISN	3802/961	1997-1999	Lrg geo	52986/ 142452	1997-1999	Other medical/ nonsurgical condition	Risk-adjusted rates of pressure ulcer development, functional decline, behavioral decline, and mortality.	Veterans in VA nursing homes were significantly (Po.05) less likely to develop a pressure ulcer (odds ratio (OR)50.63) but more likely to experience functional decline (OR51.6) than veterans in community nursing homes. Veterans in VA nursing homes were also less likely to die but more likely to experience behavioral decline, but these differences did not achieve statistical significance after risk adjustment.	A
Busch, S.H., et al.; 2004 <sup>26</sup>	Mental health care	Nat'l	27713	2000-2001	Nat'l	4852	2000-2001	Depression	Receipt of 84, 140, and 181 of antidepressant therapy among patients with initial diagnosis of depression	The VA slightly outperformed the private sector in the prescription of antidepressants during the acute phase of treatment, the first 84 days (84.7 compared with 81 percent) and during the maintenance phase of treatment, the first 181 days (53.9 compared with 50.9 percent). The findings persisted after adjustment for age and sex but lost significance after adjustment for comorbid conditions.	A

			VA Samp	le		Non-VA San	nple				
Author;		Data	Sample	Years	 Data	Sample	Years	•			Final
Year	Category	Level	Size	Collected	Level	Size	Collected	Conditions	Outcomes	Primary Findings	Grade
										The median survival was	
										6.3 months for VA patients	
										compared with 7.9 months	
										for patients in the rest of the	
										state, and the 5-year overall	
										survival rate was 12% for	
										VA patients compared with	
										15% for patients in the rest	
										of the state. The Cox model	
										showed a hazard ratio for VA	
									survival	patients compared with non-	
Campling,									following	VA patients of 1.22 (P_ 0.001)	
B.G., et al.;		One							diagnosis of	after adjusting for age, disease	
2005 <sup>27</sup>	Other	VISN	862	1995-1999	Lrg geo	27936	1995-1999	Cancer	lung cancer	stage, and race.	В
										Among veterans, Influenza	
										and vecinatin rates highers for	
										VA users compared to non-	
										users. For veterans, VA care	
										was independently associated	
										with influenza vaccination	
										(adjusted OR 1.8; 95%CI	
Chi, R.C.,									Influenza and	1-5-2.2) and pneumococcal	
et al.;	General,					10677/		Preventive	pneumococcal	vaccionation (adjusted OR	
2006 <sup>28</sup>	prevention	Nat'l	3265	2003	Nat'l	40331	2003	Care	vaccination	2.4; 95%CI 2.0-2.9).	A
										Three weeks after the	
										fitting, VA patients reported	
										more satisfaction with	
										their hearing aids. On some	
										measures VA patients	
								Other		reported more benefit, but	
Cox, R.M.,								medical/	satisfaction	different measures of	
et al.;		Mult			Mult			nonsurgical	with hearing	benefit did not give completely	
2005 <sup>59</sup>	Other	VISNs	151	2000-2003	ctrs	79	2000-2003	condition	aid fitting	consistent results.	В

			VA Samp	le		Non-VA San	nple				
Author;		Data	Sample	Years	Data	Sample	Years	•			Final
Year	Category	Level	Size	Collected	Level	Size	Collected	Conditions	Outcomes	Primary Findings	Grade
									Process of	After adjustment, VA	
									care measures	significantly outperformed	
									of quality as	mgd care on all process of	
									derived from	care measures. Intermediate	
									the Diabetes	outcome of blood pressure	
									Quality	control was comparable	
									Improvement,	between the two cohorts,	
									Project	however the VA cohort	
									accountability	had significantly greater	
									and	percentage of patients tight	
									measurement	HgbA1C and LDL control.	
									set,	Patients reported similar	
									Intermediate	overall satisfaction in the	
									outcomes,	two cohorts, though there	
Kerr, E.A.,									Patient	was significantly greater	
et al.;		Mult.			Mult.				satisfaction	satisfaction with diabetes care	
200431	Diabetes	VISNs	1285	2000-2001	Ctrs	6616	2001-2002	DM	with care	in the VA.	A
										Veterans receiving care	
										through VA reported 10%	
										greater use of influenza	
										vaccination (P<.05), 14%	
										greater use of pneumococcal	
										vaccination (P<.01),	
										And a nonsignificant	
										6% greater use of serum	
									10 . 1	cholesterol screening (P=.1),	
									self-reported	than did veterans receiving	
									use of influenza	care through Medicare	
									vaccination,	HMOs. Veterans receiving	
									pneumonia	care through Medicare FFS	
Vowbon:									vaccianation,	reported less use of all 4	
Keyhani, S., et al.;	General,		171/					Preventive	serum cholesterol	preventive measures (P<.01) than did veterans receiving	
2007 <sup>32</sup>	prevention	Nat'l	1009/145	2000-2003	Nat'l	3552/576	2000-2003	Care	screening	care through Medicare HMOs.	В
2007	prevention	Ivat 1	1009/143	2000-2003	INAL I	3332/3/0	2000-2003	Care	Screening	care unough Medicare fivios.	Б

			VA Sampl	le		Non-VA San	nple				
Author;		Data	Sample	Years	Data	Sample	Years	•			Final
Year	Category	Level	Size	Collected	Level	Size	Collected	Conditions	Outcomes	<b>Primary Findings</b>	Grade
									regular use		
									of specific		
									prevention		
									modalities		
									(maximum		
									sterile barrier		
									precautions,		
									use of		
									chlorhexadine		
									gluconate		
									for insertion		
									site and		
									antimicrobial		
									CV catheters,		
									routine change		
									of catheters, use of		
									antimicrobial		
									impreganated	Adjusted findings revealed	
									dressing); also	that VA hospitals were	
									a composite	significantly more likely to use	
									measure of max	chlorhexadine gluconate (OR	
									sterile barrier,	4.8, 95%CI 1.6-15.0) and/or	
								Other	chlorhexadine	to use a composite approach	
Krein,	Hospital							medical/	and avoidance	(OR 2.1, 95%CI 1.0-4.2)	
S.L., et al.;	and nursing		95			421		nonsurgical	of routine	as compared with non-VA	
200733	home care	Nat'l	hospitals	2005	Nat'l	hospitals	2005	condition	changes.	hospitals.	В
										VA pts had significantly	
										higher one year mortality rates	
										across all years studied; 30day	
										mortality rates were higher in	
										VA in 1997 however 30day	
Landrum,									mortality (30	mortality rates decreased	
M.B., et al.;	Cardio-		15259/			447445/			day and one	overtime and were comparable	
200434	vascular	Nat'l	13129	1996-1999	Nat'l	384470	1996-1999	IHD	year)	between the two sites by 1999.	В

		VA Sample			Non-VA San	nple					
Author;		Data	Sample	Years	Data	Sample	Years	•			Final
Year	Category	Level	Size	Collected	Level	Size	Collected	Conditions	Outcomes	Primary Findings	Grade
										This study found that, overall,	
										private-sector mental health	
										inpatients had shorter lengths	
										of stay, more days to the	
										next inpatient readmission,	
										and lower readmission rates	
										within 14, 30, or 180 days of	
										discharge compared with VA	
										mental	
										health inpatients. Although	
									D 1	VA patients had higher	
									Readmission	continuity-of-care scores,	
								D	rates and	moderately higher proportions	
								Depression,	outpatient	of private-sector patients had	
								Psychosis/ schizo-	follow-up care following	an outpatient visit within 30 and 180 days after discharge.	
								phrenia,	hospitalization	Private-sector patients also	
								other	for a	had fewer days to the first	
Leslie,								medical/	psychiatric or	outpatient visit and more	
D.L., et al.;	Mental							nonsurgical	substance abuse	outpatient visits in the six	
200055	health	Nat'l	181132	1993-1997	Nat'l	12163	1993-1995	condition	disorder	months after discharge.	В
2000	псанн	1 vat 1	101132	1773-1777	11411	12103	1773-1773	Condition	adherence		В
									to treatment	Patients in the VA and private	
Leslie,								Psychosis/	guidelines for	sector were equally likely to receive an antipsychotic	
D.L., et al.;	Mental							schizo-	antipsychotic	regimen that complied with	
2003 <sup>56</sup>	health	Nat'l	2636	2000	Nat'l	1318	2000	phrenia	prescribing	PORT guidelines.	В
2003	ncarm	Ivati	2030	2000	Ivat I	1310	2000	pincina		1 OK1 guidennes.	ь
									They studied		
									five self-	D	
									reported	Persons who received care	
									measures of	through the VA were more	
Nelson,									diabetes self-	likely to report taking a diabetes education class and	
K.M., et al.;									management and preventive	HbA1c testing than those	
2005 <sup>50</sup>	Diabetes	Nat'l	254/281	2000	Nat'l	10632	2000	DM	care practices	covered by private insurance.	В
2003**	Diabetes	I Nat I	234/281	2000	I Nat I	10032	2000	DIVI	care practices	covered by private insurance.	D

		VA Sample		Non-VA San	nple						
Author;		Data	Sample	Years	Data	Sample	Years				Final
Year	Category	Level	Size	Collected	Level	Size	Collected	Conditions	Outcomes	Primary Findings	Grade
									comparison	Adjusted rates of mortality at	
									of coexisting	30days and one year were not	
									conditions,	significantly different among	
									severity of AMI	VA and Medicare patients	
Petersen,									and mortality at	after AMI (OR 0.94, 95% CI	
L.A., et al.;	Cardiovas-		2486/			29249/			30days & one	0.82-1.07 and OR 0.94, 95%	
200035	cular	Nat'l	13310	1994-1995	Nat'l	41754	1994-1995	IHD	year	CI 0.84-1.05 respectively).	В
									use of	Ideal VA candidates were	
									thrombolytics,	more likely to undergo	
									blockers,	thrombolytic therapy at arrival	
									ACE inhibitors,	(OR [VA relative to Medicare]	
									or aspirin	1.40 [1.05, 1.74]) or to receive	
									among ideal	ACE inhibitors (OR 1.67	
									candidates	[1.12, 2.45]) or aspirin (OR	
									following	2.32 [1.81, 3.01]) at discharge	
Petersen,									an acute	and equally likely to receive	
L.A., et al.;	Cardiovas-								myocardial	blockers (OR 1.09 [1.03,	
200147	cular	Nat'l	2486	1994-1995	Nat'l	29249	1994-1995	IHD	infarction	1.40]) at discharge.	A
										After accounting for patient	
										characteristics and need for	
										angiography, VA pts were	
										significantly less likely to	
										receive angiography (43.9	
										vs 51%, OR 0.75, 95% CI	
										0.57-0.96). After accounting	
									C	for hospital and capability	
									use of	of cardiac interventions,	
Dataman									angiography	underuse of angiography	
Petersen,	Cardiovas-		1665/			19305/			(appropriate	and mortality did not differ	
L.A., et al.; 2003 <sup>36</sup>	cular	Nat'l	2486	1994-1995	Nat'l	29249	1994-1995	IHD	use) and mortality	significantly between patient	_
2003	Cuiai	INAL I	2400	1774-1773	INAL I	4744 47	1774-1773	וחט	mortanty	groups.	A
									Ci-, dim an ai	VA patients were more	
Diatta I.D.		M.,14			Multa				Six dimensions	satisfied than were county	
Piette, J.D.; 1999 <sup>51</sup>	Diabetes	Mult	310	1996-1997	Mults	228	1996-1997	DM	of patient satisfaction	patients overall and with 5 of 6 dimensions of their care.	D
1999	Diabetes	ctrs	310	1990-199/	ctrs	228	1990-199/	ואוע	satisfaction	o dimensions of their care.	В

		VA Samp	le	]	Non-VA San	nple				
	Data	Sample	Years	Data	Sample	Years	•			Final
Category	Level	Size	Collected	Level	Size	Collected	Conditions	Outcomes	Primary Findings	Grade
Hospital and nursing	N. (2)	369155/	1005 2001		1509891/	1005 2001	CHF, IHD, Pulmonary Disease,	30 day mortality (for white and black males after hospital admission for any of the above	After risk adjustment, racial (black vs white) differences in 30 day mortality rates after admission for 6 medical conditions were similar among	D
home care	Nat'l	427367	1995-2001	Lrg geo	3861953	1995-2001	11A/Stroke	conditions)	VA and non-VA care settings.	В
Cardio-	One							control of blood pressure	below 140/90 mmHg was comparable among white hypertensive men at VA (55.6%) and non- VA (54.2%) settings (P=.12). In contrast, BP control was higher among African American hypertensive men at VA (49.4%) compared with non-VA (44.0%) settings (P01), even after controlling for age, numerous comorbid conditions, and ruralurban classification. Being in a non-VA site was negatively associated with blood control adjusted OR 0.839 (0.742-	
vascular	VISN	12366	2001-2003	Lrg geo	7734	2001-2003	HTN	below 140/90	0.949)	A
	and nursing home care	Category Level  Hospital and nursing home care Nat'1  Cardio- One	Category Data Level Size  Hospital and nursing home care Nat'1 427367  Cardio- One	Category Level Size Collected  Hospital and nursing home care Nat'l 427367 1995-2001  Cardio- One	Category  Data Level Size Collected Level  Hospital and nursing home care Nat'1  A27367  Page 1995-2001  Lrg geo  Cardio- One	Category Level Size Collected Level Size  Hospital and nursing home care Nat'l 427367 1995-2001 Lrg geo 3861953  Cardio- One	Cardio-  Data Sample Years Collected Level Size Collected  Years Collected Level Size Collected  Level Size Collected  Level Size Collected  Level Size Collected  Level Size Collected  Size Collected  Level Size Collected  Level Size Collected  Feature Collected  Collected  Collected  Level Size Collected  Collected  Feature Collected  Level Size Collected  Collected  Feature Collected  Collected  Feature Collected  Collected  Level Size Collected  Collected  Feature Collected  Collected  Feature Collected  Collected  Feature Collected  Collected  Collected  Feature Collected  Feature Collected  Collected  Feature Collected  F	Category  Data Level Size Collected Level Size Collected Level Size Collected Conditions  Hospital and nursing home care Nat'1 427367 1995-2001 Lrg geo 3861953 1995-2001 TIA/Stroke  Cardio- One Carelon Conditions  Data Sample Years Collected Conditions  Level Size Collected Conditions  CHF, IHD, Pulmonary Disease, TIA/Stroke	Category    Data   Level   Size   Collected   Level   Size   Collected   Conditions   Outcomes	Category    Data   Category   Data   Category   Collected   Category   Collected   Category   Collected   Category   Cate

			VA Sampl	e	]	Non-VA San	nple				
Author;		Data	Sample	Years	Data	Sample	Years	•			Final
Year	Category	Level	Size	Collected	Level	Size	Collected	Conditions	Outcomes	Primary Findings	Grade
									a1c testings		
									foot exam,	Veterans who use VA have	
									diabetes	higher rates of foot exams,	
									education, bp	diabetes education, and	
									measurement,	sigmoidoscopy an da lower	
									cholesterol	rate of alc testing compared to	
									measurement,	veterans who did not use the	
									sigmoidoscop,	VA. There were non-significating	
Reiber,								DM,	fotb testing	difference for eye exams, bp	
G.E., et al.;						1848/		Preventive	among patients	measurements, cholestestorol	
200439	Diabetes	Nat'l	535	2000	Nat'l	9055	2000	care	with diabetes	testing and fobt screening.	A
										Overall mortality and same-	
									10 and 30 day	admission bypass surgery	
									mortality, 10	rates were similar for patients	
Ritchie,									and 30 day	undergoing PTCA in the	
J.L., et al.;	Cardiovas-	One			Lrg geo				use of cardiac	VA and Washington State	
199848	cular	VISN	8326	1993-1994	area	6666	1993-1994	IHD	bypass surgery	hospitals.	В
										On 5 of 26 Schizophrenic	
										Patient Outcomes	
										Research Team treatment	
										recommendations, a smaller	
										proportion of VA than non-VA	
										patients adhered to standards.	
										Four of these reflected reduced	
										access among VA patients to	
Rosenheck,								Psychosis/	adherence to	psychosocial services such as	
R.A., et al.;	Mental	Mult			Mult			schizophre-	port recom-	work therapy, job training, or	
200057	health	ctrs	192/274	1994-1996	ctrs	96/184	1994-1996	nia	mendations	case management services.	В
								Other		Risk adjusted inhospital	
Rosenthal,	Hospital							medical/		mortality was similar for VA	
G.E., et al.;	and nursing	Single			Mult			nonsurgical		and private sector patients OR	
200360	home care	ctr	1960	1994-1995	ctrs	157147	1994-1995	condition	mortality	1.07 95%CI 0.74-1.54.	В

			VA Samp	le	-	Non-VA San	nple				
Author;		Data	Sample	Years	Data	Sample	Years	•			Final
Year	Category	Level	Size	Collected	Level	Size	Collected	Conditions	Outcomes	Primary Findings	Grade
									self reported		
									use of 17		
									recommended		
									health care		
									services		
									including		
									cancer		
									prevention,		
									cardiovascular	VAMC care was associated	
									risk reduction,	with greater use of	
D 10								DM, IHD,	diabetes	recommended services in both	
Ross, J.S.,	General,							HTN,	management	years of study (6/17 services	
et al.; 2008 <sup>40</sup>	mult conditions	Nat'l	10007	2000-2004	Nat'l	393873	2000-2004	Preventive Care	and infection	more used in 2000, 12/17 more used in 2004)	В
2008	conditions	Nat I	10007	2000-2004	Nat 1	3936/3	2000-2004	Care	prevention.	/	Б
										After adjusting for case-	
	C 1							Other		mix, the HR for mortality in	
Colim	General,							medical/		the MAP was significantly	
Selim, A.J., et al.;	mortality and health		420514/			584294/			Risk adjusted	higher than that in the VA (HR, 1.404; 95% CI _ 1.383–	
2006 <sup>41</sup>	status	Nat'l	1.5m	1999-2004	Nat'l	879202	1998-2004	nonsurgical condition	mortality	1.426).	В
2000	status	Ivat i	1.3111	1999-2004	Ivat I	019202	1998-2004	Condition	inortanty	Higher risk-adjusted mortality	Б
										in the VA compared to	
										Medicare Advantage (2 year	
										mortality 7.6% in VA vs.	
										9.2% in MA); There were no	
										significant differences in the	
										probability of being alive with	
										the same or better PCS except	
										for the South (VA 65.8% vs.	
									Risk-adjusted 2	MAP $62.5\%$ , $P = .0014$ ).VA	
									year mortality,	patients had a slightly higher	
	General,								change in	probability than MAP patients	
Selim,	mortality								physical and	of being alive with the same or	
A.J., et al.;	and health		12177/			26225/			mental health	better MCS (71.8% vs. 70.1%,	
200742	status	Nat'l	16725	1998-2000	Nat'l	62614	1998-2000	None	status	P = .002)	В

			VA Samp	e	]	Non-VA San	nple				
Author;		Data	Sample	Years	 Data	Sample	Years	•			Final
Year	Category	Level	Size	Collected	Level	Size	Collected	Conditions	Outcomes	Primary Findings	Grade
Selim, A.J., et al.; 2009 <sup>46</sup>	General, mortality and health status	Nat'l	2361	1999-2000	Nat'l	1912	1999-2000	Other medical/ nonsurgical condition	3 year risk adjusted mortality rate	The adjusted HR of mortality in the MA dual enrollees was significantly higher than in the VHA dual enrollees (HR, 1.260 [95% CI, 1.044–1.520]).	В
Stineman, M.G., et al.; 2001 <sup>58</sup>	Other	Nat'l	3056	1994-1995	Nat'l	52382	1995	TIA/Stroke	functional independence	Stroke patients receiving rehabil- itation in the VA setting were discharged with slightly better functional outcomes.	В
Weeks, W.B., et al.; 2008 <sup>43</sup>	Hospital and nursing home care	One VISN	105026	1998-2000	Lrg geo	163853	1998-2000	None	length of stay, readmission within 30 days	Across conditions, the length of stay was longer for VA patients compared with non-VA patients. In logistic regression, VA care was not a significant predictor of 30day readmission for veterans <65 years old, however for veterans >=65 years of age initial VA admission was associated with a significantly higher odds of readmission within 30 days than non-VA index admission (OR2.79, 95%CI 1.4-5.6)	В
Weeks, W.B., et al.; 2008 <sup>44</sup>	Hospital and nursing home care	One VISN	50429	1998-2000	Lrg geo	74017	1998-2000	Patient Safety Indicators	Risk adjusted rates of non- obsteric patient safety indicators	Rates similar for 9 of 15 PSIs, ulcer, sepsis, iatrogenic infection, postop resp failure, post op metabolic derangement lower in VA, mortality higher in VA for low-risk DRGs	В

			VA Samp	le	]	Non-VA San	nple				
Author;		Data	Sample	Years	Data	Sample	Years				Final
Year	Category	Level	Size	Collected	Level	Size	Collected	Conditions	Outcomes	Primary Findings	Grade
										After adjusting for patient	
										characteristics, the odds of	
										30-day mortality were not	
										significantly different between	
										patients admitted to VA basic	
										service hospitals (reference)	
										and patients admitted to any	
										other type of hospital within	
										either system of care. The	
										odds of 1-year mortality were	
										significantly lower in patients	
										admitted to Medi- care cardiac	
										surgery hospitals (OR 0.88,	
Wright,									30 day and 1	95% CI 0.79-0.98) compared	
S.M., et al.;	Cardio-								year adjusted	to patients admitted to VA	
199949	vascular	Nat'l	14853	1992-1995	Nat'l	32745	1992-1995	IHD	mortality rates	basic service hospitals	В

# 

Single medical center or clinic......

	Article ID:		Revi	ewer:
	First Author:_			
	1	(Last Name Onl		
	Study Numbe	r: of	Description	on:
	Study Numbe	(Enter 'lof l' if		
. Does the paper present a comparison of qualit	y of clinical data	in VA and US	non-VA setti	ngs?
Yes				
No				
f No→ Stop				
NB: exclude the following: pure utilization rate lirect comparisons]	s, rates of disease	, efficiency, re	cruitment tec	chniques, and lack of
2. Are the data for the comparison sufficiently co	ontemporaneous (	within 1 to 2 y	ears)?	
∕es□				
No				
6. How are the VA data assembled (within sites)	?			
Random/representative sampling				
Convenience sampling				
Other (specify)				
How are the non-VA data assembled (within s	ites)?			
Random/representative sampling				
Convenience sampling				
Other (specify)				
5. At what level do the VA data come from?				
National or sufficiently multisite				
o represent national data				
Multiple VISNs				
One VISN (or state)				
Multiple medical centers or clinics				
Single medical center or clinic				
Jnknown				
6. At what level do the non-VA data come from?				
National or sufficiently				
epresentative				
Large geographic area like a state				
Multiple centers or clinics				

7. What conditions are covered by the quality assessment (check all that apply)
Medical and Non-Surgical Quality Areas
CHF
DM
IHD
HTN
Pulmonary Disease
Preventive Care
Cancer (list type)
Osteoarthritis
Depression
Psychosis/schizophrenia
PTSD
TIA/Stroke
Other (specify)
Surgical Quality Areas
General
Cardiothoracic
Head and Neck□
Orthopedic
Surgical Oncology□
Urology□
Vascular
Other surgical
Other (specify)
Safety Areas
Patient Safety Indicators
Other (specify)
8. What features of quality are measured?
Structure
Process
Outcomes
Structure includes presence/absence of facilities Process includes overuse, underuse, misuse
Outcomes includes intermediate outcomes
9. How did the specifications for the quality assessments compare in VA and non VA samples
Identical
Sufficiently similar for valid comparison□
Sufficiently dissimilar to present a
threat to valid comparison
Unclear

# **APPENDIX 4. DATA ABSTRACTION FORM**

**Data Abstraction Form: Round Two** 

Article ID: < <pre-filled database="" from="">&gt;</pre-filled>
Reviewer: << Pre-filled from database>>
Author/ Year: << Pre-filled from database>>
VA sample: << Pre-filled from database>> (random/rep, convenience AND national, multisite,
etc.)
Non-VA sample: << Pre-filled from database>> (same two sets of information)
Conditions: < <pre-filled database="" from="">&gt;</pre-filled>
Sample size used
VA:
Non-VA:
Years of data collection covered
VA:
Non-VA:
Control variables:
Primary outcomes:
Findings (adjusted if possible):
Secondary/associated findings (optional):
Assessment (grade each of the following with A/B/C scale):
1. Time frames
2. Samples (both VA and non-VA)
3. Quality measurements
4. Outcomes
5. Importance of measures
6. Statistical methods
Other/notes:
Overall assessment/assignment of level:
Rejected (Graded C or lower, or failed to meet prior criteria):

#### **APPENDIX 5. DATA ABSTRACTION GRADING GUIDELINES**

Assessment (grade levels detailed below):

- 1. Time frames
  - A. Contemporaneous time frames
  - B. All between A and C
  - C. non-contemporaneous
- 2. Samples (both VA and non-VA)
  - A. representative or national samples (both VA and non-VA)
  - B. All between A and C
  - C. small, limited, unequal or non-representative samples
- 3. Quality measurements
  - A. specified and identical measures with a similar assessment format for those measures
  - B. All between A and C
  - C. dissimilar measures and/or dissimilar assessment methods
- 4. Outcomes
  - A. outcomes are either well established clinical endpoints or processes strongly associated with well-established clinical endpoints
  - B. All between A and C
  - C. outcomes are structures, processes or clinical endpoints that are not wellestablished or are indirect measures of quality
- 5. Importance of measures (e.g. number of clinically relevant indicators, potential impact of indicators)
  - A. High
  - B. Medium
  - C. Low
- 6. Statistical methods
  - A. Sufficient sample size and/or methods appropriate to address hypothesis(ses)
  - B. All between A and C
- C. Insufficient sample size and/or methods questionable to address hypothesis(ses) Overall assessment/assignment of level: Measured as an average of grades assigned above

### **APPENDIX 6. SEARCH STRATEGY**

**TOPIC:** Veterans Hospitals and Non-Veterans Hospitals Quality of Care – Search Methodology

**NOTE:** Search strategy was derived from subject terms used in 34 articles provided by the project

**Database:** PubMed

Years Covered: 1996-2009 (August)

Number of results: 432

### **Search Strategy:**

hospitals, veterans[MeSH Terms] OR hospitals, veterans[majr] OR hospitals, veterans/standards OR hospitals, veterans/statistics and numerical data OR united states department of veterans affairs OR united states department of veterans affairs/standards OR united states department of veterans affairs/statistics and numerical data OR united states department of veterans affairs/utilization

#### APPENDIX 7. PEER REVIEW COMMENTS TABLE

Location	Comment	Change
Executive Summary, Background	I am curious about why you do not mention the "Best Care Anywhere" book and others, and only focus upon negative?	Background updated to incorporate suggested citation.
Executive Summary, Conclusion	Might clarify that medication process of care showed VA was better, but procedural process of care not uniformly better (ie angiography).	"and interventional procedures" added for clarification.
Hospital and Nursing Home Care, Summary	"Racial mortality differences" to "mortality rates for racial minorities"	Change incorporated
Mental Health, Summary	It wasn't clear in the summary how outpatient follow-up rates could be worse when outpatient continuity was better, so I tried to clarify: "and [timely] outpatient visit follow-up rates [after discharge] were worse in the VA, but continuity of care [in the outpatient setting]"	Change incorporated
Conclusions, paragraph 9	Same comments as in the mental health section above: "equivalent racial mortality differences" to "equivalent mortality rates across racial groups"	Change incorporated