| SOE Grade | Study Design: No. Studies (N) | Study Limitations | Direct- ness | Consistency | Precision | Reporting Bias | Other Issues | Finding |
|---|---|----------------------|-----------------|-------------|-----------|-------------------|-----------------|---|
| Black | | | | | | | | |
| DM: All-cause mortality: Low | Historical cohort: 1 (3,148) (Kokkinos, 2009) ¹⁹ | Medium | Direct | Unknown | Precise | Undetected | None | The risk of all-cause mortality is higher in black compared to white Veterans aHR: 1.23 (1.02-1.47) |
| HIV: ESRD: Moderate | Historical cohort: 1 (2,015,891) (Choi, 2007) ⁶ | Low | Direct | Unknown | Precise | Undetected | None | Among HIV-infected individuals with diabetes, the risk for ESRD was greater among black compared to white veterans aHR: 2.33 (1.02-5.35) |
| Type 1 and 2 DM: Decline in ILEA: Low | Serial cross- sectional study: 1 (405,580 to 739,377) (Tseng, 2011) ³¹ | Low | Direct | Unknown | Imprecise | Undetected | None | Rate of decline in initial lower extremity amputation (ILEA) is not different between black and white Veterans (p=.37) and Hispanic and white Veterans (p=.91). |

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|---|--|----------------------|-----------------|-------------|-----------|-------------------|-----------------|--|
| Inpatient/ acute care: Mortality within 30 days of hospitalization for hip fracture, AMI, stroke, CHF, GI bleed, or pneumonia: Moderate | Historical cohort: 1 (283,912) (Volpp, 2007) ³² | Low | Direct | Unknown | Precise | Undetected | None | No disparity. <u>Pneumonia</u> : Under 65: 1.09 (0.98-1.21); 65 and older: 0.90 (0.85-0.95) <u>CHF</u> : Under 65: 0.71 (0.62-0.82); 65 and older: 0.70 (0.65-0.76) <u>GI bleed</u> : Under 65: 0.93 (0.78-1.10); 65 and older: 0.88 (0.79-0.99) <u>Hip fracture</u> : Under 65: 0.66 (0.28-1.55); 65 and older: 0.73 (0.58-0.90) <u>Stroke</u> : Under 65: 1.12 (0.95-1.32); 65 and older: 0.81 (0.74-0.89) <u>AMI</u> : Under 65: 1.19 (0.99-1.43); 65 and older: 0.75 (0.67-0.84) |
| Inpatient/ acute care: Death in low-mortality diagnosis-related groups: Moderate | Historical cohort: 1 (294,381) (Shimada, 2008) ³⁰ | Low | Direct | Unknown | Precise | Undetected | None | No disparity. No association between black race and death in low-mortality diagnosis-related groups aOR=1.18 (p>.05) |
| Stroke: Mortality between 30 days and 2 years after hospitalization: Low | Historical cohort: 1 (155,529) (Polsky, 2008) ²⁶ | Medium | Direct | Unknown | Precise | Undetected | None | Disparity present. Difference in mortality rate between black and white Veterans 2 years after hospitalization for stroke: 2.5 (p<.05) |
| Inpatient/ acute care: Hospital mortality: Low | Historical cohort: 1 (14,122) (Meyers, 2008) ²³ | Low | Direct | Unknown | Imprecise | Undetected | None | No disparity. No association between black race and hospital death aOR=0.95 (0.92-1.26) |

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|---|---|----------------------|-----------------|--------------|-----------|-------------------|-----------------|---|
| Inpatient/ acute care: Mortality within 30 days of admission to medical ward for pneumonia: Moderate | Historical cohort: 1 (35,706) (Frei, 2010) ¹¹ | Low | Direct | Unknown | Precise | Undetected | None | No disparity. No association between black race and mortality within 30 days of admission to medical ward for pneumonia aOR=0.98 (0.87-1.10) |
| Inpatient/ acute care: Mortality within 30 days of admission to ICU for pneumonia: Moderate | Historical cohort: 1 (5,172) (Frei, 2010) ¹¹ | Low | Direct | Unknown | Precise | Undetected | None | No disparity. Black race is associated with lower mortality within 30 days of admission to ICU for pneumonia. aOR=0.82 (0.68-0.99) |
| Inpatient/ acute care: In-hospital or 30-day mortality after admission for COPD exacerbation: | Historical cohort: 1 (50,979) (Sarrazin, 2009) ²⁸ | Low | Direct | Unknown | Precise | Undetected | None | No disparity. Black race is associated with lower inhospital or 30-day mortality after admission for COPD exacerbation; 7.1% vs 9.2% (p<.001); aOR=0.69 (0.62-0.77) |
| CKD: End-stage renal disease: Moderate | VA NPCD historical cohort: 1 (2,015,891) (Choi, 2009) ⁵ | Low | Direct | Unknown | Precise | Undetected | None | Worse incidence of end-stage renal disease among black Veterans: aHR (95% CI): a=2.14 (1.72-2.65), 2=2.30 (2.02-2.61), 3A=3.08 (2.74-3.46), 3B=2.47 (2.26-2.70), 4=1.86 (1.75-1.98) and 5=1.23 (1.12-1.34). |
| CKD: Morality among Veterans with Stage 3A or 3B: Insufficient | Historical cohort: 1 (992,290) (Choi, 2009, Kovesdy, 2013) ^{5,20} | Low | Direct | Inconsistent | Imprecise | Undetected | None | Unknown disparity. Among Veterans with CKD Stage 3A or 3B, black race is associated with <i>increased</i> mortality risk in one study (aHR: 1.32 (1.27-1.36) and 1.21 (p<.05), respectively) and <i>decreased</i> 5-year mortality (aHR: 0.88 (0.81-0.97) and 0.81 (0.71-0.92), respectively) in another study. |

| SOE Grade | Study Design: No. Studies (N) | Study Limitations | Direct- ness | Consistency | Precision | Reporting Bias | Other Issues | Finding |
|---|---|----------------------|-----------------|-------------|-----------|-------------------|-----------------|--|
| CKD: Mortality among Veterans with Stage 4 or 5: High | Historical cohorts: 2 (992,290) (Choi, 2009, Kovesdy, 2013) ^{5,20} | Low | Direct | Consistent | Precise | Undetected | None | No disparity. Among Veterans with CKD Stage 4 or 5, black race is not associated with mortality risk aHR range: 1.01 (0.81-1.27) to 1.07 (p>.05) and 0.83 (0.48-1.44) to 0.97 (p>.05), respectively. |
| Infectious disease: HCV: Moderate Infectious disease: HCC: Moderate | Historical cohort: 1 (149,407) (El-Serag, 2014) ⁹ | Low | Direct | Unknown | Precise | Undetected | None | Incident cirrhosis black vs white: aHR=0.58 (0.55-0.60) Hispanic vs white: aHR=1.28 (1.21-1.37) Incident HCC black vs white: aHR=0.77 (0.71-0.83) Hispanic vs white: aHR=1.61 (1.44-1.80) |
| HIV-infected individuals: ESRD: Moderate HIV-infected individuals with DM: ESRD: Moderate | Historical cohort: 1 (2,015,891) (Choi, 2007) ⁶ | Low | Direct | Unknown | Precise | Undetected | None | ESRD among HIV-infected individuals black vs white: aHR: 5.97 (3.12-11) ESRD among HIV-infected individuals with diabetes black vs white: aHR: 2.33 (1.02-5.35) |
| Colon cancer: 3- year survival: Moderate | 1 National registry study (N=4,642) (Samuel, 2014) ²⁷ | Low | Direct | Unknown | Precise | Undetected | None | 3-year survival: 53% (black) vs 61% (white), aOR (black vs white): 0.78 (95% CI: 0.64-0.96) |
| NSCLC any stage: 5-year survival: Low | 1 National registry study (N=81,823) (Ganti, 2014) ¹³ | Medium | Direct | Unknown | Precise | Undetected | None | 5-year mortality aHR (black vs white): 0.94 (95% CI: 0.92-0.96) |
| Any stage NSCLC or SCLC 1-year survival: Moderate | 1 National registry study (N=4642) (Samuel, 2014) ²⁷ | Low | Direct | Unknown | Precise | Undetected | None | 1-year survival NSCLC: 39.5% (black) vs 40.6% (white), aOR: 1.05 (95% CI: 0.96- 1.15) SCLC: 26.2% (black) vs 26.6% (white), aOR: 1.07 (95% CI: 0.82-1.39) |
| NSCLC late stage: Days from diagnosis to death at 2 years: Low | 1 National registry study (N=2,200) (Zullig, 2013) ³³ | Medium | Direct | Unknown | Imprecise | Undetected | None | Survival in days: 133 vs 117; aHR, 1.31 (95% BI, 1.14-1.50) |

| SOE Grade | Study Design: No. Studies (N) | Study Limitations | Direct- ness | Consistency | Precision | Reporting Bias | Other Issues | Finding |
|---|--|----------------------|-----------------|-------------|-----------|-------------------|-----------------|---|
| Prostate cancer: All-cause mortality at 5 to 5.7 years: Moderate | 2 studies: 1 DoD registry (N=1991) (Optenberg, 1995, Freeman, 2003) ²⁴ ,1 of 9 VA centers ¹⁰ , N=1991 | Medium | Direct | Consistent | Imprecise | Undetected | None | No disparity HR=1.50 (0.94-2.38) |
| Prostate cancer: Prostate-cancer mortality at 5.7 to 16 years: Moderate | 3 multicenter studies: (N=2892) (Daskivich, 2015, Freeman, 2003, Graham-Steed, 2013) ^{7,10,14} | Medium | Direct | Consistent | Precise | Undetected | None | No disparity HR at 5.7 years=1.36 (0.62-2.96) to 0.90 (0.58-1.40) at 11-16 years |
| Rectal cancer: All- cause survival at 3 years: Low | 1 study of VACCR; (N=1,301) (Samuel, 2014) ²⁷ | Low | Direct | Unknown | Imprecise | Undetected | None | No disparity; 48% vs 57.8%; aOR 0.66 (0.43-1.00) |
| Stroke: 1-year all- cause mortality: Moderate | 1 VA PTF study; N=55,094 (Kamalesh, 2007) ¹⁸ | Low | Direct | Unknown | Precise | Undetected | None | No disparity; 1-year mortality higher for whites: 13.1% vs 12.2%; absolute difference = 0.9%; HR 1.06 (1.02-1.10) |
| Stroke: Any readmission: Insufficient | 1 VA PTF study; (N=55,094) (Kamalesh, 2007) ¹⁸ | High | Direct | Unknown | Precise | Undetected | None | Disparity unknown: Unadjusted readmission: W=2.19% vs AA=2.02%, P<0.001 |
| Stroke: Post- stroke depression at 1 year: Low | 1 fair study of several national VA sources; (N=5,100) (Jia, 2010) ⁴⁸ | Medium | Direct | Unknown | Precise | Undetected | None | 30.7% vs 42.5%; OR 0.57 (0.49, 0.66) |
| Advanced chronic systolic heart failure: 2-year all- cause mortality: Low | 1 study of VA hospitals participating in BEST trial, (N=918) (Jones, 2014) ¹⁷ | Low | Direct | Unknown | Imprecise | Undetected | None | 2-year all-cause mortality: HR 1.14 (0.86-1.50) |
| VTE: 90-day mortality: Insufficient | VA NPCD for 2 Philadelphia centers; (N=168) (Aujesky, 2007) ³ | High | Direct | Unknown | Imprecise | Undetected | None | B=10% vs W=11%, <i>P</i> =0.80 |

| SOE Grade | Study Design: No. Studies (N) | Study Limitations | Direct- ness | Consistency | Precision | Reporting Bias | Other Issues | Finding |
|---|---|----------------------|-----------------|-------------|-----------|-------------------|-----------------|---|
| VTE: 90-day complications: Low | VA NPCD for 2 Philadelphia centers; (N=168) (Aujesky, 2007) ³ | Medium | Direct | Unknown | Imprecise | Undetected | None | OR 5.2 (1.3-21.6) |
| Mental/ behavioral health: TBI: Mortality at 2 years: Low | 1 national VA database study; (N=9,633) (Egede, 2012) ⁸ | Medium | Direct | Unknown | Imprecise | Undetected | None | No disparity: 2-year mortality: 2.7% vs 2.9%; HR 1.25 (0.90, 1.73) |
| Coronary artery disease: Functional status at 1 year: Low | 1 prospective study of 5 VA Medical Centers with on-site cardiac catheterization; (N=1,022) (Kressin, 2007) ²¹ | Medium | Direct | Unknown | Imprecise | Undetected | None | No disparity on SF-12 physical and mental components and SAQ physical limitations, treatment satisfaction, angina frequency, angina stability, disease perception |
| Mental/ behavioral health: Alcohol use disorder: Injury- related/non- injury-related death: Low | NPCD; (N=2545/N=19381) (Fudalej, 2010) ¹² | Medium | Direct | Unknown | Precise | Undetected | None | No disparity; white vs black: injury-related HR 2.16 (1.93-2.42), non-injury-related HR 1.32 (1.28-1.38) |
| Mental/ behavioral health: PTSD: Spontaneous preterm birth: Low | 1 study of national clinical and administrative databases; (N=13,935) (Shaw, 2014) ²⁹ | Medium | Direct | Unknown | Precise | Undetected | None | Blacks had higher risk of preterm birth: aOR 1.49 (1.29-1.71) |
| Ulcerative colitis: Colorectal cancer: Low | 1 study of PTF and OPC files; (N=16,490) (Hou, 2012) ¹⁵ | Medium | Direct | Unknown | Imprecise | Undetected | None | 1% vs 0.9%; HR 1.10 (0.65-1.87) |

| Hispanic/Latino | | | | | | | | |
|---|---|--------|--------|---------|-----------|------------|------|--|
| Inpatient/ acute care: Death in low-mortality diagnosis-related groups: Low | Historical cohort: 1 (244,397) (Shimada, 2008) ³⁰ | Low | Direct | Unknown | Imprecise | Undetected | None | No disparity. No association between Hispanic/Latino ethnicity and death in low-mortality diagnosis-related groups aOR=1.32 (p>.05) |
| Prostate cancer: Survival at 6.6 years: Low | 1 study of 2 Southern California VA hospitals (N=720) (Daskivich, 2015) ⁷ | Medium | Direct | Unknown | Imprecise | Undetected | None | No disparity: HR 0.24 (0.03 to 1.82) |
| Mental/ behavioral health: TBI: Mortality at 2 years: Low | 1 national study (N=8,199) (Egede, 2012) ⁸ | Medium | Direct | Unknown | Imprecise | Undetected | None | No disparity: 6.7% vs 2.9%; HR 1.61 (1.00, 2.58) |
| Stroke: Post- stroke depression at 1 year: Low | 1 fair study of several national VA sources; (N=4,226) (Jia, 2010) ⁴⁸ | Medium | Direct | Unknown | Precise | Undetected | None | No disparity: 41.7% vs 42.5%; OR 0.78 (0.56, 1.08) |
| Ulcerative colitis: Colorectal cancer: Low | 1 study of PTF and OPC files; (N=15,573) (Hou, 2012) ¹⁵ | Medium | Direct | Unknown | Imprecise | Undetected | None | 1.1% vs 0.9%; HR 1.17 (0.55-2.51) |
| Asian | | | | | | | | |
| Lung cancer: Mortality at 4 years: Low | 1 study of VA CCR; (N=67,332) (Ganti, 2014) ¹³ | Medium | Direct | Unknown | Precise | Undetected | None | No disparity: aHR 0.96 (0.84 to 1.09) |
| Mental/ behavioral health: PTSD: Spontaneous preterm birth: Low | 1 study of national clinical and administrative databases; (N=10,518) (Shaw, 2014) ²⁹ | Medium | Direct | Unknown | Imprecise | Undetected | None | No disparity: Asian vs white: aOR 1.27 (0.82-1.96) |

| Native American | | | | | | | | |
|--|--|--------|--------|---------|-----------|------------|------|--|
| Lung cancer: All- cause mortality at 5 years: Moderate | 1 study of VA CCR; (N=67,323) (Ganti, 2014) ¹³ | Medium | Direct | Unknown | Precise | Undetected | None | No disparity; aHR 1.05 (0.93 to 1.20) |
| AI/AN | | | | | | | | |
| Inpatient/ acute care: Low-mortality diagnosis-related groups: In-hospital mortality: Low | Historical cohort: 1 (236,369) (Shimada, 2008) ³⁰ | Low | Direct | Unknown | Imprecise | Undetected | None | No disparity. No association between American Indian race and death in low-mortality diagnosis-related groups aOR=0.94 (p>.05) |
| Inpatient/ acute care: Postoperative complications: Insufficient Inpatient/ acute care: Complications during hospitalization: Insufficient | Historical cohort: 1 (4,419) (Alvord, 2009) ¹ | High | Direct | Unknown | Imprecise | Undetected | None | No difference in overall postoperative complications (p=.51) or complications during hospitalization (p=.24) between AI/AN and whites |
| Postoperative: Morbidity/mortali ty at 30 days: Low | Historical cohort: 1 (4,419) (Alvord, 2005) ² | Low | Direct | Unknown | Imprecise | Undetected | None | Morbidity: AI/AN race not associated with risk of 30-day postop morbidity aOR=0.9 (0.8-1.1) Mortality: AI/AN race associated with increased risk of 30-day postop mortality aOR=1.6 (1.0-2.4) |
| Mental/ behavioral health: PTSD: Spontaneous preterm birth: Low | 1 study of national clinical and administrative databases; (N=10,449) (Shaw, 2014) ²⁹ | Medium | Direct | Unknown | Imprecise | Undetected | None | AI/AN group had higher risk: aOR 1.99 (1.15-3.45) |

| Hawaiian/Asian Pac | ific Islander | | | | | | | |
|---|--|-----------------------|--------|---------|-----------|------------|------|---|
| Inpatient/ acute care: Death in low-mortality diagnosis-related groups: Low | Historical cohort: 1 (236,845) (Shimada, 2008) ³⁰ | Low | Direct | Unknown | Imprecise | Undetected | None | No disparity. No association between Asian/Pacific Islander ethnicity and death in low-mortality diagnosis-related groups aOR=0.44 (p>.05) |
| Mental/ behavioral health: PTSD: Spontaneous preterm birth: Low | 1 study of national clinical and administrative databases; (N=10,392) (Shaw, 2014) ²⁹ Anic Minority Groups (Mathematical Mathematical Mathema | Medium excluding AA) | Direct | Unknown | Imprecise | Undetected | None | No disparity: aOR 1.35 (0.85-2.13) |
| Mental/ behavioral health: Alcohol use disorder: Injury- related/non- injury-related death: Low | NPCD; (N=2,545/ N=19,381) (Fudalej, 2010) ¹² | Medium | Direct | Unknown | Precise | Undetected | None | Disparity; Other vs black: injury-related HR 1.59 (1.40-1.80), non-injury-related HR 0.97 (0.92-1.01) |
| Stroke: Post- stroke depression: Low | 1 fair study of several national VA sources: (N=4,141) (Jia, 2010) ⁴⁸ | Medium | Direct | Unknown | Precise | Undetected | None | 31.3% vs 42.5%; OR 0.64 (0.50, 0.83) |
| Ulcerative colitis: Colorectal cancer: Low | 1 study of PTF and OPC files; (N=15,274) (Hou, 2012) ¹⁵ | Medium | Direct | Unknown | Imprecise | Undetected | None | 0.9% vs 0.9%; HR 1.04 (0.33-3.27) |