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| **Analgesia** | | |
| **Citation** | **Study Characteristics** | **Findings** |
| Bijur P, Bérard A, Esses D, Calderon Y, Gallagher EJ. Race, ethnicity, and management of pain from long-bone fractures: A prospective study of two academic urban emergency departments. Acad Emerg Med 2008;15(7):589-597;10.1111/j.1553-2712.2008.00149.x | 2 centers, prospective observational | No differences found. |
| Choi DMA, Yate P, Coats T, Kalinda P, Paul EA. Ethnicity and prescription of analgesia in an accident and emergency department: Cross sectional study. BMJ 2000;320(7240):980-981; 10.1136/bmj.320.7240.980 | Single center, retrospective review | No differences found. |
| Dickason RM, Chauhan V, Mor A, Ibler E, Kuehnle S, Mahoney D, et al. Racial differences in opiate administration for pain relief at an academic emergency department. West J Emerg Med 2015 May;16(3):372-380;10.5811/westjem.2015.3.23893 | Single center, retrospective review | White patients more likely to be prescribed opiates for back pain than African American (AA) but not for other conditions. |
| Epps CD, Ware LJ, Packard A. Ethnic wait time differences in analgesic administration in the emergency department. Pain Manag Nurs 2008 Mar;9(1):26-32;10.1016/j.pmn.2007.07.005 | 2 centers, retrospective review | Difference in time to analgesics by race |
| Fuentes EF, Kohn MA, Neighbor ML. Lack of association between patient ethnicity or race and fracture analgesia. Acad Emerg Med 2002;9(9):910-915; 10.1197/aemj.9.9.910 | Single center, retrospective cohort | No differences found. |
| Goyal MK, Kuppermann N, Cleary SD, Teach SJ, Chamberlain JM. Racial disparities in pain management of children with appendicitis in emergency departments. JAMA Pediatrics 2015;169(11):996-1002; 10.1001/jamapediatrics.2015.191 | American national data, retrospective cross sections | AA patients less likely to receive any analgesia, AA less likely to receive opiate analgesia compared to White patients. |
| Heins JK, Heins A, Grammas M, Costello M, Huang K, Mishra S. Research: Disparities in analgesia and opioid prescribing practices for patients with musculoskeletal pain in the emergency department. Journal of Emergency Nursing 2006;32:219-224;10.1016/j.jen.2006.01.010 | Single center, descriptive study | Differences found in analgesia provision between races. |
| Johnson TJ, Weaver MD, Borrero S, Davis EM, Myaskovsky L, Zuckerbraun NS, et al. Association of race and ethnicity with management of abdominal pain in the emergency department. Pediatrics 2013 Oct;132(4):851; 10.1542/peds.2012-3127 | American national data, retrospective analysis | AA patients less likely to receive any analgesic or narcotic analgesic.  AA and Hispanic patients more likely to have longer length of stay (LOS) than White patients. |
| Joynt M, Train MK, Robbins BW, Halterman JS, Caiola E, Fortuna RJ. The impact of neighborhood socioeconomic status and race on the prescribing of opioids in emergency departments throughout the United States. Journal of General Internal Medicine 2013;28(12):1604-1610;10.1007/s11606-013-2516-z | American national data, retrospective review | White patients more likely to receive opiates when controlling for pain ratings than AA or Hispanic patients. |
| Karpman, R, Mar, ND, Bay, C. Analgesia for emergency centers' orthopaedic patients: Does an ethnic bias exist? Clin Orthop. 1997;334:270-275. | Single center, retrospective cohort | No differences found between care for minority and majority group patients. |
| Mills AM, Shofer FS, Boulis AK, Holena DN, Abbuhl SB. Original contribution: Racial disparity in analgesic treatment for ED patients with abdominal or back pain. Am J Emerg Med 2011;29:752-756.;10.1016/j.ajem.2010.02.023 | 2 center, retrospective cohort | Non-White patients were less likely to receive any analgesia and more likely to wait longer for their analgesia. |
| Ortega HW, Velden HV, Lin C, Reid S. Race, ethnicity, and analgesia provision at discharge among children with long-bone fractures requiring emergency care. Pediatr Emerg Care 2013;29(4):492-7; 10.1097/PEC.0b013e31828a34a8. | 2 centers, retrospective review | White patients more likely to receive opiate prescription at discharge than AA, Hispanic, and “other” patients. |
| Pletcher MJ, Kertesz SG, Kohn MA, Gonzales R. Trends in opioid prescribing by race/ethnicity for patients seeking care in US emergency departments. JAMA - Journal of the American Medical Association 2008;299(1):70-78;10.1001/jama.2007.64 | American national data, retrospective review | White patients more likely to receive opiate analgesic than AA, Hispanic, and “other” patients. |
| Quazi S, Eberhart M, Jacoby J, Heller M. Are racial disparities in ED analgesia improving? Evidence from a national database. Am J Emerg Med 2008(4):462; 10.1016/j.ajem.2007.05.007 | American national data, retrospective review | No differences found. |
| Rasooly IR, Mullins PM, Mazer-Amirshahi M, van den Anker J, Pines JM. The impact of race on analgesia use among pediatric emergency department patients. J Pediatr 2014 Sep;165(3):618-621; 10.1016/j.jpeds.2014.04.059 | American national data, retrospective review | White patients more likely to be prescribed opiates than Non-White patients. |
| Shah AA, Zogg CK, Zafar SN, Schneider EB, Cooper LA, Chapital AB, et al. Analgesic access for acute abdominal pain in the emergency department among racial/ethnic minority patients a nationwide examination. Med Care 2015;53(12):1000-1009;10.1097/MLR.0000000000000444 | American national data, retrospective analysis | Non-White patients less likely than White patients to receive narcotic analgesic. |
| Singhal A, Tien YY, Hsia RY. Racial-ethnic disparities in opioid prescriptions at emergency department visits for conditions commonly associated with prescription drug abuse. PLoS One 2016 Aug 8;11(8):e0159224.doi:10.1371/journal.pone.0159224 | American national data, retrospective review | AA patients less likely to be prescribed opiates at discharge for certain conditions than White patients. |
| Tamayo-Sarver JH, Hinze SW, Cydulka RK, Baker DW. Racial and ethnic disparities in emergency department analgesic prescription. Am J Public Health 2003;93(12):2067-2073; 10.2105/AJPH.93.12.2067 | American national data, retrospective review | White patients more likely to receive opioid analgesics than AA patients. |
| Todd KH, Samaroo N, Hoffman JR. Ethnicity as a risk factor for inadequate emergency department analgesia. J Am Med Assoc 1993;269(12):1537-1539;10.1001/jama.269.12.1537 | Single center, retrospective cohort | Hispanic patients less likely to receive any analgesia compared to White patients. |
| Todd KH, Deaton C, D’Adamo AP, Goe L. Ethnicity and analgesic practice. Ann Emerg Med 2000;35(1):11-16; 10.1016/S0196-0644(00)70099-0 | Single center, retrospective cohort | White patients more likely than AA patients to receive analgesic for long-bone fracture. |
| Todd KH, Lee TR, Hoffman JR. The effect of ethnicity on physician estimates of pain severity in patients with isolated extremity trauma. JAMA 1994;271(12):925-928; 10.1001/jama.1994.03510360051035 | Single center, prospective cohort | No differences found. |
| VanderBeek, BL, Melhmean, CT, Foad, SL, Wall, EJ, Crawford, AH. The use of conscious sedation for pain control during forearm fracture reduction in children - does race matter? Journal of Pediatric Orthopedics. 2006;26(1):53-7; 10.1097/01.bpo.0000187993.17387.09 | Single center, retrospective cohort | No differences found. |
| Ware LJ, Epps CD, Clark J, Chatterjee A. Do ethnic differences still exist in pain assessment and treatment in the emergency department? Pain Manag Nurs 2012 Dec;13(4):194-201;10.1016/j.pmn.2010.06.001 | Single center, retrospective review | No differences found. |
| Yen K, Kim M, Stremski ES, Gorelick MH. Effect of ethnicity and race on the use of pain medications in children with long bone fractures in the emergency department. Ann Emerg Med 2003;42(1):41-47;10.1067/mem.2003.230 | American national data, retrospective review | No differences found. |

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| **Triage Scores** | | |
| **Citation** | **Study Characteristics** | **Findings** |
| Green T. Aboriginal utilisation of an urban emergency department. Emerg Med 1998;10(3):226-233; 10.1111/j.1442-2026.1998.tb00621.x | Single center retrospective analysis | Aboriginal patients had less acute triage scores than non-Aboriginal patients. |
| Johnston-Leek M, Sprivulis P, Stella J, Palmer D. Emergency department triage of Indigenous and Non-Indigenous patients in tropical Australia. Emerg Med (Fremantle) 2001 Sep;13(3):333-337; 10.1046/j.1035-6851.2001.00237.x | American national data, retrospective analysis | Indigenous patients more likely than Non-Indigenous to be triaged more acutely and to be admitted. |
| Lopez L, Wilper AP, Cervantes MC, Betancourt JR, Green AR. Racial and sex differences in emergency department triage assessment and test ordering for chest pain, 1997-2006. Acad Emerg Med 2010;17(8):801-808; 10.1111/j.1553-2712.2010.00823.x | American national data, retrospective analysis | African American (AA) and Hispanic patients were likely to receive less acute triage scores, and less likely to have the same diagnostic testing for Acute Coronary Syndrome (ACS) symptoms. |
| Schrader CD, Lewis LM. Racial disparity in emergency department triage. J Emerg Med 2013 Feb;44(2):511-518; 10.1016/j.jemermed.2012.05.010 | Single center, retrospective matched cohort | AA patients received less acute triage scores and had longer wait times than White patients. |
| Vigil JM, Alcock J, Coulombe P, McPherson L, Parshall M, Murata A, et al. Ethnic disparities in emergency severity index scores among U.S. veteran's affairs emergency department patients.; 10.1371/journal.pone.0126792 | American national data, retrospective review | AA patients received less acute triage scores than White patients. |
| Vigil JM, Coulombe P, Alcock J, Kruger E, Stith SS, Strenth C, et al. Patient ethnicity affects triage assessments and patient prioritization in U.S. department of veterans affairs emergency departments. Medicine 2016;95(14):1-7;10.1097/MD.0000000000003191 | American national data, retrospective review | White patients received more acute triage scores than AA and Hispanic patients, while reporting lower pain intensity scores. |
| Zook HG, Kharbanda AB, Flood A, Harmon B, Puumala SE, Payne NR. Racial differences in pediatric emergency department triage scores. J Emerg Med 2016 May;50(5):720-727; 10.1016/j.jemermed.2015.02.056 | Two centers, retrospective review | AA, Hispanic and American Indian patients received less acute triage scores than White patients. |

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| **Waiting Times** | | |
| **Citation** | **Study Characteristics** | **Findings** |
| Alrwisan A, Eworuke E. Are discrepancies in waiting time for chest pain at emergency departments between African Americans and White patients improving over time? J Emerg Med 2016;50(2):349-355; 10.1016/j.jemermed.2015.07.033 | American national data, retrospective analysis | African American (AA) patients wait longer to see a physician than White patients with same Acute Coronary Syndrome (ACS) symptom profile. |
| Haywood Jr C, Tanabe P, Naik R, Beach MC, Lanzkron S. The impact of race and disease on sickle cell patient wait times in the emergency department. Am J Emerg Med 2013;31(4):651-656; 10.1016/j.ajem.2012.11.005 | American national data, retrospective analysis | Patients with sickle cell wait longer than all others, controlling for triage score. Authors attributed this to sickle cell patients’ AA race. |
| James CA, Bourgeois FT, Shannon MW. Association of race/ethnicity with emergency department wait times. Pediatrics 2005 Mar;115(3):310; 115/3/e310 | American national data, retrospective analysis | Hispanic patients wait longer than White patients. |
| Johnston V, Bao Y. Race/ethnicity-related and payer-related disparities in the timeliness of emergency care in U.S. emergency departments. J Health Care Poor Underserved 2011;22(2):606-620; 10.1353/hpu.2011.0050 | Single center, retrospective analysis | AA and Hispanic patients waited longer than White patients. |
| Karaca Z, Wong HS. Racial disparity in duration of patient visits to the emergency department: Teaching versus non-teaching hospitals. West J Emerg Med 2013 Sep;14(5):529-541; 10.5811/westjem.2013.3.12671 | Data from 3 states, retrospective analysis | Non-White patients had longer length of stay (LOS) than White patients. |
| Karve SJ, Balkrishnan R, Mohammad YM, Levine DA. Racial/ethnic disparities in emergency department waiting time for stroke patients in the United States. J Stroke Cerebrovasc Dis 2011;20(1):30-40; 10.1016/j.jstrokecerebrovasdis.2009.10.006 | American national data, retrospective analysis | AA patients wait longer than White patients. |
| Okunseri C, Okunseri E, Chilmaza CA, Harunani S, Xiang Q, Szabo A. Racial and ethnic variations in waiting times for emergency department visits related to nontraumatic dental conditions in the United States. J Am Dent Assoc 2013 Jul;144(7):828-836; 10.14219/jada.archive.2013.0195 | American national data, retrospective analysis | AA and Hispanic patients had longer wait times than White patients. |
| Ospina MB, Rowe BH, Voaklander D, Senthilselvan A, Stickland MK, King M. Emergency department visits after diagnosed chronic obstructive pulmonary disease in aboriginal people in Alberta, Canada. CJEM 2016 Nov;18(6):420-428; 10.1017/cem.2016.328 | Provincial data, retrospective cohort | ED LOS significantly shorter for Aboriginal patients compared to Non-Aboriginal patients. |
| Park CY, Lee MA, Epstein AJ. Variation in emergency department wait times for children by race/ethnicity and payment source. Health Serv Res 2009 Dec;44(6):2022-2039; 10.1111/j.1475-6773.2009.01020.x | National data, retrospective analysis | Wait times longer for AA and Hispanic children compared to white  Wait times longer both within and between centers. |
| Pines JM, Localio RA, Hollander JE. Racial disparities in emergency department length of stay for admitted patients in the United States. Acad Emerg Med 2009;16(5):403-410; 10.1111/j.1553-2712.2009.00381.x | American national data, retrospective analysis | AA patients waited longer than White patients, difference significant between but not within hospitals. |
| Prisk D, Godfrey AJ, Lawrence A. Emergency department length of stay for Maori and European patients in New Zealand. West J Emerg Med 2016 Jul;17(4):438-448; 10.5811/westjem.2016.5.29957 | Single center, retrospective cohort | No differences found |
| Sonnenfeld N, Pitts SR, Schappert SM, Decker SL. Emergency department volume and racial and ethnic differences in waiting times in the United States. Med Care 2012;50(4):335-341; 10.1097/MLR.0b013e318245a53c | American national data, retrospective analysis | AA patients wait longer than White patients within and between hospitals. |

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| **Leaving without being seen/Leaving against medical advice** | | |
| **Citation** | **Study Characteristics** | **Findings** |
| Harrison B, Finkelstein M, Puumala S, Payne NR. The complex association of race and leaving the pediatric emergency department without being seen by a physician. Pediatr Emerg Care 2012;28(11):1136-1145; 10.1097/PEC.0b013e31827134db | American national data, retrospective case-cohort | Controlling for insurance status, American Indians were more likely to leave without completing treatment than White, African American (AA), Hispanic patients. |
| Martin C, Smith T, Graudins A, Braitberg G, Chapman R. Characteristics of Aboriginal and Torres strait islander presentations to three victorian emergency departments. EMA - Emergency Medicine Australasia 2013;25(6):573-579; 10.1111/1742-6723.12152 | American national data, retrospective analysis | Aboriginal and Torres Straight Islanders were more likely to leave without being seen or leave against medical advice. |
| Thomas DP, Anderson IP, Kelaher MA. Accessibility and quality of care received in emergency departments by Aboriginal and Torres Strait Islander people. Australian Health Review 2008;32(4):648-654; 10.1071/AH080648 | Single region, literature review. | Aboriginal patients were more likely to leave without being seen than Non-Aboriginal patients. |
| Wright L. "They just don't like to wait"-A comparative study of Aboriginal and Non-Aboriginal people who did not wait for treatment, or discharged themselves against medical advice from rural emergency departments: Part 2. Australasian Emergency Nursing Journal 2009;12(3):93-103; 10.1016/j.aenj.2009.05.002 | Single rural region, comparative-descriptive study | Aboriginal patients were more likely than Non-Aboriginal patients to leave without being seen or leave against medical advice. |

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| **Diagnostic Testing** | | |
| **Citation** | **Study Characteristics** | **Findings** |
| Bechien U. W, Peter A. B, Darwin L. C. Disparities in emergency department wait times for acute gastrointestinal illnesses: Results from the national hospital ambulatory medical care survey, 1997-2006. Am J Gastroenterol 2009(7):1668; 10.1038/ajg.2009.189 | American national data, retrospective analysis | Hispanic patients wait longer than other races for assessment and treatment. |
| Brown R, Furyk J. Racial disparities in health care-emergency department management of minor head injury. Int J Emerg Med 2009 Sep 1;2(3):161-166; 10.1007/s12245-009-0124-9 | Single center, retrospective review | No difference in receiving head CT.  Indigenous patients more likely to wait longer. |
| Cherpitel CJ. Differences in performance of screening instruments for problem drinking among Blacks, White patients and Hispanic patients in an emergency room population. J Stud Alcohol 1998;59(4):420-426; 10.15288/jsa.1998.59.420 | Single center | No differences found. |
| Daniels LB, Bhalla V, Clopton P, Hollander JE, Guss D, McCullough PA, et al. B-type natriuretic peptide (BNP) levels and ethnic disparities in perceived severity of heart failure: Results from the rapid emergency department heart failure outpatient trial (REDHOT) multicenter study of BNP levels and emergency department decision making in patients presenting with shortness of breath. J Card Fail 2006;12(4):281-285; 10.1016/j.cardfail.2006.01.008 | 10 center trial, prospective cohort | African American (AA) patients were likely to have higher brain naturietic peptide (BNP) relative to physician assessment of congestive heart failure severity. |
| Goyal MK, Hayes KL, Mollen CJ. Racial disparities in testing for sexually transmitted infections in the emergency department. Acad Emerg Med 2012 May;19(5):604-607; 10.1111/j.1553-2712.2012.01338.x | Single center, analysis of prospective study | AA more likely to be tested for sexually transmitted illness (STI) than White patients for similar presentations. |
| Hambrook JT, Kimball TR, Khoury P, Cnota J. Disparities exist in the emergency department evaluation of pediatric chest pain. Congenital Heart Disease 2010;5(3):285-291; 10.1111/j.1747-0803.2010.00414.x | American national data, retrospective analysis | White patients more likely to receive a number of tests. |
| JoAnne E. N, Jill G. J, Alexander J. R, Prashant M, Arthur C, David H. W, et al. Cranial computed tomography use among children with minor blunt head trauma: Association with race/ethnicity. Archives of Pediatrics and Adolescent Medicine 2012(8):732; 10.1001/archpediatrics.2012.307 | 25 centers, retrospective analysis | Hispanic and AA patients less likely to receive head computed tomography (CT) for intermediate risk group. |
| Kunen S, Smith PO, Niederhauser R, Morris JA, Marx BD. Race disparities in psychiatric rates in emergency departments. J Consult Clin Psychol 2005;73(1):116-126; 10.1037/0022-006X.73.1.116 | American national data, retrospective analysis | AA patients more underdiagnosed (based on statistical prevalence rates) than White patients. |
| Levas MN, Dayan PS, Mittal MK, Stevenson MD, Bachur RG, Dudley NC, et al. Original article: Effect of Hispanic patients ethnicity and language barriers on appendiceal perforation rates and imaging in children. J Pediatr 2014;164:1291.e2; 10.1016/j.jpeds.2014.01.006 | Multicenter, secondary analysis of prospective cross sectional | Hispanic patients less likely to receive abdominal imaging, more likely to have perforation than White patients. |
| Muroff J, Edelsohn GA, Joe S, Ford BC. Emergency psychiatry in the general hospital: The role of race in diagnostic and disposition decision making in a pediatric psychiatric emergency service. Gen Hosp Psychiatry 2008;30:269-276; 10.1016/j.genhosppsych.2008.01.003 | Single center, retrospective review | AA and Hispanic patients more likely to receive psychotic and behavioral disorder diagnoses. |
| Musey PI,Jr, Kline JA. Do gender and race make a difference in acute coronary syndrome pretest probabilities in the emergency department? Acad Emerg Med 2017 Feb;24(2):142-151; 10.1111/acem.13131 | Single center, secondary analysis of prospective outcomes data | Providers judged Non-White patients to have lower probability of ACS than White patients. |
| Napoli AM, Choo EK, Dai J, Desroches B. Racial disparities in stress test utilization in an emergency department chest pain unit. Crit Pathw Cardiol 2013 Mar;12(1):9-13; 10.1097/HPC.0b013e31827c9a86 | Single center, Retrospective observational | AA patients less likely to receive stress tests. |
| Ong MA, Weeramanthri TS. Delay times and management of acute myocardial infarction in Indigenous and Non-Indigenous people in the Northern Territory. Med J Aust 2000;173(4):201-4; 10.5694/j.1326-5377.2000.tb125601.x | Single region, retrospective review | Longer wait time to ECG for Non-White patients. |
| Payne NR, Puumala SE. Racial disparities in ordering laboratory and radiology tests for pediatric patients in the emergency department. Pediatr Emerg Care 2013;29(5):598-606; 10.1097/PEC.0b013e31828e6489 | 2 centers, retrospective case-cohort | AA and biracial patients less likely to receive lab tests than White patients. |
| Pezzin LE, Keyl PM, Green GB. Disparities in the emergency department evaluation of chest pain patients. 2007; 10.1197/j.aem.2006.08.020/abstract | American national data, retrospective analysis | AA patients were less likely than all other groups to have electrocardiogram (ECG), chest x-ray and blood oxygen saturation measurements when presenting with chest pain (CP). |
| Siegler JE, Boehme AK, Albright KC, Martin-Schild S. Ethnic disparities trump other risk factors in determining delay to emergency department arrival in acute ischemic stroke. Ethn Dis 2013;23(1):29-34; 1945-0826 | Single center, prospective registry analysis | No differences found. |
| Takakuwa KM, Shofer FS, Hollander JE. The influence of race and gender on time to initial electrocardiogram for patients with chest pain. Acad Emerg Med 2006;13(8):867-872; 10.1197/j.aem.2006.03.566 | Single center, prospective cohort | Time to ECG was longer for Non-White patients. |
| Wall SP, Ha ES, Habicht MER, Wawda H, Merchant GL, Ettner SL, et al. Impact of patient race on receiving head CT during blunt head injury evaluation. Acad Emerg Med 2005;12(9):862-868; 10.1197/j.aem.2005.05.003 | Single center, cohort | No differences found. |
| Wang L, Haberland C, Thurm C, Bhattacharya J, Park KT, Abe T. Health outcomes in US children with abdominal pain at major emergency departments associated with race and socioeconomic status. PLoS ONE 2015;10(8); 10.1371/journal.pone.0132758 | American national data, retrospective analysis | AA and Hispanic patients have higher odds of perforation, lower odds of imaging, less likely to be admitted. |
| Yates RB, Hiestand BC. Effects of age, race, and sex on door-to-electrocardiogram time in emergency department non-ST elevation acute coronary syndrome patients. J Emerg Med 2011 Feb;40(2):123-127; 10.1016/j.jemermed.2008.01.024 | Single center, retrospective cohort | No difference in door to ECG time by race/ethnicity. |

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| **Treatment Differences** | | |
| **Citation** | **Study Characteristics** | **Findings** |
| Bazarian JJ, Pope C, McClung J, Cheng YT, Flesher W. Ethnic and racial disparities in emergency department care for mild traumatic brain injury. Acad Emerg Med 2003;10(11):1209-1217; 10.1197/S1069-6563%2803%2900491-3 | American national data, retrospective analysis | No differences found |
| Boudreaux ED, Emond SD, Clark S, Camargo Jr. CA. Acute asthma among adults presenting to the emergency department: The role of race/ethnicity and socioeconomic status. Chest 2003;124(3):803-812; 10.1378/chest.124.3.803 | Multicenter, prospective cohort | Admission rates higher for Hispanic patients and African American (AA) patients. |
| Boudreaux ED, Emond SD, Clark S, Camargo Jr CA. Multicenter Airway Research Collaboration Investigators. Race/ethnicity and asthma among children presenting to the emergency department: Differences in disease severity and management. Pediatrics 2003 May;111(5):615; 10.1542/peds.111.5.e615 | Multicenter, prospective cohort | AA patients equally likely to receive inhaled corticosteroids (ICS) on discharge with increased disease severity. |
| Chu-Lin T, Camargo CA. Racial and ethnic differences in emergency care for acute exacerbation of chronic obstructive pulmonary disease. Acad Emerg Med 2009(2):108; 10.1111/j.1553-2712.2008.00319.x | Multicenter, prospective analysis | No differences found |
| Goyal MK, Johnson TJ, Chamberlain JM, Casper TC, Simmons T, Alessandrini EA, et al. Racial and ethnic differences in antibiotic use for viral illness in emergency departments. Pediatrics 2017;140(4): 2017-0203; 10.1542/peds.2017-0203 | 7 departments data, retrospective cohort | AA and Hispanic patients children less likely to receive antibiotics for viral respiratory illnesses. |
| Shafi S, Gentilello LM. Ethnic disparities in initial management of trauma patients in a nationwide sample of emergency department visits. Arch Surg 2008;143(11):1057-1061; 10.1001/archsurg.143.11.1057 | American national data, retrospective analysis | No differences found |
| Venkat A, Hasegawa K, Basior JM, Crandall C, Healy M, Inboriboon PC, et al. Race/ethnicity and asthma management among adults presenting to the emergency department. Respirology 2015 Aug;20(6):994-997; 10.1111/resp.12572 | Multicenter, retrospective review | AA patients equally likely to receive ICS on discharge with increased disease severity. |
| Venkat A, Hoekstra J, Lindsell C, Prall D, Hollander JE, Jr PC, et al. The impact of race on the acute management of chest pain. Acad Emerg Med 2003;10(11):1199-1208; 10.1197/S1069-6563(03)00490-1 | Data from 8 ED’s, retrospective analysis | AA patients with non-ST elevation myocardial infarction (NSTEMI) were less likely to receive antiplatelet therapy. AA patients with non-ACS CP had less testing and treatment than White patients, Non-White patients were admitted less often, received invasive and noninvasive testing less often. |
| Wechkunanukul K, Grantham H, Teubner D, Hyun KK, Clark RA. Presenting characteristics and processing times for culturally and linguistically diverse (CALD) patients with chest pain in an emergency department: Time, ethnicity, and delay (TED) study II. Int J Cardiol 2016 Oct 1;220:901-908; 10.1016/j.ijcard.2016.06.244 | Single center, cross-sectional cohort | Non-White patients had longer LOS.  Non-White patients less likely to receive guideline based treatment. |
| Zook HG, Payne NR, Puumala SE, Ziegler KM, Kharbanda AB. Racial/ethnic variation in emergency department care for children with asthma. Pediatr Emerg Care 2017;35(3):209-215; 10.1097/PEC.0000000000001282 | 6 ED’s, cross sectional analysis | Non-White children had higher rates of steroid administration and lower rates of chest x-ray |

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| **Interaction and Qualitative Studies** | | |
| **Citation** | **Study Characteristics** | **Findings** |
| Browne AJ, Smye VL, Rodney P, Tang SY, Mussell B, O'Neil J. Access to primary care from the perspective of Aboriginal patients at an urban emergency department. Qual Health Res 2011 Mar;21(3):333-348; 10.1177/1049732310385824 | Qualitative measures | Three themes: anticipating the assumptions of healthcare providers, seeking help for chronic pain, use of EDs reflecting social suffering. |
| Chapman R, Smith T, Martin C. Qualitative exploration of the perceived barriers and enablers to Aboriginal and Torres Strait islander people accessing healthcare through one Victorian emergency department. Contemp Nurse 2014;48(1):48-58; 10.5172/conu.2014.48.1.48 | Qualitative measures | Describes “cultural concerns” as barriers to care when not addressed and enablers when well addressed. |
| Fields A, Abraham M, Gaughan J, Haines C, Hoehn KS. Language matters: Race, trust, and outcomes in the pediatric emergency department. Pediatr Emerg Care 2016;32(4):222-226; 10.1097/PEC.0000000000000453 | Single center, Prospective cross sectional | Non-White patients had lower trust scores for providers than White patients. |
| Lee JS, Tamayo-Sarver J, Kinneer P, Hobgood C. Association between patient race/ethnicity and perceived interpersonal aspects of care in the emergency department. J Natl Med Assoc 2008 Jan;100(1):79-85; 10.1016/S0027-9684(15)31179-2 | Single center, survey | African American (AA) patients have less trust for providers than do White patients. |
| Pickner WJ, Ziegler KM, Hanson JD, Payne NR, Zook HG, Kharbanda AB, et al. Community perspectives on emergency department use and care for American Indian children. J Racial Ethn Health Disparities 2017 Nov; 10.1007/s40615-017-0442-1 | Qualitative measures | Three themes were identified in this analysis: healthcare environment (access to specialists, wait time, child friendly), access to care (transportation and financial), and interactions with providers (discrimination, stereotyping and trust). |
| Reime B, Tu AW, Tzianetas R, Ratner PA. Factors associated with reluctance to use an emergency department in a multi-ethnic community: Results of a telephone survey. Can J Public Health 2007;98(3):222-227; 10.1007/BF03403717 | Exploratory telephone survey, single city | Chinese patients were more likely to report reluctance to use ED than White patients. |

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| **Category** | **No Differences Found** | **Differences found** |
| Analgesia | 9 | 15 |
| Triage | 0 | 7 |
| Waiting Times | 1 | 11 |
| LWBS/AMA | 0 | 4 |
| Diagnosis | 4 | 16 |
| Treatment | 3 | 7 |
| Trust and Qualitative | -- | -- |