Ontologies Classes Object Properties Data Properties Annotation Properties Individuals Datatypes Clouds

Class: Racial/Ethnic

Annotations (5)

- rdfs:comment "Current screening guidelines do not align similarly for black and white individuals. Racial differences in both smoking patterns and age at diagnosis contribute to racial disparities in screening eligibility. Screening provides an opportunity for earlier stage at diagnosis for all racial/ethnic groups (3, 12); however, black smokers have lower rates of lung cancer screening than white smokers (39). Black participants in the LDCT arm of the NSLT study had greater reduction in both lung cancer and all-cause mortality than white participants, despite low participation (4.4% black vs. 90.9% white) (8). In a more diverse screening population with a higher percentage of black individuals (69.6%), lung cancer screening detected a larger percentage of cancers than the NSLT study (2.6% vs. 1.1%), with the majority being early-stage lung cancer (7). Despite having greater lung cancer incidence, black smokers are less likely to be eligible for screening (40, 41), as the current lung cancer screening guidelines with the 30 pack-year inclusion criteria exclude a higher proportion of high-risk black smokers because of their lower average cigarette per day consumption compared with white smokers. This reduced cigarette smoking behavior has led researchers to suggest that expansion of lung cancer screening eligibility to individuals with any smoking history (42) or 20 to 29 pack-year smoking history (41, 43) would increase the proportion of screening-eligible black patients. Black smokers are also at greater risk of developing lung cancer at an earlier age, with the highest difference in age-adjusted incidence between black and white smokers noted in the 50- to 54-year-old age range, earlier than the currently recommended minimum screening age of 55 years (10). Reducing the minimum age criteria to 50 years, as done in the NELSON trial, would further increase the number of eligible black smokers (41). Current screening guidelines are projected to capture a higher proportion of eligible white smokers with lung cancer, potentially further exacerbating the disparity gap in lung cancer survival (40). Risk models that incorporate race/ethnicity, such as the Prostate, Lung, Colorectal, and Ovarian Cancer Screening Trial model (PLCOM2012) and the Lung Cancer Death Risk Assessment Tool (LCDRAT) demonstrate improved accuracy in predicting lung cancer risk compared with the NLST criteria (42, 44, 45). Future lung cancer screening guidelines should consider expanded eligibility criteria or risk-based approaches to address equity in screening eligibility (45). Rurality Disparities in lung cancer incidence between white and black men and women worsen in rural geographic regions versus urban areas (16). The prevalence of cigarette smoking is higher in rural counties (46), with more smokers consuming greater than 15 cigarettes a day than in metropolitan areas (26) and adolescents in rural communities initiating smoking at an earlier age than their urban counterparts (47). Lung cancer incidence for individuals living in rural areas is estimated to be 20% higher than those living in urban areas (48). Rural areas with poverty and socioeconomic deprivation are associated with higher lung cancer incidence and mortality rates (14, 16, 27, 48). Rural residents, including those in regions with high lung cancer burden, are less likely to have a comprehensive accredited screening facility within 30 miles of their residence (49–52). Strategies to increase access to screening should focus on these areas where geographic access to both lung cancer screening centers and high-quality treatment is limited. Environmental and Occupational Exposures Environmental factors other than tobacco also confer an increased risk for development of lung cancer and are considered by the National Comprehensive Cancer Network in their consensus-based guideline category 2 recommendations. These category 2 recommendations require a minimum 20 smoking pack-years and age 50 years, along with additional risk factors and PLCOM2012 risk calculator assessment (53) for lung cancer screening eligibility. Radon is present in soil, concentrated in enclosed spaces such as mines and homes, and has been identified by the U.S. Environmental Protection Agency as the second leading cause of lung cancer after cigarette smoking (54). Secondhand smoke and other environmental hazards such as asbestos, chromium, arsenic, and air pollution also play a role in lung cancer risk, exacerbated by concurrent smoking (55). Environmental and occupational exposures are often more common in underrepresented minority populations and those with lower socioeconomic status (56), potentially contributing to existing disparities in lung cancer incidence. Screening with LDCT for asbestos-exposed workers yields detection of lung cancer at localized disease rates similar to those in the NLST (57), and lung cancer risk prediction tools, such as the Bach model, that incorporate asbestos exposure demonstrate improved performance over USPSTF eligibility criteria in national datasets (42, 58). In considering these environmental factors, challenges arise because of lack of patient awareness of exposure and low exposure in the general population; however, targeted occupational screening questions could be considered for high-risk individuals with subsequent referral for screening. HIV Infection Lung cancer is the leading cause of non–AIDS-defining cancer deaths, and lung cancer incidence in HIV-positive patients is significantly higher than the general population (5). In addition, age of lung cancer onset in HIV-positive patients is 25 to 30 years earlier than the general population, with average age of diagnosis between 38 and 57 years, compared with 70 years in the general population (5). Most of lung cancer cases occurring in HIV-positive patients present at late stage, with only 15% presenting at local, resectable stage, and, as a result, median survival is between 3.5 and 6.3 months (5, 59). HIV-infected patients have an estimated 52% excess lung cancer risk when compared with noninfected

individuals (60). These high lung cancer rates have been attributed to high smoking prevalence among HIV-infected individuals, with smoking prevalence ranging from 25% to 80%, two to three times higher than the general population (5, 61). Prior studies also implicate the chronic inflammatory state and immunosuppressive treatment regimens in this population as well as a potential oncogenic role of the HIV virus (61). Current lung cancer screening guidelines perform poorly in individuals living with HIV (62). A modified Lung Cancer Policy Model that mirrors the distinctive aspects of lung cancer screening in HIV-infected individuals appears to provide similar mortality reduction in HIV-infected persons with a CD4+ cell count of ≥500 cells/μl, as in the general population (63). Because of the high incidence and mortality associated with lung cancer in HIV-infected patients, lung cancer screening should be considered in this high-risk group and must be accompanied by smoking cessation programs, although further work should be done to determine appropriate screening eligibility criteria (59). Access to Care Unequal access to high-quality health care may also contribute to racial disparities in lung cancer outcomes, affected by health policies that limit access to lung cancer screening. The USPSTF released lung cancer screening recommendations in December 2013 (17). In February 2015, the Center for Medicare & Medicaid Services issued a statement approving coverage for annual lung cancer screening according to USPSTF eligibility criteria for adults aged 55 to 77 years, mandating an accompanied shared decision-making visit that incorporates tobacco cessation counseling and submission of data to an approved registry (64). This expanded coverage of lung cancer screening for Medicare beneficiaries but not for eligible Medicaid beneficiaries, as Medicaid eligibility is determined at the state level. Employer-based and private health insurance plans, as well as states that have adopted the Medicaid expansion package, are required to cover this Grade B USPSTF recommendation (64). However, states that have not adopted Medicaid expansion leave high-risk patients without insurance coverage for lung cancer screening. As low-income individuals who often depend on Medicaid coverage have the highest rates of tobacco use (27), lack of coverage in states that did not adopt Medicaid expansion will likely lead to socioeconomic disparities in access to lung cancer screening. Furthermore, requirements for shared decision making and accompanied documentation create additional burden for providers that may limit likelihood of referral (65). Underrepresented racial/ethnic populations are more likely to be uninsured or ineligible because of foreign-born nativity or citizenship status. Access to health care improves racial disparities in lung cancer survival (66–68), whereas individuals with Medicaid or the uninsured have poorer lung cancer survival than those with private health insurance (69). More than half of those who qualify for lung cancer screening on the basis of USPSTF recommendations are estimated to have Medicaid or be uninsured (70). High-risk rural populations experience additional barriers in accessing appropriate, high-quality health care, potentially contributing to disparities in access to lung cancer screening and appropriate follow-up care. Improving access to healthcare systems, both financial with insurance coverage and geographic, is important in addressing the burden of lung cancer in vulnerable populations. Patient-Level Barriers A generational history of discrimination and mistrust contributes to perceptions of stigma and challenges with patient–provider communication. Black and Hispanic populations report higher levels of physician mistrust than white populations, with large variability among individuals with disparate socioeconomic status, geographic location, and insurance (71). Underrepresented racial/ethnic populations and individuals with low socioeconomic status demonstrate greater beliefs of fatalism, nihilism, and the futility of medical intervention, which frustrates attempts at cancer prevention, such as smoking cessation and lung cancer screening (72). Stigma regarding smoking perpetuates fatalism and feelings of hesitancy in seeking medical care (73). Implementation of lung cancer screening and smoking cessation programs requires addressing community beliefs regarding the importance of smoking cessation and risk of lung cancer, risk that is not well understood among individuals with low socioeconomic status (18). Go to: Conclusions Racial differences in smoking behaviors, lung cancer incidence, age at presentation, and mortality should be considered in lung cancer screening guidelines. Black individuals have higher incidence, earlier presentation, and increased mortality of lung cancer than white individuals, despite lower overall cigarette consumption. Lung cancer screening has maximum benefit when combined with smoking cessation and should be emphasized in all populations. Current lung cancer screening eligibility guidelines using the 30-pack-year criterion exclude a large percentage of high-risk, light-smoker black individuals. Revisions to screening guidelines should consider racial/ethnic variation in cigarette smoking, additional risk factors, and overall level of risk. Individuals with HIV have a disproportionately high burden of lung cancer morbidity and mortality, and thus HIV status should be considered in screening eligibility guidelines. Consideration of screening for those with known occupational exposures also deserves further discussion. Improving access to high-quality healthcare systems, both financially with insurance coverage and geographically with access to high-volume screening facilities, is essential to address the high incidence and mortality of lung cancer. Implementation of lung cancer screening and smoking cessation programs requires addressing community beliefs regarding the importance of smoking cessation and risks of lung cancer. Outcomes for high-risk individuals and patients with lung cancer will equalize once disparities in lung cancer screening eligibility and access to care are considered. We call on professional organizations caring for patients with lung cancer to address the disparities discussed in this review and translate them into actionable policy recommendations."

- rdfs:comment "Lung cancer is the leading cause of cancer death for both men and women in the United States, but certain high-risk populations experience greater morbidity and mortality. Racial disparities are predominant, as black males have the highest rates of age-adjusted lung cancer incidence among all U.S. racial/ethnic groups, specifically 73.5 per 100,000, versus 63.5 per 100,000 for white males (Table 1) (2).

This racial disparity in incidence persists in both smokers and never-smokers (9). Black males also have the highest lung cancer mortality compared with other racial/ethnic groups (62.1 vs. 51.7 age-adjusted overall mortality) (2). Black individuals develop lung cancer at an earlier age than white individuals (median age, 67 vs. 70 yr) (10) and are more likely to present with advanced-stage disease (53% among black individuals vs. 49% among white individuals) (11). Mortality racial differences narrow when adjusting for stage at diagnosis and equal access to care, but little progress has been made in diagnosing lung cancer at an earlier stage over past decades (12)."

- rdfs:comment "Lung cancer is the most common cause of cancer mortality in the United States (1). Overall survival for patients with lung cancer is poor, with a 5-year survival rate of 19% (1). Stage is one of the most important predictors of survival. For patients diagnosed with non–small-cell lung cancer, localized disease (stage I) has the best 5-year survival (57.4%), whereas in patients diagnosed with distant stage or metastatic disease (stage IV), 5-year survival is extremely poor (5.2%) (2). Despite the improved survival for early-stage non–small-cell lung cancer, only 16% of patients are diagnosed at localized stage (2). Lung cancer disproportionately affects certain high-risk populations, including black individuals, individuals with human immunodeficiency virus (HIV), and socioeconomically disadvantaged groups (1, 3–5) Lung cancer screening offers an opportunity for the early detection of lung cancer when surgical options are available to improve outcomes (6). With lung cancer screening, survival may be improved for even the most vulnerable, high-risk populations (7, 8). This review characterizes disparities in lung cancer screening in U.S. populations and describes system- and patient-level barriers that may influence lung cancer screening access."
- rdfs:comment "Multipronged Approach Eliminates Racial Disparities in Early-Stage Lung Cancer Treatment Subscribe March 5, 2019, by NCI Staff In a new study, a multipronged approach eliminated treatment disparities between black and white patients with early-stage lung cancer. Credit: iStock Black patients with lung cancer are likely to die sooner than white patients. Research going back two decades shows that these racial differences, or disparities, exist in part because black patients with lung cancer that is diagnosed at an early stage are less likely to be treatedExit Disclaimer for the cancer. New findings from a clinical study funded in part by NCI show that use of a multipronged approach designed to address some of the underlying causes of these disparities may help to reduce them. The approach not only eliminated treatment gaps between black and white patients with early-stage lung cancer, but also improved treatment rates for all patients. The three-pronged approach included: a real-time warning system tied to electronic health records, to keep patients from falling through the cracks; feedback to clinical teams on treatment completion rates for black and white patients; and trained nurse navigators to engage with patients to identify and resolve barriers to care. The results, published February 4 in Cancer Medicine, “are really promising,” said Christopher Lathan, M.D., M.P.H., an oncologist at Dana-Farber Cancer Institute who studies racial disparities in lung cancer treatment but was not involved with the study. “This is a great example of a multilevel approach that tries to address many different factors that contribute to racial disparities,” Dr. Lathan said. “It’s the type of intervention that we need to see tested and published, and hopefully expanded and confirmed going forward.” Multiple Factors Contribute to Disparities Treatment disparities between black and white patients with lung cancer occur for multiple reasons, said the new study's senior author, Samuel Cykert, M.D., of the UNC Lineberger Comprehensive Cancer Center in North Carolina. In 2006, for example, Dr. Lathan and his colleagues reported that black patients with early-stage lung cancer are less likely than white patients to have surgery recommended and more likely to refuse surgery, despite having similar access to care. And a 2010 study led by Dr. Cykert found that black patients with early-stage lung cancer who had two or more co-occurring health problems—such as a heart condition or diabetes—almost never had surgery for the cancer, despite the fact that these conditions are not good medical reasons for a person not to have surgery, he said. “Doctors were less willing to take the same treatment risks with patients who were [racially] different from them,” Dr. Cykert said. This may be due to implicit bias—attitudes or stereotypes that affect people’s understanding, actions, and decisions in an unconscious manner. The 2010 study also found that black patients who did not have a regular source of medical care tended to trust physicians less or have communication problems with physicians, leading them to drop out of care completely. Denial of their cancer diagnosis also played a role for some patients. Addressing Barriers to Care and Raising Awareness Dr. Cykert and his colleagues designed their approach, or intervention, to address multiple underlying causes of treatment disparities. They did so with input from the Greensboro Health Disparities Collaborative, an academic–community partnership formed in 2003 to better understand and reduce racial and ethnic health disparities. Nurse patient navigators involved in the study, as well as staff at the five participating cancer centers—two of which were community centers—took part in health equity education and training sessions. The real-time warning system pulled data from electronic health records daily and delivered alerts to nurse navigators when a patient missed a scheduled appointment or did not reach an expected care milestone, such as having potentially curative treatment with surgery or radiation scheduled within 90 days of their initial visit. If a patient missed an appointment, a nurse navigator who had established an initial relationship with the patient would then contact the patient to identify and help resolve barriers to care, Dr. Cykert said. If a treatment milestone was missed, the navigator alerted a “physician champion”—a doctor who engaged the clinical team and discussed possible remedies. The clinical team also received race-specific feedback on treatment completion rates “so that they could be more aware of racial disparity and address it in ongoing care for patients,” said Matthew Manning, M.D., of Cone Health Cancer Center in Greensboro, NC, one of the physician champions and study coauthor. “Many physicians are not aware of implicit bias in their own

practice, or that implicit bias from caregivers across the continuum of care contributes to racial disparity," Dr. Manning continued. "There is also a lack of awareness of barriers to access to care that fall more heavily on underserved populations," he said, such as the lack of access to reliable transportation. Black and White Patients Benefitted The study enrolled 130 black patients and 277 white patients newly diagnosed with early-stage (stage I or II) non-small cell lung cancer (NSCLC) at participating centers. Of those patients, 114 black patients and 246 white patients completed the intervention. The team compared the rates for receiving surgery or radiation for patients in the study with the rates of those treatments in what the researchers called a baseline control group: all patients diagnosed with early-stage NSCLC from the five participating centers during the 6-year period before the study started. In the baseline control group, 78% of white patients and 69% of black patients completed treatment with either surgery or radiation. By contrast, 96.5% of black patients and 95% of white patients in the study completed treatment. In other words, Dr. Manning said, "This study, by trying to close the gap between black and white patients, ended up improving treatment for everyone." To make sure that any improvement seen in the study participants was due to the intervention rather than something else, such as a trend in treatment that had developed over time, the team also looked at treatment completion rates in a second control group, Dr. Cykert explained. This group consisted of people with newly diagnosed early-stage lung cancer from two of the five participating centers who were seen at the same time as the patients in the study group but were not enrolled in the study. Treatment rates for both black and white patients in the study were better than those of patients in this second control group, the researchers found. The team established the two outside control groups rather than randomly assigning study patients to the intervention or a control group that received no intervention because they felt it was unethical not to provide the intervention to all patients who agreed to participate in the study. A Potential Blueprint for Reducing Disparities If the multilevel approach used in this study can be replicated and shown to be effective elsewhere, "then you have a blueprint that you can use to alleviate disparities in other areas of cancer care," Dr. Lathan said. Implementing the approach more widely would not be too difficult or costly because of the widespread use of electronic health records and the growing use of patient navigators in cancer treatment centers, Dr. Cykert believes. He acknowledged, however, that some special training would be needed. "What's great about this approach is that it's using a multilevel intervention to try to address many different factors that could be contributing to racial disparities in care," Dr. Lathan said. "The key to implementing it more widely is to figure out which of the three components of the intervention is the most effective, or if it's a combination of the three," he said. "This intervention helped everybody and that shouldn't be minimized," Dr. Lathan added. The involvement of community cancer centers in the study was important because most cancer care is delivered in community health programs rather than at universities and other academic cancer centers, Dr. Manning said. "To get equal health outcomes—that is, health equity—we need to address cultural differences, access to care, and other issues that are different among different races and populations," Dr. Manning concluded. "Making clinicians more aware of institutional racial disparity allows us to begin to address some of those barriers to care and move beyond health equality, which provides the same care to all patients, toward health equity.""

- rdfs:comment "The findings in this report indicate lung cancer incidence during 1998--2006 was higher in the black population and in persons in the southern United States. However, variation also was observed in lung cancer incidence among racial/ethnic groups by U.S. census region. These findings are consistent with reports indicating a higher incidence among blacks compared with other racial groups (2) and reports showing geographic differences in lung cancer incidence among AI/ANs (4). Racial/ethnic disparities in lung cancer incidence are associated with multiple factors, including differences in smoking prevalence,** metabolism of tobacco smoke products (6), susceptibility to tobacco-induced lung cancer (7), and socioeconomic status (8). Blacks are more susceptible to smoking-induced lung cancer (7) and have less access to health-care services compared with whites.†† These factors might contribute to the higher lung cancer incidence in the black population. Lung cancer also is caused by environmental exposures. Radon, for example, is a naturally occurring, colorless, odorless gas that can become trapped in buildings; it is the second leading cause of lung cancer overall, and the leading cause of lung cancer in nonsmokers.§§ This report presents an analysis of lung cancer incidence in all racial/ethnic groups by U.S. census region. The observed variation in lung cancer incidence by region parallels a reported variation in smoking prevalence across the United States, including higher smoking rates in the South and Midwest and lower rates in the West (9). Regional differences also were observed in smoking prevalence by race/ethnicity, including a higher smoking prevalence among whites in the South, blacks and Hispanics in the Midwest, and A/PIs in the West (9). State comprehensive tobacco control programs, which aim to reduce smoking and tobacco use, can help reduce regional variation of lung cancer incidence. The findings in this report are subject to at least four limitations. First, USCS data include only 80% of the entire U.S. population and therefore might not accurately represent the whole U.S. population. National estimates of lung cancer incidence might be underreported because many of the states that did not meet data-quality standards¶¶ are in the South, the region with the highest smoking prevalence (9). Despite incomplete U.S. population coverage, combined data from the NPCR and SEER programs provide the best source of information on population-based cancer incidence for the nation, and the only source of information for states having only NPCR-funded cancer surveillance programs. Second, information about smoking status is not available in the cancer registry data. As more complete incidence data become available for all populations in the United States, researchers might be able to further describe patterns of cancer incidence that are specifically related to tobacco use. Third,

racial/ethnic data in registries generally are of varying quality for AI/ANs and Hispanics (5). Finally, the distribution of lung cancer histologic types was not considered in this analysis. Although racial differences in histology have been shown in previous studies (3), unpublished analyses by CDC show little variation in lung cancer histology by region or race/ethnicity (CDC, unpublished data, 2010). Observed variations in lung cancer incidence among racial/ethnic groups likely are influenced by differences in smoking prevalence, exposure to carcinogens, and genetic susceptibility to lung cancer. Tobacco control efforts to prevent initiation and increase cessation have been effective in decreasing lung cancer incidence overall and in narrowing the race-based disparity among young adult smokers (i.e., those aged 20--39 years) (10). A recent CDC report indicates that smoking prevalence varies among racial/ethnic groups, and is highest among persons living below the federal poverty level and those with low educational attainment.*** Use of the U.S. Public Health Service Guidelines for Treating Tobacco Use and Dependence††† is recommended for all persons who use tobacco across the racial/ethnic groups included in this report. Smoking cessation counseling interventions (e.g., quitlines) and medications have been found to be effective cessation interventions in these various populations. CDC also recommends a comprehensive approach to tobacco control, including evidence-based tobacco prevention and cessation strategies.§§§ For example, given that disparities in cigarette use exist, targeted media campaigns should be implemented to reduce social inequalities in smoking and lower the risk for cancer-related morbidity and mortality in minority populations. Enhanced smoke-free laws, and reduced radon exposure also will help decrease lung cancer disparities.¶¶¶ In addition to the implementation of population-based interventions, continued surveillance of lung cancer incidence and smoking prevalence within subpopulations in the United States is warranted.****"

Superclasses (1)

- Demographic_Factors_LC

Disjoints (688)

'\'Abraxane_(Paclitaxel_Albumin-stabilized_Nanoparticle_Formulation)_\'', '\'Afinitor_(Everolimus)\'', '\'Afinitor_Disperz_(Everolimus)_\'', '\'Alecensa_(Alectinib)_\'', '\'Alimta_(Pemetrexed_Disodium)_\'', '\'Alunbrig_(Brigatinib)_\'', '\'Alymsys_(Bevacizumab)_\'', '\'Avastin_(Bevacizumab)_\'', '\'Cyramza_(Ramucirumab)_\'', '\'Enhertu_(Fam-Trastuzumab_Deruxtecan-nxki)_\'', '\'Etopophos_(Etoposide_Phosphate)_\'', '\'Exkivity_(Mobocertinib_Succinate)_\'', '\'Gavreto_(Pralsetinib)_\'', '\'Gemzar_(Gemcitabine_Hydrochloride)_\'', '\'Gilotrif_(Afatinib_Dimaleate)_\'', '\'Hycamtin_(Topotecan_Hydrochloride)_\'', '\'Imfinzi_(Durvalumab)_\'', '\'Imjudo_(Tremelimumab-actl)_\'', '\'Infugem_(Gemcitabine_Hydrochloride)_\'', '\'Iressa_(Gefitinib)_\'', '\'Keytruda_(Pembrolizumab)_\'', '\'Krazati_(Adagrasib)_\'', '\'Libtayo_(Cemiplimab-rwlc)_\'', '\'Lorbrena_(Lorlatinib)_\'', '\'Lumakras_(Sotorasib)_\'', '\'Mekinist_(Trametinib_Dimethyl_Sulfoxide)_\'', '\'Mvasi_(Bevacizumab)_\'', '\'Opdivo_(Nivolumab)_\'', '\'Portrazza_(Necitumumab)_\'', '\'Retevmo_(Selpercatinib)_\'', '\'Rozlytrek_(Entrectinib)_\'', '\'Rybrevant_(Amivantamab-vmjw)_\'', '\'Tabrecta_(Capmatinib_Hydrochloride)_\'', '\'Tafinlar_(Dabrafenib_Mesylate)_\'', '\'Tagrisso_(Osimertinib_Mesylate)_\'', '\'Taxotere_(Docetaxel)_\'', '\'Tecentriq_(Atezolizumab)_\'', '\'Tepmetko_(Tepotinib_Hydrochloride)_\'', '\'Trexall_(Methotrexate_Sodium)_\'', '\'Vizimpro_(Dacomitinib)_\'', '\'Xalkori_(Crizotinib)_\'', '\'Yervoy_(Ipilimumab)_\'', '\'Zirabev_(Bevacizumab)_\'', '\'Zykadia_(Ceritinib)_\'', 4A_NSCLC, 4B_NSCLC, Adagrasib_, Adherence_Based_on_Socioeconomics_LC, Adherence_Factors_LC, Adverse_Reactions_ABRAX, Adverse_Reactions_ADAGR, Adverse_Reactions_AFATI, Adverse_Reactions_AFINI, Adverse_Reactions_AFINIT, Adverse_Reactions_ALECE, Adverse_Reactions_ALIMT, Adverse_Reactions_ALUNB, Adverse_Reactions_ALYMS, Adverse_Reactions_AMIVA, Adverse_Reactions_ATEZO, Adverse_Reactions_AVAST, Adverse_Reactions_BRIGA, Adverse_Reactions_CAPMA, Adverse_Reactions_CEMIP, Adverse_Reactions_CYRAM, Adverse_Reactions_DOXOR, Adverse_Reactions_DURVA, Adverse_Reactions_ENHER, Adverse_Reactions_ENTRE, Adverse_Reactions_ERLOT, Adverse_Reactions_ETOP, Adverse_Reactions_ETOPO, Adverse_Reactions_EXKIV, Adverse_Reactions_GAVRE, Adverse_Reactions_GEFIT, Adverse_Reactions_GEMZA, Adverse_Reactions_GILOT, Adverse_Reactions_HYCAM, Adverse_Reactions_IMFIN, Adverse_Reactions_IMJUD, Adverse_Reactions_INFUG, Adverse_Reactions_IRESS, Adverse_Reactions_KEYTR, Adverse_Reactions_KRAZA, Adverse_Reactions_LIBTA, Adverse_Reactions_LORBR, Adverse_Reactions_LUMAK, Adverse_Reactions_LURB, Adverse_Reactions_MEKIN, Adverse_Reactions_METH, Adverse_Reactions_MVASI, Adverse_Reactions_OPDIV, Adverse_Reactions_PORTR, Adverse_Reactions_RAMUC, Adverse_Reactions_RETEV, Adverse_Reactions_ROZLY, Adverse_Reactions_RYBRE, Adverse_Reactions_SELPE, Adverse_Reactions_SOTOR, Adverse_Reactions_TABRE, Adverse_Reactions_TAFIN, Adverse_Reactions_TAGRIS, Adverse_Reactions_TAXOT, Adverse_Reactions_TECEN, Adverse_Reactions_TEPME, Adverse_Reactions_TOPO, Adverse_Reactions_TRAME, Adverse_Reactions_TREME, Adverse_Reactions_TREXA, Adverse_Reactions_VINOR, Adverse_Reactions_VIZIM, Adverse_Reactions_XALKO, Adverse_Reactions_YERVO, Adverse_Reactions_ZIRAB, Adverse_Reactions_ZYKAD, Afatinib_Dimaleate_, Age, Air_Pollution, Amivantamab-vmjw_, Atezolizumab_, Behavioral_Factors_LC, Beta_Carotene_Supplements_LC, Bio_Sensors_LC, Biological_Effects_LC, Breathalyzer_LC, Breathing_LC, Brigatinib_,

Capmatinib_Hydrochloride_, Causes_and_Risks_LC, Cemiplimab-rwlc_, Chemical_Sensors_LC, Choosing_Quality_of_Life_-_Reasons_People_Forego_Treatment, Choosing_Survival_-_Deciding_to_Undergo_Treatment, Clinical_Factors_LC, Complications_LC, Contraindications_ABRAX, Contraindications_ADAGR, Contraindications_AFATI, Contraindications_AFINI, Contraindications_AFINIT, Contraindications_ALECE, Contraindications_ALIMT, Contraindications_ALUNB, Contraindications_ALYMS, Contraindications_AMIVA, Contraindications_ATEZO, Contraindications_AVAST, Contraindications_BRIGA, Contraindications_CAPMA, Contraindications_CEMIP, Contraindications_CYRAM, Contraindications_DOXOR, Contraindications_DURVA, Contraindications_ENHER, Contraindications_ENTRE, Contraindications_ERLOT, Contraindications_ETOP, Contraindications_ETOPO, Contraindications_EXKIV, Contraindications_GAVRE, Contraindications_GEFIT, Contraindications_GEMZA, Contraindications_GILOT, Contraindications_HYCAM, Contraindications_IMFIN, Contraindications_IMJUD, Contraindications_INFUG, Contraindications_IRESS, Contraindications_KEYTR, Contraindications_KRAZA, Contraindications_LIBTA, Contraindications_LORBR, Contraindications_LUMAK, Contraindications_LURB, Contraindications_MEKIN, Contraindications_METH, Contraindications_MVASI, Contraindications_OPDIV, Contraindications_PORTR, Contraindications_RAMUC, Contraindications_RETEV, Contraindications_ROZLY, Contraindications_RYBRE, Contraindications_SELPE, Contraindications_SOTOR, Contraindications_TABRE, Contraindications_TAFIN, Contraindications_TAGRIS, Contraindications_TAXOT, Contraindications_TECEN, Contraindications_TEPME, Contraindications_TOPO, Contraindications_TRAME, Contraindications_TREME, Contraindications_TREXA, Contraindications_VINOR, Contraindications_VIZIM, Contraindications_XALKO, Contraindications_YERVO, Contraindications_ZIRAB, Contraindications_ZYKAD, Degrees_of_Smoking_LC, Diet_LC, Dosage_and_Administration_ABRAX, Dosage_and_Administration_ADAGR, Dosage_and_Administration_AFATI, Dosage_and_Administration_AFINI, Dosage_and_Administration_AFINIT, Dosage_and_Administration_ALECE, Dosage_and_Administration_ALIMT, Dosage_and_Administration_ALUNB, Dosage_and_Administration_ALYMS, Dosage_and_Administration_AMIVA, Dosage_and_Administration_ATEZO, Dosage_and_Administration_AVAST, Dosage_and_Administration_BRIGA, Dosage_and_Administration_CAPMA, Dosage_and_Administration_CEMIP, Dosage_and_Administration_CYRAM, Dosage_and_Administration_DOXOR, Dosage_and_Administration_DURVA, Dosage_and_Administration_ENHER, Dosage_and_Administration_ENTRE, Dosage_and_Administration_ERLOT, Dosage_and_Administration_ETOP, Dosage_and_Administration_ETOPO, Dosage_and_Administration_EXKIV, Dosage_and_Administration_GAVRE, Dosage_and_Administration_GEFIT, Dosage_and_Administration_GEMZA, Dosage_and_Administration_GILOT, Dosage_and_Administration_HYCAM, Dosage_and_Administration_IMFIN, Dosage_and_Administration_IMJUD, Dosage_and_Administration_INFUG, 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Nutrition_LC, Occupational_Exposure, Physical_Activity_For_Mitigation_of__LC, Physical_Activity_For_Prevention_Of_LC, Preventative_habits_LC, Quitting/Not_Smoking_LC, **Racial/Ethnic**, Radiation_Exposure_LC, Ramucirumab_, Recurring_LC_NSCLC, Recurring_LC_SCLC, Rural_LC, Second-hand_Smoke_LC, Secondhand_Smoke_LC, Selpercatinib_, Sensor_Factors_LC, Size_of_the_community_LC, Sleep_LC, Small_Cell_LC, Small_Cell_LC_SCLC, Small_Cell_Lung_Cancer, Small_Cell_Medication_LC_, Smoke_LC, Smokers_LC, Smokers_NSCLC, Smokers_SCLC, Smoking_LC, Smoking_Marijuana_LC, Smoking_Other_Drugs_LC, Smoking_Tobacco_LC, Sotorasib_, Stage_0_NSCLC, Stage_1_NSCLC, Stage_1_SCLC, Stage_2_NSCLC, Stage_3A_NSCLC, Stage_3B_NSCLC, Stage_4_NSCLC, Support_Groups_LC, Symptoms_and_Tests_LC, Symptoms_NSC, Symptoms_SC, Tests_NSC, Tests_SC, Tobacco_Smoking, Tobacco_Smoking_LC, Topotecan_Hydrochloride_,

Tramentinib_Dimethyl_Sulfoxide, Treatment_Regimens_LC, Treatments_LC, Tremelimumab-actl_, Urban_LC, Use_in_Specific_Populations_ABRAX, Use_in_Specific_Populations_ADAGR, Use_in_Specific_Populations_AFATI, Use_in_Specific_Populations_AFINI, Use_in_Specific_Populations_AFINIT, Use_in_Specific_Populations_ALECE, Use_in_Specific_Populations_ALIMT, Use_in_Specific_Populations_ALUNB, Use_in_Specific_Populations_ALYMS, Use_in_Specific_Populations_AMIVA, Use_in_Specific_Populations_ATEZO, Use_in_Specific_Populations_AVAST, Use_in_Specific_Populations_BRIGA, Use_in_Specific_Populations_CAPMA, Use_in_Specific_Populations_CEMIP, Use_in_Specific_Populations_CYRAM, Use_in_Specific_Populations_DOXOR, Use_in_Specific_Populations_DURVA, Use_in_Specific_Populations_ENHER, Use_in_Specific_Populations_ENTRE, Use_in_Specific_Populations_ERLOT, Use_in_Specific_Populations_ETOP, Use_in_Specific_Populations_ETOPO, Use_in_Specific_Populations_EXKIV, Use_in_Specific_Populations_GAVRE, Use_in_Specific_Populations_GEFIT, Use_in_Specific_Populations_GEMZA, Use_in_Specific_Populations_GILOT, Use_in_Specific_Populations_HYCAM, Use_in_Specific_Populations_IMFIN, Use_in_Specific_Populations_IMJUD, Use_in_Specific_Populations_INFUG, Use_in_Specific_Populations_IRESS, Use_in_Specific_Populations_KEYTR, Use_in_Specific_Populations_KRAZA, Use_in_Specific_Populations_LIBTA, Use_in_Specific_Populations_LORBR, Use_in_Specific_Populations_LUMAK, Use_in_Specific_Populations_LURB, Use_in_Specific_Populations_MEKIN, Use_in_Specific_Populations_METH, Use_in_Specific_Populations_MVASI, Use_in_Specific_Populations_OPDIV, Use_in_Specific_Populations_PORTR, Use_in_Specific_Populations_RAMUC, Use_in_Specific_Populations_RETEV, Use_in_Specific_Populations_ROZLY, Use_in_Specific_Populations_RYBRE, Use_in_Specific_Populations_SELPE, Use_in_Specific_Populations_SOTOR, Use_in_Specific_Populations_TABRE, Use_in_Specific_Populations_TAFIN, Use_in_Specific_Populations_TAGRIS, Use_in_Specific_Populations_TAXOT, Use_in_Specific_Populations_TECEN, Use_in_Specific_Populations_TEPME, Use_in_Specific_Populations_TOPO, Use_in_Specific_Populations_TRAME, Use_in_Specific_Populations_TREME, Use_in_Specific_Populations_TREXA, Use_in_Specific_Populations_VINOR, Use_in_Specific_Populations_VIZIM, Use_in_Specific_Populations_XALKO, Use_in_Specific_Populations_YERVO, Use_in_Specific_Populations_ZIRAB, Use_in_Specific_Populations_ZYKAD, Vinorelbine_Tartrate_, Warnings_and_Precautions_ABRAX, Warnings_and_Precautions_ADAGR, Warnings_and_Precautions_AFATI, Warnings_and_Precautions_AFINI, Warnings_and_Precautions_AFINIT, Warnings_and_Precautions_ALECE, Warnings_and_Precautions_ALIMT, Warnings_and_Precautions_ALUNB, Warnings_and_Precautions_ALYMS, Warnings_and_Precautions_AMIVA, Warnings_and_Precautions_ATEZO, Warnings_and_Precautions_AVAST, Warnings_and_Precautions_BRIGA, Warnings_and_Precautions_CAPMA, Warnings_and_Precautions_CEMIP, Warnings_and_Precautions_CYRAM, Warnings_and_Precautions_DOXOR, Warnings_and_Precautions_DURVA, Warnings_and_Precautions_ENHER, Warnings_and_Precautions_ENTRE, Warnings_and_Precautions_ERLOT, Warnings_and_Precautions_ETOP, Warnings_and_Precautions_ETOPO, Warnings_and_Precautions_EXKIV, Warnings_and_Precautions_GAVRE, Warnings_and_Precautions_GEFIT, Warnings_and_Precautions_GEMZA, Warnings_and_Precautions_GILOT, Warnings_and_Precautions_HYCAM, Warnings_and_Precautions_IMFIN, Warnings_and_Precautions_IMJUD, Warnings_and_Precautions_INFUG, Warnings_and_Precautions_IRESS, Warnings_and_Precautions_KEYTR, Warnings_and_Precautions_KRAZA, Warnings_and_Precautions_LIBTA, Warnings_and_Precautions_LORBR, Warnings_and_Precautions_LUMAK, Warnings_and_Precautions_LURB, Warnings_and_Precautions_MEKIN, Warnings_and_Precautions_METH, Warnings_and_Precautions_MVASI, Warnings_and_Precautions_OPDIV, Warnings_and_Precautions_PORTR, Warnings_and_Precautions_RAMUC, Warnings_and_Precautions_RETEV, Warnings_and_Precautions_ROZLY, Warnings_and_Precautions_RYBRE, Warnings_and_Precautions_SELPE, Warnings_and_Precautions_SOTOR, Warnings_and_Precautions_TABRE, Warnings_and_Precautions_TAFIN, Warnings_and_Precautions_TAGRIS, Warnings_and_Precautions_TAXOT, Warnings_and_Precautions_TECEN, Warnings_and_Precautions_TEPME, Warnings_and_Precautions_TOPO, Warnings_and_Precautions_TRAME, Warnings_and_Precautions_TREME, Warnings_and_Precautions_TREXA, Warnings_and_Precautions_VINOR, Warnings_and_Precautions_VIZIM, Warnings_and_Precautions_XALKO, Warnings_and_Precautions_YERVO, Warnings_and_Precautions_ZIRAB, Warnings_and_Precautions_ZYKAD

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