

## Medtalks with Dr KK Aggarwal

**“When nations work together, hope prevails and collective solutions can be found”,** says UN chief. From conflict and economic downturn to disease and climate change, global problems require “more than ever” a strengthening of international cooperation, United Nations Secretary-General António Guterres told world leaders at the Paris Peace Forum recently, commemorating 100 years since the end of the First World War.

**The American Heart Association (AHA) looks beyond heart disease and stroke to improve overall health and well-being globally:** As heart disease and stroke continue to claim more lives worldwide than all other causes, the AHA is boldly growing beyond borders and its core business to advance health and well-being across the globe. It’s all part of the Association’s new mission: To be a relentless force for a world of longer, healthier lives. *“We are creating an Emerging Strategies and Ventures group to start stand-alone ventures in areas such as precision medicine, data as an asset, health technology, drug discovery, venture capital investing and brain health and healthy aging”,* said Chief Executive Officer Nancy Brown.

**Every bite of burger boosts harmful greenhouse gases:** Even though meat production is known to be a major contributor to climate change and environmental destruction, worldwide demand for meat continues to rise, said UN environment agency, UNEP, in a statement.

According to the World Economic Forum, the beef and dairy industry is responsible for more greenhouse gas emissions than the world’s biggest oil companies, with the combined emissions of the top meat and dairy companies exceeding those of highly industrialized nations such as Germany or the UK. Despite this fact, the global meat industry continues to grow, with the Food and Agriculture Organization (FAO) predicting a 76% increase in global meat consumption by 2050: more meat will be eaten than ever before in our history... (UN)

**Cardiac arrest survival higher in states with required high school CPR training:** Required CPR education in high school may lead to higher bystander CPR and cardiac arrest survival rates, according to preliminary research presented in Chicago at the American Heart Association’s Resuscitation Science Symposium 2018. Analysis of data from more than 1,09,668 out-of-

hospital cardiac arrests patients revealed that 41.3% of people who suffered cardiac arrest outside of a hospital received bystander CPR before emergency medical services arrived, compared to 36.1% in states without CPR education laws enacted.

**A position statement on management of individuals with patellofemoral pain** by the National Athletic Trainers’ Association recommends a multimodal plan of care, which should include gluteal- and quadriceps-strengthening exercises, patient education and activity modification. Referral for surgical intervention should be considered only if the patient presents with either evident lateral patellar compression or patellar instability and has failed to improve despite exhaustive rehabilitation attempts (*Journal of Athletic Training*. Sept. 2018).

**Parents shouldn’t worry if their infant doesn’t sleep through the night** by 6-12 months of age, says a new study reported online Nov. 12, 2018 in the journal *Pediatrics*. As per the authors, a large percentage of developmentally normal, healthy babies don’t reach that milestone by 6 months of age, or even a year old. Sleeping through the night was defined as either 6 or 8 hours of sleep without waking up.

**Smokers with peripheral artery disease (PAD) would do well to quit smoking, but many doctors may not be giving them enough support to do it,** suggests a study titled *“Underutilization of evidence-based smoking cessation support strategies despite high smoking addiction burden in peripheral artery disease specialty care: Insights from the International PORTRAIT Registry”* published in the *Journal of the American Heart Association*. The researchers examined data on 1,272 patients in Australia, the Netherlands and the US with new or worsening PAD symptoms. Overall, one third of patients were current smokers, but fewer than one in five were referred to smoking cessation counseling and just one in 10 were prescribed a medication to help them quit... (*Medscape*)

**Proper delegation can help avoid litigation:** In the complicated maze of medical referrals and authorizations, a physician’s reliance on a competent staff to work with benefit providers to complete any necessary paperwork is eminently reasonable. In the end, though, the patient will look to the physician as the one ultimately responsible for completing the task. **Even if you think paperwork has been completed, it’s**

**best to check to avoid errors in patient care.** Ensure that everyone in the practice understands their duties and responsibilities up front, and review procedures regularly to solidify understanding of all necessary tasks... (*Medscape*)

**Adolescent obesity is associated with up to a fourfold increased risk of future pancreatic cancer.** Overweight and even higher weight within the “normal” weight range in men may increase pancreatic cancer risk in a graded manner, according to a study published in the journal *Cancer*.

**US Department of Health and Human Services (HHS) includes preschoolers for the first-time in the 2nd edition of its guideline on physical activity for Americans,** which says that regular physical activity has health benefits for everyone, regardless of age, sex, race, ethnicity or body size. The recommendations published Nov.12, 2018 in *JAMA* are:

- Preschool-aged children (3 through 5 years) should be physically active throughout the day to enhance growth and development.
- Children and adolescents aged 6 through 17 years should do 60 minutes or more of moderate-to-vigorous physical activity daily.
- Adults should do at least 150 minutes to 300 minutes a week of moderate-intensity, or 75 minutes to 150 minutes a week of vigorous-intensity aerobic physical activity, or an equivalent combination of moderate- and vigorous-intensity aerobic activity. They should also do muscle-strengthening activities on 2 or more days a week.
- Older adults should do multicomponent physical activity that includes balance training as well as aerobic and muscle-strengthening activities.
- Pregnant and postpartum women should do at least 150 minutes of moderate-intensity aerobic activity a week.
- Adults with chronic conditions or disabilities, who are able, should follow the key guidelines for adults and do both aerobic and muscle-strengthening activities.

**Of all human diseases, 60% originate in animals; “One Health” is the only way to keep antibiotics working, says WHO:** “Human, animal and environment health are all equally responsible for the correct use of antimicrobials and to avert the threat of antimicrobial resistance,” said Dr Zsuzsanna Jakab, WHO Regional Director for Europe. “As we strive to ensure that antibiotics are rightly used in the community and in healthcare settings, one

sector alone will not solve the problem. A ‘One Health’ approach brings together professionals in human, animal, food and environment health as one force, and as such is the only way to keep antibiotics working. I call on all European countries to secure the highest commitment to this approach from the whole of society and the whole of government.” (*WHO Europe*)

**Polypharmacy and legacy prescribing raise risks for drug interactions** as well as adverse reactions to individual medications. Such effects include falling, poor nutrition and altered cognition. With more prescriptions to manage daily, patients may face adherence challenges and risk skipping or taking extra doses. “Legacy prescribing” is the prescribing of drugs for a longer period than is typically needed to treat a condition. The primary care setting is a source of legacy prescribing because it is the coordinating center and gatekeeper for managing patients with multiple morbidities, Dee Mangin, MBChB, DPH, FRNZCG, from McMaster University in Ontario and the University of Otago in Christchurch, New Zealand and colleagues write in the *Annals of Family Medicine*... (*Medscape*)

**Cancer appears to be overtaking heart disease as the leading cause of death in the US,** especially in higher-income populations, according to an observational study of 12 years of county mortality records published in the *Annals of Internal Medicine*.

**Antibiotics are used far more in some countries than in others,** a survey “WHO Report on Surveillance of Antibiotic Consumption” by the World Health Organization showed recently, suggesting that urgent action was needed to slash unnecessary consumption of the medicines. The survey looked at antibiotic use in 65 countries and found the Netherlands used 9.78 defined daily doses (DDD)/1,000 people, while Britain used twice as much and Turkey almost twice as much again, at 38.18 DDD/1,000 inhabitants. Iran’s consumption was similar to Turkey’s, while Mongolia’s was the highest of all among the countries surveyed, at 64.41 DDD/1,000 people. Collecting the data is vital for tackling antimicrobial resistance, the extremely worrying trend of bacterial infections becoming immune to antibiotics. The lowest score was for Burundi, with just 4.44 DDD/1,000 people, which the WHO said reflected limited data. A low score could also suggest that consumption is too low, leaving the population at risk of infectious diseases... (*Deccan Chronicle*)

**All adults should be screened for unhealthy alcohol use, says USPSTF** as it recommends screening for unhealthy alcohol use in primary care settings in

adults 18 years or older, including pregnant women, and providing persons engaged in risky or hazardous drinking with brief behavioral counseling interventions to reduce unhealthy alcohol use (B recommendation) in a new updated statement published Nov. 13, 2018 in JAMA.

#### Some definitions on unhealthy alcohol use

- USPSTF: “Unhealthy alcohol use” is a spectrum of behaviors, from risky drinking to alcohol use disorder (AUD) (e.g., harmful alcohol use, abuse, or dependence). “Risky” or “hazardous” alcohol use means drinking more than the recommended daily, weekly or per-occasion amounts, resulting in increased risk for health consequences but not meeting criteria for AUD.
- National Institute on Alcohol Abuse and Alcoholism (NIAAA): “Risky use” as exceeding the recommended limits of 4 drinks/day (56 g/d based on the US standard of 14 g/drink) or 14 drinks per week (196 g/d) for healthy adult men aged 21-64 years or 3 drinks/day or 7 drinks/week (42 g/d or 98 g/week) for all adult women of any age and men 65 years or older.
- American Society of Addiction Medicine (ASAM): “Hazardous use” is alcohol use that increases the risk of future negative health consequences.

**A 5-minute neck scan, which analyzes the pulse of blood vessels in the neck, could predict a person’s risk of developing dementia** a full decade before symptoms emerge, say researchers from University College London. Their findings were presented at the American Heart Association’s annual scientific conference.

**Malaria control programs in Brazil, Paraguay and Suriname (as below) have received the “Malaria Champions of the Americas” award**, given out each year by the Pan American Health Organization (PAHO) and its partners to initiatives that contribute to eliminating the disease in the region (PAHO/WHO).

- Suriname’s Malaria program, for introducing a solid, people-centered approach model to health, particularly focused on migrant miners and indigenous communities. The initiative has created local capacities and has led to improvements in diagnosis, treatment and vector control. It has also integrated health services and has sought innovative operational and technological solutions.
- The Machadinho D’Oeste Municipal Malaria Control program, also in Brazil, that implemented a series of strategies that led to greater access to

diagnosis and treatment, the use of mosquito nets and a 44% reduction in cases of malaria between 2016 and 2017.

- The Alto Río Solimões malaria program in Brazil, for its efforts to control malaria in indigenous areas. This local program managed to reduce cases of the disease by 70% since 2015 in a hard-to-access area, where 70,000 people live in 13 villages along the banks of the river.
- The National Malaria Control Program in Paraguay, which has provided universal access to malaria diagnosis and treatment. The work of the program has ensured that the country has not registered any autochthonous cases of malaria since 2011. In June 2018, Paraguay became the first country in the Region in 45 years to obtain official WHO certification for having eliminated malaria.

An estimated 12 million people may be victims of statelessness the impact of which is “immediate and can be dire”, the UN refugee agency (UNHCR). Echoing that message, UNHCR Chief Filippo Grandi appealed for “decisive action” from governments to eliminate the problem, noting that it is the right thing to do, “humanly, ethically and politically”. Stateless people “still face huge barriers to exercising fundamental human rights”, such as education, medical care or legal employment, the High Commissioner said, before calling for States to tackle discrimination in nationality laws, which is regarded as the biggest driver of the problem... (UN)

**‘Make healthy choices’ to prevent and manage chronic diabetes, says WHO:** The global prevalence of adult diabetes has nearly quadrupled since 1980, the World Health Organization (WHO) said recently on the World Diabetes Day, with the call to “eat healthily, be physically active and avoid excessive weight gain.” Diabetes is a major cause of blindness, kidney failure, heart attack, stroke and lower limb amputation,” said WHO, noting that about 422 million adults have the disease – a number that has been increasing steadily over the last three decades. WHO Spokesperson Fadela Chaib said that was largely due to changes in lifestyle: “We are eating more heavy foods, full of fat and sugar; we are less physically active; and we have a more sedentary way of living.”

**A set of guiding principles from an American Medical Association council on assessing the competency of senior/late career physicians failed to gain adoption** at the AMA’s interim meeting in

National Harbor, Maryland in the US. In a floor vote of 281-222 recently, delegates sent the report back to the Council on Medical Education, which issued the guiding principles. Some hospitals and health systems already require competency testing by older physicians, but there are currently no standards for these tests. In committee discussions, Marlys Witte, MD, a delegate of the Organized Medical Staff section, questioned how one major benefit of aging “wisdom” could be measured... (*Medpage Today*).

**Record number of tick-borne diseases reported in US in 2017:** New data from the Centers for Disease Control and Prevention (CDC) show tick-borne diseases are again on the rise. In 2017, state and local health departments reported a record number of cases of tick-borne disease to CDC. Cases of Lyme disease, anaplasmosis/ehrlichiosis, spotted fever rickettsiosis (including Rocky Mountain spotted fever), babesiosis, tularemia and Powassan virus disease all increased—from 48,610 cases in 2016 to 59,349 cases in 2017. These 2017 data capture only a fraction of the number of people with tick-borne illnesses. Under-reporting of all tickborne diseases is common, so the number of people actually infected is much higher. While the reason for this increase is unclear, a number of factors can affect tick numbers each year, including temperature, rainfall, humidity, and host populations such as mice and other animals ... (CDC)

#### **Steps to protect against tick-borne diseases (CDC)**

- Using Environmental Protection Agency (EPA)-registered insect repellents containing DEET, picaridin, IR3535, Oil of Lemon Eucalyptus (OLE), para-menthane-diol (PMD) or 2-undecanone. Always follow product instructions.
- Treating clothing and gear with products containing 0.5% permethrin. Permethrin can be used to treat boots, clothing and camping gear and remain protective through several washings.
- Checking your body and clothing for ticks upon return from potentially tick-infested areas, including your own backyard. Use a hand-held or full-length mirror to view all parts of your body. Place tick-infested clothes in a dryer on high heat for at least 10 minutes to kill ticks on dry clothing after you come indoors.
- Showering soon after being outdoors. Showering within 2 hours of coming indoors has been shown to reduce your risk of getting Lyme disease and may be effective in reducing the risk of other tick-borne diseases. Showering may help wash

off unattached ticks and is a good time to do a tick check.

**London’s low-emission zone ineffective in improving child lung health,** suggest a new annual cross-sectional study published November 14, 2018 in *The Lancet*. Within London’s LEZ, a smaller lung volume in children was associated with higher annual air pollutant exposures. There was no evidence of a reduction in the proportion of children with small lungs over this period, despite small improvements in air quality in highly polluted urban areas during the implementation of London’s LEZ, which are areas with a daily charge for vehicles that do not meet emission requirements were introduced in 2008 and have led to small improvements in nitrogen dioxide and nitrogen oxide levels, found in diesel emissions.

**Evidence suggests ‘viral association’ for acute flaccid myelitis (AFM),** says CDC. Ninety-nine percent of children with confirmed AFM had experienced a viral illness with symptoms such as fever and cough about three to 10 days before the onset of paralysis. The CDC also seems to be getting closer to determining a cause of the disease. According to the new report, “Clinical, laboratory, and epidemiologic evidence to date suggest a viral association.” (CNN)

**The American Thoracic Society (ATS) has expressed grave concern and disappointment in the FDA’s decision to approve over-the-counter epinephrine for consumer use to treat asthma** in a press communication dated Nov. 12, 2018. **FDA’s decision contradicts existing and established clinical practice guidelines.** Several expert panels have produced evidence-based recommendations on the treatment of patients with asthma. None of these guidelines recommend the use of inhaled epinephrine to treat asthma. The National Asthma Education and Prevention Program (NAEPP), an expert panel convened by the National Institutes of Health recommends against the use of epinephrine for treating asthma exacerbations, stating:

- Drugs of choice for acute bronchospasm: Inhaled route has faster onset, fewer adverse effects, and is more effective than systemic routes.
- The less beta 2-selective agents such as epinephrine, isoproterenol, metaproterenol and isoetharine are not recommended due to their potential for excessive cardiac stimulation, especially in high doses.

By approving an over-the-counter epinephrine product to treat asthma, the FDA is endorsing a contraindicated treatment for asthma. The FDA should know that our patients deserve better.



**Violent crime in a city has been linked to increased blood pressure (BP)** for its residents, including those who live in relatively low-crime areas in a population-based study of more than 53,000 adults in Chicago, Illinois, between May 2014 and August 2016, presented at the recent American Heart Association (AHA) Scientific Sessions 2018 in Chicago. Overall, the areas with lower crime rates had fewer patients with elevated BP than areas with higher crime rates; 22.5% vs. 36.5%, respectively (*Medscape*).

**Suicide increasing among workers and varies by occupation in the US**, says a new report published in *CDC's Morbidity and Mortality Weekly Report (MMWR)*, which examined lifetime occupations of 22,053 people aged 16-64 years old who died by suicide in the 17 states participating in the National Violent Death Reporting System (NVDRS) in 2012 and 2015.

- Top 3 major occupational groups by suicide rate among males in 2015 were construction and Extraction; Arts, Design, Entertainment, Sports and Media; Installation, Maintenance and Repair.
- Top 3 major occupational groups by suicide rate among females in 2015 were Arts, Design, Entertainment, Sports and Media; Protective Service; Health Care Support.

**Farmers on the frontline in battle against drug-resistant microbes:** The United Nations FAO has revealed that as some 7,00,000 people are dying each year from antimicrobial resistant infections, an untold number of sick animals are also suffering from diseases that do not respond to treatment. Marking World Antibiotic Awareness Week, FAO stressed that farmers have a vital role to play in stemming the spread of antimicrobial resistance and called on them to boost hygiene practices in day-to-day farm operations. **"When we use antimicrobials excessively on farms, we're contributing to the spread of AMR**, as resistant pathogens move into the environment through animal waste and farm runoff. They can even contaminate our food systems and market chains, moving from the fields and stables to our tables," said Juan Lubroth, FAO's Chief Veterinary Officer.

According to FAO, **one person dies every minute from a drug-resistant infection**, a number that will only increase without global action. By 2050, the growing AMR threat will cost the global economy an estimated \$6 trillion dollars every year.

**Reliable surveillance helps combat antimicrobial resistance, says CAESAR report** (WHO Europe, Nov. 15, 2018): As the international community calls for more

and better information to add to the ever-growing body of evidence on the effects of antimicrobial resistance (AMR) on humans, animals, the environment and the economy, policy-makers need access to reliable surveillance data. This data is crucial for monitoring the status of key antimicrobial classes in the European Region, and to track how effective policies have been in addressing this public health challenge. The latest Annual Central Asian and Eastern European Surveillance of Antimicrobial Resistance (CAESAR) report reveals steady progress towards forming a more complete picture of AMR in Europe. Updates in this reporting period include:

- Eleven countries and one area have an AMR reference laboratory in place.
- Ten countries and one area provide data to the CAESAR network.
- Participation in the external quality assessment (EQA) for laboratories has again expanded with 248 laboratories from 16 countries/areas, and overall results continue to improve.
- Two central Asian countries are preparing to implement a proof-of-principle project, while one additional country concluded a project in October 2018.

**"I'm interested in the idea of green space as a drug, as a treatment,"** said Eugenia South, MD, of the University of Pennsylvania, discussing her study that converted vacant lots in Philadelphia into green space and examined the mental health effects on local residents. The study found that among people exposed to a community-based intervention that converted vacant lots in Philadelphia into green space, self-reported feelings of depression and worthlessness were significantly decreased, and self-reported poor mental health was nonsignificantly reduced for those living near greened vacant land (*JAMA Network Open*. July 20, 2018).

**Congo's Ebola outbreak will last at least another 6 months** predicts the emergencies chief for the WHO, saying that informal health facilities have become "major drivers" of the current, deadly transmission. Dr Peter Salama said that makeshift "tradi-modern" health centers — offering both traditional and modern treatment — were believed to be linked to more than half of cases in Beni, the largest city affected by the current outbreak that has taken more than 200 lives. Salama, who returned from a trip to Ebola-hit eastern Congo last week, it appeared "very likely" that some cases of Ebola had been misdiagnosed as malaria, because early symptoms are virtually identical. He said that the WHO

is planning on “at least another 6 months before we could declare this outbreak over.” (*The Japan Times*)

**FDA alerts doctors and patients about risk of serious complications that can occur when implanted pumps are used to deliver pain medications not approved for use with devices** that deliver medication into the spinal fluid to treat or manage pain. Complications may include dosing errors, pump failure, opioid withdrawal, infection and other complications like pain, fever, vomiting, muscle spasms, cognitive changes, weakness and cardiac or respiratory distress.

**Oral cancer cases rise by 114% in India in 6 years:** The number of cancer cases countrywide has gone up in the last 6 years by 15.7%. Data shared by Indian Council of Medical Research’s National Institute of Cancer Prevention and Research recently showed that 11.5 lakh cancer cases were reported across the country this year, as against 10 lakh in 2012. ICMR cancer center director Dr Ravi Mehrotra said lip and oral cavity cancers increased by a whopping 114% in the 6-year period. Breast cancer, emerging as a disease linked to urban lifestyle, increased by almost 11%, from 1.4 lakh in 2012 to 1.6 lakh in 2018. However, a sharp decrease in cervical cancer cases has been observed by 21%, from 1.23 lakh in 2012 to 96 in 2018. As per the new data, cancer-related deaths also increased by 12%. While 7 lakh Indians died of cancer-related complications in 2012, the number increased to 7.8 lakh this year... (*ET Healthworld*, Nov. 16, 2018)

**Choosing Wisely: Questions parents should ask about their hospitalized child’s antibiotics:** The American Academy of Pediatrics (AAP), as part of the Choosing Wisely® campaign, wants to protect hospitalized children from the effects of antibiotic resistance by providing a list of recommendations to serve as a starting point of conversation for physicians and patients. **The five items that physicians and patients should question** on the Choosing Wisely List of Antibiotic Stewardship in Hospitalized Children are:

- Before antibiotics are prescribed, testing of the patient’s blood, urine and other appropriate cultures should be undertaken to confirm suspected invasive bacterial infection.
- During surgery, the dose and timing of antibiotics to prevent infection are important for optimal effect, and should not be used indiscriminately.
- Ampicillin is the first choice of treatment for children hospitalized with community-acquired pneumonia who are otherwise healthy and immunized. Broader-spectrum antibiotics, such as

cephalosporins, have been shown to contribute to antibiotic resistance and are often unnecessary.

- Antibiotics such as vancomycin or carbapenems should be avoided unless a child is known to have a specific risk for pathogens that are resistant to other antibiotics.
- Avoid using prolonged courses of IV antibiotics. For most infections, children respond well to orally administered antibiotics after a brief course of intravenous therapy. Peripherally inserted central catheters, used to facilitate prolonged courses of IV antibiotics, often result in complications.

**Multi- and extensively drug-resistant infections, especially Gram-negative infections associated with higher in-hospital mortality rates in India:** In an analysis of data from 10 hospitals across India in a retrospective observational study, researchers at the Center for Disease Dynamics, Economics & Policy (CDDEP) report that in-hospital mortality is significantly higher among patients infected with multidrug-resistant (MDR) or extensively drug-resistant (XDR) pathogens including *Staphylococcus aureus*, *Escherichia coli*, *Klebsiella pneumoniae* and *Acinetobacter baumannii*... (*Clinical Infectious Diseases*, Nov. 8, 2018).

**Beijing issues rare public warning on ‘serious’ swine fever crisis:** Chinese authorities have announced strict new measures in an attempt to halt the country’s fast-growing African swine fever crisis, which has spread to 18 provinces and led to the culling of more than 2,00,000 pigs. Days after acknowledging the situation was “serious,” the Chinese Agricultural Ministry recently reported the first outbreak of the disease in the southwestern province of Sichuan in a farm of 40 pigs.

**The directive called for stricter nationwide inspections of all livestock transportation vehicles, and harsher punishments for the illegal transportation and slaughter of pigs:** The document comes after the United Nations recently warned that the disease is “here to stay” in China and could quickly turn into an epidemic, with the most virulent strain of swine fever causing a 100% fatality rate for infected pigs ...(*CNN*).

**Sixty-nine percent of respondents in the 9th Annual Physicians Practice Great American Physician Survey reported that they would consider going part time.** And while about two-thirds (64%) of respondents don’t want to change workplaces, 29% said the main reason why they would prefer to work somewhere else is to work better hours or achieve greater work-life balance. A growing number of respondents (46%) said they would consider becoming a locum

tenens physician, suggesting the traditional work environment is no longer as appealing to the 91% of respondents who have been practicing at least 11 years. Today, physicians are increasingly open to the idea that they no longer need to be—or perhaps even want to be—tied to a single employer. Portfolio careers, where physicians have the flexibility to pursue multiple areas of focus and manage multiple revenue streams, are gaining traction. This strategy can provide high levels of job satisfaction, some much-desired mental stimulation, and a good income, too, writes Julie Knudson in *Physician Practice*.

**The American Diabetes Association (ADA) reaffirms commitment to insulin access and affordability for all—Transparency on Insulin Pricing Critical:** On the second anniversary of the Make Insulin Affordable initiative, the ADA announces that more than 4,00,000 Diabetes Advocates have joined the call for affordable insulin for all who need it—the largest response to an ADA call to action to date. After its examination of the insulin supply chain, ADA and its Insulin Access and Affordability Working Group (Working Group) published recommendations and public policy solutions to address the problem. The ADA reaffirms its commitment to implementing these solutions and achieving affordable insulin for all who need it... (*ADA News Release*. Nov. 16, 2018)

#### 10 Tips for staying healthy during wildfires (American Thoracic Society)

1. Stay indoors with windows and doors closed.
2. Reduce physical activity.
3. Reduce other sources of indoor air pollution such as smoking cigarettes, using a wood-burning stove or frying meat. Do not vacuum anywhere in the house.
4. Use central air conditioner or filters: A home's heater set to the fan mode may be able to filter out some of the particles by "re-circulating" the indoor air through the filter.
5. Use air purifiers with HEPA filters. Note: Do not use filters that produce ozone such as "super oxygenators".
6. When traveling in a vehicle, keep windows closed, run the air conditioner and set air to re-circulate to reduce smoke.
7. An N95 or greater mask can help reduce inhalation of particulates if properly fitted. A surgical or simple dust mask will not protect against particulate

exposure. None of these masks protect against hazardous gas inhalation.

8. Consider evacuation to areas with lower air quality index for individuals with lung disease (especially those with asthma, chronic obstructive pulmonary disease (COPD)/emphysema, pulmonary fibrosis).
9. Create a clean room at home. Use an interior room with fewer doors and windows and run an air conditioner and room air cleaner if available.
10. Patients with asthma or COPD should ensure that they continue to take their maintenance ("controller") medications or discuss an appropriate regimen with their physician.

**The US FDA has expanded the indications for brentuximab vedotin** to include first-line treatment of CD30-expressing peripheral T-cell lymphomas (PTCLs), to be used in combination with chemotherapy.

**No association of diabetes and markers of abnormal glucose metabolism with an increased risk for incident knee osteoarthritis (OA).** Among older women and men with a high risk of developing knee OA, diabetes status or status fasting glucose or insulin resistance were not associated with odds of incident radiographic knee OA after adjustment for BMI (*Arthritis Care & Research*. Nov. 12, 2018).

**Noise pollution is a rising problem in hospitals:** In an editorial published Nov. 18, 2018 in the *BMJ*, researchers from King's College London and the University of the Arts London argue that it is a worsening problem, with levels regularly exceeding international recommendations. Dr Andreas Xyrichis, lead author said, "Even in intensive care units, which cater for the most vulnerable patients, noise levels over 100 dB have been measured, the equivalent of loud music through headphones."

**Issues to be addressed in noise pollution in hospitals (BMJ. Nov. 18, 2018)**

- **Noise is often incorrectly associated with high sound pressure levels (SPLs).** Dripping taps for example, may register low SPLs yet still be considered noisy. Prioritizing SPL reduction does not ensure improved noise perception. Therefore, a new approach is needed, one that views the hospital soundscape as a positive and malleable component of the environment.
- **There are a number of potential sources of noise in hospitals.** Alarms, televisions, rattling trolleys, and ringing phones, as well as staff, visitor and patient conversations. However, not all of them are



perceived as noise by patients - for example, some find the sound of the tea trolley pleasing, associating it with receiving a warm drink. Research has also shown that some ICU patients welcome ringing telephones as a sign that they are not alone. So far ways to measure patients' perceptions of noise are limited, and more research investment is needed in this area.

- **Patients and families need clear information about likely noise levels during admissions, so they are better prepared in advance**, and can consider simple solutions such as headphones with their own choice of audio content. Education for staff is also needed, to encourage a culture that considers noise reduction an integral part of safe high quality healthcare.

**Is skipping med school lectures making inferior doctors?** A recent study "Classroom attendance patterns and examination performance in preclinical medical students" by a research team at the University of Central Florida College of Medicine, led by assistant professor of pediatrics Christine A. Kauffman, MD, found that lecture attendance during medical school is not as predictive of good grades as is general perceived, given how much we pay for this seemingly invaluable resource. However, this study was undertaken in the second year, which is preclinical and which also means that all lecture-based materials were available online and attending classes in person did not mean that they did not have the class material... (*Medscape*)

**Bullying and violence at work increase the risk of new-onset cardiovascular disease**, including heart attacks and stroke, according to the largest prospective study involving nearly 80,000 employed men and women from Denmark and Sweden to investigate the link published in the *European Heart Journal*. The population attributable risk (PAR) was 5.0% for workplace bullying and 3.1% for workplace violence, comparable to those for standard risk factors, e.g., diabetes (4%) and risky drinking (3-6%).

**Oral immunotherapy for peanut allergy:** In the phase 3 PALISADE trial of oral immunotherapy (AR101) in children and adolescents aged 4-17 years, who were highly allergic to peanut, treatment with AR101 resulted in higher doses of peanut protein that could be ingested (tolerated) without dose-limiting symptoms and in lower symptom severity during peanut exposure at the exit food challenge than placebo. Overall, 67% of the participants in the active-drug group could tolerate a single dose of at least 600 mg of peanut protein, the equivalent of approximately two whole peanut kernels,

during the exit food challenge... (*New England Journal of Medicine*. Nov. 18, 2018).

**The American Academy of Pediatrics (AAP) urges reforms to help teens and young adults overcome healthcare hurdles:** In a new policy statement published recently in the journal *Pediatrics*, AAP encourages pediatric training in community health issues such as strategies for prevention and treatment of common diseases in low- and middle-income countries. It also encourages pediatricians to be informed on best practices regarding international medical work for example how best to work with local partners to ensure awareness and respect for global health ethics ... (AAP. Nov. 19, 2018).

**EMA Panel recommends first oral-only treatment for sleeping sickness**

The Committee for Human Medicinal Products (CHMP) of the European Medicines Agency (EMA). European Medicines Agency has adopted a positive opinion for fexinidazole, the first oral-only medicine (tablets) for the treatment of human African trypanosomiasis, commonly known as sleeping sickness, due to *Trypanosoma brucei gambiense*.

**5 facts about antimicrobial resistance (The Association of the British Pharmaceutical Industry)**

1. **One person a minute:** In the UK 5,000 people are estimated to die each year (*Antimicrobial Resistance: Tackling a crisis for the health and wealth of nations, Dec 2014*) from a bug-resistant to antibiotics, although due to non-recording of antimicrobial resistance on death certificates this is likely to be much higher. Global figures are even harder to ascertain but estimates suggest that 7,00,000 are dying each year. That's one person a minute.
2. **12 priority pathogens:** In 2017, the WHO published the first ever list of 12 priority pathogens that are antibiotic resistant. These pathogens are ranked into three categories; critical which includes multidrug-resistant bacteria (most likely to affect those in hospital or care home settings), high and medium priority which are the more common diseases which are increasingly containing drug-resistant bacteria such as gonorrhea and food poisoning from salmonella. These pathogens pose the greatest risk to healthcare right now.
3. **11 million days of unnecessary antibiotic use:** Prevention is always critical to tackling a problem. If every child in the world was to be vaccinated against pneumonia, meningitis and middle ear infections (one vaccine), it would prevent an



estimated 11 million days of antibiotic use each year (*Why is vaccination important for addressing antibiotic resistance? Q&A, WHO, Nov. 2016*).

4. **One in 5 antibiotic prescriptions is unnecessary:** Research from British Society of Antimicrobial Chemotherapy found that one in 5 antibiotic prescriptions is unnecessary (*J Antimicrob Chemother.* 2018;73(Suppl 2):ii36-ii43).
5. **70% of people get annoyed if they aren't prescribed antibiotics:** Evidence from the Wellcome Trust (*Exploring the consumer perspective on antimicrobial resistance, Wellcome Trust, June 2015*) shows that the general public feel irritated or that they haven't been taken seriously by their GP if they're not prescribed antibiotics. Increasing public awareness of antibiotic resistance and when and how to take antibiotics is crucial to supporting appropriate prescribing now and preventing the spread of antimicrobial resistance in the future.

#### NIH statement on World COPD Day 2018

*NIH-supported studies aim to reduce the burden of COPD.*

On November 21, World COPD Day 2018, the National Institutes of Health unites with millions of people to renew our long-standing commitment to reducing the burden of COPD, a serious and debilitating lung disease. A leading cause of death, COPD impacts an estimated 251 million people worldwide. While many have been diagnosed with the disease, millions more are believed to have it and not know it. In the United States, 16 million people have COPD, and each year more than 1,50,000 people die because of it.

The numbers tell only part of the story, however. For many who live with the disease, getting through each day is often a struggle. COPD (also known as emphysema or chronic bronchitis) can make it difficult to breathe or perform even the most basic tasks. And because COPD symptoms develop slowly and worsen over time, many who have the disease delay getting diagnosed until they need aggressive treatment or hospitalization. This further compounds the toll on their lives — and on the nation's healthcare system: COPD-related care cost Americans more than \$32 billion in 2010, a number expected to increase to \$49 billion by 2020.

Through its large research portfolio, the NIH is working hard to make inroads into the fight against this crippling disease.

In 2017, NIH's National Heart, Lung and Blood Institute (NHLBI) developed the COPD National Action Plan in collaboration with federal and nonfederal partners. This comprehensive, unified plan now serves as a guiding

document for those affected by COPD and for those invested in doing something about it.

At NIH, intensive COPD research is being conducted and supported at all stages, from the laboratory to clinical trials. Some of it has improved our understanding of COPD and resulted in effective treatment strategies that are used in practice today.

The Nocturnal Oxygen Therapy Trial has given researchers insight into ways long-term oxygen therapy can improve the life expectancy of patients with advanced COPD. The Lung Health Study is helping researchers understand how smoking cessation interventions impact the long-term survival of COPD patients. The National Emphysema Treatment Trial is showing how lung volume reduction surgery might improve the quality-of-life in certain groups with severe COPD.

NIH also supports other studies, many conducted through the NIH COPD Clinical Research Network, that are exploring the effectiveness of various pneumococcal vaccines in COPD patients; the usefulness of azithromycin, an antibiotic, in reducing the severity and occurrence of COPD exacerbations and the role statin drugs might play in preventing or eliminating those exacerbations.

In cooperation with the Centers for Medicare and Medicaid Services, NIH is also supporting the Long-Term Oxygen Treatment Trial, which builds on previous studies that looked at whether supplemental oxygen is beneficial to patients with mild COPD. Other studies are aimed at improving knowledge about the biologic basis of COPD and its biomarkers.

These studies are critical to the research activities of NHLBI-supported scientists, who focus on advancing understanding of the disease process, identifying crucial points in its onset and progression, and sharing the knowledge necessary for early intervention and prevention. The COPDGene Study is currently investigating why some smokers develop COPD while others do not. (Smoking accounts for 75% of COPD cases; secondhand smoke, environmental pollutants and genetic factors also play a role.) Other studies are evaluating how various pharmaceutical medications affect the treatment of COPD. NHLBI also funds research to find out if a proven weight loss and physical activity program can improve COPD symptoms for those with a high BMI. Finally, scientists are continuing their research on the CAPTURE tool, a case-finding mechanism that involves a simple questionnaire and breathing test, that can help healthcare providers identify people at risk for developing COPD before their symptoms get severe.

To further advance the awareness and understanding of COPD nationwide, NHLBI – through its COPD Learn More Breathe Better program – is working with healthcare providers to facilitate discussions with patients in the exam room to make earlier diagnosis more possible. To reach the greatest number of patients, the program collaborates with a large network of partners.

The NIH is thankful for all these collaborators, as well as the many other individuals and entities—from researchers to advocates—who are helping advance the care and management of COPD. By working together to improve awareness and early diagnosis of the disease, we can have a lasting—and positive—impact on the health of the millions who struggle with COPD in the United States and around the world.

**Appendix linked to toxic Parkinson's protein:** A team led by Dr Viviane Labrie at the Van Andel Research Institute sought to explore whether the gut could be involved in triggering Parkinson's disease. They focused on the appendix. The team analyzed the records of nearly 1.7 million people whose health information was tracked for up to 52 years. They compared the chances of developing Parkinson's disease among those who'd had their appendix removed with those who hadn't.

People who'd had their appendix removed had a 19.3% lower chance of Parkinson's disease. Those who lived in rural areas and had an appendectomy had an even lower chance, 25.4%. People who'd had an appendectomy and developed Parkinson's showed a delayed onset of the disease relative to those who still had their appendix, an average delay of 3.6 years for those who'd had an appendectomy at least 30 years prior.

The team also found a build-up of the toxic form of alpha-synuclein in the appendixes of healthy volunteers suggesting that the appendix may be a reservoir for the disease-forming protein and may be involved in the development of Parkinson's disease.

"We were surprised that pathogenic forms of alpha-synuclein were so pervasive in the appendixes of people both with and without Parkinson's. It appears that these aggregates—although toxic when in the brain—are quite normal when in the appendix. This clearly suggests that their presence alone in the gut cannot be the cause of the disease," Labrie said.

**One in four US adults sits for more than 8 hours a day,** according to a new study from the US Centers for Disease Control and Prevention (CDC). Four in 10 adults do not exercise to either a vigorous or even moderate degree each week. Add to that, one in every

10 Americans reports both behaviors -- sitting for more than 8 hours a day and being physically inactive, according to the study, published online in *JAMA*.

**536 AD revealed as the worst year to be a human by researchers:** A team of historians and scientists has identified AD 536 as the beginning of a terrible sequence of events for humankind. A massive volcanic eruption spewed a huge cloud of ash that shrouded the Northern Hemisphere in darkness and caused a drop in temperatures that led to crop failure and starvation, said co-lead study author Professor Christopher Loveluck of the University of Nottingham in the UK. Then the misery was compounded in AD 542 as cold and hungry populations in the eastern Roman Empire were struck by the bubonic plague. The eruption and the 542 plague outbreak caused economic stagnation in Europe, which lasted more than 30 years until 575, when there were early signs of recovery ... (CNN).

#### 7 fast facts about toilets (UNICEF)

1. Toilets save lives! Without toilets, deadly diseases spread rapidly. Over 750 children under five die every day from diarrhea caused by unsafe water, sanitation and poor hygiene.
2. Globally, 1 in 3 schools do not have adequate toilets, and 23% of schools have no toilets at all.
3. Schools without toilets can cause girls to miss out on their education. Without proper sanitation facilities, many are forced to miss school when they're on their period.
4. Toilets are a great investment. Every dollar spent on sanitation has a return of US \$5.50, according to WHO research.
5. But still, 892 million people worldwide practice open defecation, meaning they go outside - on the side of the road, in bushes or rubbish heaps.
6. It's often a matter of where they live: 90% of people who practice open defecation live in rural areas.
7. It's time to make a stink! In order to get everyone in the world using toilets, we need to triple our current efforts. That doesn't just mean more toilets, but creating the desire for people to use them.

**European Testing Week 2018 (23-30 Nov, 2018)** is a Europe-wide campaign that encourages public and partner organizations, including communities, and public healthcare institutes throughout the WHO European Region to unite for 1 week to scale up voluntary testing. The campaign promotes awareness of the benefits of earlier diagnosis of HIV and viral hepatitis infections

and linkage to treatment and care, while respecting the principle of confidentiality. The primary goal is to make more people aware of their HIV and/or hepatitis status and reduce late diagnosis.

**People with migraine with aura were 30% more likely to develop atrial fibrillation (AF)** than people who did not have headaches and 40% more likely to develop AF than people with migraine with no aura... (*Neurology*. Online Nov. 14, 2018).

**Which oil to choose for cooking? Canola oil and olive oil** are very versatile and are great to use in many different recipes, even in baking. These unsaturated oils in place of saturated fats can help reduce the incidence of chronic conditions, such as type 2 diabetes and cardiovascular disease. Plant and seed oils have mono- and polyunsaturated fats, which help to increase the good cholesterol - the high-density lipoprotein (HDL) cholesterol. They also help lower the bad cholesterol - the low-density lipoprotein (LDL) cholesterol. Oils like peanut and sesame have stronger flavor and higher smoke points, so they're great in marinades and stir-fries. The lower smoke point of walnut oil makes it better for dressings.

My view: All oils are high in calories. So, you just want to use them in moderation.

**Top News From ESMO 2018: New hope in triple-negative breast cancer with immunotherapy.** For the first time, immunotherapy has shown a survival benefit in breast cancer. The result was seen with the anti-programmed cell death ligand 1 (PD-L1) drug atezolizumab used with chemotherapy in triple-negative breast cancer in PD-L1-positive patients. The results from the Impassion130 study were presented by Peter Schmid, MD, PhD, Clinical Director of St. Bartholomew's Breast Cancer center, Barts Health NHS Trust, London UK and were simultaneously published in the *New England Journal of Medicine*.

The trial randomly assigned more than 900 women who had triple-negative disease to receive atezolizumab or placebo + chemotherapy as first-line therapy. Across the board, the addition of atezolizumab was associated with a 20% improvement in progression-free survival (PFS). However, when the researchers assessed a subgroup of patients who were PD-L1+, addition of atezolizumab improved PFS by 38% and increased overall survival by the same percentage, offering patients an additional 10 months of life in comparison with the patients who received chemotherapy alone (*Medscape*).

**USPSTF recommends HIV PrEP for all high-risk patients:** In a draft recommendation statement

published online Nov. 20, 2018 on its website, the USPSTF recommends ("A" recommendation) that clinicians offer pre-exposure prophylaxis (PrEP) with effective antiretroviral therapy to persons who are at high-risk of HIV acquisition.

**Glasdegib is the first and only Hedgehog pathway inhibitor to be approved by the US FDA for the treatment of acute myeloid leukemia (AML).** The tablets are to be used along with low-dose cytarabine for the treatment of newly-diagnosed AML in adults who are 75 years of age or older or who have other comorbidities that may preclude the use of intensive chemotherapy. The prescribing information for includes a Boxed Warning to advise healthcare professionals and patients about the risk of embryo-fetal death or severe birth defects. The drug should be avoided during pregnancy or while breastfeeding.

**Nine causes of altered mental status in the elderly - Delirium:** Occurs in 7-10% of geriatric patients in the ED (*Clin Geriatr Med*. 2013;29(1):101-36; *Ann Emerg Med*. 2014;63(5):551-560.e2). It presents as an acute change in consciousness and loss of cognition that waxes and wanes. Patients' conditions can range from sleepy to agitated and combative. Inattention is the hallmark sign/symptom (*Clin Geriatr Med*. 2013;29(1):101-36). Delirium is easier to recognize in patients who become hyperactive; "quiet" delirium may be more difficult to identify.

Delirium is often mistaken for dementia, but the risk of morbidity for delirium is high; therefore, clinicians should make an effort to identify delirium, if present. In addition, inquire about sleep-wake cycle disturbances, hallucinations, confused thinking and symptoms of lethargy or agitation, because these signs/symptoms are not associated with dementia and, if present, should trigger further clinical evaluation (*Clin Geriatr Med*. 2013;29(1):101-36).

Unlike dementia, delirium is sudden in onset, reversible, of waxing and waning nature, disorientation occurs at the onset and the altered mental status presents early.

**The American Academy of Pediatrics (AAP) has published new guidelines on diagnosing and managing serious infections in infants born at less than 34 weeks gestation** and those born at more than 34 weeks of gestation in two clinical reports published online Nov. 19, 2018 in the journal *Pediatrics*. It includes recommendations on how to identify babies most likely to develop early-onset sepsis, based on their gestational age, circumstances of birth and other factors and addresses the use of multivariate sepsis risk models in clinical care.



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