

1. Measles in Europe: What Does It Mean for Travelers?

2. Study Shows Many Epinephrine Self-injectors Retain Potency Long after Expiration Dates

Aspirin for Patients with Nonalcoholic Fatty Liver Disease

3. Severe Hypertension in Pregnancy Demands Prompt Treatment

Without Housing or Neurologic Health: A Distinctive Patient Group

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Measles in Europe: What Does It Mean for Travelers?

The CDC warns that record high numbers of measles cases throughout Europe put travelers — especially young children — at risk.

The CDC has issued travel health notices to warn travelers about the risk of measles exposure in many European countries experiencing outbreaks, including England, France, Italy, Greece, and Germany (<https://wwwnc.cdc.gov/travel/notices/watch/measles-global>).

Measles cases in Europe topped 41,000 in the first half of 2018 (more than twice as many as reported annually between 2010 and 2017) and included 37 deaths, with the highest incidence in children <1 year of age. As in the U.S., low immunization rates are responsible for the rise. Importation from Europe accounts for many measles cases in the U.S.

Recommendations for travel to Europe include:

- Travelers should review immunizations to assess need for additional vaccinations.
- Infants should be vaccinated starting at age 6 months if planning travel to areas with ongoing measles circulation, and infants <6 months of age should delay travel to endemic areas until after they can be vaccinated.
- Children >12 months of age should receive two measles-containing vaccines separated by at least 28 days, prior to travel.
- Healthcare providers should obtain a travel history for patients presenting with a febrile illness and should consider travel to Western Europe a risk factor for measles acquisition.

COMMENT: Measles cases in the U.S. now exceed 1000. Children who are unvaccinated, either by parental choice or contraindication, are at risk while at home, but even more so when traveling to areas with continued measles circulation. These areas include Western Europe, a popular destination and one that is not typically considered to pose high risk for acquiring infectious diseases. Families with a child too young to be vaccinated should consider delaying travel until the child reaches 6 months of age and can be protected from this serious disease.

CITATION(S): Angelo KM et al. Spread of measles in Europe and implications for US travelers. *Pediatrics* 2019 Jul 1; 144:e20190414. (<https://doi.org/10.1542/peds.2019-0414>)

Study Shows Many Epinephrine Self-injectors Retain Potency Long after Expiration Dates

EpiPens and other autoinjectors filled with epinephrine to treat severe allergic reactions may still be potent enough to work many months past their labeled expiration date, according to a new study that concludes patients might need expensive refills less often. Soaring prices and out-of-pocket costs for the autoinjectors have made it increasingly difficult for many patients to keep throwing out and replacing unused devices when they expire, researchers note in the *Journal of Allergy and Clinical Immunology: In Practice*.

For the study, researchers tested the contents of 46 different autoinjectors to see how much epinephrine remained after the expiration dates on the labels. Half of the devices were tested at least two years after their labeled expiration date. At this point, 80% of the devices still retained 90% or more epinephrine, indicating they were still effective under the FDA rules. "If the expiration dating on these devices was changed, this means that patients would not need to replace their autoinjectors as frequently, limiting cost to them, their insurance, and the healthcare system, while still feeling secure that they have access to adequate treatment for anaphylactic reactions," said lead study author Lynn Kassel of Drake University College of Pharmacy & Health Sciences in Des Moines, Iowa.

Devices six months past their labeled expiration date in the study still had 100% of the original epinephrine dose. One year after the labeled expiration date, devices still had 95% of the original epinephrine dose. And all of the autoinjectors tested that were up to 30 months beyond their labeled expiration date still had 90% of the dose remaining.

<https://www.reuters.com/article/us-health-allergies-epinephrine/many-epinephrine-self-injectors-still-potent-long-after-expiration-date-idUSKCN1TE2OX>

Clin Gastroenterol Hepatol 2019 May 8

Aspirin for Patients with Nonalcoholic Fatty Liver Disease

Daily aspirin use reduced risk for fibrosis progression.

One of the key predictors of increased liver-related morbidity and mortality in patients with nonalcoholic fatty liver disease (NAFLD) is the development and progression of liver fibrosis. Recent studies have shown that aspirin may have antifibrotic effects in NAFLD. In murine models, aspirin limits hepatic stellate cell activation by inhibiting the cyclooxygenase-2 (COX-2) enzyme, and antagonism of COX-2 seems to improve nonalcoholic steatohepatitis (NASH)-related fibrosis. In humans, much of the literature has been limited to cross-sectional studies.

Now, investigators have conducted a prospective cohort study involving 361 adults with biopsy-proven NAFLD, 151 of whom were daily aspirin users. Participants underwent evaluation every 3 to 12 months for development of fibrosis, using serum fibrosis markers.

At baseline, daily aspirin users versus nonregular users had lower odds of having NASH (adjusted odds ratio, 0.68) or fibrosis (aOR, 0.54). During a median of 3692 person-years, daily aspirin users had lower rates of advanced fibrosis (adjusted hazard ratio, 0.63), with the greatest benefit occurring in those taking daily aspirin for ≥ 4 years ($P_{\text{trend}}=0.026$). Nonaspirin NSAID use did not affect fibrosis rates.

COMMENT: This is the first prospective study to evaluate the potential benefits of daily aspirin use in NAFLD patients. Although this is not a randomized study, the duration-dependent relationship of aspirin to NAFLD-related fibrosis, coupled with the biologic plausibility of the antifibrotic effects of aspirin in NAFLD patients, makes the results compelling. Given the growing body of literature around the association of NAFLD and cardiovascular disease, the use of aspirin in NAFLD patients seems appropriate to consider in clinical practice.

Note to readers: At the time we reviewed this paper, its publisher noted that it was not in final form and that subsequent changes might be made.

CITATION(S): Simon TG et al. Daily aspirin use associated with reduced risk for fibrosis progression in patients with nonalcoholic fatty liver disease. *Clin Gastroenterol Hepatol* 2019 May 8; [e-pub]. (<https://doi.org/10.1016/j.cgh.2019.04.061>)

Obstet Gynecol 2019 Jun; 133:1151

Severe Hypertension in Pregnancy Demands Prompt Treatment

Maternal deaths associated with preeclampsia and subsequent stroke can be averted with rapid administration of antihypertensives.

Fatal maternal stroke associated with preeclampsia/eclampsia has been linked to severe hypertension — but has clinical management of acute pregnancy-related hypertension taken this relation into account? To identify gaps in care, investigators conducted a retrospective review of all pregnancy-related deaths due to preeclampsia in California from 2002 to 2007.

Among >3,300,000 births, 333 pregnancy-related maternal deaths occurred; of these, 54 were caused by preeclampsia (33 specifically due to stroke). Median blood pressure (BP) preceding the stroke was 196 mm Hg (systolic) and 113 mm Hg (diastolic). All strokes were associated with systolic BP >160 mm Hg; in 73% of strokes, diastolic BP was >105 mm Hg. Regarding timing, 33% of strokes were antepartum, 18% intrapartum, and 46% postpartum. Many antepartum strokes (5/6) and some postpartum strokes (3/12) occurred outside the hospital. Only 48% of the women who died received antihypertensive medication prior to the stroke.

COMMENT: This statewide review documents stroke as a major cause of hypertension-related maternal deaths. Moreover, the authors identified an important gap in care: Many pregnant women with severe hypertension did not receive timely antihypertensives, and the delay could have contributed to their deaths from stroke. To address this deficiency, the American College of Obstetricians and Gynecologists recently issued updated guidelines regarding therapy within 30 to 60 minutes for severe hypertension in pregnancy (*Obstet Gynecol* 2019; 133:e174). The recommended protocol emphasizes rapid escalation of medication doses until BP is controlled.

CITATION(S): Judy AE et al. Systolic hypertension, preeclampsia-related mortality, and stroke in California. *Obstet Gynecol* 2019 Jun; 133:1151. (<https://doi.org/10.1097/aog.0000000000003290>)

Neurology 2019 Jun 11; 92:e2822

Without Housing or Neurologic Health: A Distinctive Patient Group

Traumatic brain injuries and epilepsy are common in homeless people who have neurological disorders.

Individuals who are homeless are at elevated risk for neuropsychiatric disorders, which can cause — or result from — their poor living conditions. These researchers used a statewide California inpatient database to review the rate of homelessness in over 1 million adults hospitalized with a neurologic primary diagnosis from 2006 to 2011.

The 3983 homeless individuals were more likely than “housed” patients to be men (84% vs. 49%) and to be younger (mean age, 50 vs. 65). Homeless patients were more likely to have a mental health disorder (47% vs. 31%) or substance use disorder (68% vs. 11%). The most common indications for hospitalization among the homeless were seizure (19% vs. 8%) and traumatic brain injury (TBI; 32% vs. 9%). Homelessness was also associated with higher 30-day readmission rates. The researchers did not provide specific rates for schizophrenia or psychotic disorders.

COMMENT: Clinicians need to be aware of the neuropsychiatric sequelae of TBI and epilepsy in this vulnerable and underserved group. The finding that TBI is the most frequent cause for neurologic hospitalization in those who are homeless is not surprising. Being homeless, abusing substances, and having a chronic psychotic disorder might all be risk factors for TBI, and some data suggest that TBI is a risk factor for psychosis. In addition, this group might not have access to appropriate treatment for TBI. We can assume an even greater incidence of TBI in the psychiatrically hospitalized, homeless population.

CITATION(S): Rosendale N et al. Hospital admission and readmission among homeless patients with neurologic disease. *Neurology* 2019 Jun 11; 92:e2822. (<https://doi.org/10.1212/WNL.0000000000007645>)
