hypertriglyceridemia that interfered with the measurement of multiple biochemistry laboratory tests and complete blood count (CBC). A 71-year-old man with no history of dyslipidemia, underwent radical cholecystectomy for stage IIIIB adenocarcinoma of the gallbladder. Approximately six weeks following surgery, he was started on adjuvant therapy with oral capecitabine and gemcitabine with four cycles planned, administered every 21 days, with radiation therapy. He tolerated the chemotherpay well, and after three cycles (two months after starting adjuvant therapy) laboratory testing of a basic metabolic panel, CBC, and liver enzymes were ordered for routine monitoring. The laboratory results for potassium, alkaline phosphatase (ALP), aspartate aminotransferase (AST), alanine aminotransferase (ALT), and several CBC parameters could not be released due to lipemic and hemolytic interference. On inspection of the blood sample, it had a cloudy and pink appearance, so a subsequent blood draw was performed three hours after the first. Laboratory values of the subsequent blood draw mirrored the first, and triglyceride concentration was measured to evaluate for lipemia as a cause of hemolysis. The triglyceride level was found to be elevated at 912 mg/dL (normal <150 mg/dL). The triglyceride level two months prior to cholecystectomy was 108 mg/dL. Given the hypertriglyceridemia, capecitabine was discontinued, and Gemcitabine was administered as monotherapy for the fourth cycle. No medication for dyslipidemia was administered. Within one month of stopping capecitabine, triglyceride concentration normalized and the result was 168 mg/dL. CAPECITABINE-induced hypertriglyceridemia is a rare adverse effect, of which clinical chemists should be made aware.

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Zika in the United States: Dynamics, Transmission, and Strategies for Control
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Background: The current Zika epidemic is the largest recorded, and the first to occur outside of the areas of Africa and Asia. Its transmission continues where Aedes mosquitoes are established. Continued transmission anywhere requires nations to remain vigilant and informed to prevent and control local Zika virus transmission and its associated outcomes.

Methods: We developed a stochastic in-silico model to simulate Zika virus transmission given a single index case into every county in the United States and Puerto Rico. Our model utilizes high-resolution Aedes risk maps, and accounts for temperature dependent viral and vector replication and life-stage dynamics. County-level birth seasonality was fit to monthly birth cohort data from every county to calculate expected number of first-, second-, and third-trimester exposures across time and space. We also assess control strategies, such as adulticides that reduce Aedes survival, reductions in human-vector interactions that reduce mosquito biting rates, and vaccination.

Results: Within the United States, outbreaks of Zika virus will be limited primarily to introductions during the summer months, and the Gulf Coast regions and Puerto Rico. While a majority (75%) of US counties demonstrated at least minimal potential for transmission, the vast majority had only sporadic and single transmission events. Among simulations with at least a single transmission event, 65% of counties (and 96% of counties outside of the Gulf Coast) had median outbreak sizes of <10. In the continental US, Harris County, Texas, had the largest epidemics, with median epidemic size across simulations of 12,200 cases (IQR 4,562-25,980) including 88 (IQR 36–197) first- or second-trimester infections. In Miami-Dade County, Florida, where local transmission occurred throughout 2016, our results are in strong agreement with those reported by the Centers for Disease Control and Prevention (214 cases simulated 244 reported). When human-vector contact rates were reduced, transmission was stable until contact rates were driven below 50% of baseline. Probability of transmission from an index case was inverse-linearly proportional to mosquito adulticide use (% coverage) while outbreak size had a log-linear relationship. In regions with high transmission, vaccination was most effective at preventing initial transmission when coverage met or exceeded 75%. Incidence fell log-linearly with vaccine coverage.

Conclusions: In the context of limited resources, a watchful-waiting or control strategy might be an optimal approach for local public health agencies, with resources deployed once a transmission event is detected, rather than attempt to prevent any initial transmission from an unknown index case. However, in high-risk areas, such as high-density population centers within the Gulf-Coast region, a prevention-oriented approach may be prudent as the fast pace of transmission following initial introduction could outpace even well-planned control strategies.

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A Proactive Risk Assessment of Electronic Blood Product Ordering
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Transfusion of blood components is a complex multi-disciplinary process from provider order, to blood bank processing, to administration. Errors at any of these points can result in great harm to the patient. Given the