



# Western strain of hepatitis C on the rise in Saudi Arabia

National efforts to curb transmission are in place to limit the virus's spread.

## Genotype 4 is still the dominant subtype, affecting 61 percent of Infected individuals at the Riyadh hospital.

higher than those carrying genotype 4.

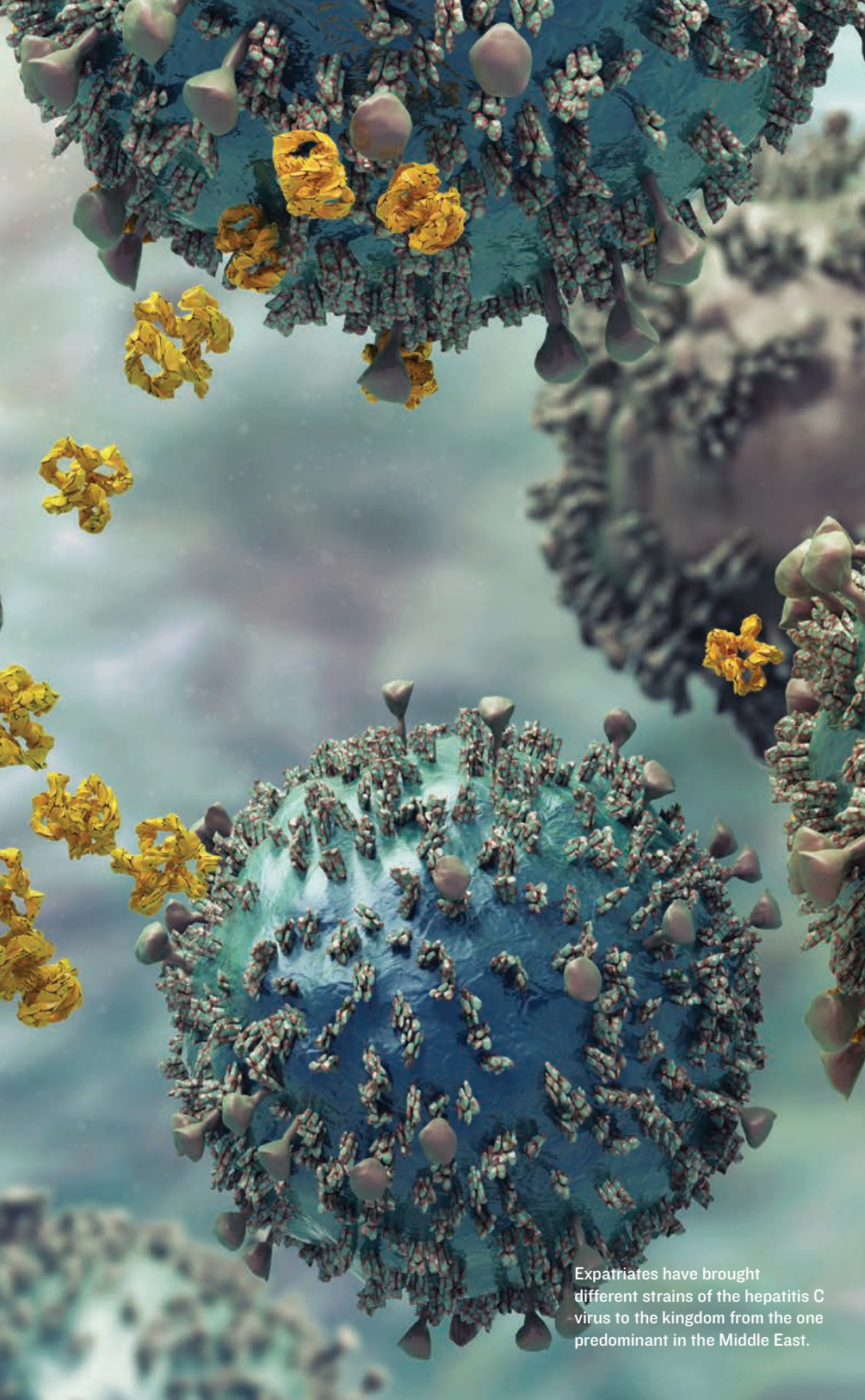
These shifting infection trends are important for efforts to treat patients in Saudi Arabia; not only because genotype 4 is generally the most difficult to treat, but also because the presence of genotype 1 can impact therapeutic decision-making. Based on the HCV genotype, as well as other factors including the presence of liver cirrhosis or other viral infections, doctors may be more or less likely to administer older and cheaper immune-modulating agents, such as interferon, as opposed to newer, and more expensive, direct-acting, anti-viral therapies.

“Confirming the HCV genotype is essential for deciding on treatment modalities and predicting patient responses to the specific therapy,” says Amen Bawazir, an epidemiologist at KAIMRC who led the study.

Bawazir notes that the slight rise in hepatitis C cases with genotype 1 has coincided with a shift in the demography of Saudi Arabia, where approximately one third of the population was born abroad. He suspects that people arriving from places where the strain is more common, such as North America and Europe, brought different genotypes to the kingdom, which spread through the sharing of needles to inject drugs, and, more rarely, by blood transfusions.

Bawazir is hopeful that transmission of all genotypes of HCV will decline. With better screening of blood supplies, the requirement for foreign workers applying for work visas to test negative for the virus, and the local availability of effective therapies, “all the most effective steps to eliminate hepatitis viral infection in KSA are already in place,” he says.

Bawazir, A., AlGusheri, F., Jradi, H., AlBalwi, M. & Abdel-Gader, A. Hepatitis C virus genotypes in Saudi Arabia: a future prediction and laboratory profile. *Virology Journal* **14**, 208 (2017).



Expatriates have brought different strains of the hepatitis C virus to the kingdom from the one predominant in the Middle East.

The most prevalent strain of hepatitis C in Saudi Arabia is becoming less dominant as people from elsewhere carrying different strains of the virus settle in the kingdom.

A KAIMRC-led study analysed the medical records of 630 people with the hepatitis C virus (HCV) treated between 2007 and 2011 at King Abdulaziz Medical City.

It showed that genotype 4 is still the dominant subtype, affecting 61 percent of HCV-infected individuals at the Riyadh hospital. But genotype 1, a dominant strain throughout much of the rest of the world, is on the rise in Saudi Arabia, especially among the young infected males. The virus levels in the bloodstreams of people carrying HCV genotype 1 were three times