

Vitruvian Man

Private Testosterone Services

Hepatitis C

I was invited recently to a conference by Public Health England. What I learnt startled me.

“1 in 18 IPED (Image and Performance Enhancing Drug) users have been exposed to Hepatitis C virus” (Dr Vivian Hope, PHE, 2014). That’s 5.5% and *way* above the prevalence for the overall population. This is sit up and listen material. This requires further exploration.

Hepatitis simply means an inflammation of the liver. Hepatitis C is a specific blood borne virus that infects and damages the liver. You cannot survive without a liver. It’s the 2nd largest organ in the body and performs around 500 different functions. It’s tough and can regenerate but only up to a point.

A virus is “a piece of bad news wrapped up in a protein” to quote the engaging description by Peter Medawar, Nobel Prize winner in medicine. The virus invades a host cell (for Hep C it’s the liver) then hijacks the cell’s own genetic code to replicate itself. This new rogue assembly line is so efficient that the host cell dies and bursts, discharging numerous new copies of the virus back into the blood stream to each have another crack. There’s no malice. The virus is simply in the process of reproduction, it’s only trying to breed and survive. They’re relentless and antibiotics won’t even touch them because they are designed for bacteria, which are quite different indeed.

Transmission is almost exclusively from blood to blood contact, hence the blood borne virus classification. Injecting drug use constitutes 92.3% of Hep C exposure. Compare this with only 1.5% from sexual exposure. Any sharing of injecting equipment is the number one cause of transmission.

Hepatitis C is one tough little virus. In syringes, given the right conditions, it can survive for up to 63 days! In bottled water up to 3 weeks and on surfaces for up to 4 days. By comparison, HIV can be considered fragile though still infects 1 in 65 (1.5%) IPED users. Never share ANY injecting or drug taking paraphernalia. Not just needles. ANYTHING. I can’t stress that enough.

Hep C is a progressive disease that kills cells within the liver so it starts to lose the ability to function properly. As this continues the dead and dying liver cells are replaced with scar tissue (Fibrosis). Over time the amount of scar tissue increases and the actual architecture of the liver becomes ruined (Cirrhosis). The liver now cannot heal itself. Liver failure is fatal.

Early testing, diagnosis and treatment are essential. The trouble is Hep C causes practically no specific symptoms in the early stages. Often raised ALT levels in a liver function test are noted and people are subsequently tested for Hep C.

Testing for Hepatitis C comes in two stages. First port of call is an antibody test (blood tests are best and vastly superior to dried blood spot or saliva. Results usually take approximately two weeks).

Antibodies are proteins made by the immune system. They recognise, target and destroy specific foreign antigens - a virus for example. An antibody will only be produced and “remembered” by the immune system after an exposure. It is an attempt to neutralise infection from future contact. This is how immunisation works. Being antibody positive is effectively an immunological tattoo. No Hep C antibodies (negative) means there has been no exposure to the virus. Good news.

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However, it is important to note that there is a “window period” between becoming infected and being able to detect the virus. It can take up to 6 months though usually it’s around 3.

In the event of a positive Hep C antibody test, it’s time for the second stage. This is the more sophisticated Polymerase Chain Reaction (PCR) test. We already know there’s been exposure to the virus, but is it still present, which specific strain and how much is there?

Curiously, up to 20% of people clear the virus during the first 6 months, or acute phase, of the infection. Genetic studies are being performed as I write to find out why this occurs.

The PCR test actually looks for the virus, unlike the antibody test which only checks whether it’s guilty of breaking and entering. It detects the strain (or genotype) of which there are 6 known ones. It is this degree of variation this one virus has that prevents a vaccine presently being developed to offer immunisation against it, unlike Hepatitis B. Hep B vaccination does exist and is strongly recommended to prevent infection as Hep B exposure is a staggering 8.8% in the IPED community.

The Hep C viral load is measured to see how much of the actual virus is present in the body. The higher the viral load the more there is. A negative PCR test means the virus has been cleared and is no longer present. Great news, but only 1 in 5 are this fortunate. That’s worse odds than Russian roulette. The other 4 will need referring to a specialist to explore treatment options.

Treatments with strong anti-viral medication are available and improving all the time. A new “triple therapy” option has just been rolled out. The duration for treatment is either 6 or 12 months, depending on the genotype. Full details on treatment are beyond the scope of these articles, although exploring the liver in greater detail and understanding Liver Function Tests will be discussed in a later article.

Christmas is a time for sharing. Just make sure it’s not Hepatitis C.

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Squaring the circle of men’s health.

