## Hepatitis Cases in Children – BBC Breakfast Interview with Dr Susan Hopkins

Dr Susan Hopkins was interviewed on BBC Breakfast over the weekend, the transcript is here:

The investigation [into the spike in hepatitis cases] is underway, but can we say any more about what is causing this?

**SH:** So thank you for asking me to speak about this. We are seeing acute hepatitis, which is an inflammation of the liver, in young children, particularly in 1-5 year-olds, with some smaller cases in the older children age groups. The most common infection that we have detected so far is adenovirus. And out of the samples that have been tested for adenovirus in the last number of months, almost 80% of them are positive for this virus. This is a common virus that causes two main types of mild illness in the main in children, an upper respiratory tract infection with symptoms a bit like Covid, or a gastroenteritis type illness, with diarrhoea and tummy-bug like symptoms.

It's probably the variation of the strain that causes the tummy bug that is most likely to be implicated in the hepatitis, but we are continuing to make sure there is not another cause, such as another virus interacting, not just Covid but any of the other viruses that circulate in children. Now there isn't an immune response change, such as the children haven't been exposed for a number of years, because of the social restrictions that have been in place, and that is causing a different immune response. Or of course that the virus itself hasn't changed over the last couple of years.

Yes, clearly so much to investigate. As you said there, it's quite a complicated problem isn't it. As we said, 108 cases currently under investigation. Put that into a bit of context for us, how many would you normally be seeing, and maybe a little bit about why this is so unusual...

**SH:** Yeah, so the 108 cases are cases in children, and those cases are being reported to us by the clinicians directly for the special investigation. If we look at the transplants, that gives us a better, firmer number. So we've had eight transplants in children aged 1-5 so far this year. That is out of sync with what we'd normally see, that's more like the number we would normally see in a whole year, so that means we are seeing 3-4 times the amount of that very severe liver disease in this age group to compared to what we have seen in the last five years.

You touched on all the investigations that are currently underway and people will be concerned that there is a Covid connection. Just elaborate on that – could it be the same thing that is causing Covid?

**SH:** Yeah, so first of all we have done a number of things to look at this. None of the children have been vaccinated. They're actually in the age group that are not yet recommended for any vaccines. So that's good, there's clearly no vaccine link. Secondly, we have looked to see how many children are co-infected with Covid or have had infection with Covid in the previous number of months. At the present time, the numbers look to be at similar levels to what we would expect based on the population survey. So we are seeing similar levels of Covid as we are in the population, so we are not seeing an out of proportion association with this hepatitis, and actually a number far less than what we are seeing with adenovirus. Probably overall 15-20% have been infected with Covid.

We've also got genetic sequences of Covid, and they're the same genetic sequences we are seeing circulate in the population, so nothing changing. We are also now looking at the immune response in those that have had a Covid infection. We are seeing other virus infections in these children as well, so the normal viruses we would see circulate in children of this age as well as part of the coinfection.

So Covid just seems to be part of that rather than separate at present, but we will continue to look at it in more detail.

It's good to have that clarity on that, because many people will be concerned. If you are a parent watching this, what should they be looking out for in their children?

**SH:** I think the first thing to say is that as always we would recommend that parents help their children perform good hand hygiene, especially if this is the one that causes the gastroenteritis illness. When they go to the toilet, make sure they wash their hands afterwards, because that will reduce spreading it to others. The second is that, like with anything, if your child is unwell with gastroenteritis or a viral illness, make sure to keep them well hydrated, getting fluids into them, as much water as possible.

And finally, the particular symptoms we are looking at in hepatitis... you can get itchy skin, you can be off your food, so lethargic and not be hungry. And then of course the jaundice symptom, which is yellow eyes, yellow skin. The urine can become darker. If they show these sort of symptoms you should call your doctor or 111 immediately and seek medical advice, because early symptomatic treatment, hydration and fluids can help prevent the jaundice worsening. The main things we can do for things like adenovirus though are symptomatic treatments, keeping the child well hydrated and making sure they are able to recover well.

Good practical advice, Susan thank you.