

The flu jab you will need only once in your life

By **Fiona MacRae**
Science Reporter

A VACCINE that gives lifelong protection against all strains of flu in a single jab could be available in only three years.

It could ward off everything from the seasonal flus that bring misery to millions each winter to deadly pandemic strains such as bird and swine flu.

Amazingly, a single jab could provide lifelong protection, removing the need for – and the inconvenience of – annual vaccination.

Following promising results from tests on people, SEEK, the London-based makers of the vaccine, claim it is better than any other flu jab in development.

Not only could the FLU-v vaccine see off many more strains of the disease than its competitors but it is expected to be cheaper than the £4 to £6 the current jab costs.

The conventional vaccine has to be reformulated each year to keep on top of changes in proteins on the virus's surface.

The new one-size-fits-all vaccine is based on other, internal, proteins which are common to all strains of the bug and have not mutated for more than 60 years.

This should remove the need for the jab to be reformulated each year, the World Influenza Congress in Amsterdam will hear today.

Rather than using antibodies to defeat the virus, the new jab relies on the killer instinct of other immune system cells called cytotoxic T cells. The vaccine triggers the body to produce T cells. Several other laboratories around the world are in the race to produce the first universal flu

jab. But SEEK says its formula is better than the rest, partly because it protects against more strains of the virus. Gregory Stoloff, SEEK's chief executive, said: 'Only time will tell about lifetime protection but it should give at least five years or more.'

Following lab tests in which the jab saved the lives of mice given a normally lethal dose of flu, the vaccine has been given to people for the first time.

In initial tests designed to check its safety, 48 healthy British men had the jab and it generated an immune response against flu.

If the vaccine fulfils its promise, it could be on the market in three to five years. The conventional vaccine is grown in hen's eggs, a time-consuming process that yields one shot of vaccine per egg. But the FLU-v jab can be grown quickly and in bulk.

STOMACH BUG HITS THOUSANDS

THOUSANDS are being struck down by the winter vomiting bug. More than 4,000 have called the NHS Direct helpline with norovirus symptoms in the last seven days, twice as many as two months ago. And last month NHS Direct received 17,500 calls from people suffering diarrhoea and vomiting, the highest figure since March.

Hospitals are being forced to ban relatives from visiting patients in an attempt to contain the infection. Seventy-four wards have closed

to visitors since August. The Health Protection Agency, which monitors cases of norovirus, said rates were steadily increasing towards the peak, which usually occurs later this month and in January.

Experts say the rates are similar to last year, when some parts of the country reported record numbers of cases. Norovirus is one of the most contagious stomach bugs and thrives in schools, hospitals and nursing homes.

Mr Stoloff said: 'With a pandemic you have to try to vaccinate 60million in the UK in a few months and that is impossible.'

'The beauty of this is that you don't have to wait until you know what the strain is before making the vaccine. So you can slowly start to vaccinate bit by bit.'

But Britain's leading flu expert, Professor John Oxford, cautioned that a vaccine of this type may make symptoms milder, rather than stopping illness all together.

Professor Ian Jones, a Reading University virologist, said the researchers have yet to show that FLU-v wards off flu in people.

'The mechanism for T cell vaccines is to allow for infection but then mop it up quickly,' he said. 'If this would be quick enough to prevent you feeling ill is not yet clear.'