FLU VACCINE:
fighting poor public perception

Could the adverse events in young children from the seasonal flu vaccine cripple the push to reduce the annual burden of winter illness? Rada Rouse reports.

“HER lips went blue. She just was uncontrollably shaking and she wasn’t responding to anything,” one mother said.

“In the car driving to hospital he... couldn’t cry... his head was hanging down in the car seat and he couldn’t move. I was petrified,” said another.

The descriptions by frightened mothers of toddlers experiencing febrile convulsions will likely not be forgotten easily by Australian parents.

So far no explanation has been found for the uncharacteristically high rate of adverse events that caused the Government to suspend indefinitely the use of this year’s trivalent influenza vaccines in healthy children younger than five years.

At least 77 convulsions and 400 cases of fever nationwide led to an urgent investigation by the TGA in late April.

Preliminary findings this month suggested CSL’s vaccine Fluvax and Fluvax Junior caused a seizure rate nine times higher than expected, while insufficient use of other vaccines on the market precluded a rate being established for them, Chief Medical Officer Professor Jim Bishop reported.

But whatever the cause turns out to be, many immunisation experts are concerned at the implications for future expansion of flu vaccination programs, a push that was just starting to make headway.

Under the National Immunisation Program (NIP), influenza vaccination has been confined to the elderly, the Indigenous and those of all ages at high risk from the disease due to underlying medical conditions.

But over the past five years, a push has been on worldwide to expand vaccination in order to bolster herd immunity and reduce the number of children hospitalised by flu, despite questions over efficacy of the vaccine and the cost benefit.

In Western Australia, where this year’s adverse events hit hardest, parents were just getting used to the idea of annual flu shots.

After a lethal flu year in 2007 when three children died, the state government introduced free winter flu shots for youngsters the following year.

“We showed the influenza vaccine can be delivered to young children, with 60,000 being vaccinated under WA’s under-fives program – about 50% of the eligible cohort,” paediatric immunologist Associate Professor Peter Richmond said.

Professor Richmond, from the University of Western Australia and Princess Margaret Hospital for Children, showed laboratory-confirmed influenza among young children was nearly halved due to the free shots.

He’s now concerned that the benefits of protecting young children from the flu will be lost on parents worried about side-effects such as convulsions, which in themselves are not dangerous.

“Public perception doesn’t always match the science,” he says.

Dr Julie Leask (PhD), senior research fellow at the National Centre for Immunisation Research and Surveillance (NCIRS), Sydney, and an expert in perception and communication of vaccine risk, says the adverse events could not have come at a worse time.
"More parents are worried about the side-effects than the diseases these days"
Dr Greg Rowles

A level of confidence in the [flu] vaccine was just starting to emerge," she says.

"Swine flu raised the level of awareness of influenza dramatically... with relatively high demand for flu vaccine in general."

PRE EXISTING WARINESS
Dr Leask is an investigator in an Australian Research Council (ARC) linkage grant with Sanofi Pasteur to look at parental attitudes and the benefits of influenza vaccination of children in daycare centres.

Unpublished findings suggest that the parents in the study – mostly highly educated – were wary of flu vaccine even prior to this year’s adverse events.

"Parents have reasonable levels of uncertainty about whether their child should have flu vaccine... and whether it’s safe," she says.

The likely “tragic” fallout from this year is that many people who could benefit from the vaccine will avoid it, and immunisation advocates will face a huge challenge next time seasonal jabs can be offered to healthy young children, she says.

Professor Robert Booy, head of clinical research at the NCIRS and a co-investigator in the ARC trial, admits to concern – as well as frustration – at the turn of events.

Australian evidence on the benefits of influenza vaccination of children is sorely needed if a case is to be made for NIP funding. Yet for the second year in a row, despite recruiting hundreds of children to trials, Professor Booy has been thwarted in obtaining it.

Last year the swine flu pandemic rendered the seasonal vaccine useless, and this year a recommendation for all children to have pandemic vaccine meant a randomised, placebo-controlled trial was out of the question for ethical reasons.

"It’s extremely frustrating and the repercussions are enormous," Professor Booy says.

Parents will need reassurance, as even in the US, where childhood flu vaccination has been routine for several years, the uptake is only around 25% to 30%, he says.

"This isn’t good enough, and we have to understand why it’s not higher in the US," he says.

One reason may be a "rational" fear of side-effects such as vomiting, high fever and convulsions as seen in Australia this year.

Others may harbour "irrational" fears that the vaccine will give them a dose of the flu, he says.

"What happens is that people go to the doctor for a flu jab but they are already incubating a virus, so then they see what appear to them to be side-effects," he says.
Whether fears are rational or irrational, they need to be addressed, he says.

Professor Booy suggests at least two changes are important: annual studies are needed prior to the release of seasonal vaccine, and better data linkage so that vaccination can be quickly correlated with hospital presentations.

Meanwhile, GPs at the front line of delivering immunisation know only too well the difficulties of keeping parents abreast of changing advice.

And this year’s adverse events made many GPs wary of offering vaccine even to older healthy children (MO, 7 May).

Dr Greg Rowles, the AGPN representative on the National Immunisation Committee, said the ‘message’ has been complicated by broadened eligibility for flu shots, and the push for vaccinating children being followed by a moratorium due to side-effects.

“The fallout is that parents may lose confidence in vaccination... even though, for me, we’ve always known the flu vaccine is more reactogenic,” he says.

“The fact is that more parents are worried about the side-effects than the diseases these days.”

Snapshot

Fallout from the 2010 flu vaccine adverse events:
- febrile convulsions nine times higher than expected
- no “clinical, biological or epidemiological” explanation found
- vaccine use suspended indefinitely for healthy kids <5 years
- new warning required for Fluvax/Fluvax Jnr Product Information

Source: Chief Medical Officer of Australia