Chickenpox is caused by the Varicella-Zoster virus (VZV, a double stranded DNA herpesvirus), and is common in spring and early summer in temperate zones. In 2003, the scareness New Zealand data was 50,000 cases per year, 150-200 hospitalisations and 1 or 2 deaths (1). It obviously wasn't much of a concern, because chickenpox vaccine is still NOT in the schedule, though I doubt that will last long. They were planning on using the new MMRV, but what with the ACIP pointing out increased seizures, that idea was put on hold.

Chickenpox is spread either by droplet infection or contact with the spots of a person with chicken pox. ***The incubation period is 2 – 3 weeks***, during which time the virus replicates in the lymph nodes, liver and spleen, with a second more intense viraemia occurring just before the rash appears. The infectious period starts one day before the rash appears and continues until the scabs fall off..

Chickenpox usually occurs in children under the age of ten with the peak age between 2 and 6 years, or 5 - 8 years, depending which textbook you read :p. 90% of the population has been infected by the age of 15. Two percent of chickenpox cases are reported in adults, but 25-50% of the deaths. So it pays to catch it young.

Incubation:

While the books say that time of exposure to appearance of the rash is between 10 - 21 days, in our experience, if you KNOW exactly when the exposure is, then count on 17 - 21 days. There can be a prodromal phase with low fever, tiredness and sensitivity to the light, but those symptoms usually accompany the first signs of rash. chickenpox is NOT NORMALLY accompanied by a high fever. Some books say that the "infectious" period starts 5 days before the rash, other's say only once blisters appear on the top of the rash.

The rash usually appears on the body and spreads to arms, legs, face and scalp, but the greatest concentration is usually on the body. In some children, the rash can spread into the mouth, and in girls, it can cause discomfort in the vagina. At first the rash is pimple-like, but quickly turns into blisters, which scab over and dry out pretty quickly, usually within 24 hours, and then new ones come up. That can last for around 3 days, but again, that depends on the individual. Our children only had three days where new spots developed. The scabs then fall off, and should leave little or no scarring, if treated correctly.

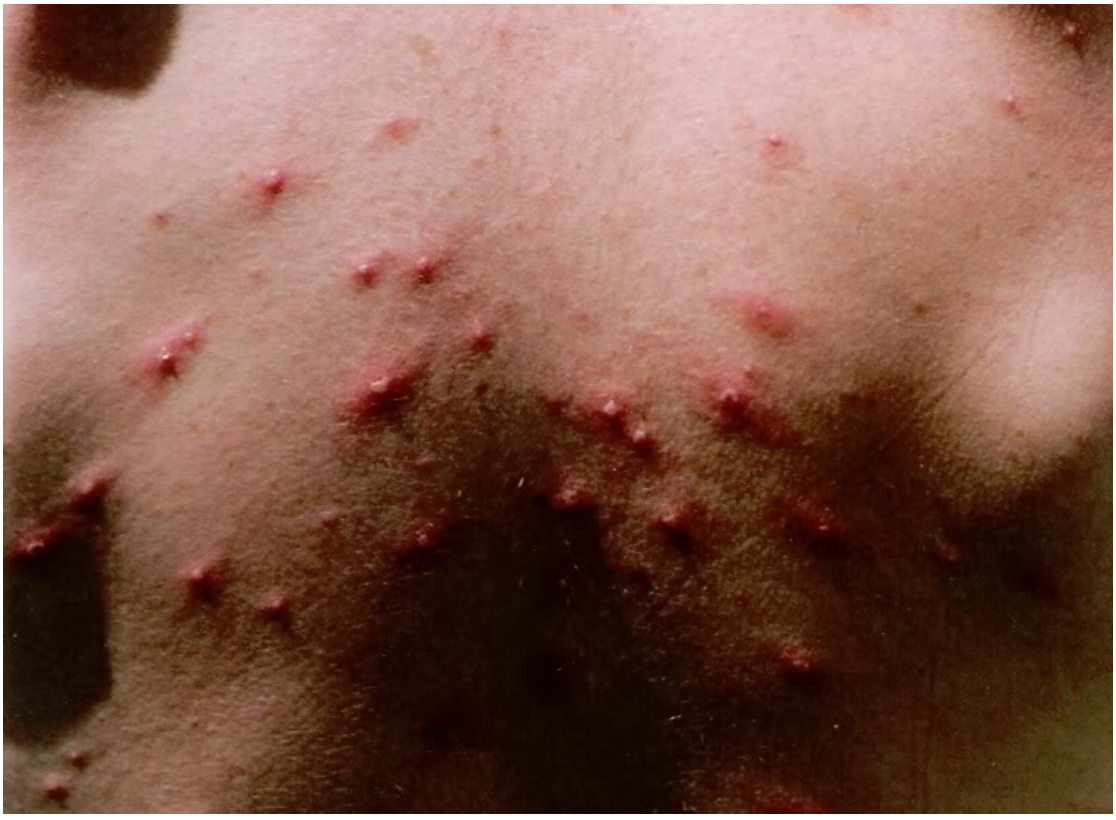
If a child is on steroids, expect serial crops of spots for at least three

weeks, because the steroids trash the cell-mediated immunity which struggles hugely to get on top of the virus as it is designed to, and takes a lot longer. Those children will also have a greater chance of having haemorrhagic and progressive gangrenous lesions, and occasionally develop a disseminated form of the disease with viral infection in all the viscera. Chickenpox can be fatal for children whose immune systems are being chemically suppressed.

There are ways to treat these children, but here is not the place to discuss that.

Here is a photo of classical chickenpox rash, which first appeared looking like mosquito bites on the scalp in the hair, and on the stomach, then it spread. Pinning the said child down to take the photo was the hardest part of the mission.... We were on holiday, and only walked 14.5 miles that day... sigh. Couldn't keep the pogo-stick down...

What we do for both chickenpox (and would do for shingles) is neat cider vinegar, held on for five minutes a time, and two or three times a day. those we know who have tried it for shingles says it nukes the watery spots in a week, and shingles can go on for evaaaa.... Pox virus cannot survive a ph of 3 , and according to lab experiments I know of which never got published, five minutes appears to be about the time required.



Chickenpox is usually self limiting with low morbidity and mortality in healthy children with a functioning immune system. However, in babies under 1 month (where the mortality rate is 20%), adults and immunocompromised children the following should be noted:

COMPLICATIONS (rarely seen in normal healthy children, and usually associated with the use of antipyretics):

The height and length of the fever is a predictor of how severe the disease will be. High temperatures, which last a long time, may rarely be associated with severe complications:

1. Pneumonia – usual cause in adults is Staphylococcus aureas
2. Bacterial superinfection (see below re baths as well - but acetaminophen is associated with a high incidence of GAS infections because acetaminophen down regulates the arm of the immune system which fights bacteria.
3. Encephalitis (rare in children)
4. Reye's syndrome, mainly associated with the use of aspirin to control fever and pain
5. Otitis media

Word of Warning : BATHS.

The old fashioned method of treating chickenpox was to wash children in the bath with oatmeal in the water. However, the problem with this is:

1) skin has a balance of bacteria which is very useful and helps keep out bad bacteria like streptococci pyogenes (group A streptococcus or GAS) When you wash off good bacteria you open the door to bad bacteria.

2) In order for the skin immune system to work properly, it requires an acid PH, and the salt which is excreted during fever - those two things help cathelicidin and other skin immune fighters, to work well. Again, using a bath, you make the skin ph more alkaline, and remove the salt, which is counterproductive.

3) Most important, if your child does have streptococci pyogenes, then the bath helps to spread it everywhere.

What to do instead:

a) use cider vinegar neat on the vesicles, dabbed on, on the face, and

spray the body with it. Yes it stinks. But it keeps the skin ph acid, and also helps kill the virus.

b) when that has dried, spray the chid down with a 5% sodium ascorbate, 95% water solution. Normally I would use ascorbic acid on UNBROKEN skin, but if any chickenpox have broken open, ascorbic acid would sting badly. Sodium ascorbate does not sting.

Many parents who have gone to the doctor with signs of secondary bacterial skin infections, have filled the prescription to have on stand by, but used the above methods, and the infection has stopped in it's tracks.

EXTREMELY RARE COMPLICATIONS ~ again often associated with ***antipyretics***, and sometimes other inappropriately prescribed drugs...:

Osteomyelitis, necrotising fasciitis, toxic shock syndrome, Guillain-Barré Syndrome, carditis, uveitis, myocarditis, bullous varicella, septic arthritis, deep tissue abscess, Group A beta-haemolytic streptococcus, nephritis, orchitis, thrombocytopenia, fulminant hepatitis, acute cerebellar ataxia, premature labour (pregnant women only).

0.7 – 2% of births to women infected in the first 4 months of gestation lead to congenital varicella syndrome – chorioretinitis, ocular defects, cutaneous scars, hypoplastic limbs, micrognathia, encephalomyelitis, cortical atrophy, and pneumonitis (2). A much greater risk to a baby is if a pregnant mother comes out in the pox 4 days before she gives birth. the standard treatment is to give the baby varicella immunoglobulin, to try to lessen the severity. This is now being seen far more frequently, with children being vaccinated, and the circulation of the virus being disrupted. That is why America is looking at vaccinated all pregnant women.  And obviously, the question must be asked, "why don't the other 98+% of women who get chickenpox in the first trimester, have children with defects?" A question which shows just how little they know about mechanisms of disease, host interactions, nutrition, and causation of defects.

Most doctors have never seen any of these, or heard of them, and might consider discussion of them laughable.

However, lest we should be accused of being simplistic, and in the interests of total disclosure, it's better to scare the pants off you first,... after all, it's important you know all the information. :p

One American study showed that 6% of admissions for the complications of varicella were musculoskeletal disorders ranging from necrotising fasciitis to toxic-shock syndrome requiring multiple amputations (2). Complications were not related to severity of chickenpox.

Since the routine mantra from medical people to parents is ‘paracetamol for fevers’ despite medical literature clearly demonstrating that such advice is highly dangerous; since the majority or parents follow such advice unquestioningly; and since necrotising fasciitis has primarily been associated with people who regularly pop paracetamol and other anti-inflammatory drugs, what more needs to be said...

On that note I've attached the chapters from FOPTA relevant to the treatment of chickenpox.

IMMUNE SYSTEM RESPONSES:

Both cell-mediated (Th1) and humoral (Th2) immune responses stop the virus replication (antibody alone does not guarantee total immunity). The most important immune response is the Th1 response which is cell mediated immunity (search and destroy the virus), but the precise laboratory markers of that immunity are unknown (3). This is why people with agammaglobulinaemia (no antibody production) usually have uncomplicated chickenpox, whereas people with defective cell-mediated (or search and destroy immunity) can die from chickenpox.

Nutrition.

Our children went for wet fruits, though the oldest didn't want to eat anything other than watermelon, for a couple of days. I'm a believer in natural foods, and also not feeding if they don't want to eat. But I'd certainly keep them away from sugar and refined foods, which are two things with depress cellular immunity.

Options to consider for chickenpox, if you are interested ~ we didn't need most of these...

NATURAL MEDICINE:

Because chickenpox is a virus, vitamins A using cod liver oil... (while photophobic, and both my children were) and vitamin C are in my opinion, the treatment of choice. The dosages required depend on the individual child.

Keep the skin clean and cool with frequent baths using 1 cup baking soda or 5 drops lavender essential oil in the bath water. Traditionally, oatmeal is used in baths. (I cup of oatmeal powder, to a warm bath) If you use rolled oats, a couple of cups in a cheesecloth bag was the old way...) Rubbing the juice from the fresh stems of aloe vera can also help the itching 23, 24. (My children needed neither)

Sleep (if your children are dozey...) and rest with plenty of fluids is the best cure, as for all viral infections. (If they are like mine, you would need a ball and chain to keep them still, but the investment thereof might ***not*** be worthwhile :p You could be accused of child abuse...) Keep children away from unsolicited interaction with others while they are infectious, especially older people, as exposure to chicken pox may bring on a case of shingles.

The only treatment I used for spots was cider vinegar. Applies neat to spots for 5 minutes, it appears the acid concentration is enough to kill the virus. Certainly the spots went from wet vesicles to dry very fast.

Other options are below...

Aromatherapy

Add 5 drops tea tree, 5 drops chamomile, 5 drops lavender and 5 drops bergamot essential oils to 50ml rose water or chamomile tea and apply to the spots to help stop itching. Re-mix well before each application (25).

Use 2 drops lavender, 2 drops roman chamomile and 2 drops bergamot essential oils in the bath, especially for under 5 year olds (25)

Costs for essential oils vary depending on the oil. If buying essential oils, the label should always state 100% pure essential oil, the country of origin and a use by date. Do not buy fragrant oils, as they do not have the therapeutic value, being artificial substitutes in most cases. As a guide, a 10ml bottle of lavender oil will probably cost around $20.

Homoeopathy

antimonium Credum, where the scabs and discharge look like honey, white tongue and the spots itch and burn, with child worse in warm and better out doors

Antimonium tartaricum – for use when the child is bad-tempered and the spots are slow in coming out. The child will have a white-coated tongue.

Croton tiglium. Blisters are intensely itchy and painful with many lesions on face and genitals.

Pulsatilla – for use when the child is clingy and whiny with a low fever. The itch is worse for heat.

Rhus toxicodendron – use when the tongue is coated white or yellowy white and has a red tip which may be sore. The spots are maddeningly itchy, weeping, and the child very restless, and craving milk.

Sulphur – use if the child is generally restless, sweaty and feverish and the spots are severe, very red and much worse for heat. The spots become crusty, smelly and weep after scratching, and child wants to scratch to bleeding point. Sulphur may also be needed where recovery from the illness is slow.

Varicella 200c (nosode) – use to help clear a severe case or for lingering after-effects of the disease. Do not use while disease is incubating (26, 27.)

Supplements:

If your child fails an oral zinc test, or has white "zinc" marks on nails, an ***oral zinc supplement*** is usefull to support skin healing. children 2 or younger, 5 milligrams, 2 and older 10 - 15 mgs.

If it looks like scarring might be an issue, natural ***vitamin E oil*** rubbed in can help.

Cell Salts

Ferr Phos – when fever, irritability and discomfort are present.

Kali Mur – After the fever has passed, usually with white or greyish white coated tongue. Spots filled with whitish substance.

Calc Sulph – where the eruptions have yellow infected-looking discharge.

Kali Sulph – use when the spots have finished coming out and alternate with Ferr Phos to promote perspiration.

Dosages: Two celloids of the required remedy every half-hour in the early stage, less frequently once the fever has subsided28.

Costs for homoeopathic remedies and cell salts are very reasonable, usually around $5 - $10 per bottle.

Herbals:

Any of the antiviral hers such as echinacea, lomatium, reishi, astragalus, licorice and larix.

gumweed tinture applied to the spots reduces itching.

Calendula, 1 tsp of tincture in 4 teaspoons of water, applied to the skin helps prevent secondary infection of the rash.

PHARMACEUTICAL MEDICINE:

Zovirax (Acyclovir), foscarnet or Vidarabine for older children. Dosage = 20 mg/kg of body weight with a maximum of 800 mgs for 5 days = $170.00.

There are newer antivirals out now which pack a bigger punch...

For the immunocompromised, Zovirax for 7 days intravenously minimum costs = $3,300.

For Zovirax resistant virus, foscarnet (Foscavir) 40 mg/kg IV x 10 days + $2,100. (Not FDA approved.)

Anti-histamines, paracetamol and sometimes, corticosteroids such as prednisone are often prescribed by doctors.

With regard to drug treatment, the following extract speaks volumes:[quote]A POX ON ACYCLOVIR:[/quote][quote]
Newspapers and TV gave a big play to the supposed efficacy of huge (and expensive) dosages of oral acyclovir for treatment of otherwise normal children with chickenpox when the reports appeared a few months ago (New Engl. J Med. 1991; 325:1539). We were mostly impressed with the fact that, if you have large enough numbers of study patients, you can make clinically insignificant differences highly statistically significant. Now the report of acyclovir versus placebo for adolescents with chickenpox has appeared (J Pediatr 1992; 120:627.) Once again clinically insignificant or marginally significant differences favouring acyclovir are statistically significant. The dosage was 800 mg 4 times daily for 5 days (compared with 200 mg 5 times daily used for genital herpes simplex infection)[/quote]Ref:10.

Shingles:

When you have chickenpox, the immune system deals with it, not by eradicating it – because it can't, but by hemming it into the bundles of nerve cells in the spinal cord or cranium. Since the immune system cannot function here, the virus can stay safely dormant for decades often by repeated exposure to children with chickenpox, until the immune system unravels becasue of stress, age, pregnancy, cancer treatment, AIDS, primary immunodeficiency or organ transplant. Then the virus can re-appear. Sometime it re-appears as chicken-pox again (5), and repeat chickenpox has become more commonly reported. Usually though, it reappears as shingles, with some writers stating that 2 out of every 10 people who have had chicken pox experience shingles (22) Again, this rate is increasing because of the use of chickenpox vaccine in children.

The name shingles comes from the Latin word for belt or girdle (cingulum) because the most common presentation is a band of large blister-like welts on one side of the body, on the stomach, back, chest, or in some cases on one side of the face.

Shingles usually can be accompanied by photophobia (sensitivity to the light which usually accompanies viral infections of any sort), tiredness, and itchiness which drives some people frantic. Shingles in adults can leave excruciating pain which can last for years.

Children rarely experience severe pain, or systemic symptoms. In the past, children rarely, if ever, got shingles.... I have never heard of residual pain when shingles is treated with cider vinegar cloth swathes on the bands of rash, and vitamins C and A and other natural means to support the immune system to once again drive the virus back into its hidey-holes. If new lesions continue after three weeks, an underlying immunodeficiency should be investigated.

Pharmaceutical treatment for shingles concentrates solely on symptom alleviation using drugs like prednisone and acyclovir.

Healthy people usually recover from shingles with no problems. Fatalities have occurred after bone marrow transplantation (4).

Chickenpox vaccine.

Japan first started developing a chickenpox vaccine in 1974, and after a 20 year study, concluded that it was safe and effective. By 1997, the

chickenpox vaccine was in phase four studies at the FDA's request, which means that the vaccine manufacturer will monitor several thousand vaccinated children for 15 years to determine the long term effects of the vaccine. (When the rubella vaccine first came out, they assured FDA that they would do the same. However, the study was abandoned with no follow-up because it was considered a waste of money).

What is in each vaccine dose, and what culture medium is it grown on?

"…VARIVAX is a preparation of the Oka/Merck strain of live, attenuated varicella virus. The virus was initially obtained from a child with natural varicella, then introduced into human embryonic lung cell cultures adapted to and propagated in embryonic guinea pig cell cultures, and finally propagated in human diploid cell cultures (WI 38). Further passage of the virus for varicella vaccine was performed at Merck Research Laboratories in human diploid cell cultures (MRC-5) that were free of adventitious agents…" [quote]"…Each 0.5 ml dose contains the following: a minimum of 1350 PFU (plaque forming units) of Oka/Merck varicella virus when reconstituted; approximately 25 mg of sucrose; 12.5 mg hydrolysed gelatine; 3.2 mg sodium chloride; 0.5 mg monosodium L-glutamate; 0.45 mg of sodium phosphate dibasic; 0.08 mg of potassium phosphate monobasic; 0.08 mg of potassium chloride; residual components of MRC-5 cells including DNA and protein; and trace quantities of sodium phosphate monobasic; EDTA; neomycin, and fetal bovine serum. The product contains no preservative5..." [/quote]

Let's get clear of the obscure language. The culture medium is human embryonic lung cells (from an aborted foetus), embryonic guinea pig cell cultures, WI 38 – a different cell line from another aborted foetus, and another aborted fetus labelled MRC-5.

[quote]"…The nearly 2 mg of unmodified mammalian DNA in each dose of Varivax exceeds that present in any other approved childhood vaccine6…"[/quote]

In other words, other vaccines also contain unmodified DNA, but chickenpox contains more than the others.

A medical study was done to see if any of 293 people vaccinated with Varivax developed anti-DNA antibodies from residual fetal tissue/DNA in the vaccine. The article stated that there were no significant changes in anti-DNA antibody, or the frequency of elevated anti-DNA titres.

But if these people have had other vaccines, which already have human DNA in them, and they already have anti-DNA antibodies, exactly what does “significant” mean?

The possibility was also considered that the human DNA present in Varivax might integrate into and transform the vaccinees cells. An ad hoc committee on karyologic controls of human substrates proposed limits for chromosomal abnormalities in human diploid cell lines used to manufacture biologic products. These guidelines have become:
[quote]“…generally accepted upper limits for chromosomal abnormalities. A clonal 7;12 chromosomal translocation in the MRC-5 cells used to produce some lots of Varivax exceeded these limits for structural abnormalities. To evaluate the theoretical concerns raised by this observation Merck undertook a comprehensive assessment of MRC-5 (aborted foetal) cells to document that they were not tumorigenic. MRC-5 cells from the cell banks used to produce vaccine
[/quote][quote]
(1) did not produce tumours when injected into nude mice
(2) reached senescence normally, and
(3) did not exhibit a malignant phenotype. [/quote]
[quote]

Moreover, cells bearing the 7;12 translocation did not proliferate preferentially during the lifetime of the cell line in comparison with MRC-5 cells lacking the translocation. No human disease associated with abnormalities involving a 7;12 translocation has been reported. Outside experts concurred with the FDA’s assessment that the risk of MRC-5 DNA’s inducing a malignant transformation in vaccinees under the condition of vaccination was exceedingly low6…” [/quote]

This information will prove to doctors that the vaccine is safe.

The fact is that Varivax contains 2 mg of WI 38 and MRC-5 – two aborted foetuses. The fact is that the chromosomal abnormalities in this cell line exceeded the accepted upper limits at the time of the study. The fact is that Merck undertook what they call a “comprehensive” assessment to “document that they were not oncogenic.”

The article also stated that:

“…Detectable infectious agents were not present in the material used to produce Varivax, nor were they introduced during the manufacturing process…”

The key word is “detectable”. You can only find what you have a test to

identify. Fetal bovine serum, even batches previously passed by the FDA and WHO, has been repeatedly documented to be contaminated with several different viruses. And every year, new viruses come to the surface, and new tests have to be devised to test for them. The point is that there is absolutely no guarantee that these vaccines do not contain something that is unable to be detected at this time, but which more advanced testing might show up in the future. This is why the manufacturers cover themselves with the word 'detectable' – because they can only be held liable at any future date for those things which were able to be identified at the date of manufacture.

Fair enough. But is it good enough? For some doctors, of course.

Let's look at how well this vaccine was tested.

"Pregnancy: the possible effects of the vaccine on fetal development are unknown at this time. However, natural varicella is known to sometimes cause fetal harm… the duration of protection is unknown … vaccination should be deferred for at least 5 months following blood or plasma transfusions, immune globulin or varicella zoster immune globulin … vaccine recipients should avoid use of salicylates for 6 weeks after vaccination as Reye's syndrome has been reported following the use of salicylates during natural varicella infection … Varivax should be deferred in patients with a family history of congenital or hereditary immunodeficiency until the patient's own immune system has been evaluated … post- marketing experience suggests that transmission of vaccine virus may occur rarely between healthy vaccinees who develop a varicella- like rash and healthy susceptible contacts…"(Merck, Sharpe &Dohme, 1999)

Now, they are looking at giving it to pregnant women in UK.

http://www.merck.com/product/usa/pi_circulars/v/varivax/varivax_pi.pdf

CONTRAINDICATIONS

Pregnancy; the possible effects of the vaccine on fetal development are unknown at this time. However, natural varicella is known to sometimes cause fetal harm. If vaccination of postpubertal females is undertaken, pregnancy should be avoided for three months following vaccination (See PRECAUTIONS, Pregnancy).

Merck, Sharpe and Dohme was really behind the eight-ball there because, in 1997, it was reported that a 12 month old healthy boy who had 30 chickenpox skin lesions 24 days after receiving the varicella vaccine, gave his pregnant mother 100 lesions. She had an elective abortion. While no virus was found in the foetus, this case documents transmission of vaccine virus from a healthy infant to his pregnant mother. The crucial point here is that we know Th1 immunity (or search and destroy) has to be suppressed in a pregnant woman because otherwise she will lose her baby. We also know that Th1 immunity is crucial to fight chickenpox.

Varivax was not evaluated for its carcinogenic or mutagenic potential or its potential to impair fertility. It is not known whether varicella vaccine virus is secreted in human milk. No clinical data are available on safety or efficacy of Varivax in children less than one year of age, and administration to infants under 12 months of age is not recommended.

ADVERSE REACTIONS

A total of 11,102 healthy children, adolescents and adults were followed up to 42 days.
The most frequently reported adverse reactions were:
a. Fever
b. Injection site complaints (pain/soreness, swelling, and/or erythema, rash pruritus.
c. Haematoma
d. Induration, stiffness
e. Varicella like rash

Less than 1%:
Upper respiratory illness, cough, irritability, nervousness, fatigue, disturbed sleep, diarrhoea, loss of appetite, vomiting, otitis, diaper rash/contact rash, headache, malaise, abdominal pain, other rash, nausea, lymphadenopathy, eye complaints, chills, myalgia, stiff neck, arthralgia, lower respiratory illness, allergic reaction (including allergic rash/hives), constipation, itching, heat rash/prickly heat, eczema/dry skin, dermatitis, cold/canker sore.

In children, pneumonitis (<1%) and febrile seizures (<0.1%) have been reported rarely.

The following adverse reactions have been reported since the vaccine has been marketed:

Body as a whole: anaphylaxis
Haemic and lymphatic System: thrombocytopenia.

Nervous Psychiatric: Encephalitis, Guillain-Barré syndrome, and transverse myelitis, Bell's Palsy, ataxia, paraesthesia.
Respiratory: Pharyngitis.
Skin: Stevens-Johnson syndrome; erythema multiforme, Henoch-Schönlein purpura; secondary bacterial infections of skin and soft tissue, including impetigo and cellulitis, herpes zoster7.

In New Zealand, the vaccine first approved here was SmithKline Beecham's Varilrix. This had to be reformulated, because Varivax and Varilrix needed to be stored at –20°C. So the vaccine used in New Zealand at the start contained a much higher titre of virus (2,000 PFU when stored for two years), but because the initial manufacturing titre is 10,000 PFU, this vaccine, by the time it is administered to children, is a mixture of live and killed virus.

Varivax continues to be the only chickenpox vaccine I could find on New Zealand Medsafe site.

For those looking at using Varilrix, please note that the New Zealand working party did not support its use in immunocompromised people. The New Zealand article also stated:
"…There is no doubt about the ability of the Oka strain to establish latent ganglionic infection in vaccinees and later reactivate to produce clinical zoster (shingles)…" (13)

Vaccine induced immunity.

The New Zealand committee charged with looking at this issue wrote:

"…current varicella vaccine formulations are highly immunogenic in healthy children, greater than 95% of whom will develop measurable antibody and cell mediated immune responses to a single dose. Immunogenicity is clearly less in adolescents, adults and immunocompromised individuals of any age. Immunogenicity does not necessarily correlate with the protection afforded..."13

We know that chickenpox infection produces predominantly a Th1 cytokine response 14 and that a characteristic of naturally acquired immunity to chickenpox is a prominent Interferon g response (15) followed by a good antibody (Th2) response.

There is only one small study looking at the type of immunity gained from

the vaccine, which would indicate that in general, the vaccine gives Th1 and Th2 immunity (16). It would seem that this immunity is not quite the same as natural immunity in that there is quite a high re-infection rate after the vaccination. The antibody rates after vaccination have been noted to steadily climb, which was speculated to be a result of natural reinfection from continuing circulation of wild virus (16). This also raises the possibility that this study has an inherent bias in that the participants could have been reflecting a mixed immunity from natural and vaccination-induced infections, and that the possibility exists that once wild virus is eliminated from the environment, it may be revealed that injected immunity is indeed significantly different to natural immunity.

So far, the studies show that 1 – 2% of those who produce high antibody levels from the vaccine will contract clinical chickenpox within 2 yrs of being vaccinated, and 4 – 7% of those with moderate titres also experience chickenpox (8) and can infect their exposed siblings (9). Also interesting is that vaccinated children with asthma or other reactive airway diseases around 10% more likely to contract chickenpox than vaccinated children without reactive airway diseases (12).

As usual, the medical profession maintains that infection following vaccination is milder than that following wild infection.

(At this point I would have to point out that this is a generalisation, since our unvaccinated children had milder doses of chickenpox than our vaccinated pre-school grandchildren!)

Surveillance studies have demonstrated that the vaccine induces antibody responses that persist for at least 20 years (17, 18) However, many countries now use two chickenpox shots, and are looking at using the Zostavax as regular boosters for adults and the elderly .

Antibody persistence studies are reminiscent of those studies which were cited to convince parents that one shot of measles vaccine would give life-long immunity, when those children obtained their long-term immunity from still circulating wild-virus natural boosters.

At least one study (16) indicates that this is what is also happening with the chicken-pox vaccine, so it would appear that long-term immunity will only be possible so long as wild-virus continues to circulate. Given that extensive use of this vaccine has disrupted natural circulation of varicella virus in countries which have used it there is a very real possibility that chicken-pox could become an adult disease with its 5 – 10% higher risk of severe or complicated chickenpox than that experienced by children.

If this were so, then the only way to maintain life-long immunity would be through life-long booster shots with Zostavax, which is a very high potency version of the chickenpox vaccine.

The question then must be asked, " Why would anyone want to vaccinate children against a disease which in healthy children, is no problem?"

Because for some people it is a problem, and ironically, they are the ones who can't have this vaccine.

Children .....Adults

Hospitalisation (general) 10/10,000 .....127/10,000
Varicella pneumonia 1.3/10,000 .....27/10,000
Encephalitis 0.9/10,000 .....3.3/10,000
Varicella deaths 0.15/10,000 .....3.1/10,0006

An interesting article in the British Medical Journal went through the medical reasons to apply universal vaccination, and came to the conclusion that the benefits of mass vaccination accrue only to immunocompromised children:

"A programme of universal immunisation to benefit immunocompromised children would require doctors to ask parents to authorise the immunisation of their children not for their own benefit but for the benefit of their less fortunate classmates. Parents would be asked to place their children at potentially increased risk of primary chickenpox as adults. This is compulsory altruism. Given that we do not compel adults to serve as kidney or even blood donors, it seems unfair to require children to be "splendid Samaritans". This also contradicts the "best interest of the child" standard, which is the usual guiding principle for parental decision making" (11).

(The UK vaccine defenders appear to have changed their minds now.)

This article had pointed out that vaccination is not cost effective in terms of health costs alone, and may even underestimate the costs since they do not factor in possible increases if universal immunisation delays disease until adulthood. (which is the likely outcome from a recent document)

This "side effect" of national vaccination, would increase both medical

costs for complications, and cost of time off work for the adult concerned. But that's okay, now that we have a shingles vaccine!!!

So, what are the disease figures/risks in New Zealand? In 1995, I tried to investigate the statistics for New Zealand after being alerted by a reporter from Consumer magazine that the Health Department had changed its classification procedures, and Consumer magazine decided in the end to not even publish them. Why? Because there was a big increase in hospitalisation statistics for 1992 – 1993, which, when Consumer investigated, was found to be due to a changed in classification.

Prior to 1992, a person was classified as being “admitted” if they went in overnight.

In 1992, the classification “admitted” was changed to mean someone who had spent more than 3 hours loitering in the hospital building. These days, with the speed at which the medical machine seems to work at times, that could mean almost everyone! I noticed in the 1998 New Zealand article quoted before (13) that definition changes resulting in the increase shown in their published data (confirmed to me by Tracey Stewart from the MOH in 1995) was neither mentioned, nor discussed.

CONCLUSIONS

As far as American doctors are concerned, this vaccine is the next best thing to sliced bread – safe, effective, with no side effects. Many doctors attribute it's use as making a big difference to the survival of child cancer patients, but I've not seen any studies backing that up.

As far as American doctors are concerned, Acyclovir or other antivirals are a must.

Having detailed what chickenpox/shingles is, current thoughts on treatment, what is in the vaccine, it’s immunity, some of what manufacturers have printed about its side-effects, and what some doctors have said, it is now up to you to decide what you want to do.

A final quote is worth considering:

“…Everywhere we see people wondering how many of the claims of biological sciences are truly valid (even within their own biological frameworks), and how many result from ***too simple approaches to complex phenomena, methodological pitfalls, fragmentary***

knowledge, fierce competition, and publication biases. It certainly has become customary to read about findings stemming from studies whose subjects (or just samples) came from a biased or unknown origin. Such studies get published in basic science or medical journals, and ***then enjoy some more or less ephemeral attention***. Until they are quietly refuted by population-based designs. In the meantime of course, unnecessary anxieties, reassurances and expectations are raised in the public conscience, and ***dubious cultural constructs are down loaded in our collective imageries***. " (19). (Emphases mine)

These last ten words refer to a situation which, I believe, has been created around immunisation as a whole. It is a grossly imprecise technology, which centres solely on antibody production, dubious concepts, and estimated risk/benefit equations, which are usually re-worked, until something worth talking about is theorised.

Until recently, just HOW vaccines might skew immunity or change epidemiology had not been considered relevant. Yet, this is the most crucial factor in vaccination, and the medical profession's ignorance of it and their refusal to consider this, has been the basis of our consistent protests to them over the years. But the believe that so long as they are one step ahead of the game, with yet another vaccine, that's all that we need to know.

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