Report and Viewpoint on the Vaccine Safety Conference, Tryall Club, Jamaica, January 3–7, 2011: Cautionary Tales and Implications for the Caribbean

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ABSTRACT

This paper represents information obtained from a recent conference on vaccination safety and policy: Vaccine Safety: Evaluating the Science Conference, Tryall Club, Jamaica, January 3–7, 2011 and the author’s viewpoint on the same. The first section represents a synopsis of recorded information and the second the author’s view of Caribbean concerns related to the recorded information.

Keywords: Science and policy, vaccine safety

OVERVIEW

Leading scientists, lawyers, journal editors, medical practitioners and public advocates from Israel, the United States of America (USA), United Kingdom, France and Canada came together to discuss current vaccine science, policy and safety at the Vaccine Safety: Evaluating the Science conference held January 3–7, 2011 at Tyral Club in Jamaica.

The conference suggests that for better or worse, vaccines have had a major impact on modern medicine and perhaps we should now address them with the same scientific and concerned eye that we are casting over such matters as antibiotics. It is also this author’s opinion that as with the issue of antibiotics, a look at historical trends and data is warranted for vaccination.

Cautionary Tales

1. The aluminium adjuvant (AA) is in fact highly reactive and affects the brain. It crosses the blood brain barrier and placenta en route to its preferred sequestration zones, the central nervous system and bone, after a pre-sequestration granuloma-like period in the dermal zone (1).

2. Brains of fetuses and babies up to two years old are susceptible to neurotoxins such as aluminium adju-
vants because the blood brain barrier is not complete until one year of age (note that AAs can also take advantage of several extracellular and cellular transport mechanisms that enable them to pass even the mature blood brain barrier), and because adjuvants can interfere with the action of neurotransmitters such as glutamate which is critical for normal brain development. In addition, adjuvants can activate microglia in the brain and thus create a state of persistent brain inflammation (2).

3. Otherwise healthy premature children, despite current teaching at medical schools, may not be appropriate subjects for a regular vaccination schedule on a date to date basis with term babies (3).

4. Aluminium injected does not behave as aluminium ingested and is less easily excreted because the sizes of most antigen-Al complexes (24–69 kDa) are higher than the molecular weight cut-off of the glomerulus of the kidney (2).

5. In the USA, vaccines are regulated via policy law, not regular food and drug law under which all other pharmaceuticals must be tested and regulated (4).

6. In vaccine trials and tests, the “placebo” is not an inert substance but the adjuvant or a different vaccine (5).

7. Vaccine pharmacokinetics have never been studied and no vaccine has ever been studied for long term effects because such studies are not considered relevant nor are they required for vaccines (6).

8. No vaccine has ever been rigorously tested for long term adverse effects. Most vaccine safety trials focus on acute events and subject follow-up is limited to several days to several weeks. Neurological disorders and autoimmune conditions can take years to develop (7).

9. Since the 1950s, the natural cycle of many diseases has been admitted as a major and inadequately addressed confounder of studies attempting to verify vaccine efficacy (8).

10. Susceptible groups (eg prematurely born babies, children with underlying autoimmune or neurological diseases, and the elderly) have never been adequately addressed or modelled in vaccine studies but these groups are often precisely the most vulnerable to adverse reactions to vaccines. In addition, the elderly are known to be more sensitive to the oxidative stress of aluminium in the brain. Most testing in vaccine trials is carried out on the healthy young, not including pregnant women and babies (1).

11. The flu vaccine in some studies is now showing that mothers receiving the shot during pregnancy are spiking interleukins with a possible connection to increased schizoid behaviour and autism in children (9).

12. Since the dramatic increase in the USA in the number of vaccinations deemed to be required prior to school entry (from 10 in the late 70s to 32 in 2010, 18 of which contain AA), the prevalence of neurological disorders in children in developed countries has increased by 2000–3000% [from less than 5 per 10 000 to 110–157 per 10 000] (2).

13. The Food and Drug Administration (FDA) is now fast-tracking much research eg the planned four-year study of a human papillomavirus (HPV) vaccine reduced to six months. The websites of the National Adverse Effects and Reactions and the National Vaccine Information Center can be checked for reports on the vaccine. There is still no proven long-term benefit from HPV vaccination, and vaccine safety concerns are significant, yet the companies are now recommending that boys be vaccinated as well (10).

14. In the USA, vaccine compounding is not as rigorously standardized as other drugs; one vaccine batch may be significantly biochemically different from the next batch and both batches are assumed under the same initial test and drug information insert. Quality control re-testing is not required nor is it state or federally legislated and is also admittedly difficult in Europe (11).

15. Possibly less noxious adjuvants than aluminium are not systematically pursued since aluminium remains a very inexpensive option (1).

16. The practice of increasing the amount of adjuvant in polyvalent vaccines has not been adequately addressed in light of evidence that this practice is likely unnecessary.

2010 Recommended USA Vaccines Containing Aluminum

<table>
<thead>
<tr>
<th>Combo</th>
<th>Year</th>
<th>Hepatitis B</th>
<th>Hepatitis A</th>
<th>Tetanus Diphtheria Pertussis</th>
<th>Measles Mumps Rubella</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combo Comvax Merck</td>
<td>2001</td>
<td>amorphous aluminium hydroxide</td>
<td>225 mcg</td>
<td>DTaP Infanrix GlaxoSmithKline</td>
<td>2010 DTaP aluminium hydroxide</td>
</tr>
<tr>
<td>Combo Pediarix GlaxoSmithKline</td>
<td>2008</td>
<td>DTaP, Hib, IPV aluminium hydroxide, alum</td>
<td>850 mcg</td>
<td>DTaP Tripedia Sanofi Pasteur 2005 DTaP</td>
<td>aluminium potassium sulfate</td>
</tr>
<tr>
<td>Combo Kinrix GlaxoSmithKline</td>
<td>2010</td>
<td>DTaP, IPV aluminium hydroxide</td>
<td>600 mcg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combo Pentacel Sanofi Pasteur</td>
<td>2009</td>
<td>DTaP, IPV, Hib aluminium phosphate</td>
<td>333 mcg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combo Twinrix GlaxoSmithKline</td>
<td></td>
<td>Hepatitis B aluminium hydroxide, alum</td>
<td>450 mcg</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(V Debold, FDA Vaccine and Related Biological Products Advisory Committee – personal communication; unreferenced public domain product inserts).

17. Research findings that delaying DTP/DTaP, with reference to the USA schedule, results in significant
Implications for the Caribbean

1. We do well to maintain the vaccine load of our national schedules to an effective minimum.

2. Jamaica does well to keep the MMR schedule to two years old and four years old (booster) or the one dose at approximately 11 years of age.

3. In order to reduce toxin load and effects, it seems best to spread the schedule as widely as possible and administer vaccines as late as possible with due respect for any efficacy. Later administration of DTP/DTaP and lower asthma rates are a case in point.

4. The University of the West Indies might consider reviewing the teaching that healthy premature babies can be vaccinated on the same schedule as term babies. Premature babies may be especially at risk particularly during their known ’catch-up’ phenomenon.

5. Cost may no longer be an appropriate argument for maintaining DTP in Jamaica’s public sector.

6. Jamaica may be fortunate to have some practitioners who were immediately skeptical of ’vaccines’ that covered only 2–4 of many HPV strains and a majority who are unlikely to be injecting males with them.

7. Jamaica may want to review BCG policy as we have heard at both the conference of the Caribbean College of Family Practitioners and the Vaccine Safety Conference that the immunity conferred wears off and is never boosted. Furthermore, many countries including the USA have never had this vaccine as part of their schedule and we may be putting newborns, especially premature babies, at risk.

8. Our governments may want to enforce stricter policy/further monitoring of vaccine sourcing and purchase policy as there are many issues about vaccines that remain unaddressed/ignored.

9. The Caribbean needs to enter, more fully, the effort to improve vaccine science and use.

REFERENCES


6. Medinfo: medinfo.co.uk [Internet]. Berkshire, UK: Med Info Dept UK; c1998–2010. Patient group direction information for: Revaxis® diphtheria, tetanus and poliomyelitis (inactivated) vaccine (adsorbed,


