Letter to Senate Select Committee with extra information concerning "Inquiry into Support for Australia's Thalidomide Victims"

From Professor Janet McCredie 7.2.19

Dear Senators,

First may I say how impressed I was to witness the Senate Select Committee in action on Thursday 31st January, 2019. The well-informed and probing questions from compassionate Senators showed democracy at work and at its best.

On reading the emailed Hansard record, I recognized the omission of certain relevant blocks of data and one or two problems left unsolved, which prompts this letter to provide information about

1. The Limb Deficiency Clinic at Royal Alexandra Hospital for Children, Sydney where I was Hon Consultant Radiologist for about 20 years
2. Additional experience
3. Identifying thalidomide limb defects
4. Comment on the size of the cohort for 2014 Class Action
5. Awareness of late onset neuropathy in thalidomide survivors after 2000
6. Final disability score, 2010
7. Correction

Janet McCredie

1. THE LIMB DEFICIENCY CLINIC AT RAHC Camperdown, Sydney.

In the aftermath of the thalidomide disaster, a "Limb Deficiency Clinic" was instituted at the RAHC, then Sydney's only Children's Hospital. It was a multi-disciplinary clinic, convened by a paediatrician assisted by occupational therapists, with the aim to assist any child born with limb deficiency (whether from thalidomide or not). It accepted referrals from all over the state of NSW. The clinic met every fortnight. It was staffed by the following specialists: a paediatric orthopaedic surgeon; a rehabilitation physician; geneticists; prosthetic makers and limb fitting specialists; physiotherapists and occupational therapists.

I was appointed Hon Consultant Radiologist to that clinic in 1973 and I attended for about twenty years. I had already formulated and published the neural crest hypothesis in 1973. My first sight of thalidomiders was in 1971. I was in London specializing in Diagnostic Radiology in 1961 and until 1965.

The clinic handled the wide variety of congenital limb defects that constantly occur in the normal Australian population. Very few of our patients were due to thalidomide in the past, although a few needed followup. Some of our original thalidomiders presented last week at the Senate Committee. All of them have been compensated by the original Trust as described by Mr Kelly; and they were subsequently given ex gratia payments by Diageo after the 2010 Review. They had longitudinal birth defects of the typical thalidomide pattern as defined by Henkel and Willert 1969, verified by many centres in Europe and UK since.

Some other cases at the clinic were proven genetic syndromes. Others were probably vascular in origin. But by far the majority of limb deficiencies were and are still of unknown cause, and had very varied skeletal patterns that contrasted with that caused by thalidomide. Similar clinics in Germany and UK handled large numbers of thalidomide survivors. Their experienced clinicians defined the limits of thalidomide-induced limb defects and stated that they were always longitudinal, not transverse. Our clinic experience agreed with this.

The Limb Deficiency Clinic provided a first hand overview of the full range of limb defects in the NSW community together with their anatomic patterns. It also provided insights into the few cases of thalidomide embryopathy.

2. ADDITIONAL EXPERIENCE:

In addition to this local experience, I visited overseas hospitals and clinics. I was often asked to read the XRays of their thalidomide cases. I studied large numbers of thalidomide-induced limb defects at Queen Mary's Hospital, Roehampton, where artificial limbs had been made for war veterans (skills later adapted for thalidomide children). Another large collection of Xrays was at Chailey Heritage, Sussex, a Victorian orphanage that had been altered to house children with the worst thalidomide malformations (which precluded them from living at home). I studied XRays of more than 100 thalidomide cases at these two centres. I also interpreted scores of XRay films at The Thalidomide Trust in UK, and at clinics in Leeds, UK; Stirling, Scotland; the EX-Center in Stockholm; and several German cities.

My most valuable collaboration was with Professor Hans Willert, Professor of Orthopaedic Surgery in Gottingen, Germany. He had become famous for publishing the "Pattern of Dysmelia" ie, the pattern of thalidomide damage to the skeleton. In response, doctors all over Germany sent him copies of XRay films of their patients. He allowed me to study his files of radial, tibial, ulnar and fibular defects. Four main files, each with about 200 cases.

3. IDENTIFYING THALIDOMIDE DEFECTS

In the broad community, there are a wide range of congenital limb defects from many different causes. Only some of them are caused by thalidomide.

Thalidomide defects follow a pattern.

Radial and tibial defects were mainly thalidomide-induced. Ulnar and fibular defects had no thalidomide history.

Every film from Hans Willert's collection had the patient's name and date of birth stamped in the corner. Taking the year of birth from each case, the birthrate for every year from 1920 to 1980 could be graphed.

Absent radius cases were born in an epidemic from 1957 to 1963, the thalidomide era, rising to a high peak in 1962. Births of limb deficient babies fell steeply 9 months after thalidomide was revealed as the cause.

Absent ulna cases showed no such epidemic, not even small clusters. Their births rumbled along the baseline with no increase during the thalidomide era. This is proof that thalidomide did NOT cause primary ulnar defects. It is confirmed in the detailed doctoral thesis of Dr Willi Ohnesorge which I have had translated and read.

Another very common upper limb defect is transverse amputation below the elbow, sometimes with a miniature hand or five nubbins where the forearm should have been. These absent forearms are of unknown cause, possibly vascular, and occur later in embryology that thalidomide acts. They are almost always unilateral, more often left than right. It has never been recorded in thalidomide embryopathy to my knowledge. It is the most common arm defect we see in the community of non-thalidomide arm defects.

Only 80% of thalidomide defects are symmetrical. 20% are asymmetrical because 20% of normal embryos develop one side ahead of the other.

These are examples. There are other criteria for assessing whether thalidomide caused limb defects in any particular person which should be applied and assessed by a radiologist, paediatrician or surgeon expert in the area.

4. LARGE COHORT of CASES in THE VICTORIAN CLASS ACTION, 2014.

It was curious that so many cases of "thalidomide" limb defects were identified for the Victorian class action of 2014. I do not know whether Victoria had a limb deficiency clinic like NSW. If so, the limb defects should have been

identified and sorted during childhood, and given appropriate medical care long before 2014.

Perhaps absence of identification earlier in life may account for the large cohort. One wonders how doctors could have overlooked so many cases in view of the publicity around thalidomide embryopathy over the years. A very few families may have chosen to hide their child, but not scores of families.

Another possibility is that the cohort includes birth defects which are not due to thalidomide. Thalidomide is, by no means, the only cause of limb defects. Non-thalidomide cases were the vast majority in our Limb Deficiency Clinic in Sydney.

The cohort from the Victorian class action should be reviewed by medical specialists expert in the area before its inclusion in any compensation or support designed for Australia's thalidomide survivors.

5. REVIEW IN 2010 re PREMATURE AGEING:

Senator Steele-John asked whether symptoms of the early ageing process were studied in the review process in 2010.

The answer is yes, and it was at my insistence. Since the phone call from England in year 2000, I had realized that something like the post polio syndrome was evolving in the thalidomide survivors. But it was a process that was difficult to quantify. It varied from one person to another, and had a nebulous disease pattern. Some had pins and needles, others had hot/cold disorders, many had aching back, neck or shoulders. Some had shooting pains. All of these are sensory symptoms and indicate the recent onset of sensory disorder.

I discussed it with Ken Youdale, and I suggested that he invite a team of neurologists to attend the review, so that they could define the clinical features and advise what to do next for these people.

Unfortunately, we were unable to get meaningful data. The neurologists could only attend one day per week (for three weeks), so they only saw about fourteen patients, and those patients each had very different deformities.

However a paper published by Charing Cross Hospital's Neurology Dept in 2016 does establish compelling evidence that there is widespread neuropathy in middle-aged thalidomiders. This has been confirmed by thalidomide centres in Germany.

That is consistent with my analysis that the thalidomide drug attacks the sensory nervous system. Limb buds are formed in the embryo after the sensory nervous system is formed, and are dependent on sensory neurotrophism for their initial growth. Thus, damage to the sensory nervous system will affect the development of limbs. Widespread neuropathy in middle age demonstrates that there has been widespread damage to the nervous system, and is consistent with thalidomide damage.

Professor Vargesson's deposition states that nerves are last to enter limb buds. That proposition is not consistent with our research using the electron microscope. The nerves are the first differentiated tissue to be seen in a limb bud.

In 2010 the thalidomiders were still developing the ageing symptoms. The symptoms have increased over time, sometimes exponentially, sometimes more slowly. The condition is still evolving, but support needs to be supplied as soon as possible and premature ageing must be factored into future plans for support and compensation.

6. FINAL DISABILITY SCORE:

I mentioned in my first deposition that I prepared final mathematical disability scores as part of the review.

I now understand from the evidence given in this committee last week that the final mathematical disability scores that I prepared were changed and that a different scoring method was used.

I was not consulted about the changes, and was indeed unaware of the changes until the hearing last week.

I do not understand the basis upon which the scores were altered. I have no knowledge or understanding of the scoring method finally used.

7. CORRECTION

Mr Gordon in his letter to you of 7 February 2019 said that I was working in the thalidomide field immediately after the epidemic in the early 1960s. That is not correct.

I knew nothing about thalidomide until the children were to receive compensation at the end of long litigation, when I was asked to look at some Xrays of thalidomide children applying for compensation. That was in about 1972.

It was then that I noticed the connection between the developing nervous system in embryos and the damage caused by thalidomide.

My first papers on the subject were published in 1973. The second paper in that year was published in The Lancet.