

The Scientific Record: Examining some of the claims and counterclaims in the MMR saga.

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Abstract: Background: Articles published in scholarly journals form part of the scientific evidence base. It is the responsibility of the scientific community to maintain its integrity. In 2011 the BMJ commissioned a feature article to draw attention to an article that had appeared in another journal—The Lancet 13 years previously. The Lancet had already retracted the article. These actions exemplify the best traditions of scientific record-keeping. **Objective:** This submission examines whether the main claims summary made in the BMJ were factual. **Method:** We examine what was published in the Lancet against what was published in the BMJ and verify against the findings in the GMC hearings transcripts and verdict of the UK High Court. **Results:** The 6 points highlighted in BMJ had errors and need to be corrected. **Conclusions:** There are significant differences between what was reported in the Lancet paper and what was alleged to be there by the BMJ. This article aims only to point to errors in the BMJ article, to set the record straight. It does not show there was a causal association between MMR vaccination and autism.

Keywords Strawman fallacy; UK General Medical Council; autism; regression; MMR

Take home messages

1. It is the responsibility of the scientific community to ensure the veracity of the scientific record correcting any errors published.
2. The BMJ performed this role by calling out the errors about MMR appearing in the Lancet 12 years previously.
3. Documented evidence in GMC hearings and the High Court in the UK show that some of the observations in the BMJ were mistaken and need correction.

Articles published in peer-reviewed, scholarly journals are part of the scientific evidence base. The reliability of each element of the evidence base determines the reliability of scientific knowledge represented by it. Ensuring the integrity of this record is the collective responsibility of researchers, peer reviewers, journal editors and the consumers of the literature – the scientific community at large [1]. Post-publication comments help identify fallacies in science and maintain the integrity of the record. According to the guidelines of COPE, the Committee on Publication Ethics, where serious flaws are detected, they must be corrected by the journal explicitly recording the changes made, or the article must be retracted [2].

A very public display of this method of disputing published literature was witnessed when the British Medical Journal (BMJ) commissioned a feature article [3] about a paper that had appeared in another journal – The Lancet, in February 1998 [4]. The Lancet had already retracted that paper in the previous year, in February 2010 [5]. The BMJ article appeared in January 2011 which was 13 years after the original Lancet article.

By December 2022 the BMJ article had been downloaded 266,343 times, picked up by 121 news outlets, cited by 476 authors and referenced on 43 Wikipedia pages. In hindsight, this groundswell supporting the BMJ may be a prime example of how different players work together as a team, to maintain consistent scientific literature.

The present submission examines whether some of the BMJ's claims were fallacious, in the light of the evidence that was available before the BMJ article was published and that which has accumulated since. The BMJ appears to have attacked a strawman: a distorted version of the original Lancet paper [6].

In scientific literature the strawman fallacy can be identified by examining the original article and its critique side by side, seeking mismatches between the propositions asserted in the first article and what the second article criticizes. Edward Damer, who has written the treatise 'Attacking Faulty Reasoning' [7] has suggested that it is useful to recapitulate the basic outline of the arguments. The BMJ has used a Box to highlight 6 criticisms of the Lancet article, making outlining the arguments more straightforward.

Material and Method

We present the two versions side by side to examine if the criticisms in the BMJ are justified, given what was published in the Lancet article.

It is possible that the BMJ could have made its allegations based on additional evidence, besides what was stated in the Lancet article. The publication of the BMJ article followed a UK General Medical Council hearing, where testimony given under oath and subjected to cross-examination was recorded in transcripts [8]. The Editor of the BMJ in her column 'Editor's Choice' specified that the journal checked its report against the GMC transcripts [9].

Professor Walker-Smith, the Senior co-author of the Lancet paper, brought a case against the GMC findings to the English High Court. This happened before the BMJ article was published. The verdict of the court exonerating Walker-Smith was delivered a year after the BMJ article appeared [10].

In this article, we examine the Lancet averments and the BMJ assertion against the transcripts of the GMC proceedings, as well as the English High Court findings available in the public domain. Where there was a disparity in the terms used in the BMJ compared to what was published in the Lancet, the search function in the HTML version was employed to identify terms in the Lancet article that could have led to the misunderstanding.

The author is aware that in conducting this exercise, he may well be creating a new strawman. If so, this can be identified in an open peer review by the BMJ editors. This article can then be revised in response to peer reviews and it is hoped that finally, truth and science can win in this process, in the best traditions of scientific publication.

Results

The following passage is a copy of the Box (Box 1) in the BMJ article reprinted with permission.

The six points are framed as 6 allegations.

Allegation 1. Three of nine children reported with regressive autism did not have autism diagnosed at all. Only one child had regressive autism.

To paraphrase, according to the BMJ article, out of 9 children reported with 'regressive autism' in the Lancet, only one child had 'regressive autism', and 3 had 'no autism diagnosis at all'. The diagnoses in the remaining 5 are not specified but it can be presumed they had some form of autism because they were not included in the group with 'no autism at all'. One must surmise that it is alleged that these children had autism but not 'regressive autism'.

In the supplementary data published with the BMJ article [11], the footnotes to Table 2 specify that Children 6, 7 and 12 did not have autism diagnoses.

Table. Comparison of Records of the Diagnosis in the Lancet, BMJ and GMC Transcripts

Child	Lancet [†] Behavioural di- agnosis	BMJ [‡] Regressive autism		GMC [#] Dx Autism	GMC Transcript ref. (Day/Page)	GMC ^{##} Dx Developmental Regression	
		Lancet	NHS Records			Dx	Transcript ref. (Day/Page)

1	Autism	Yes	?	Yes	1/10, 3/58, 3/62 5/55.	Yes	3/58, 36/3, 36/6, 77/45, 77/64, 118/51-52
2	Autism	Yes	Yes	Yes	Not in dispute. 1/8	Yes	Not in dispute. 14/43
3	Autism	Yes	?	Yes	1/11, 3/66, 5/31, 36/16, 41/13, 76/3, 76/5	Yes	36/16, 76/3, 76/28,
4	Autism? Disintegrative disorder?	Yes	?	Yes	1/12, 4/5, 4/8, 6/62-63, 6/73, 36/25-26,	Yes	4/5, 6/60, 25/76, 36/24, 36/22, 36/24, 78/5-6, 118/57
5	Autism	Yes	?	Yes	1/17 4/16, 4/17, 4/18, 11/37 11/39, 24/43	Yes	4/18, 11/38, 11/41, 78/36, 78/39
6	Autism	Yes	No	Yes	1/14, 4/8, 4/9, 6/3 6/4 6/11, 6/27, 6/30, 99/2	Yes	79/17, 79/21, 102/43
7	Autism	Yes	No	Yes	6/18, 6/23, 6/41, 12/41, 37/12	Yes	37/12,
8	Post-vaccinal encephalitis?	No	No	No	1/21, 4/29	Yes	12/33, 12/34, 29/4, 29/7 29/8, 29/9, 37/3, 37/6, , 80/27, 80/31, 103/2
9	Autistic spectrum disorder	No	No	Yes	1/15 (x2), 4/10, 4/15, 26/69, 80/53, 81/13, 107/52	Yes	4/14, 23/7, 36/6, 80/53, 81/2
10	Post-viral encephalitis?	No	No	No	1/23, 5/16, 5/5, 5/6,	Yes	1/23, 4/37, 5/5 37/21
11	Autism	Yes	?	No records	30/6	No records	30/6
12	Autism	Yes	No	Yes	1/19 (x2), 7/18, 7/22, 7/24, 24/46, 36/54, 36/57, 93/42, 93/54, 103/31, 106/21	Yes	4/24 7/22 36/57 106/21-22 (x2)
Total	10/12	9/12	1/12	9/11	-	10/11	-

† Column from Lancet Table 2 **Neuropsychiatric diagnosis**

‡ Column from Table Appendix BMJ **Comparison of three features of the 12 children in the Lancet early report with features apparent in the NHS records, including those from the Royal Free hospital**

*References to the diagnosis of autism noted in GMC transcripts (8) (See Box 2 for direct quotes)

** References to developmental regression in GMC transcripts (8) (See Box 3 for direct quotes)

NB Transcript page references may vary by +/- a page, depending upon the page formatting of the computer/printer combination they are viewed on or printed from.

Comparison of the Lancet with the BMJ

The claim the Lancet paper reported 9 children with 'regressive autism' is incorrect. Concerning these children, the term 'regressive autism' is used only in the BMJ. The Lancet explicitly states that the diagnosis of 'autism' was made earlier elsewhere before admission.

Lancet: '...all had been assessed professionally elsewhere, so these assessments were used as the basis for their behavioural diagnosis.'

The behavioural diagnoses were autism (8 children) and autistic spectrum disorder (1 child) and ? autism or disintegrative disorder (1 child). 'Regressive autism' is not reported in any of these children in the Lancet. Table 2 of the Lancet paper lists these behavioural diagnoses.

This column is reproduced in the Table below with the corresponding column from the BMJ where 'regressive autism' replaces the term autism. Next to it is a column where, according to the BMJ author, NHS records document the features of regressive autism in only one of those children. The last two columns list the references in the GMC transcripts to the diagnosis of autism and the references to regression noted in individual children.

Verification of Facts from the GMC Transcripts

Child numbers 6, 7 and 12 were claimed in the BMJ as not having autism diagnosed at all. The GMC transcripts however report they had autism. The GMC transcripts show 9 of 11 children (for whom records were available to the GMC) had been diagnosed with autism and that includes the child noted in the Lancet as having autism spectrum disorder and the child diagnosed as having possible autism ("?autism or disintegrative disorder").

Search for the word 'regressive' in the Lancet

How this switch from the diagnosis of 'Autism' in the Lancet paper to 'Regressive Autism' in the BMJ could have happened was examined. The Lancet paper reported developmental regression in 12 children.

Lancet: "We investigated a consecutive series of children with chronic enterocolitis and regressive developmental disorder"

The BMJ article conflated 'developmental regression' and 'autism' and misleadingly reported "regressive Autism". The term "regressive autism" was not used in the Lancet paper as a presentation or diagnosis in any of the 12 children. The BMJ, by substituting autism reported in the Lancet with the term 'regressive autism,' which was not reported in the Lancet or the children's medical records, created non-existent discrepancies between the Lancet paper and the medical records. The GMC transcripts show that the label of autism recorded in the clinical notes of individual patients was reported truthfully in the Lancet.

Allegation 2. "Despite the paper claiming that all 12 children were "previously normal," five had documented pre-existing developmental concerns."

Paraphrased, the BMJ holds that 5 children had developmental concerns in early life and so it was wrong to state that all 12 were "previously normal".

Comparison of what the Lancet says against what is reported in the BMJ

The Lancet article states:

"Prospective developmental records showed satisfactory achievement of early milestones in all children. The only girl (child number eight) was noted to be a slow developer compared with her older sister. She was subsequently found to have coarctation of the aorta. After surgical repair of the aorta at the age of 14 months, she progressed rapidly and learnt to talk. The speech was lost later. Child 4 was kept under review for the first year of life because of the wide bridging of the nose. He was discharged from follow-up as developmentally normal at age 1 year."

The Lancet documents there were some early developmental concerns in two children, but all the babies had caught up developmentally and they were normal for their age before they started to regress and lose acquired skills including language. Given this background, it is obvious the Lancet authors use the term 'previously normal' to signify the point of time just before the start of regression. The last column of the Table shows the GMC transcripts' references to the children's medical records confirming regression following previously normal development for all eleven children for whom medical records were available.

The BMJ is claiming that by 'previously normal' the Lancet is implying that there were no developmental concerns ever, with regard to these babies. The BMJ interpretation is incompatible with the text of the Lancet article where the 'early concerns' are documented.

Allegation 3. "Some children were reported to have experienced first behavioural symptoms within days of MMR, but the records documented these as starting some months after vaccination".

Comparison of what the Lancet says against what is reported in the BMJ

The Lancet reports, "In eight children, the onset of behavioural problems had been linked, either by the parents or by the child's physician, with measles, mumps, and rubella vaccination. Five had had an early adverse reaction to immunisation (rash, fever, delirium; and, in three cases, convulsions). In these eight children, the average interval from exposure to first behavioural symptoms was 6.3 days (range 1–14)."

It can be seen that the first behavioural symptoms recorded in the Lancet (occurring within 1-14 days) are presentations such as rash, fever, delirium and convulsions. These are not symptoms of autism. They were the first adverse effects noticed by the parents and some doctors.

The Lancet goes on to state:

"In some cases, the onset and course of behavioural regression was precipitous, with children losing all communication skills over a few weeks to months"

The Lancet reports 'behavioural symptoms' like post-vaccination delirium happened within 14 days but 'behavioural regression' took weeks to months in the most precipitous cases, and by inference, even longer in the others.

Search for the words that could have resulted in the misunderstanding

It would appear that the confusion can have happened because of the use of the expression 'behavioural problem' which the BMJ has probably equated with 'behavioural regression'. The Lancet authors make it clear that they are referring to changes in behaviour such as fever and delirium when they refer to the early adverse reactions to immunization (within a mean of 6.3 days). They have used the expression behavioural regression for loss of acquired developmental skills. The BMJ author may have confused these two terms used by the Lancet authors. The Lancet authors do not say that developmental regression happened in days and there is no substance to this BMJ allegation.

Allegation 4. "In nine cases, unremarkable colonic histopathology results—noting no or minimal fluctuations in inflammatory cell populations—were changed after a medical school "research review" to "non-specific colitis".

According to the BMJ, nine cases with little or no pathology were reported wrongly (by the medical school experts) as having colitis.

In the formulation above, the expression 'reported wrongly' is used because, without it, there is no 'allegation'. It cannot be an allegation that an expert has more expertise than a generalist. It is merely a statement of fact. Generalists refer to the expert and seek their opinion and advice for this very reason. The expert is better qualified to report a histopathology slide and his opinion may differ from that of a person with no specialist experience.

The general pathologist who saw only minimal fluctuations sent the slides for the expert opinion of specialist gastroenterology pathologists. The experts found evidence of colitis and reported it. If one is uncharitable, one can fault the generalist for missing the evidence of colitis but there can be no case against the specialist for finding this evidence.

Verification of facts from the GMC Transcripts

The evidence of Professor Simon Murch on oath recorded in the GMC transcripts confirmed the histopathological diagnoses published in the Lancet were agreed at a meeting of Professor Simon Harry Murch, Dr Susan Elizabeth Davies, Professor John Angus Walker-Smith, Dr Michael Thomson, Dr Andrew Anthony, Dr Amar Dhillon, Dr Robert Heuschkel, Dr David Howard Casson, Dr Mohsin Malik, Dr Andrew Jeremy Wakefield, and Dr Alan Phillips [8]. [GMC Transcripts D113/43-44].

This was not a fabrication by one rogue gastroenterology histopathologist but the diagnosis in each case was the consensus opinion of a team of highly qualified experts.

Allegation 5. "The parents of eight children were reported as blaming MMR, but 11 families made this allegation at the hospital. The exclusion of three allegations—all giving times to onset of problems in months—helped to create the appearance of a 14-day temporal link".

It is alleged that:

- a) the Lancet wanted to create the appearance of a "14-day temporal link".
- b) The stories of 3 children who blamed MMR but developed symptoms outside the two-week time window were not disclosed because they did not fit the 14-day narrative.

Comparison of what the Lancet says against what is reported in the BMJ

There does not appear to be any effort to propagate a 14-day narrative. The Lancet reports that behavioural regression and the loss of communication skills took at a minimum (in the most precipitous cases,) of weeks to months. Others took even longer. The early symptoms which appeared within the first 2 weeks were rash, fever, delirium and convulsions and these are not symptoms of autism.

If there is no '14-day' narrative, that cannot be the reason for excluding the link made by parents or doctors of 3 children with MMR. The BMJ claims that parents of 11 children blamed the MMR vaccine for their child's condition "at the hospital" whereas the Lancet says the association was suspected in 8 cases by family and/or doctors. The GMC transcripts will have to be relied on to determine which of the two assertions is factually correct.

Verification with facts from the GMC hearing

The GMC transcripts record that the GMC's prosecutor Sally Smith QC confirmed the parents of Children 5, 9, 10 & 12 did not link the MMR vaccine to their children's conditions(8). [GMC Transcript D97/2 Sally Smith QC GMC Prosecutor]

The GMC transcripts record that in one case, Child 5, parents made the allegation of association with the vaccine only after reading about it in a newspaper [8]. [GMC Transcripts D4/17 Sally Smith QC GMC Prosecutor]

The allegation in the BMJ is incorrect.

Allegation 6. "Patients were recruited through anti-MMR campaigners, and the study was commissioned and funded for planned litigation"

The allegation pivots on whether a 'study' (commissioned research) was conducted, or whether the Lancet authors were merely documenting investigations done as part of medical practice.

The basic definition given in the January 1990 guidance of the Royal College of Physicians in the report entitled "Research involving patients" [12] (which Judge Mitting quoted) is as follows:

"What constitutes research in patients?"

When an activity is undertaken solely to benefit an individual patient, and where there is a reasonable chance of success, the activity may be considered to be part of "medical practice". The progressive modification of methods of investigation and treatment in the light of experience is a normal feature of medical practice and is not to be considered research.

In contrast, where an activity involving a patient is undertaken with the prime purpose of testing a hypothesis and permitting conclusions to be drawn to contribute to general knowledge, this is "research". The fact that some benefit expected or unexpected may result from the activity does not alter its status as research".

The GMC claimed Walker-Smith and his team were carrying out a research project under a research protocol [ref: 172/96] without ethics approval which constituted serious professional misconduct. The doctors' case was they were treating children according to clinical needs.

The findings of the GMC's Panel were appealed by Professor Walker-Smith to the English High Court and heard by Judge Mitting.

Following detailed consideration of all the evidence, the Court could not uphold the contention of the GMC. The children did not qualify for inclusion in the alleged research project. They were not subjected to procedures under a research project. The charge that this was a study and research project could not be sustained and was quashed by the Court [10].

Judge Mitting's findings lay to rest this allegation.

Discussion

The BMJ's six main allegations [enumerated in the Box in the BMJ article] were selected for scrutiny and not every line of the article. The comparison and analysis suggest that each of the six main allegations of the BMJ article is incorrect and therefore should be corrected.

Selecting the issues mentioned in the Box was felt to be fair because the author and editors would have distilled the main points of their case to highlight in the Box. It was also convenient to focus on these main allegations when presented with a somewhat rambling 5-page article.

If the allegations in the box needed to be paraphrased the paraphrased points were made explicit. This was done to ensure that if any might be thought strawmen, they were clearly identifiable, to be challenged by the BMJ.

Conclusions

There are significant differences between what was reported in the Lancet paper and what was alleged to be there by the BMJ. The allegations made in the BMJ article appear to be misleading but these have not been retracted to date.

The authors of the 1988 Lancet paper did not say there was a causal association between MMR vaccination and autism. This article aims only to point to errors in the BMJ article, to set the record straight.

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BOX 1

How the link was fixed

The *Lancet* paper was a case series of 12 child patients; it reported a proposed “new syndrome” of enterocolitis and regressive autism and associated this with MMR as an “apparent precipitating event.” But in fact:

- Three of nine children reported with regressive autism did not have autism diagnosed at all. Only one child clearly had regressive autism
- Despite the paper claiming that all 12 children were “previously normal,” five had documented pre-existing developmental concerns
- Some children were reported to have experienced first behavioural symptoms within days of MMR, but the records documented these as starting some months after vaccination
- In nine cases, unremarkable colonic histopathology results—noting no or minimal fluctuations in inflammatory cell populations—were changed after a medical school “research review” to “non-specific colitis”
- The parents of eight children were reported as blaming MMR, but 11 families made this allegation at the hospital. The exclusion of three allegations—all giving times to onset of problems in months—helped to create the appearance of a 14 day temporal link
- Patients were recruited through anti-MMR campaigners, and the study was commissioned and

Box 2**Record of Autism Diagnoses: A Sampling of GMC Transcripts****Child 1**

On 17 May 1996 Child 1's General Practitioner, Dr Barrow, wrote to Professor Walker-Smith referring Child 1 and indicating that Child 1 had been diagnosed as autistic and that his parents' concern was that his MMR vaccination might be responsible for his autism.
GMC Transcripts Day1/Page 10

Child 2

On 29 June 1995 Child 2 was referred to Professor Walker-Smith, at St Bartholomew's Hospital, by Dr Wozencroft, a Consultant in Child Psychiatry, who stated that, ii. Child 2's condition fell within the diagnostic category of Autistic Spectrum Disorder,"
GMC Transcripts D1/8

Child 3

On 19 February 1996 Child 3's General Practitioner, Dr Shantha, referred Child 3 to Professor Walker-Smith indicating that Child 3 had behavioural problems of an autistic nature, severe constipation and learning difficulties all associated by his parents with his MMR vaccination
GMC Transcripts D1/11

Child 4

On 1 July 1996 Child 4's General Practitioner, Dr Tapsfield, wrote to you referring Child 4 for assessment regarding his possible autism and his bowel problems." GMC Charges Day One of Hearings –
GMC Transcripts D1/12

Child 5

Dr Shillam's referral letter gave details of Child 5's developmental delay with classical features of autism, and stated that Child 5's parents were concerned about an association between the MMR vaccine, childhood enteritis and possible brain damage, but made no reference to any gastrointestinal symptoms
GMC Transcripts D1/17

Child 6

On 9 August 1996 Child 6's General Practitioner, Dr Nalletamby, wrote to you following a previous discussion that you had had with him on the telephone. Dr Nalletamby stated that Child 6 had autism syndrome, and also bowel disorder"–
GMC Transcripts D1/14

Child 7

Did you in fact get a diagnosis from the centre at Guys' Hospital? Can you turn to page 222 please? If we can go straight to the conclusion on page 222:
"This assessment confirms that, although [7] has good cognitive abilities, he has serious difficulties with understanding social rules and with interaction and communication with other people. There is an associated lack of imaginative play and rigid and obsessional behaviour, with insistence on particular routines and dislike of change. As has been previously suggested, this pattern is that of an autistic disability.
GMC Transcripts D6/23

Child 8

Dr Berelowitz concluded that Child 8 may have post vaccination encephalitis and that an autistic spectrum diagnosis was not merited;"
GMC Transcripts D1/21

Child 9

Prior to his referral to Professor Walker-Smith Child 9's developmental delay had been provisionally attributed to a form of autism in 1995 by Southampton University Hospital autism service."
GMC Transcripts D1/15

Child 10

On 18 February 1997 Dr Berelowitz saw Child 10's father and concluded that Child 10 did not meet the criteria for either autism or disintegrative disorder and the most likely diagnosis was an encephalitic episode;" GMC Transcripts D1/23 Sally Smith QC GMC Prosecutor
GMC Transcripts D10/23

Child 11

By way of preamble to this statement, it deals exclusively with details relating to Child 11 in The Lancet. We do not have records for Child 11 in The Lancet and this statement will explain why.
GMC Transcripts D30/6

Child 12

.....Child 12 had by that stage had a formal diagnosis of autism.
GMC Transcripts D7/24

Box 3
Records of Regression in the Children: GMC Transcripts

Child 1

"[Child 1] initially developed normally, reaching all normal milestones until he was about 15 months old. He then regressed and has now been diagnosed as autistic" GP referral letter 17.5.96.

GMC transcript D3/58

Child 2

"2 presents as a boy with difficulty in the social communication disorder spectrum.

Because of his limited attention span, it is difficult to estimate his non-verbal potential. On the basis of the history, he is most like a group of children who progress normally until 20 months of age, when they undergo an autistic-like regression.

GMC Transcript 14/43

Child 3

He had his MMR injection at 13 months of age and on the second day after injection he had a fever and rash. Overall mum considers that his developmental regression has progressed since this time."

GMC Transcript D76/28

Child 4

"His developmental milestones were normal according to mother, until he was 18 months of age. He crawled at 14 months of age and was walking by 18 months.

He was said to be saying at least 6 words by 18 months but she felt that his comprehension was normal. She also mentioned that at 10 months of age he was able to build a tower of 3 to 4 bricks, but now he is lost as to what to do with them.

GMC Transcripts D6/60

Child 5

"Was walking by 7-9 months of age, was saying 3-4 words but then stopped talking, started making growling noises, lost interest in surroundings, was diagnosed with autism when he was 3 years old."

GMC Transcripts D78/39

Child 6

Began to become aggressive. Feeding poorly, poor eye contact. Slipping back in development to 2 years.

GMC Transcripts D102/43

Child 7

"...MMR at 20 months... from then on he became quiet with a decrease in spontaneous speech, less social engagement, eye contact and poor language."

GMC Transcripts D37/12

Child 8

"Mother reports that following the MMR there was a catastrophic deterioration in 8's level of functioning. She lost all language, became docile, with poor coordination and was, from her mother's point of view, a different person."

GMC Transcripts D12/34

Child 9

"At 18-20 months he started to regress mentally."

GMC Transcript D4/14

Child 10

Child 10 had a history of loss of acquired skills which appeared to follow a measles-type illness

GMC Transcripts D1/23

Child 11

By way of preamble to this statement, it deals exclusively with details relating to Child 11 in The Lancet. We do not have records for Child 11 in The Lancet and this statement will explain why.

GMC Transcripts D30/6

Child 12

"Nevertheless, his development was recorded as normal until the age of 16 months.

Subsequent to this his parents noticed a loss of language skills. He was also noted to stop playing and his behaviour has progressively deteriorated".

GMC Transcripts D4/24