Chapter 22 – Concerns 1987

Concerns

Concerns expressed in Wales

1 In the late 1980s the Children's Heart Circle in Wales (CHCW) had taken a lead in advocating to the Welsh Office the development of a comprehensive paediatric cardiac service in Wales.

2 Mr Peter Gregory, of the Welsh Office, wrote a minute for Ministers in which he described the Heart Circle as:

> '… the Welsh arm of a national organisation representing the interests of parents of children with heart complaints and the patients themselves. It is well known for its charitable works and, through the Trust for Sick Children in Wales, is much involved in fund raising for the parents' accommodation to be built in association with the paediatric cardiac unit in Cardiff. The CHCW is not very cohesive, lacking a strong central focus, and its members are highly motivated people (most of them have children with heart problems). Accordingly, the CHCW is a volatile and outspoken Group and one heavily influenced to their way of thinking by clinicians in the cardiac unit in Cardiff.'[1]

3 Mr Gregory added that the CHCW had been:

> '… alleging that Welsh Office Ministers are dragging their feet about the provision of the paediatric cardiac unit and that, in an attempt to cut its cost, the highly specialised cardiac surgery for the newly born and children under 1 year has been dropped'.[2]

4 In May 1987 Mr Neil Hall wrote a report for the CHCW entitled *'Meanwhile our Children are Dying'*.[3] The report supported the creation of a paediatric cardiac surgery unit in Cardiff. The report also included remarks about the paediatric cardiac service in Bristol:

> '… a degree of concern has been expressed by independent, well-informed sources about the standard of operations carried out at the receiving centre at Bristol. It has been suggested that this concern is widely held. If we consider the referral practices of doctors in Wales now and in the past, it is apparent, at least, that doctors without a vested interest in any particular receiving centre (they used to work there, for example) are less inclined to refer to Bristol than might be expected, given that it is much nearer than any of the other centres. Some parents have actually asked that their children not be referred to Bristol for surgery, preferring to travel to London.

1 WO 0001 0315; minute dated 18 August 1987 from Mr Gregory to Ministers
2 WO 0001 0315; minute dated 18 August 1987 from Mr Gregory to Ministers
3 WO 0001 0361; *'Meanwhile our Children are Dying'*

> It has also been suggested that, in other areas, cases that might have been appropriately referred to Bristol have been referred elsewhere. In the absence of other explanations, these observations seem to confirm the suggestions that concern is widely held. It cannot be stressed too strongly, however, that such information in no way represents "hard evidence" and the author does not suggest that it does. Nevertheless, in view of the critical nature of its subject matter, and the increasing likelihood that cases from Wales will be referred to Bristol … sufficient concern has been expressed for questions to be asked.'[4]

5 Mr Gregory described the report in his minute for Ministers as: 'a highly partial, very emotive, frequently inaccurate and barely concealed piece of journalistic propaganda'.[5]

6 Dr Hyam Joffe told the Inquiry that Mr Hall's report contained 'extraordinary and outrageous statements' about Bristol.[6]

7 Dr Joffe went on:

> '… the Heart Circle itself decided to reject the document as coming from them as a Group, and that it was Neil Hall's own specific view.'[7]

8 On 16 June 1987 BBC Wales broadcast a television programme entitled *'Heart Surgery – the Second Class Service'*. In the course of the programme's support for a paediatric cardiac surgery unit in Wales, criticisms were made about Bristol. In particular, Mr Hall said in interview:

> 'We have heard – always off the record – from a number of informed sources that questions ought to be asked about the standard of care that Bristol could provide … observation of the referral practices of doctors in South Wales and in Bristol's own area would seem to confirm that there are reservations within the specialist field of paediatric cardiology about using Bristol in the future as a regional centre for South Wales.'[8]

9 In the course of interviewing Mr John Gray, then Administrator, Legal Services, Bristol & Weston District Health Authority (B&WDHA), the interviewer suggested that the Bristol Royal Infirmary (BRI) was not receiving patients from Wales because of doubts regarding the service.

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4 WO 0001 0361; *'Meanwhile our Children are Dying'*
5 WO 0001 0315; minute dated 18 August 1987 from Mr Gregory to Ministers
6 T90 p. 99–100 Dr Joffe
7 T90 p. 100 Dr Joffe
8 *'Heart Surgery – the Second Class Service',* BBC Wales 1987

10 Mr Gray replied:

> 'Different consultants decide to refer patients to different parts of the country for various reasons and because a consultant in this region decides to send a patient elsewhere does not mean that he is criticising our Unit, it may be that the patient has had previous investigations or that that consultant or general practitioner has personal links with another centre and wants to send the patient there.'[9]

11 To the observation that 'Consultants have told us they wouldn't send their own children there', Mr Gray replied:

> 'Well that's not the view of independent assessors. Independent assessors have looked at the results of this Unit and found that each year is average and above average in many respects. Its mortality is very low and it has been considered by the supra regional committee to be a very good unit to develop for a supra regional purpose.'[10]

12 The Inquiry asked Mr Gray to comment on this interview and received the following response from the solicitors to the United Bristol Healthcare NHS Trust (UBHT):

> 'I refer to your letter of 6 May 1999 concerning Mr Gray's interview for BBC Wales in 1987. Mr Gray's comments are as follows. First, as you know, he no longer works in the capacity of the Trust's Public Relations Officer and ceased exercising those functions approximately five years ago.
>
> 'At the time, in 1987, Mr Gray states that he would have been supplied with a brief by the then Chief Executive Dr John Roylance. He then acted in the capacity of spokesman for the Health Authority, working from the brief he had been given. In essence, he said what he had been told to say. Therefore, his quoted comments do not reflect either independent knowledge or his personal views. Mr Gray has no absolute knowledge of this interview after all these years.'[11]

13 In response to the programme, Mr Wisheart, Mr Dhasmana, Dr Jordan and Dr Joffe wrote a joint (undated) letter to 'the Editor', which took issue with the programme's comments about Bristol:

> 'Sir – In a BBC Wales television programme screened on 16th June 1987 on the subject of cardiac facilities in Wales, certain allegations were made about the standard of paediatric cardiac surgery in Bristol.

9 *'Heart Surgery – the Second Class Service',* BBC Wales 1987
10 *'Heart Surgery – the Second Class Service'*, BBC Wales 1987
11 UBHT 0349 0010 UBHT

'These allegations are totally unfounded. In fact, the outcome for operations in children performed in this unit during the period 1984–1986 is equivalent to the UK national results for 1984 (latest available data), and better for certain conditions. This is true for both open- and closed-heart surgery, and for critically ill new-borns and infants as well as for older children. We wish to set the record straight and, particularly, to allay the anxieties of families whose children are currently being treated in Bristol, or may receive attention there in the future.'[12]

14 On 3 August 1987 the four clinicians also wrote a letter to Dr D Chamberlain, Chairman of the Cardiology Committee of the Royal College of Physicians. The Cardiology Group of the Royal College of Physicians had been asked by the Welsh Office to report on the development of cardiological services in Wales. The Bristol clinicians were of the opinion 'it is inevitable that the work of our unit will be considered in the Inquiry'.[13] The clinicians wrote:

'… Firstly, it should be recognised that children with heart defects have been referred to Bristol from various parts of South Wales, especially from neighbouring Gwent, from as long ago as the late 1960s and early 1970s. There has been a steady increase in referrals since then, with a rapid rise in the number of neonates and infants needing acute attention since the designation of Bristol as a supraregional centre in 1984. Since the unfortunate death of Dr LG Davies last year, the Bristol paediatric cardiologists have been invited to run joint clinics locally and these are now held in Abergavenny, Newport, Haverfordwest and about to be in Swansea and Carmarthen. It is emphasised that these invitations were totally unsolicited; the initiatives have all come from the paediatricians in Wales and must reflect satisfaction with the service offered to the acutely ill patients, mainly infants, in the past.

'Secondly, it was the Welsh Office which made an approach to ourselves and the Bristol and Weston Health Authority to explore the financial and other implications of the provision of a supraregional service for neonates and infants. The medical and managerial staff of the Bristol and Weston Health Authority have expressed their readiness to respond positively to the Welsh Office recommendation, in the hope that a joint Bristol/Cardiff service could be developed appropriate to the population of the South Western Region and South Wales. Of course, final decisions about the provision of services for children in Wales must rest with the Welsh authorities and medical advisors, and we would agree that individual doctors should retain the right to make referrals to a unit of their choice, but we would expect any policy decisions to be made on the basis of fact and not misinformation …

12 UBHT 0194 0022
13 UBHT 0133 0029; letter dated 3 August 1987 to the Royal College of Physicians from the Bristol cardiologists

'Thirdly, and apparently related to the above recommendation, the Bristol Paediatric Unit has been subjected to a campaign of vilification, and the word is chosen advisedly, which we find quite extraordinary and very sad. To illustrate this, and without wishing to elaborate at this stage, the following is quoted from a document written under the auspices of the Welsh Heart Circle in Cardiff, who have no direct contact with Bristol, and circulated to the other local committees in Wales, which do include many families whose children have been treated in Bristol. Many of these comments were repeated verbatim in a television programme entitled *"Heart Surgery – the second class service"*, screened on 16th June 1987 in the BBC Wales series *"Week in, week out"*:

> '"However, a degree of concern has been expressed by independent, well-informed sources about the standard of operations carried out at the receiving centre at Bristol. It has been suggested that this concern is widely held. If we consider the referral practices of doctors in Wales now and in the past, it is apparent, at least, that doctors without a vested interest in any particular receiving centre (they used to work there, for example) are less inclined to refer to Bristol than might be expected, given that it is much nearer than any of the other centres. Some parents have actually asked that their children not be referred to Bristol for surgery, preferring to travel to London. It has also been suggested that, in other areas, cases that might have been appropriately referred to Bristol have been referred elsewhere. In the absence of other explanations, these observations seem to confirm the suggestions that concern is widely held. It cannot be stressed too strongly, however, that such information in no way represents 'hard evidence' and the author does not suggest that it does. Nevertheless, in view of the critical nature of its subject matter, and the increasing likelihood that cases from Wales will be referred to Bristol, sufficient concern has been expressed for questions to be asked."

'And later in the document, "Given the questions raised about surgery in Bristol, this" (the recommendation to use Bristol as a receiving centre) "is a very distressing development. The notion that any deficiency that might exist in Bristol would be attended to by practising on Welsh cases is not only ethically chilling but untenable." (The full document is available for perusal if required.)

'It is stressed that these sections form part of a long and highly emotive plea for improved paediatric cardiac services in Wales, which aim we would fully support, but it is nonetheless damning of Bristol for all that. The undermining effect on the trust and confidence which should exist between doctors and the parents of children who are or have been patients in Bristol can be imagined. In an attempt to counter the effect of the television programme, several aggrieved parents spontaneously wrote letters to the Welsh Press in support of Bristol. We, too, felt obliged to seek publication of a letter in the Welsh press, indicating that the allegations made against Bristol regarding surgical results are totally false.

'A summary of the results in Bristol in the period 1984–1986 compared with national figures for 1984 (the latest available) is enclosed for your information.

'However, the most distressing aspect of this affair is the fact that much of the information in this document, including the allegations about the service in Bristol, emanates from "three consultant cardiologists of such qualification, experience and present position to be well placed to make such judgements". This was suggested in the document, but stated categorically by its author in a subsequent letter in reply to a parent. It seems, therefore, that this view is widespread and, we believe, based on ignorance of the facts, since there has been no recent inquiry into the actual status of the facilities (better than most, in our view) or the surgical results (which are at least equal to those achieved by other paediatric units). We can think of no motive, other than one of medical political gain, to account for this deliberate and calculated campaign to denigrate a supraregional unit which is showing sustained growth in the number of patients treated, a steady improvement in the results achieved, and which is highly respected in paediatric and other circles throughout the South West Region, and indeed, in most parts of South Wales …

'Despite our sense of outrage, it was our wish that this issue should have been contained, but it must now be brought to your attention since you and your committee are bound to be given various opinions regarding the Bristol service during your forthcoming investigations in Wales. There is also the risk that the adverse publicity already given to the Bristol service will be spread further and it is, naturally, our wish that this should be avoided and that any potential conflict between medical colleagues should be settled within the profession, if at all possible. We believe that the issue should be resolved on the basis of facts, and hope that you and your committee will use your good offices to this effect. From our part we are keen to provide you with all the detail you require, and would be happy for you to send a copy of this letter to Professor A Henderson if you wish.

'We should like to invite you or your representatives to visit Bristol to see what the facilities are like and to establish the facts. We look forward to hearing from you and hope that your intervention will facilitate a satisfactory resolution of this problem.' [14]

15 Dr Joffe was asked about the joint letter of 3 August 1987 and told the Inquiry:

'Yes, I wrote this letter …'.[15]

14 UBHT 0133 0029 – 0031; letter dated 3 August 1987 to the Royal College of Physicians from the Bristol cardiologists
15 T90 p. 102 Dr Joffe

16 He went on, in the following exchange:

> 'Q. Did you think that somebody in the Bristol Unit was possibly passing information to others?
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> 'A. No, I do not believe this was based on Bristol information.
>
> 'Q. This was somebody within the medical world?
>
> 'A. Yes. … I cannot point a finger, I have some ideas, but I am unable to point to an individual or several individuals.'[16]

17 Dr Joffe was asked by Counsel to the Inquiry about some of the claims made for Bristol in the letter of 3 August 1987. In particular, he was asked about the claim that Bristol's surgical results were 'at least equal to those achieved by other paediatric units'.

18 Dr Joffe said:

> 'I believe, to be honest, that that was a partial overstatement on my own part because of my passion at the time. But I believed that they were in fact roughly equal to those of other units using the relatively imprecise data that we had at our disposal at that time, and that was the belief in the Unit, I believe, that we were doing pretty well the average of what others were doing but there were a couple of conditions, two or three maybe, where we were not doing as well as we felt we ought to.'[17]

19 Dr Joffe also told the Inquiry that:

> 'It was at that time, 1987, that Mr Wisheart talked to me on one occasion, as I think I put it in my statement, on the way back from a joint clinic in one of the centres, probably Exeter, that we had got to the point where we needed to move up a gear in order to improve the service and that the means of doing so was to appoint a full-time paediatric cardiac surgeon and that the opportunity might become available through funding from the British Heart Foundation of a Chair in Bristol which he at no time thought otherwise than that it would be allocated to a children's paediatric cardiac surgeon.'[18]

20 Mr Dhasmana told the Inquiry that in his view the criticisms of Bristol from those in Wales were made as part of a determined campaign to establish a paediatric cardiac centre in Cardiff. He told the Inquiry:

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16 T90 p. 102 Dr Joffe
17 T90 p. 103 Dr Joffe
18 T90 p. 104 Dr Joffe

'… the problem in a way was that there were too many cardiologists coming from different parts of the country running their clinic in Wales, and I felt they came out a bit more aggressive in 1986 in order to establish their unit. That is my personal feeling: to attack the nearest and closest to get their own service, really. And I feel that that was probably the emotive part behind all these things. We in Bristol always supported a move to Cardiff – to facilitate their development of paediatric cardiac surgery, but at the same time, were anxious that we are so close by, there are not so many cases, we would have to support each other.'[19]

21 Dr John Roylance, District General Manager of the B&WDHA at the time, told the Inquiry that he had no memory of the letter of 3 August 1987 nor the events to which it related:[20]

'… I think if this had been brought to my attention at that time I would remember it now and I have no memory of it at all.'[21]

22 Mr Wisheart wrote to Mr Gray on 22nd December 1987, sending copies to Dr Jordan, Dr Joffe and Mr Dhasmana. He referred to a letter from a solicitor, Mr Robert Johnson, to Mrs Bennett of the CHCW of 16th June 1987.[22] Mr Wisheart's letter stated:

'The tenor of that [Mr Johnson's] letter is that while proceedings against the Heart Circle are possible it is not our wish, and in order to enable us *not* to take proceedings against them we require the following:-

'(i) that the paper is amended;

'(ii) that we are told to whom the paper was circulated, and perhaps most importantly an expression of our concern that the parents of children in Wales due to be operated in Bristol will have their confidence in the service undermined. One must add to that that Mr Hall, either in his personal capacity or on behalf of the Children's Heart Circle in Wales, used some of that defamatory material in the BBC programme screened on 16th June 1987. Bearing in mind these basic considerations, the letter [in reply] dated 13th November seems to be severely deficient, in effect it is saying that the references to Bristol have been omitted and that it was not publicly distributed. I believe therefore that they need to be reminded that what we are still trying to do is to avoid taking legal proceedings against them and that in order to do so they need to be much more frank about the distribution of the paper. It is certainly our understanding that unless the committee includes a very large number of members of the Heart Circle its circulation was not restricted to the committee and we need them to provide us with names and addresses. I believe they should also be challenged with the fact that this material was used on the BBC programme, and that whether Mr Hall was acting personally

19 T84 p. 40–1 Mr Dhasmana
20 T88 p. 51 Dr Roylance
21 T88 p. 52 Dr Roylance
22 A copy of that letter was not available to the Inquiry: Mr Johnson of Osborne Clarke, solicitors, was writing on behalf of the cardiologists

or on behalf of the committee, he was using material which the committee had asked him to compile. Finally, they have made no suggestions as to how to counteract any undermining of confidence which might have taken place in the minds of parents in Wales. In all I think that further pressure should be brought on them to take this a good deal more seriously than they have done to date.'[23]

23 Dr Roylance told the Inquiry that he was not aware at the time that legal advice was being sought in relation to a possible action for defamation. He said:

'I am quite calm in not knowing about it. Saying whether I expected to know about it, no, I think the legal department worked closely with doctors on professional matters and I would only be invited to involve myself if it became a managerial issue.'[24]

24 Dr Roylance went on to say that if it came to the point at which there was a need to commit resources (for example, money to fund a legal action) then:

'… I think I would have been told …'.[25]

25 He added:

'… I do not think this in fact is a letter about the hospital taking umbrage but about clinicians taking umbrage about what is said about them. I certainly was not advised to address the view that the hospital was being improperly maligned.'[26]

Concerns expressed in Plymouth

26 Professor George Sutherland was a cardiologist at Southampton General Hospital from 1983 until 1987. He told the Inquiry that at some time in 1986–1987 his colleague Dr Barry Keeton was contacted by Dr Perham, a consultant paediatrician at Derriford Hospital, Plymouth.

27 Professor Sutherland stated in his written evidence to the Inquiry:

'[Dr Perham] expressed concern to Dr Keeton that the surgical results for complex congenital heart disease in the Bristol centre were worrying him and asked if it would be appropriate for the Southwest region to send complex cases to the surgeons in Southampton where the surgical results were documented and appeared substantially better. Dr Keeton discussed the problem with me and we decided to set up a clinical service for the Southwest region … This involved one of us performing a monthly clinic in Plymouth General Hospital and the surgical cases who were complex being subsequently referred to Southampton General Hospital. Dr [Perham] and his other paediatric colleagues wished to continue to try

23 UBHT 0209 0012
24 T88 p. 53 Dr Roylance
25 T88 p. 54 Dr Roylance
26 T88 p. 56 Dr Roylance

to support the Bristol centre and continued to send their non-complex cases for surgery there.'[27]

Concerns expressed by South Western Regional Health Authority (SWRHA)

28 Miss Catherine Hawkins, Regional General Manager for the SWRHA 1984–1992, told the Inquiry that she had concerns about the Bristol cardiac surgical service in the late 1980s. They were focused upon the adult cardiac service and largely, but not exclusively, on waiting times and throughput.[28] They were explored in the following exchange:

'Q. You tell us in your statement, words to the effect that for some time before 1989 you had heard or had some concern that cardiac surgery in Bristol was not up to scratch.

'A. It was a fact that at district reviews in the north and the south of the county, DGMs advised us not always formally in a meeting but sometimes at lunch afterwards that they had cardiologists who were not happy with the Bristol Unit. Part of that, they thought, might be historical because people had been used to sending patients to the Brompton and to Oxford, but partly they thought that there was a general dissatisfaction with outcomes, whether operations were done in time, whether the patients waited too long, but they could not be specific and their cardiologists would not come forward to make statements.

'Q. Can I put flesh on this? These were conversations that you had not just in the formal review but around it?

'A. Yes.

'Q. Because if one looked to the formal review, was the formal review minuted?

'A. If it was raised as an issue, if we were having a dialogue about cardiac surgery and a concern was expressed, then it may well have been minuted, but again, in those days, it was very difficult, unless you had evidence, to name or shame a doctor.

'Q. At least the general position, appreciating that cardiac surgery may be slightly unusual because of the cardiothoracic register, but the general position was that you would know that you had not got chapter and verse to go on because that was the defect in the information systems at the time?

'A. Yes. We had a hint that — we had hints, but we also had a situation where cardiologists who were dissatisfied were still referring.

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27 REF 0001 0149; letter from Professor Sutherland

28 It will be recalled that the service at the BRI was for adult and paediatric patients. The impact of one on the other is a recurring issue

'Q. So, when were the district reviews at which or around which these concerns were expressed?

'A. That varied in time. It is very hard for me to remember. I know that they were raised in — I know for sure they were raised in 1990 from one particular district.

'Q. Exeter?

'A. Yes. Before that, I believe it was about 1987.

'Q. Do you remember from where?

'A. I have a feeling that that is Cheltenham, but the DGM has died since, I am afraid, but I think it was Cheltenham.

'Q. Who else would have been present at the meeting that might remember?

'A. My Finance Officer was always there. The other officers varied, depending on what was being discussed. Exeter, definitely the finance man was there. He was present at all reviews.

'Q. And he was —

'A. Mr Arthur Wilson.

'Q. So going back to what you can recollect about Cheltenham, probably 1987, thereabouts, you are not quite sure, do you recall the way it was put to you?

'A. That was not in a formal context; that was over lunch where Mr Hammond[29] said, "You know, we are not really happy with referring to the BRI; we would rather go to Oxford". Asked why, again we had this, "Well, we are not absolutely sure but they are not too happy with the performance of the Unit". We did ask them to be more specific.

'Q. Specific as to the performance?

'A. As to what the real anxieties were about because unless you had that sort of evidence, you could not go back and challenge the DGM and his consultants, who were not part of the regional staff unless you had something very specific to hang on to. You could convey the concerns, but you could not say what those concerns actually were.

[29] Mr James Hammond, District General Manager, Cheltenham & District Health Authority

'Q. The cardiologist who would have inspired the DGM's expression of concerns to you would probably be an adult cardiologist, would he?

'A. Yes.

'Q. So are we to take from that that probably these concerns related to adult rather than children's services?

'A. I have never had an official or informal hint about paediatric service.

'Q. Neither formal nor informal?

'A. No. Not to me personally.'[30]

29 Miss Hawkins was asked in the following exchange about the television programme *'Newsnight'* broadcast in 1998:

'Q. Can I read it out to you as what was said: "*'Newsnight'* can reveal that it was some ten years earlier when serious misgivings about Bristol's record for adult heart surgery were voiced by the woman in charge of the health service in the west to the Department of Health. Catherine Hawkins was Chief Executive of the Regional Health Authority from 1984 to 1992. She declined to be interviewed on camera, but has told *'Newsnight'* of her considerable concerns about the role played by the Department of Health. A letter to *'Newsnight'* says that in the late 1980s there was pressure from both District Health Authority and Whitehall to expand the cardiac service, despite warnings that all was not well:

> '"At many of our District Health Authority reviews, we find a reluctance to encourage referral by the cardiologists to the BRI because of, and I quote, unsatisfactory outcomes, close quotes. These views caused me sufficient disquiet to actively resist the rapid expansion of the service."

'She also told *"Newsnight"* that in 1988 her own Medical Officer warned her of a high death rate for adult heart surgery. Miss Hawkins says she raised this matter with officials from the Department of Health "on several occasions", and again there is a quotation:

> '"Civil servants were hell bent on the numbers game. They were not bothered about the outcome of the operations; they just wanted to be able to quote a big increase in the number of operations being undertaken."

'First of all, are those quotations accurate in the sense that they come from a letter or from what you said to *"Newsnight"*?

[30] T56 p. 57–60 Miss Hawkins

'A. The majority.

'Q. The first of those quotations: "At many of our District Health Authority reviews, we find a reluctance to encourage referral by their cardiologists to the BRI because of, and I quote, unsatisfactory outcomes, close quotes."

'Did you say that to *"Newsnight"*, either in writing or orally?

'A. Yes, because that, in the 1980s, was the feedback we were getting.

'Q. You say: "At many of the District Health Authority reviews".

'A. Yes. Well, two or three I consider many.

'Q. Because so far you have told us of Exeter in 1990 and Cheltenham in 1987. Was there any other you can recall?

'A. When we first started raising the issue of the fact that we would have to develop the BRI, we did have feedback then that they did not want to refer; they wanted to continue with Oxford and Brompton. That was not Avon, because Avon had always referred to the BRI, but the other districts did not want to go along that line.

'Q. You asked for the reason for that?

'A. Yes, and as I say, part of that could have been the fact that they were used to the pattern of referral and they told us patients were happy with that but we still had them saying, off the record, the cardiologists, that their doctors, in quotes, were not happy with referring to the BRI.

'Q. The words ascribed to you by *"Newsnight"* were, and I quote, "unsatisfactory outcomes ...". In other words, those words, "unsatisfactory outcomes", were being used to you in the course of one or more of these discussions, were they?

'A. Yes.

'Q. So DGMs were telling you that their cardiologists were unhappy about unsatisfactory outcomes?

'A. They may not have said "cardiologists" specifically, but they referred to their "doctors".

'Q. So you had expressed to you reluctance to allow the expansion of the BRI, cardiac surgery generally, adult cardiac surgery. Did you ask your RMO [Regional Medical Officer] to investigate?

'A. In that scenario, again, without very specific evidence or what he would be investigating, that was extremely difficult to do. In a situation where we would have to ask the individual doctors concerned for their specific cases, could we look at all their records, also, we did not have the manpower for that at that specific time, so I referred the matter back to the DGM, who should have done that.

'Q. So you could, could you, have asked your RMO, or indeed, even yourself asked the Unit at Bristol to provide comparative statistics such as they had of their performance as contrasted with national performance?

'A. To my knowledge, you could not have done that because units were reluctant to give up their figures. I spoke to the RMO before about that, and he said, well, you would never get a comparison because they do not want to give their statistics.

'Q. So although you as Region were responsible for the performance of the Unit, and although your Chairmen could talk and achieve results with the Chairmen of the Unit, you would not have been able to find statistics of outcomes even if they had them?

'A. We were not responsible for the performance of the Unit; we were responsible for monitoring it, but the BRI was responsible for the performance of the Unit.

'Q. Let us stick with monitoring. Monitoring involves getting figures and seeing how they compare against some standard?

'A. I think in hindsight that is easy to say. If you were there at the time, in the 1980s, that was not easy to do.

'Q. Did you or your RMO try to get the figures from the BRI?

'A. I would have to say no, because I would not have had the evidence to go in and demand such figures. A reluctance on the part of districts who were very content to refer out of region and not to the BRI, without being able to identify what they meant – what did they mean by unsatisfactory outcomes – was not a reason to put in two or three people to try and identify and collate statistics by hand, which is what it would be. There was no computerised record at that time.'[31]

[31] T56 p. 60 Miss Hawkins

30 Miss Hawkins told the Inquiry in the following exchanges about relating her concerns to Dr Roylance and others:

'Q. Do you recall yourself, or do you understand that your RMO ever spoke to Dr Roylance about these concerns?

'A. If I recall, there is somewhere on 1980s, in quotes, reviews, an item on that subject with the Bristol authority. I have spoken to him informally about problems there.

'Q. Do you recollect when it was that you spoke to him informally, roughly?

'A. Roughly? It must have been, I think, round about 1987.

'Q. Once or more than once?

'A. It would have been more than once because I would have had some feedback on it. If I had said to him, "Have you got a problem", I would have expected him to come back and tell me what the problem might be.

'Q. Do you recall as best you can how you raised it with him, what sort of thing you said?

'A. I would have told him that we had had bad feedback from other districts and that it looked as though there might be a problem, did he think there was and if he did, could he go and investigate.

'Q. Do you recollect the feedback that you got?

'A. Yes. He told me that they had identified an individual that they thought might be the problem, and that they were going to change that situation in the Unit and another consultant was being appointed and things should get better.

'Q. You can answer the next question "Yes" or "No". Did he identify the individual, the particular doctor who was thought to be the problem by name?

'A. Yes.

'Q. Was he a surgeon in cardiac surgery?

'A. Yes.

'Q. So far as you are aware, did he retire shortly afterwards?

'A. Yes.

'Q. After that, do you recall any further expression of concern by DGMs of districts other than Bristol & Weston?

'A. I really cannot recall that –

'Q. Until the time you came to Exeter?

'A. It seemed to go quiescent until round about late 1990. I believe in 1990 we held reviews in December.

'Q. I know you have been answering from memory, but if we go back to page 2 of your statement and go to the foot of it, the third paragraph in paragraph 11, you have identified the additional consultant who was to make a difference and that was, as it turned out, to be Mr Dhasmana.

'A. Yes.

'Q. We know he was appointed in 1986, so the time that you were looking at must have been a little bit earlier than 1987?

'A. Yes, roundabout then.

'Q. Can you help with whether you ever raised with the DGMs elsewhere whether things now seemed to be better or all right or words to that effect?

'A. It sounds — I mean, that would have been done on an informal network, because I did have AGMs who were responsible for individual districts, and that would have been done when they actually sat with them to see what should be coming up as agenda items at our reviews. I mean, cardiac surgery was a very small part, as I have tried to explain, of the total acute and other services in the Region, so it was not high on my agenda every single time I sat down with a DGM.

'Q. If one scrolled up to paragraph 7 on the same page, maybe you have just given the reason why you put it this way, you desire: "The main catchment area for the BRI … Local cardiologists did not state dissatisfaction ...". It is a double negative. Did you put it that way because they were saying they were dissatisfied?

'A. No, there was never any issue from the cardiologists from the BRI or around Somerset that there was a problem with the Unit.[32]

'Q. Can we go back from that discrete topic to the question of the concerns that you heard being expressed and the way in which you approached them? *"Newsnight"* record you as saying …

[32] T56 p. 66–9 Miss Hawkins

'"At many of our District Health Authority reviews we find reluctance to encourage referral by their cardiologists to the BRI because of, and I quote, unsatisfactory outcomes. These views caused me sufficient disquiet to actively resist the rapid expansion of the service."

'That last sentence: "These views caused me sufficient disquiet to actively resist the rapid expansion of the service." Is that a faithful reproduction of what you told *"Newsnight"*?

'A. Yes. It is what I told the Department. I resisted them on one or two years.

'Q. So it is true that is what you did, is it?

'A. Yes.

'Q. How did you actively resist the rapid expansion of the service?

'A. We would not put the capital investment in.

'Q. So Region had funds which it could have allocated to the development of cardiac services but chose not to do so?

'A. No. The point was that we could make it a top priority and let something else go for that year, but while we were actually investigating whether it was the best place to expand, then we spent capital monies on developing other DGHs [District General Hospitals].[33]

'Q. [continuing the quote from *"Newsnight"*] "Some DGMs gave vague indications that cardiologists felt BRI outcomes could be better but could not be specific in their concerns." There are about five vague words in that sentence. Can you help us to put more detail on that?

'A. If I recall, some of the issues were that because throughput was not very good, then if they referred, patients may wait too long and therefore they would be happier to send them somewhere elsewhere they knew they would be seen in a shorter space of time. Some felt that they could actually do all the tests that were required but if they sent them to the BRI, very often tests were redone and they did not seem to have a working protocol between them, which meant that maybe the selection of cases was not being adequately addressed. Those sorts of issues.'[34]

33 T56 p. 72–3 Miss Hawkins
34 T56 p. 76 Miss Hawkins

31 Counsel to the Inquiry asked Dr Roylance about Miss Hawkins' evidence in the following exchange:

'Q. What Catherine Hawkins has told us is that at some stage, and she thinks around 1987 … she spoke to you and asked you to investigate some concerns including concerns in respect of outcomes. … She says that she had regular reviews and she says she would have been asking for the District General Manager to investigate why there were problems in cardiac surgery, she was firm in attributing anything that she had to say about concerns to cardiac surgery as opposed to —

'A. Adult cardiac surgery?

'Q. She said cardiac surgery and she did tie it to adults.

'A. Can I tie it to adults to simplify the conversation?

'Q. Certainly.

'A. Because what she was talking about at that time, and I remember the issue, was adult cardiac surgery.

'Q. In 1987 there was a conversation that you recollect between yourself – thereabouts – and Miss Hawkins?

'A. Yes, sir.

'Q. Her recollection was that you told her that the authority had identified an individual they thought might be the problem and they were going to change the situation in the Unit, another consultant was being appointed and things might get better; that is her recollection.

'A. Well, her recollection is at fault. I must say that must be a figment of her imagination because I cannot relate any event to that comment. No cardiac surgeon retired early; there was no identification of any individual and I have to say that a circumstance of that nature is not something that would have slipped my mind subsequently. I cannot explain in any way, except she was a very busy Regional General Manager with the responsibility across the whole region, I cannot explain where that concept came from but it did not come from Bristol.

'Q. She linked it to the appointment of Mr Dhasmana.

'A. Yes, that was a new appointment that replaced nobody; that was an expansion of the service.

'Q. The other thing she told us about this period is that the Region were active in resisting moves to expand the service, the cardiac service in Bristol in general because of their concerns about the nature of the service provided; can you help on that?

'A. I did not know at the time and it does make a number of previously inexplicable things perhaps understandable. It was known, recognised nationally as well as locally, that the South West was grossly underfunded for cardiological and cardiac services for adults and we were constantly pressing Region to fund more realistically the service pressure on the department. I was aware that there were considerations of creating a second centre at Plymouth, there is no secret about that. But at that time the traditional referral pattern for the south of the region was east to London and not north to Bristol. I do not know about the actual distances but the journeys were of a similar problem, similar time. So there was south of the region referred to London and the north of the region referred to Bristol but the cardiac department, particularly James Wisheart who led it, were constantly in negotiation with Region to expand the service to be more comparable with the demand. I could never understand why that funding did not materialise because the need was quite clear and opening a unit at the south of the region was not going to address that issue because it would absorb, presumably referrals which were currently going to London and actually not being funded by the South West Region, and I did not find that understandable at the time and I think it is more understandable now.'[35]

Reports of the performance of the PCS Service in 1987

32 In 1987 a table was prepared by the Unit comparing the number of operations and the mortality rate in Bristol between 1984 and 1986 with that in the UK Cardiac Surgical Register (UKCSR) for 1984:[36]

Operations Bristol 1984–1986	Mortality rate % Bristol 1984–1986	Mortality rate % UK 1984
Over-1s: 240 (19)	7.9	6.9
Under-1s: 49 (13)	26.5	21.8

35 T88 p. 56 Dr Roylance
36 Figures taken from UBHT 0055 0008; figures in parentheses are for deaths

33 The note to the table stated:

> 'The Table shows 30 day mortality for Bristol operations for the three years 1984–86: this was done to provide a reasonable number of patients for comparison. The UK figures are taken from the UK Cardiac Surgical Register for 1984, which is the last year for which figures have been published.'

34 The Bristol Unit's return to the UKCSR for the year ending 31 December 1987 showed the following figures for open-heart surgery:[37]

Operations – Over-1s	Operations – Under-1s
110 (9)	25 (7)

35 In the under-1 age group, there had been three 'Complete A-V Canal (corrective procedure)'[38] operations, in two of which the patient had died; and one child operated on for 'Truncus Arteriosus (corrective procedure)', who had died.

36 In 1987 a *'Paediatric Cardiology and Cardiac Surgery Annual Report'*, the first such Annual Report, was produced by the Bristol Unit. It described an increase in the numbers of patients admitted to the BRHSC for assessment and investigations, and to the BRHSC and BRI for surgery, following designation of Bristol as a supra regional centre, and stated that:

> '… Children are now referred from the SW region, and parts of Wessex and South Wales, and beyond'.[39]

37 The Report included figures for the results of open-heart surgery for the four-year period 1984–1987:[40]

Operations – Over-1s	Mortality rate %
Simple: 107	1.9
Moderate: 184	6.5
Complex: 59	23.7
Total: 350	8.0

Operations – Under-1s	Mortality rate %
74	27.0

37 Figures taken from UBHT 0055 0173 – 0174; Unit return to the UK Cardiac Surgical Register 1987; figures in parentheses are for deaths
38 See Chapter 3 for an explanation of clinical terms
39 UBHT 0055 0011; *'Paediatric Cardiology and Cardiac Surgery Annual Report'* 1987
40 Figures taken from UBHT 0055 0018; *'Paediatric Cardiology and Cardiac Surgery Annual Report'* 1987

Chapter 23 – Concerns 1988

Concerns

1 In his written evidence to the Inquiry regarding the articles which he had written in *'Private Eye'*, Dr Phillip Hammond, general practitioner and journalist, stated that, in 1988, whilst working as a house officer in Bath, he was told there was an adult cardiac surgeon in Bristol whose nickname was 'Killer'.[1] He stated that he was also told that: '... as far back as 1988, the Unit was nicknamed by some as the Killing Fields and the Departure Lounge because of its high mortality.'[2]

2 There was some evidence of concern amongst referring clinicians. Thus, Dr R Verrier Jones[3] stated he had been aware of such concerns at: ' ... the end of the 80s'. He said that by then: ' … there were some adverse comments being expressed about [Bristol] … but it was only hearsay'.[4]

3 On 1 September 1988 Dr Stephen Bolsin took up his post as consultant anaesthetist at the Bristol Royal Infirmary (BRI). He said that he began to have concerns about the paediatric and adult cardiac surgical services at an early stage. In oral evidence, Dr Bolsin summarised why he began to have concerns:

> 'I think the initial concerns were more generic, about the length of time taken and the duration of the operations and the bypass time … from day one, having worked at the Brompton where you would do five or six cases in a couple of theatres a day, to go to Bristol where we were doing just one case in a day.'[5]

4 In his written statement, Dr Bolsin told the Inquiry that his early impressions of the paediatric and adult cardiac surgery services at the BRI were:

> '... that the patients were operated on for much longer periods than I was used to at the Brompton Hospital and other cardiac surgery centres that I had worked at. A particular aspect of cardiac surgery that requires a short duration is the length of time that the blood supply to the heart is cut-off during the operation. This length of time is known, by specialists in the field, as the aortic cross-clamp time. During the time of the aortic cross-clamp the blood supply to the heart is cut-off and the heart effectively starts to die. The death of the heart can be slowed but not prevented and this is done by the perfusing medicines, chemicals and using low temperatures to reduce the speed at which the heart dies. If a significant portion of the heart has suffered damage during the time of the aortic cross-clamp then the patient will require a considerable amount of pharmacological support in the post by-pass period. Also the patients will suffer multiple organ failure as a consequence of the

1 WIT 0283 0005 Dr Hammond
2 WIT 0283 0005 Dr Hammond
3 Consultant paediatrician (retired) formerly at Llandough Hospital, Penarth, South Glamorgan
4 REF 0001 0105; letter to the Inquiry
5 T82 p. 40 Dr Bolsin

poor action of the heart after the operation. Evidence suggesting that this occurs will be in the requirement for pharmacological support (inotropic drugs) and the length of time the patients spend on the intensive care unit with postoperative complications.

'I noticed after several months at the Bristol Royal Infirmary that the patients were suffering the complications that would be anticipated from excessive aortic cross-clamp times and long cardiopulmonary by-pass times during the cardiac operations. In fact one of the cardiac anaesthetists, Dr Geoffrey Burton, was so well aware of this problem that he often placed tunnelled central lines in the central veins of the patients in the anaesthetic room, before surgery. The reason for doing this was that the children would be so sick on the Intensive Care Unit after the operation that they would require these special lines for intravenous feeding, pharmacological support and other infusions.'[6]

5 Dr Bolsin, in an interview which formed part of a television documentary, *'Dispatches'*, made by HTV, stated:

'At the time I started in Bristol I was keeping a record, as I had done as a trainee, of all the cases that I was anaesthetising and I became concerned about the number of children that were dying from conditions that, I felt, should have relatively low mortalities. The length of time that the operations were taking to be completed was certainly very important. It was normal at the Brompton to operate on three or four children in a day's operation session. In Bristol we would take all day and sometimes much of the evening in order to complete one operation on a child. Now these may have been complex procedures but they would be completed in a much faster time in the other hospitals that I'd worked in.'[7]

6 Counsel to the Inquiry explored the issue with Dr Bolsin in the following exchange:

'A. I think the first and most striking thing about moving from the Brompton Hospital to the Bristol Royal Infirmary was the length of time the operations took, and I think that was by far and away the most striking component of the change between the Brompton and the Bristol Royal Infirmary.

'Q. You noticed that in your first year?

'A. I noticed that on my first day.

'Q. And yet you made no adverse comment on it in your first annual report?

'A. No.'[8]

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6 WIT 0080 0106 – 0107 Dr Bolsin
7 PAR1 0005 0210 – 0211; *'Dispatches'*, broadcast 27 March 1996
8 T80 p. 97 Dr Bolsin

Reports of the performance of the PCS Service in 1988

7 The Unit's 1988 *'Paediatric Cardiology and Cardiac Surgery Annual Report'* reported figures for the results of surgery for that year:[9]

Operations – Over-1s	Mortality rate %
Simple: 18 (0)	0
Moderate: 58 (1)	1.7
Complex: 23 (7)	30.4
Total: 99 (8)	8.1

Operations – Under-1s	Mortality rate %
Total: 29 (11)	37.9

8 The table also compared these results with the results for the four-year period 1984–1987, set out in para 37 of Chapter 22.[10]

9 It was also apparent to those in the Unit that the number of operations was fewer than in the previous year. This was ascribed in part to the effect of building work that was being carried out during 1988.[11]

10 In a table prepared in the UBH and supplied to the Inquiry a comparison was made of the 30-day mortality for children under 1 in the Bristol Unit in the four-year period 1984–1987 and in 1988, with the mortality rate shown in the UK Cardiac Surgical Register (UKCSR) for 1984–1987:[12]

	Operations	Mortality rate %
Bristol 1984–1987	74 (20)	27.0
Bristol 1988	29 (11)	37.9
UK 1984–1987	2,069 (457)	22.1

11 A note to the table reported that the mortality rate in the UK was static, at between 21.2% and 23.5%, between the years 1984 and 1987.

9 Figures taken from UBHT 0055 0031
10 See tables at para 32 of Chapter 22
11 UBHT 0055 0025
12 Figures taken from UBHT 0055 0035; figures in parentheses are for deaths

12 A comparison was also made of the 30-day mortality for children over 1 in the Bristol Unit in the four-year period 1984–1987 and in 1988, with the mortality rate shown in the UKCSR for 1987:[13]

	Operations	Mortality rate %
Bristol 1984–1987	344	8.1
Bristol 1988	99	8.1
UK 1987	1,657	7.7

13 A further table was produced in the Annual Report showing a comparison between mortality figures for children under 1 at Bristol between 1984 and 1988 and in the 1987 UKCSR:[14]

	Operations	Mortality rate %
Bristol 1984–1988	103	30.1
UK 1987	588	23.5

Of those children treated in Bristol, there had been no deaths in 17 operations for the Atrial Switch procedure: the Sennings operation. Six out of seven who had been operated on for AVSD had died; as did three out of four who had been operated on for TGA plus VSD; five out of six for Truncus Arteriosus; and four out of 11 for TAPVD.[15]

14 The tables also showed a comparison between mortality figures for children over 1 at Bristol between 1985 and 1988 and in the 1987 UKCSR, with the figures divided into groups: simple, moderate and complex surgery:[16]

Operations Bristol 1985–1988	Mortality rate % Bristol 1985–1988	Mortality rate % UK 1987
Simple: 100 (1)	1.0	0.5
Moderate: 206 (12)	5.8	5.7
Complex: 71 (19)	26.8	19.8

13 Figures taken from UBHT 0055 0033
14 Figures taken from UBHT 0055 0036
15 See Chapter 3 for an explanation of clinical terms
16 Figures taken from UBHT 0055 0039 – 0040; figures in parentheses are for deaths

Chapter 24 – Concerns 1989

Concerns

1 In 1989 Dr Stephen Bolsin approached Professor Cedric Prys-Roberts, Professor of Anaesthesia at the University of Bristol, about his (Dr Bolsin's) developing concerns. In oral evidence Professor Prys-Roberts indicated that while he was unable to give a precise date:

> 'I can remember clearly the encounter in 1989 because Stephen Bolsin had only recently been appointed.'[1]

2 Professor Prys-Roberts stated in his evidence that Dr Bolsin:

> ' ... expressed his concerns to me about problems in managing small babies following cardiac surgery by Mr Wisheart. He was concerned that the mortality in this group of patients was much higher than he had been accustomed to as a Senior Registrar at the Brompton Hospital, in London. I advised him that rather than create waves with little credible evidence, he would be better advised to collect prospective data on babies and children who he anaesthetised for cardiac surgery in Bristol, so that he could develop a clearer picture of what was going on.'[2]

3 In oral evidence Professor Prys-Roberts confirmed that Dr Bolsin's concerns were 'based on his experience of anaesthetising patients'.[3]

4 Asked about the phrase 'create waves', Professor Prys-Roberts said:

> 'Steve was a person who wanted to broadcast everything and make the whole world aware of what was going on right from the outset. He was not somebody who was introspective about these things. My concern at that stage was that he would say something which he might later regret without having the evidence to back it up and I suggested to him – because I think this is proper medical practice – that what he should do would be to keep records of what he was doing so that at a later date, if things turned out to be as they certainly have done, he would have evidence in the form of a logbook, in the form of other data that he may have collected on a prospective basis, but this was a personal thing. We all keep – I say "we all", I keep a personal logbook of every anaesthetic that I give and I follow up the patients. I think this is proper medical practice and I was advising Steve to do the same.'[4]

1 T94 p. 1–2 Professor Prys-Roberts
2 WIT 0382 0002 Professor Prys-Roberts
3 T94 p. 3 Professor Prys-Roberts
4 T94 p. 5 Professor Prys-Roberts

5 Dr Bolsin said that he could not remember the date of the 1989 meeting but speculated:

> 'I suspect it may have been possibly at the time of the Annual Report, or something like that.'[5]

6 Dr Bolsin issued a report of his first year in post on 18 September 1989.[6] He said:

> '… I think that what I was interested in, in the Annual Report, was producing a mechanism whereby we could all constructively review results as they were presented on, let us say, an annual basis, and I think that one of the things that I would have expected, the kinds of meetings that I had outlined as being required in that first Annual Report would have been, "Let us look at bypass times and cross-clamp times and see how they compare with neighbouring centres or centres somewhere else". So I was looking for a framework of acceptability, I was not looking at a hostile document that was going to point up all the serious shortfalls in the Unit as I saw it, because I did not see that as being necessarily a constructive stage at the end of the first year of my contract.'[7]

7 He described the development of his concerns:

> ' … which would have included some mortality data and I suspect probably the report for 1989/90 which you have just shown us, which would have, I think, probably confirmed the concerns that I had. I think what developed in Bristol, in my mind, was the perception of a service that was under-achieving in terms of the outcomes that it should have expected for its paediatric cardiac surgical operations, particularly in the under-1 age group. That was not something that came as a flash of light, it was not a sudden examination of a statistical table, it was not suddenly looking at confidence limits not overlapping; it was a gradual growing awareness of a potential or real problem.'[8]

8 In a letter dated 27 September 1989 Dr Robert Johnson, consultant anaesthetist and Chairman of the Division of Anaesthesia, acknowledged the report and offered support to Dr Bolsin on matters such as '… combined morbidity and mortality meetings between anaesthesia and cardiac surgery'.[9]

9 Dr Bolsin stated that:

> '… throughout my training I had kept a logbook of the patients that I had anaesthetised. I now began to record the outcomes on the patients that I was anaesthetising in the cardiac surgery unit in order to attempt to find the nature of

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5 T82 p. 68 Dr Bolsin
6 UBHT 0061 0011 – 0017; *'1st Annual Report of Dr SN Bolsin'*. (This was the only such report issued)
7 T80 p. 97–8 Dr Bolsin
8 T80 p. 96 Dr Bolsin
9 UBHT 0061 0018; letter from Dr Johnson to Dr Bolsin dated 27 September 1989

the problem (if there was one) in the results of paediatric cardiac surgery. The audit commenced in September 1989 and provided some initial assessment of the mortality rates for operations within the paediatric cardiac surgery unit.'[10]

Reports of the performance of the PCS Service in 1989

10 The Unit's *'Paediatric Cardiology and Cardiac Surgery Annual Report'* 1989/90 included tables showing mortality rates for open-heart operations on children aged under 1 year in 1989, and compared this with the UK mortality figure for 1988:[11]

	Patients	Mortality rate %
Bristol 1989	40 (15)	37.5
UK 1988	708	18.8

11 This was the first time since reports of this sort began that the UK mortality had dropped below 20%.

12 The Unit's *'Bristol Cardiac Surgery Annual Report'* for 1989 included figures for individual open-heart operations on children aged under 1:[12]

Operations Bristol 1984–1989	Mortality rate % Bristol 1984–1989	Mortality rate % UK 1988
AVSD (complete): 13 (8)	61.5	19.6
TGA + VSD: 7 (5)	71.4	37.8
Truncus Arteriosus: 8 (6)	75.0	62.9
TAPVD: 16 (7)	43.8	23.4
TGA (Senning): 26 (0)	0.0	10.1

13 As regards open-heart surgery on those over 1 year of age, the *'Bristol Cardiac Surgery Annual Report'* for 1989 included a table, with the figures divided into groups: simple, moderate and complex surgery:[13]

10 WIT 0080 0108 Dr Bolsin
11 Figures taken from the tables at UBHT 0133 0085 and UBHT 0133 0086; *'Paediatric Cardiology and Cardiac Surgery Annual Report'* 1989/90; figures in parentheses are for deaths
12 Figures taken from the table at JDW 0003 0079; *'Bristol Cardiac Surgery Annual Report'* 1989; figures in parentheses are for deaths
13 Figures taken from the table at JDW 0003 0081 – 0082; *'Bristol Cardiac Surgery Annual Report'* 1989; figures in parentheses are for deaths

Operations Bristol 1989	Mortality rate % Bristol 1985–1989	Mortality rate % UK 1988
Simple: 36 (0)	0.7	0.56
Moderate: 60 (9)	7.9	7.7
Complex: 14 (4)	27.1	18.2

14 The table also noted that the mortality rate for moderate operations in Bristol for 1989 was 15%. The mortality rate for complex operations at Bristol in the same period was 28.6%.

15 The comparisons between mortality rates in Bristol and the UK were made in the table annexed to the Annual Report. The figures correspond with the returns that the Unit made to the UK Cardiac Surgical Register.[14]

[14] UBHT 0055 0191; Unit return to the UK Cardiac Surgical Register