**General Practitioner, Dr B** 

A Report by the Health and Disability Commissioner

(Case 01HDC13224)



Baby A	Consumer
Mrs A	Complainant / Mother of consumer
Mr A	Father of consumer
Dr B	Provider / General Practitioner
Mrs C	Grandmother
Ms D	Midwife
Ms E	Practice Nurse
Dr F	Specialist Paediatrician
Dr G	Obstetrician
Dr H	Mrs A's general practitioner
Dr I	Urologist
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# **Parties involved**

# Complaint

The Commissioner received a complaint from Mrs A via the Medical Council of New Zealand regarding the care her infant son received from Dr B following a circumcision on 17 October 2001. The complaint has been summarised as follows:

On 17 October 2001, Dr B circumcised four-week-old Baby A at his surgery rooms. Dr B did not provide services of an appropriate standard. In particular, he did not:

- obtain a medical history from the baby's parents prior to the surgery in order to ascertain if there was a family history of bleeding
- *perform the circumcision procedure correctly*
- refer the baby to hospital when his bleeding did not stop after three visits to Dr B's surgery.

The complaint was received on 5 December 2001 and an investigation was commenced on 15 February 2002.

# Information reviewed

- Information from Mr and Mrs A, Mrs C, Dr B, Ms D, Ms E and Dr F
- Baby A's and Mrs A's records from Dr G, Dr H and the first public hospital

Independent expert advice was obtained from Dr Philip Jacobs, a general practitioner with expertise in performing circumcisions.



# Information gathered during investigation

#### Background

Dr B had been the family's general practitioner for many years. He was Mr A's (the baby's father's) doctor since childhood and has personally known Mrs C (the baby's paternal grandmother) for more than 20 years. Prior to this incident, Dr B had not met Mrs A (the baby's mother). Her pregnancy and postnatal period was managed by Dr G, an obstetrician in private practice, Ms D, an independent midwife, and Dr H, her general practitioner.

Mrs A had a history of bleeding tendency known to Ms D, Dr G and Dr H. Her pregnancy was unremarkable with no complication of bleeding. The baby was born on 15 September 2001. He was a cephalic presentation delivery involving episiotomy and ventouse extraction.

Records show that before Baby A was born Mr and Mrs A contemplated circumcising him. In her antenatal records Ms D wrote: "[Dr ...]. A circumcision?? Ring when babe born."

Mr A advised me that he wanted his newborn son circumcised. His wife said that although she was not keen on Baby A undergoing the procedure, she left that decision to her husband. Baby A was four and a half weeks old at the time of the event that gave rise to the complaint.

Mrs A advised me that she initially raised the matter of circumcising the baby with Ms D, who informed her that she was aware of cases of "minor complications" following circumcisions performed by Dr B. Mr and Mrs A then raised the matter with Dr H. Mrs A said that Dr H was not in favour of neonatal circumcision and recommended that they "think about it". Dr H also recommended Dr I, a local urologist, but said that Dr I did not perform "elective" (neonatal) circumcisions and that no one in the area was performing neonatal circumcisions.

After the consultation with Dr H, Mr and Mrs A spoke to their friends who had recently had their sons circumcised by Dr B. Their friends recommended Dr B and this influenced their decision to seek a consultation with him.

Dr B advised me that he had been performing circumcisions under local anaesthetic on males of all age groups for more than 40 years at a rate of 100-150 cases per year. He does not actively encourage parents to have their babies circumcised but it is available and is there to help if that is what the parents want.

### **Pre-consultation**

About a week before 17 October 2001 Mr and Mrs A met with Dr B's nurse at a medical centre to discuss the planned circumcision. Mr and Mrs A advised me that the purpose of this consultation was to obtain information – what the procedure involved, the risks and complications, how long the procedure would take, how much pain the baby was likely to experience and whether they needed to give the baby anything before the procedure. Baby A was not with them, as they had been told that there was no need to see him at that point.

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At the meeting the nurse gave Mr and Mrs A Dr B's pamphlet titled "Is Circumcision a Reasonable Option?" (Appendix A). In respect of risks associated with the procedure the pamphlet states:

"While there are a number of methods commonly used I prefer and recommend the plastibel method. It can be safely employed up to the age of 8 or 9 years under local anaesthetic in the surgery and has the advantage of greatly minimising the risk of post op. haemorrhage. ... In this way the risk of bleeding post op. is made virtually nil."

Mr A advised me that although the risks and benefits of the procedure were mentioned by the nurse at this meeting, most of the discussion was about the procedure itself rather than any potential complications. They were informed by the nurse that the baby would not feel pain. Mr and Mrs A had no recollection of any notes being taken by the nurse.

Mrs A advised me that she and her husband were aware that they had the option of circumcising the baby shortly after birth under a local anaesthetic or under a general anaesthetic when he was six months old. She said that she and her husband made an "educated decision" to proceed with the former option because they did not want the baby to have a general anaesthetic at such a young age. Following the meeting with the nurse they made an appointment for Dr B to perform the circumcision. The appointment was made for 3.00pm on 17 October 2001.

#### Bleeding tendency

In relation to her bleeding history, Mrs A advised me that for much of her life she bruised easily. At the age of five she required a blood transfusion for a haemorrhage she suffered following a tonsillectomy. When in high school she bled "a fair bit" after she had her toe nail removed. Mrs A advised me that as a result of these events she underwent "extensive coagulation tests" but that nothing was discovered other than that she had a "bleeding tendency". She said she was never told that she had any bleeding disorder.

Mrs A said she had been told by her parents to always inform medical staff of the bleeding episodes before undergoing surgery as bleeding could recur. Records show that Dr H, Dr G and Ms D were aware of that aspect of her medical history. Ms D's 'booking form' dated 16 February 2001 makes reference to a blood transfusion following the post-tonsillectomy haemorrhage. She advised me that Mrs A understood why the question of the blood transfusion was raised and that the risk of excessive bleeding during pregnancy was discussed with Mrs A.

Mrs A advised me that Dr B's nurse did not ask her about her medical history at the preconsultation meeting. She said that the nurse did not ask her about her history of excessive bleeding and she did not volunteer it.

#### Circumcision

On 17 October 2001 Mr and Mrs A, and Mrs C, arrived for the 3.00pm appointment to have the baby circumcised. Mrs A advised me that because she did not want her son to have the procedure, she chose to stay in the waiting room while her husband and her mother-in-law went into the surgery. Mrs C advised me that because her daughter-in-law



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wanted "nothing to do with it", her son asked her to be there for support. She said that her son was not coping too well with the situation.

Because Mrs A remained in the waiting room, no discussion took place between her and Dr B before the surgery. Dr B spoke only to Mr A and his mother.

Mrs C advised me that preoperatively Dr B explained to her and her son what he was going to do. Using his information leaflet, Dr B said he spent approximately 15 minutes explaining to Mr A and his mother the procedure involved and the postoperative care required. He also raised the possibility of postoperative complications such as bleeding or infection and advised them of the need to seek help should any of these occur.

Both Mr and Mrs A advised me that they felt that they were given sufficient information by Dr B to decide whether they wanted to proceed with the procedure.

Mrs C could not recall what family health history Dr B enquired into but said that had Dr B asked her or her son about Mrs A's medical history at that time, they would not have had anything to tell him as they did not know that Mrs A had a history of bleeding. Mr A was asked generally about the family medical history. He said that he could not recall whether Dr B asked him about his wife's history, but even if he did, he would not have known about her bleeding tendency. Mr A advised me that he was aware that in the past (before they got married) his wife haemorrhaged after an operation but it did not occur to him that this was of any relevance and therefore did not volunteer it.

When asked what information, if any, he obtained about the baby's family history of any bleeding tendency before proceeding with the operation, Dr B stated:

"All babies in the neonatal period have a bleeding tendency, therefore I stress in my discussion before surgery that bleeding is a rare but possible complication of the operation. I expect any parent knowing of a bleeding tendency in the family to inform me of that fact at this point in the discussion."

Dr B also stated:

"I do not believe a history of bleeding is relevant to the operation as all babies have a bleeding tendency and the operative method involves a ligature being placed around all bleeding vessels, which makes post operative bleeding a very very rare event."

Dr B performed the circumcision on the baby under a local anaesthetic using the Plastibel method.<sup>1</sup> He advised me that there were no problems during the procedure. However, he said that it took longer than usual for the bleeding from the local anaesthetic puncture sites to stop and that he had to apply pressure "for about 20 minutes before [he] was finally sure that it had stopped". In his notes Dr B recorded:

<sup>&</sup>lt;sup>1</sup>A method that involves the use of a Plastibel, a small bell-shaped plastic device, which is secured by a linen ligature under the foreskin before the foreskin is trimmed.

"... routine plastibel circ under 1% plain lignocaine bleeding tendency ++ from each local anaesthetic hole and then from the frenal artery which seemed to require about 30 mins to settle I wonder whether this child has an abnormal bleeding tendency ..."

Having not seen such a procedure performed before, Mrs C could not tell whether the amount of bleeding she observed was normal. She noted that the blood seemed to trickle from the underside of the baby's penis and come from the holes where the local anaesthetic was injected. Mrs A said that Dr B was dabbing the site and tried to apply a small dressing in an attempt to get the blood to congeal. She said that at the end Dr B commented that he had never experienced such a problem before.

In respect of the amount of the baby's blood loss during the procedure, Mr A stated that it was "quite a bit". He said that Dr B "possibly used a dozen cotton wool balls which would have been half-soaked in blood". Mr A observed that the kidney dish used by Dr B was "fairly full of [blood] soaked cotton wool balls". In his response to the provisional opinion Dr B explained that he does not use cotton wool balls but cotton buds and thin gauze squares.

Ms E, practice nurse at the medical centre, assisted Dr B during the procedure but, as is her normal practice, was not present during the discussion period (first 15-20 minutes of the consultation). Ms E could not recall the amount of blood loss but observed that the baby's colour was good and his skin and extremities were warm. As with other routine circumcisions, the baby's vital signs (blood pressure, pulse and respiratory rate) were not taken.

When asked what information, if any, he obtained from Mrs A about her medical history and any bleeding tendency in her family after experiencing the bleeding problem during the baby's circumcision, Dr B stated:

"[Mrs A] was undoubtedly very upset when the bleeding problem was being dealt with, I did not specifically ask her about her family history as I felt if she had known of any such problem she would, in the circumstances, have been very keen to make me aware of it."

Dr B informed me that he advised the family to return if the bleeding recommenced. He stated:

"It is not uncommon to have a slight ooze of blood from a small area of abrasion which settles with a little local pressure, as ooze on this occasion was slower than usual to settle I explained to [the baby's] father and [Mrs C] that they should be vigilant in watching for anything more than a drop of two of blood on his napkin and if bleeding did occur to make contact with me immediately."

Dr B said that when Baby A left the surgery he had good colour, warm extremities and a strong pulse.

Mrs C stated that Dr B told her to get back to him "if it bleeds through the nappy".



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#### First return to Dr B

Mrs C advised me that after leaving Dr B's surgery and before getting into their car, she noticed blood on the baby's nappy and it "trickling down [his] penis". She described the amount as "not alarming" but advised her son to return to the practice. Dr B made a further attempt to stop the bleeding. Dr B estimated the blood loss to be about 2-3ml. He noted that the baby had a good colour, warm extremities and a strong pulse.

Dr B stated that he was confident that he had stopped the bleeding and asked the baby's parents to call him if they had any concerns. Transfer of the baby to hospital was not raised by Dr B or any members of the family.

#### Second return to Dr B

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Mrs A stated that soon after arriving home from the surgery at about 4.30pm she noticed "a dark patch" on the baby's nappy. She opened up the nappy and saw blood "pulsing" from the baby's penis. She immediately tried to telephone Dr B's surgery and after a "17 minutes" on hold, at 4.42pm she made another call and informed the practice nurse that she was bringing the baby back. From the car, at 4.47pm, she telephoned her husband asking him to meet her and his mother at the surgery.

Mrs A and her mother-in-law arrived at the surgery at about 5.00pm, less than a 10-minute drive from their home. On their arrival Mrs A remained in the waiting room while Dr B, her mother-in-law and her husband took the baby into the surgery. Dr B advised me that at about 6.45pm the baby was brought back to the surgery "oozing blood freely" from under the plastibel. This is inconsistent with another comment Dr B made in his letter to the Commissioner dated 24 April 2003 in which he stated that "the baby left the surgery at about 6.45pm". Although Dr B's account is supported by Ms E's comment that the baby was brought back about two hours later, she also said that after the treatment, the baby was taken home at 6.45pm. On balance, I am satisfied that the baby was brought back to the surgery at about 5.00pm.

At this time, Dr B removed the bell to identify and treat the bleeding points. After placing four sutures and "cautious application of cautery to several areas of capillary oozing", and being satisfied that the bleeding had stopped, Dr B applied a dressing soaked in Tincture of Benzoin. His notes record:

"... the bleeding had started again and the plastibel was removed and both sutures and diathermy used to stop the frenal loss. With a dressing applied with cling ribbon wrap all appeared to be dry ...."

Mrs A advised me that Dr B said that this was the worst case of bleeding after circumcision that he had experienced in 40 years of performing the procedure. Dr B also commented that he had never seen so much bleeding from the local anaesthetic injection sites.

Dr B advised me that at this time he estimated the baby's blood loss to be in the range of 20-30ml. He said that the baby was "in good condition, good colour, warm extremities and a strong full pulse". Ms E and Mr and Mrs A made similar observations. Ms E said that Baby A was a healthy baby and, as with routine circumcision cases, his blood pressure was

not taken and that the practice did not have a cuff to fit an infant of his age. Ms E could not recall the amount of the baby's blood loss during this consultation.

Mrs A advised me that after the procedure, Dr B asked them to leave the baby's nappy on for as long as possible. When asked whether he advised the family to take the baby to hospital, Dr B said:

"My recollection was that I was confident that I had stopped the bleeding but stressed the importance of contacting me quickly if any further loss occurred as hospital treatment might be necessary if the bleeding could not be stopped."

Mrs C had no recollection of being advised by Dr B to take the baby to hospital and no such advice was recorded by Dr B in his consultation notes.

Dr B advised me that when he was satisfied that bleeding had stopped, he gave the family his mobile telephone number and told them to contact him on the mobile or on his home number if bleeding reoccurred. Mrs A recalled them being informed by Dr B to call him "if there were any problems whatsoever".

### Third return to Dr B

At about 8.30pm that evening, while the baby's nappy was being changed, the dressing came off. At about 9.00pm while checking the baby, Mrs C noticed that he had started to bleed again. She described it as "not a huge amount but enough to cause us alarm". By this stage her daughter-in-law had gone to bed. She called her son and told him that she was "anxious that there [was] so much bleeding". She also told him that before they go to bed they should call Dr B. Unable to reach Dr B on his mobile telephone, they telephoned Dr B at home and arranged to meet him back at the surgery.

Dr B advised me that he was contacted by the family at about 9.15pm that night and was informed that Baby A had started to bleed again after the dressing was dislodged. He returned to the surgery as arranged and on examining Baby A observed that there was "brisk oozing from the frenal region of the wound". Given Baby A's "good condition" Dr B decided to make further attempts to identify and treat the bleeding point with diathermy, apply an alginate dressing and secure the dressing by strapping it to the abdominal wall and the inner thighs. This procedure was successful in stopping all the bleeding.

Dr B advised me that after the procedure he informed the baby's parents that he had done everything that he could and if there was any further bleeding the baby would have to be taken to hospital for further treatment and a blood transfusion. On this occasion he estimated the baby's blood loss to have been approximately 20ml. He observed that the baby was "of good colour with warm extremities and a full strong pulse" and commented that "if there had been any doubt about these vital signs, hospital admission would, in my opinion, have been mandatory". Mrs C said that at this stage the baby "looked alright".



Dr B's consultation notes record:

"... at about 9.00pm there was a further considerable loss of blood. After further diathermy and wrapping this stopped but the parents were told that if he bled again he would have to be taken to Hospital for transfusion."

Mrs C advised me that after the procedure she asked her son to have a look at the baby and make a decision what ought to be done next. Feeling confident that the bleeding had finally been stopped Mr A was happy to return home. He felt that they "got it this time". However, unbeknown to her at that time, her daughter-in-law wanted to take the baby to hospital and tried to persuade her husband to do so. Mrs C said that this discussion took place in the waiting room while she and Dr B were in the surgery attending to the baby. Although Mr A claimed that the conversation between him and his wife would have been overheard by Dr B, Mrs C said that there was no discussion between them and Dr B about taking the baby to hospital.

Mrs A advised me that at the completion of the procedure her mother-in-law called her into the surgery to see what had been done. She was there for a "minimal" period of time and had no direct communication with Dr B. This was the only occasion on which she entered the surgery.

Mr A stated that before they left the surgery Dr B told them to call him if the bleeding started again and advised them to go and have a good night's sleep. He said that Dr B did not tell them to take the baby to hospital.

On returning home, feeling very tired, Mr A and his wife went to bed while Mrs C decided to stay up and keep an eye on the baby.

Mrs C advised me that at about 1.30am the next morning (18 October 2001), while trying to feed the baby and checking his nappy, she noticed further bleeding. The blood was "not spurting ... just dribbling down" the baby's penis. Mrs A said she was "shocked to see so much blood" and saw "too much blood to be assured that bleeding had stopped". She described the baby as "cold and hot, and clammy" and said that although she was not aware that the baby was shutting down, she was aware that he was "more drowsy, listless and limp". She knew that the baby was "kind of in trouble" and that "we had to do something beyond waiting till the morning". She woke up her son and told him that they needed another opinion and asked whether they should call Dr H. Their conversation woke up Mrs A.

### Telephone call to Dr B

Mr A informed me that he then telephoned Dr B at home and told him that the wound had "started to seep again". He asked Dr B: "How much blood can you lose before it becomes dangerous?" and was told: "If it is not pumping there is no major concern." Mr A also asked Dr B if they should take the baby to hospital and was told "no".

Dr B advised me that he was woken from deep sleep at 2.45am by a telephone call from Mr A who said that the baby had been fine since the last dressing was put on but that when his

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nappy had been changed shortly before, "slight ooze through the dressing" was noted. Dr B said that Mr A told him that there was "a little trickle which had not even reached the scrotum". His comment to Mr A was that "it would be good if a transfusion could be avoided but any blood loss more than that described, would be unacceptable, in which case they would have to seek hospital help".

In response to the question whether he asked Mr A for the estimate of blood loss, Dr B said that Mr A told him that there had been "a small trickle which had not even reached the scrotum". Dr B advised me that Mr A did not inform him that the baby was cold and clammy. Had he been informed of that he would have either gone to see the baby or advised the parents to seek urgent hospital treatment. Mr A said that he called Dr B because of the bleeding, not because the baby was cold and clammy. He also said that Dr B did not ask him how the baby looked.

#### Telephone call to Ms D

Mrs A advised me that after her husband got off the phone to Dr B, she told her husband that she was not happy with Dr B's response and asked him to call Ms D for advice while she readied the baby. After being provided with a short brief Ms D advised Mr A to take the baby "straight to hospital" and told him that she would call the Emergency Department to inform the staff there to expect their arrival.

Ms D advised me on 18 October 2001, at 3.00am, Mr A telephoned her and informed her that the baby had been circumcised by Dr B the day before. She said that this was the first she knew that the baby had had a circumcision. She was told by Mr A that the procedure had been a complicated one, that it took much longer than they anticipated, and that the baby bled profusely during the procedure and on subsequent return visits. She was aware of the parents' concerns and that shortly before her call Mr A had been in touch with Dr B. Her impression from Mr A's comments was that Dr B was not unduly concerned about the bleeding.

Ms D said that Mr A described the baby as pale, clammy, crying quietly, and still bleeding from his penis. She advised Mr A to take the baby to the Emergency Department at a public hospital and that she would notify the Department of their imminent arrival. Ms D telephoned the senior house officer on call and advised her of the situation.

Mrs C commented that perhaps Dr B should have enquired from her daughter-in-law about any bleeding tendency and considered sending the baby to hospital at the time of the 9.00pm visit. However, she said that her feeling was that what happened to the baby was not entirely Dr B's fault. She said that "so many people knew of [Mrs A's] bleeding problem but nobody said anything".

#### Admission to hospital

On 18 October 2001, at 3.40am, the baby presented at the public hospital's Emergency Department. Hospital notes record that on admission he was "very pale". The baby was examined by an Emergency Department house surgeon who, after several unsuccessful attempts to gain an intravenous access, contacted Dr F, a specialist paediatrician, for assistance.



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Dr F advised me that at about 4.00am he was telephoned at home by a house surgeon on duty, who considered the baby to be seriously ill and in need of a blood transfusion. The house surgeon had had difficulty inserting an intravenous line. On his arrival at the Emergency Department, Dr F inserted an intravenous line and commenced an intravenous fluid infusion.

In Dr F's opinion the baby was in state of haemorrhagic shock and was "very pale because of severe anaemia totally due to blood loss". His haemoglobin dropped to 41 gm/L (the normal range for a four-week-old baby being 100-180 gm/L) and he required a blood transfusion.

Dr F advised me that a loss of blood volume in the range of 10-20% places a person at risk of shock and he estimated that the baby had probably lost "at least half of his blood volume". Dr F said that normal blood volume in babies is approximately 100ml per kilogram of body weight. At that time the baby weighed about 5kg and his normal blood volume therefore would have been about 500ml. His estimate that the baby lost "at least half of his blood volume" suggested a blood loss of at least 250ml. Dr F said that for a baby this was "substantial". As a result, the risk of the baby dying was "very significant". In his opinion, had Baby A's parents not brought him to hospital and had he been left "for another couple of hours, he could have easily died". While in hospital Baby A was given 500ml of normal saline, 100ml of fresh frozen plasma and 150ml of packed red blood cells. Dr F considered that to be "substantial" for a baby.

Mrs A advised me that at 6.00am her husband telephoned her father, who was out of town, to inform him how sick the baby was. She said that her father was not aware that she and her husband were planning to circumcise the baby and that he was not in favour of having it done. Mrs C informed me that she was not present when her son spoke to his father-in-law but that afterwards her son told her that he (Mrs A's father) and Mrs A were "bleeders". Mrs C said that this was the first time she and her son were made aware of this problem. Mrs A said that her father did not have a bleeding disorder as such but that he did have a tendency to bruise easily. Mrs A stated that Dr F informed the family that a sample of the baby's blood was sent to another public hospital to test it for clotting disorders. Given that she had haemorrhaged as a child, it was suspected that the baby may have inherited the problem. She too provided a blood sample for testing.

On the morning of 18 October 2001 Ms D and Dr H visited the baby in hospital. Dr B informed me that that morning he rang the family's residence to check on the baby's condition but was only able to leave a message on the answer phone.

### Corrective surgery

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On the afternoon of 18 October 2001 the baby was taken to operating theatre and underwent exploration and revision of the circumcision wound under general anaesthetic. The operation was performed by Dr I, a consultant urologist, with his registrar assisting. The registrar's handwritten notes record:

"Four sutures ventral aspect under glans – small bleeding points around frenulum. Excessive penile skin taken ventrally. Urethra sounded – intact."

In his typed operation note, in respect of his findings, Dr I recorded:

"Approximately four Dexon type sutures had been placed in the ventral aspect of the distal shaft and coronal region, suggesting this has been the site of the haemorrhage. There was also evidence of moderately extensive diathermy in the coronal groove and inferior glans. No obvious bleeders were identified."

In respect of the procedure, Dr I recorded:

"The sutures were removed and the penile skin drawn back and all bleeders carefully cauterized with bipolar diathermy. The coronal skin dorsally was marked and some redundant skin excised. Some of the penile skin was then swung inferiorly to partially cover the defect ventrally. Mucosal and penile skin was then re-opposed with interrupted 6/0 chromic sutures."

On the morning of 19 October 2001, Baby A was discharged from hospital with an arrangement to be followed up at the hospital's outpatient clinic by Dr F.

#### Subsequent events

Dr B advised me that on the morning of 19 October 2001 Dr F contacted him and informed him that Baby A had been admitted to hospital in the early hours of the previous day and required a transfusion. Dr F also informed him that Baby A was doing well and was due to be discharged later in the day. After Dr F's call Dr B rang Mrs A to enquire after Baby A and to express his "sorrow that she and the baby had to go through such a terrible ordeal". He said that Mrs A expressed her anger that he had not advised them to go immediately to the hospital when her husband telephoned him in the early hours of the morning of 18 October. Dr B stated:

"I mentioned [to Mrs A] my being woken from deep sleep as a factor. However I realise in retrospect that tiredness was only partly to blame, in that the information I had been given was inadequate and this had led me to the false conclusion that the baby was doing well."

On 12 November 2001 Baby A was reviewed by Dr F at the hospital's outpatient clinic. His general physical examination proved unremarkable. Dr F noted that Baby A's circumcision appeared well healed with no abnormalities detected. Dr F also noted that the issue of the baby's diagnosis (cause of bleeding) and subsequent management remained unresolved and that a review by a haematologist at the second public hospital was pending.

Concerned about Dr B's management of Baby A, Ms D, in consultation with Drs H, G, F and I, approached the Head of Department Obstetrics and Gynaecology at the first public hospital, and asked for a discussion of the baby's case at the hospital's next perinatal meeting. The meetings are held every three to four months for the purpose of case presentations and are attended by interested health professionals. The meeting was scheduled for 13 November 2001 and Ms D was asked to present the case. Presentations were also made by Dr F and a urology registrar. Although Dr B did not normally attend these meetings, he was present at this one.



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Dr B advised me that he was invited to the meeting by the Head of Department, Obstetrics and Gynaecology at the first public hospital. He said that before going to the meeting he knew that the baby's case would be discussed. He was happy to go and learn from the experience. Dr B said that some of the details Ms D presented were new to him and were not as he recalled them from his conversation with Mr A. He found the meeting "very helpful" and the whole experience "an important, but steep, learning curve". This experience included not giving advice over the telephone without seeing a patient. He said that had he been given the same information Mr A gave to Ms D (that the baby was pale and clammy), his advice would have been different and he too would have referred the baby to hospital.

Dr B said that he had personally known the family for a long time and because of that he "bent backwards to help them". He was saddened by how this incident has impacted on that relationship. He had not been in contact with Baby A's parents or Mrs C since the incident. In addition to his conversation to Mrs A on 19 October 2001 he spoke to Mr A in an attempt to resolve the matter but was given to understand that Mrs A did not want to meet with him.

On 18 December 2001 Baby A was reviewed by a urology registrar at a Urology Clinic. The urology registrar noted that the circumcision wound was well healed and that since Baby A's discharge from hospital he was found to have a mild degree of Haemophilia A. Dr F informed me that this form of haemophilia is passed from female to female with the male offspring becoming symptomatic. In this case Mrs A was the carrier for haemophilia.

Subsequent routine reviews of Baby A by Dr F at the first public hospital's outpatient clinic proved unremarkable.

#### Other matters

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Mrs A's letter of complaint dated 12 November 2001 was initially sent to the Medical Council of New Zealand (the Council) and referred to my Office on 4 December 2001. On 7 March 2002 the Council advised me that Mrs A's complaint was considered by the Professional Standards Committee of Council (PSC) at its meeting of 26 February 2002, which concluded:

"The PSC took into account the incident and noted [Dr B's] actions after this experience, including discussing the matter in detail with a local paediatrician, attending a perinatal meeting with obstetricians, midwives and paediatricians to discuss the matter and decided that further investigation by way of competence review was not required."

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# Independent advice to Commissioner

Dr Philip Jacobs, an independent general practitioner, provided the following expert advice:

## "Re complaint file 01/13224/...

I have reviewed the circumstances of this case through those documents forwarded to me by your office viz

- A. Letter of Complaint and statement made by [Mrs A]
- B. Note recording details of conversation between [HDC staff] and [Mrs A]
- C. Letter from [Dr B] GP who performed the circumcision, responding to complaint
- D. Includes letter from [Dr F] Paediatrician at [the first public hospital] (12/11/01) reporting on the patient's condition at a follow up Outpatient appointment. Also included a lab report confirming that the patient suffered from mild Haemophilia A copy of [Dr B's] clinical records of the case and a photocopy of the written material that he hands to parents and caregivers of those contemplating or proceeding with circumcision of their child.
- E. A letter from [Ms D], Independent Midwife, who responded to [Mr and Mrs A's] concerns and arranged admission to Hospital. A copy of the patient's admission note completed by [the] House Surgeon [at the first public hospital]. A printout from the Australian College of Paediatrics updating a position statement on Routine Circumcision of Normal Male Infants And Boys dated 11/5/01
- F. A copy of all Hospital notes pertaining to the patient's admission to [the first public hospital] and including the record of delivery of the patient on 15/9/01

In addition to these records I have reviewed the extensive Position Statement on Circumcision, a collaborative review from a number of Societies, dated Sept 2002.

I have enclosed this publication for future reference [Appendix B].

In summary, this was a case where a 4 week old male baby underwent routine circumcision (parents' choice) by [Dr B]. He talked with the baby's Father and Grandmother prior to the procedure and went through a brochure that he had produced about indications, benefits and risks (bleeding included). The baby, right from the start of the procedure, appeared to bleed abnormally and required review by [Dr B] twice that same day whereupon sutures and diathermy were used to stem blood flow. At 0300 hrs the next day there was further bleeding and the baby appeared unwell to the parents. They rang [Dr B] who felt that if the bleeding was slight no further action was required. Unhappy with this, the parents rang their midwife who arranged admission to Hospital. On arrival at Hospital the baby was assessed and found to be very anaemic and showed signs of major blood loss. The baby required transfusion with fresh frozen plasma and



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blood, and was taken to the operating theatre where a revision of circumcision was performed. The baby was subsequently found to be suffering from mild Haemophilia A and the Mother to be a carrier of the disease.

#### Haemophilia

Haemophilia is characterised by a congenital deficiency of Factor VIII; this interferes with the intrinsic system of blood coagulation and results in the poor formation of thromboplastin. The severity varies widely, but is likely to be the same in affected members, and in different generations, of the same family.

The coagulation of whole blood is greatly prolonged. The bleeding time estimated from a small prick wound is usually normal, since capillary haemostasis is usually dependent on vasoconstriction and the formation of a platelet plug; for the same reason venepuncture is usually safe in haemophiliac patients. Excessive bleeding on minimal injury has usually declared itself by the first year of life. Operations such as circumcision, tonsillectomy or dental extractions may cause very severe or fatal bleedings.

Haemophilia is restricted to the male sex. It is genetically determined, half of the sons being affected and half of the daughters being carriers. Haemophilia results from a defect in a gene carried by the X chromosome and controlling the development of Factor VIII. The abnormal chromosome X does not cause haemophilia in females (XX) because the normal X is sufficient to prevent the bleeding tendency; such a ... female does, however, have an abnormally low plasma level of Factor VIII. Also half her sons will be haemophiliacs and half her daughters will be carriers. The deficiency can be corrected temporarily by the transfusion of fresh blood or fresh plasma, or more efficiently by the administration of Factor VIII concentrates. (1)

#### **Issues arising from the documents**

1. History of bleeding disorder. The initial consultation immediately prior to the circumcision with [Dr B] appears to have been appropriate, although the absence of the baby's mother is noted. The handout that [Dr B] said he went over with the pair does state about the Plastibel method that it '... has the advantage of greatly minimising the risk of post op haemorrhage'. Clearly the history of bleeding tendency in the Mother and Maternal Grandfather was neither enquired about nor volunteered by those present. It is somewhat concerning that [Dr B] in his statement 'C' states 'I do not believe a history of bleeding is relevant to the operation as all babies have a bleeding tendency and the operative method involves a ligature being placed around all the bleeding vessels, which makes post operative bleeding a very very rare event.' However it is also worth noting that in [the first public hospital's] records admission sheet for the baby, the Dr states 'Mother and Maternal Grandfather bleeding problem after tonsillectomy and tooth extraction. Coagulation tests normal. ?Familial Platelet Function disorder'. Also [Mrs A] stated in her conversation with [HDC staff] that after she had haemorrhaged as a child, she was investigated and a cause never found. Nevertheless because of the



history she was under a specialist in her pregnancy and although she states in this same conversation that the birth was uncomplicated, the hospital records show that she required a Ventouse delivery and underwent a large episiotomy. I assume she had no bleeding problems at this time despite a large perineal wound.

- 2. The Circumcision procedure and subsequent revision. [Dr B] states that he has performed many circumcisions over many years. He must be assumed to be very experienced and confident in his own ability to perform the procedure both safely and well. He uses the Plastibel, method which is thought to confer a degree of safety, both protecting the head of the penis and reducing the risk of post operative haemorrhage. It is noted that because of the bleeding he had to perform further interventions, namely premature removal of the Plastibel device, diathermy, which by necessity was extensive, and the placement of 4 sutures in the undersurface of the penis. The Surgeon's Operation note comes in two separate forms, written and typed. The typed report is signed [Dr ...] who I assume was the Registrar. He made the comment '... Excessive penile skin taken ventrally'. This implies there was some criticism of the original technique. However the typed report signed by the surgeon [Dr I] does not state this but instead says 'approximately four Dexon type sutures had been placed in the ventral aspect of the distal shaft and the coronal region suggesting this had been the site of the haemorrhage. There was also evidence of moderately extensive diathermy in the coronal groove and inferior glans. No obvious bleeders were identified.' It appears that some repair work was necessary to cover the area of skin on the penis that had been damaged by diathermy.
- 3. Post Operative Care. [Dr B] made himself available and indeed did see the baby at 1845 and again at 2115 to reassess and take steps to stop the bleeding. There was a comment from [Mrs A] that he had his cell phone turned off and they had to find his phone number in the phone book. Nevertheless he was contacted and did attend. The situation at 0245 was different and there seems to be some discordance in the stories from [Mrs A] and [Dr B]. [Dr B] states that he was told that the baby had been fine and that at nappy change there was a slight ooze through the dressing 'a little trickle which had not even reached the scrotum'. He states that he said it would be good if a transfusion could be avoided but any blood loss more than that described, would be unacceptable, in which case they would have to seek hospital help. [Mrs A] says however that the baby was pale and clammy and his penis was seeping again. She stated that her husband asked [Dr B] how much blood he could afford to lose before it became dangerous and he allegedly replied 'that if blood is not pumping out like a main artery had been cut and if it is just seeping out then there was no major concern'. He also was alleged to have replied 'no' when asked if the parents needed to take him to hospital. Unhappy with this they phoned their midwife who arranged admission.
- 4. **Medical Notes.** [Dr B's] notes are concerning for two reasons. Firstly, it appears from his note 17/10/01 that he was aware right from the start that bleeding was excessive and even made the statement 'I wonder whether this child has an abnormal



bleeding tendency'. He states in his entry date ?27/11/02 that he had wrongly entered the baby's notes in another child's notes and that he has directly transcribed these back correctly. I do not have documentation of the original entry into [the child's] notes so have no actual evidence that he did tell the parents 'if he bled again he would have to be taken to Hospital for transfusion'.

5. **Patient Information.** This is an extensive brochure outlining the history of circumcision, the advantages, the procedure, the aftercare and a conclusion. It is well researched but is very biased in favour of routine male circumcision and is out of step with current thoughts on this matter. The most recent references are 1990 and some go back as far as 1919. The current consensus (see encl) is not in favour of routine male circumcision. The brochure is deficient in its discussion of the risks and those it does mention are minimised.

### Discussion

- 1. **Bleeding disorder**. This baby suffered from Haemophilia A and this was the cause of his excessive bleeding. The fact that the baby bled was neither [Dr B's] nor his parents fault. However, [Dr B] should have enquired about a family history of bleeding disorder. Although this should be done routinely, it would also have been appropriate for the family to mention this. This should have led to a discussion on the type of disorder and whether it had been investigated. If there was any doubt, circumcision should have been deferred until after the baby had been investigated. The fact that [Mrs A] had been investigated and no cause found, and that she had recently undergone a major episiotomy without problems is really immaterial in this case. The realisation, as recorded in the notes from [Dr B], that the baby was bleeding excessively and that a bleeding disorder may be the explanation, should have prompted a discussion at that point about family history. If the possibility was noted, the baby should have been referred immediately to the hospital for blood tests and observation. The necessity to see the baby again twice and then receive a call at 0300 really should have prompted urgent admission.
- 2. Circumcision Procedure and Subsequent Revision. I do not believe that [Dr B] was at fault here. The severe and prolonged bleeding necessitated further procedures and these were the main reason for the requirement for revision. I believe that had the baby not bled the circumcision would have led to a satisfactory result. I do not believe this was a 'botched job'.
- 3. Follow Up Care. [Dr B] made himself available to the family and indeed did attend the baby twice to assess and attempt to resolve the problem. Under normal circumstances this level of care is satisfactory and indeed desirable. However these were not normal circumstances and there was a failure to appreciate the deviation from the normal path. The care at 0300hrs was deficient and in light of previous events, he should have reviewed the baby himself or arranged for him to be reviewed elsewhere.

- 4. **Patient Notes.** Without having the original entry into the wrong patient's notes I am unable to comment further. However I do express some concern at the lack of detail about a significant complication to surgery.
- 5. **Patient Information.** [Dr B] holds strongly positive views on the validity of routine male circumcision. This is at variance to current accepted practice and consensus. His patient information brochure does not give a balanced view to allow parents to decide. It would be helpful for him to read the latest consensus document enclosed.(2) [Appendix B].
- 6. Other Issues. Circumcision practices have changed markedly over the last 20 years. Routine circumcision was the norm and is now not so. There are very few medical indications for the practice. Social factors include fashion and religious beliefs. There will continue to be a demand from some religious groups for circumcision. However those who see this as purely a fashion requirement should be fully informed of the not insignificant risks versus the increasingly questioned possible benefits. For those who continue to perform circumcisions, they must do so in a manner that ensures the safety of the infant or child. Whilst [Dr B] is clearly a conscientious and very experienced operator, he failed to recognise the variation from the norm on this occasion, and as such, placed the baby at risk.

# References

- 1. Muir's Textbook of Pathology, Edward Arnold Ltd 1976 p 500
- 2. Position Statement on Circumcision, Working Party RACP, AAPS, NZSPS, Urol Soc Australasia, RACS Sept 2002."

The following additional advice was obtained from Dr Jacobs:

"I have received and reviewed the new documentation supplied by your Office.

- Record of telephone conversation with [Dr B] on 5 March 2003, marked 'G'
- Record of telephone conversation with [Mrs C] on 17 March 2003, marked 'H'
- Record of telephone conversation with Ms ... (barrister) and [Ms E] on 25 March 2003, marked 'I'
- Notes of the interview with [Mr and Mrs A] conducted on 26 March 2003, marked 'J'
- Notes of the interview with [Mrs C] conducted on 26 March 2003, marked 'K'
- Notes of the interview with [Dr F] conducted on 27 March 2003 and supporting documentation marked 'L'
- Notes of the interview with [Ms D] conducted on 27 March 2003, her letter of 4 June 2003 and supporting documentation marked 'M'
- Letter from [Mrs A] dated 14 April 2003 and supporting documentation marked 'N'
- Letter of response from [Dr B] dated 24 April 2003 in response to the letter from HDC dated 4 April 2003 marked 'O'



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- Letter of response from [Ms E] dated 25 April 2003 in response to the letter from HDC dated 4 April 2003 marked 'P'
- Record of telephone conversation with [Mrs A] on 16 May 2003, marked 'Q'
- Record of telephone conversation with [Dr B] on 20 May 2003 marked 'R'
- Record from [Dr B] regarding [Baby A] marked 'S'
- Letter from [Dr H] dated 21 March 2003 and his records marked 'T'.
- Letter from [Dr G] to HDC dated 27 June 2003 and accompanying documentation relating to his communication with [Ms D] about [Mrs A], marked 'U'
- Letter from HDC to [Ms D] dated 30 May 2003 marked 'V'
- Letters from [Ms D] to HDC dated 4 June and 1 July 2003 and accompanying documentation marked 'W'.

I would like to comment on the individual documents in an effort to clarify whether these have any effect upon my original opinion.

- G. Confirms that [Mrs A] wasn't his patient and that this may have interfered with some of the subsequent communication. Raises the question of how the notes accidentally entered into the wrong file were subsequently deleted. (See later.) States that [Dr B] was involved in a multidisciplinary meeting about the case and there were two issues that arose viz the problem is a rare one, the recurrence of bleeding after it initially stopped was unusual and be wary about phone advice under these circumstances.
- H. This document recording the interpretation of a phone call with [Mrs C] raises the issue of who exactly knew about the history of a bleeding problem. It appears that [Mrs A] had never informed her husband nor her Mother in Law about the issue. [Mrs A] however, had informed the Midwife and her Obstetrician. From this, it does appear that there was a failure to pass on important information to [Dr B]; information that may have caused him to question the history prior to proceeding with the circumcision.
- I. No new information.
- J. This outlines the decision making process by [Mr and Mrs A] for wanting and subsequently procuring a circumcision. There does seem to have been some concern expressed by [Dr H] and [Ms D] to the parents about [Dr B's] record, but despite this, they chose to proceed. [Mr and Mrs A] state that both [Ms D] and [Dr H] knew of [Mrs A's] history of bleeding and also that the baby was to undergo circumcision. There is debate about what was actually said to whom prior to the procedure ie what was the pre-operative assessment. The comments made about the genetic inheritance of the disease are accurate. The haemophilia gene that the baby inherited may have come via his Maternal Grandmother, not his maternal Grandfather. To recap, [Mrs A] is a carrier, so either her father would have to be a haemophiliac (same as the baby) or her Mother is a carrier. From the stated evidence it seems improbable that [Mrs A's] Father is a haemophiliac but not



impossible. If the baby was to have children, none of his male offspring would have the gene but his daughters would all be carriers.

- K. This interview with [Mrs C] outlines the sequence of events again and there is no major shift in this. She did say that [Mr A] phoned [Mrs A's] father at some point and that he said he was a bleeder. Hard to understand this comment unless he is indeed a haemophiliac. There is debate re the decision about whether to go to hospital or continue to try and stem the bleeding by cautery and dressings. This is not material to the complaint as it was the judgement of [Dr B], not the family and relatives, that should have decided whether hospitalization was necessary.
- L. This interview with [Dr F], Paediatrician, confirms the seriousness of the baby's state on admission and his belief that [Dr B] should have acted sooner when the bleeding failed to stop. He also expresses his strong opinion that routine neonatal circumcision is not appropriate. It appears that he attempted to both advise [Dr B] of his opinion and also suggest that [Dr B] no longer undertake this operation. It seems that [Dr B] was resistant to this advice.
- M. [Ms D], contrary to the comments made elsewhere, **denied that she knew the baby was having or had had a circumcision**. She includes a letter from [Dr G] O and G Specialist who assessed [Mrs A's] bleeding risk. He has stated that she had bled after tonsillectomy, he assumed related to secondary infection and that coagulation studies were checked (I presume they were normal.) She also expresses her concern that an effort was made to review routine male circumcision at a special meeting at the hospital but [Dr B] did not appear to take on board the consensus of medical opinion.
- N. [Mrs A] has advised that she did have coagulation studies after injury to a toenail and these were normal. **My understanding of haemophilia is that a carrier of the disease may have an abnormal clotting profile due to an abnormally low level of Factor VIII**. She outlines her phone calls and her increasing anxiety prompting seeking further medical advice.
- O. This statement from [Dr B] outlines what should have been done given the circumstances, but clearly wasn't.
- P. This letter from [Ms E] Practice Nurse does not add any further information apart from the fact that [Dr B] commented that the bleeding was unusual.
- Q. Who was the Nurse at the time? it appears she was a reliever. Really of no consequence here.
- R. Same
- S. This confirms that there are no records of this process as recorded by [Dr B].
- T. Nil new



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- U. Nil new
- V. Letter to [Ms D] confirming definition of bleeding tendency.

W. Nil new

Comments

The new information surrounds the issue of the history of the bleeding disorder. It does appear that there have been a number of problems in this area. Firstly, a lack of communication between [Mrs and Mr A] about the existence of a problem, setting the stage for a failure to communicate the possibility to [Dr B]. Secondly, the firmly held belief by [Mrs A] that she had been investigated for a bleeding disorder and was found to be normal. Thirdly that her GP, Midwife and Obstetrician were all aware of the history of previous bleeding and did not believe there was a problem. Given this thinking set, if [Dr B] had specifically asked the question about personal history, it is unlikely that this would have altered the decision to proceed.

The area of persisting concern is the fact that

- 1. [Dr B] did recognize that this bleeding problem was outside the norm at an early stage of the operation
- 2. He was required to review the baby because of persisting bleeding on 2 further occasions, and at that stage should have enquired of family history
- 3. He failed to appreciate the seriousness of the situation at 0300
- 4. As such he placed the baby at serious risk."

# Code of Health and Disability Services Consumers' Rights

The following Rights in the Code of Health and Disability Services Consumers' Rights are applicable to this complaint:

#### RIGHT 4

*Right to Services of an Appropriate Standard* 

*1)* Every consumer has the right to have services provided with reasonable care and skill.

•••

4) Every consumer has the right to have services provided in a manner that minimises the potential harm to, and optimises the quality of life of, that consumer.

### RIGHT 6 Right to be Fully Informed

1) Every consumer has the right to the information that a reasonable consumer, in that consumer's circumstances, would expect to receive, including –

•••

b) An explanation of the options available, including an assessment of the expected risks, side effects, benefits, and costs of each option; ...

# **Opinion: Breach – Dr B**

#### Taking medical history

Mrs A alleged that prior to performing the circumcision Dr B did not obtain the family history of bleeding. My investigation showed that the risk of postoperative complications was discussed by the nurse at the pre-consultation meeting and by Dr B immediately before the procedure was performed. This information was also contained in the pamphlet given to Mr and Mrs A by the nurse. While it appears that Dr B asked about the family's health history, neither he nor the nurse specifically enquired about the family's history of bleeding.

Mrs A was not a patient of Dr B and, because she did not want her son to have the circumcision, remained in the waiting room during the procedure and during subsequent return visits to the surgery. On the third return visit she was brought in by her mother-inlaw at the end of the procedure to see what had been done, but had no direct communication with Dr B.

Records show that as a child Mrs A required a blood transfusion for a haemorrhage following a tonsillectomy and while at school bled a considerable amount when she had her toe nail removed. She was aware that she had a bleeding tendency and had been encouraged by her parents to make this known before undergoing surgery. Records also show that her history of bleeding was known to her husband, midwife, general practitioner and obstetrician. Her mother-in-law was not aware of it at the time of consultations with Dr B. This information was not volunteered to Dr B, but it was provided to hospital staff following Baby A's admission to the hospital. In my view, Mrs A should have, either directly or through her husband and mother-in-law, passed this important information to Dr B; at least when it was clear that Baby A was bleeding excessively.

I acknowledge my advisor's comments that even had Dr B enquired into the family bleeding history, given the lack of communication between Mr and Mrs A, Mrs A's belief that she did not have a bleeding disorder and the fact that the midwife, the general practitioner and the obstetrician were aware of Mrs A's history of bleeding but did not think there was a problem, it is unlikely to have been communicated to Dr B at least at the outset. Nevertheless, my advisor was of the opinion that Dr B should have enquired into the family



Names have been removed to protect privacy. Identifying letters are assigned in alphabetical order and bear no relationship to the person's actual name.

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history of bleeding and that this enquiry "should be done routinely". I found no evidence to suggest that Dr B made such an enquiry either before proceeding with the circumcision, during the procedure when the problem of bleeding became apparent or during subsequent return visits when attempts were made to stop the bleeding. My advisor stated that the realisation by Dr B from the outset "that the baby was bleeding excessively and that the bleeding disorder may be the explanation, should have prompted a discussion at that point about family history". It is of concern that this did not prompt Dr B to consider and enquire into the possibility of a family history of bleeding. Had Dr B considered this as a possibility, this may have prompted him to refer Baby A to hospital for blood tests and observation. Having failed to make such an enquiry, especially when it was apparent that the baby was bleeding excessively, Dr B breached Rights 4(1) and 4(4) of the Code.

### Referral to hospital

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Mrs A alleged that after the bleeding problem became apparent to Dr B he did not respond appropriately in not referring Baby A to hospital. Dr B noted that that there was prolonged bleeding from the local anaesthetic puncture sites and the operation site. The procedure took longer than expected because of the bleeding, and longer than normal application of pressure to the site was required to stop the bleeding. Dr B commented that in more than 40 years of performing circumcisions, he had never experienced such a problem.

I acknowledge that Dr B made considerable effort to treat Baby A and made himself available to the family by attending to Baby A on three occasions and by providing them with his after-hours telephone number. I accept that Dr B is a conscientious and experienced operator, and that his follow-up care would have been appropriate under normal circumstances. However, as my advisor pointed out, "these were not normal circumstances and there was a failure to appreciate the deviation from the normal path". This was apparent from the outset and as an experienced practitioner Dr B should have recognised this.

Having encountered persistent bleeding, Dr B should have acted much sooner by referring Baby A to hospital for investigation and treatment. While I acknowledge conflicting accounts of information exchanged between Dr B and the family at various stages in respect of Baby A's appearance, amount of blood loss and referral to hospital, I also note my advisor's comments that if the possibility of a bleeding disorder was noted, Baby A should have been referred immediately to the hospital for blood tests and observation. The necessity to see Baby A again twice and receipt of a call at 0300 hrs should have prompted urgent admission. Dr B did not refer Baby A to hospital in a timely manner.

As noted by my advisor, when contacted by Mr A at 3.00am, taking into account previous events, Dr B "should have reviewed the baby himself or arranged for him to be reviewed elsewhere". His failure to do so meant that his care was deficient. Having failed to appreciate the seriousness of the situation and the amount of blood Baby A had lost over the preceding 12 hours, Dr B placed Baby A's life at serious risk. Had Baby A not been brought to hospital, he could easily have died. By his failure to respond appropriately, Dr B breached Rights 4(1) and 4(4) of the Code.

# **Opinion: No breach – Dr B**

### Circumcision

Mrs A alleged that Dr B did not perform the circumcision procedure correctly. My advisor considered that the cause of Baby A's excessive bleeding could not be attributed to the way Dr B performed the procedure. Although some repair work was necessary following Baby A's admission to the hospital, it appears that the procedure was carried out correctly. My advisor noted that the prolonged bleeding necessitated further procedures, which were the main reason for the requirement for revision by the hospital's urologist; had Baby A not bled, the circumcision would have led to a satisfactory result. Accordingly, my finding is that Dr B did not breach the Code in this regard.

# **Other comments**

I draw Dr B's attention to the comments made by my advisor in respect of his record keeping and his brochure on circumcision.

# Information brochure

My advisor questioned the accuracy of some of the information contained in Dr B's brochure on circumcision. He stated that it was "deficient in its discussion of the risks and that those it does mention are minimised". This is particularly the case in relation to the risk of postoperative bleeding. The information in the brochure is "very biased in favour of routine male circumcision and is out of step with current thoughts on this matter". My advisor commented that the current medical consensus is not in favour of routine male circumcision, as evidenced by the policy statement on circumcision produced by the Paediatrics and Child Health Division of the Royal Australasian College of Physicians, supported by the Royal New Zealand College of General Practitioners. Contrary to the list of claimed health advantages with circumcision listed in Dr B's brochure, the College's policy statement states that there is no medical indication for routine male circumcision. My advisor considered that Dr B's information brochure "does not give a balanced view [on circumcision] to allow patients to decide".

The Code of Rights is based upon the central right of health care consumers to be properly informed in order to make informed choices. Informed consent involves a process that is embodied in three essential elements under the Code. These three elements are effective communication (Right 5), provision of all necessary information (Right 6), and the consumer's freely given and competent consent (Right 7).

Under Right 6(1)(b) of the Code "every consumer has the right to the information that a reasonable consumer, in that consumer's circumstances, would expect to receive, including an explanation of the options available, including an assessment of the expected risks, side effects, benefits, and costs of each option". What sort of information should be voluntarily disclosed about circumcision has not yet arisen as a specific issue in any investigation by the Commissioner. However, in my view the information contained in the College statement on



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circumcision should usually be provided to parents. Circumcision is a contentious and emotive issue, where persons hold widely differing views. Nevertheless, it is the responsibility of the providers concerned to ensure that the individual decision –whether to circumcise or not – is the parents' decision, to be made after they have been adequately informed. It is self-evident that information provided about circumcision should not be misleading or incorrect.

Accordingly, I draw Dr B's attention to the provider's obligation under Right 6(1)(b) of the Code and to the Royal Australasian College of Physicians policy statement on circumcision.

#### Record keeping

In relation to record keeping, my advisor expressed concern at the lack of detail about significant complications of the surgery and what information or advice was provided to the family at each consultation. There is no record of the telephone conversation with Mr A in the early hours of the morning of 18 October or of the advice given at that time. The advisor also expressed concern about Baby A's notes being erroneously entered into the records of another patient, subsequently deleted and retrospectively entered under Baby A's name. I have noted the absence of any notes taken by the nurse during the pre-consultation meeting with Mr and Mrs A and the advice. I therefore remind Dr B of the importance of good and accurate record keeping and ask him to draw the importance of this matter to the attention of his staff.

# Recommendation

• I recommend that Dr B review his practice in light of this report, in particular the information provided to parents who are contemplating circumcision of their sons, his referral criteria for patients with complications following a circumcision, and his record keeping.

# **Further actions**

- I have decided to refer this matter to the Director of Proceedings for the purpose of deciding whether any further action should be taken in accordance with section 45(f) of the Health and Disability Commissioner Act 1994.
- A copy of this opinion, with identifying features removed, will be sent to the Paediatric Society of New Zealand, the Royal New Zealand College of General Practitioners, and the New Zealand College of Midwives, and placed on the Health and Disability Commissioner website, <u>www.hdc.org.nz</u>, for educational purposes.

H)C

# Addendum

The Director of Proceedings considered this matter and decided not to issue proceedings before the Medical Practitioners Disciplinary Tribunal or the Human Rights Review Tribunal.



Names have been removed to protect privacy. Identifying letters are assigned in alphabetical order and bear no relationship to the person's actual name.

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#### Appendix A

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#### AFTERCARE

The parents are instructed that no dressing or special care is required, the baby can be changed and bathed as usual. There should be no 2.2 continuing pain (apart from discomfort when the penis is pressed) a red swollen or painful penis should be checked by a doctor for possible. infection (very rare) but painless swelling seen with a red flare around the ligature is quite normal. The plastibel should separate spontaneously in 3 - 5 days, rarely it gets caught on a ridge formed on the glans in which case if not separated in one week the operating doctor should be consulted; removal is usually simple using a gripping mosquito forcep (very rarely the plastibel requires splitting with podiatrists pliers).

#### CONCLUSION

Circumcision is a very safe surgical proceedure which, offers a number of medically proven health benefits. The only quoted medical complication of note is meatal stenosis which is superficial and very easily correctable. Suggestions that the unprotected glans chafes on clothing and is less sensitive to sexual stimulation are pure conjecture and are manifestly untrue in my experience. Studies undertaken on college undergraduates have revealed that in up to 70% of uncircumcised young males penile hygiene was madequate. 17.

Thomas E Wiswell in his Reappraisal of Neonatal Circumcision' comments that he endorses a lifelong commitment to careful penile hygiene to prevent serious problems but states that neonatal circumcision is a quick safe proceedure which in experienced hands has a low complication rate and has many benefits. Thus he has dropped his opposition and now applauds the overwhelming endorsement of the California Medical Association on March 8, 1988 of newborn circumcision as an effective health measure. Parents should be told the truth in this matter and certainly should not be discouraged from obtaining a circumcision for their child, for it is demonstrably a reasonable and health promoting option

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#### HISTORICAL

According to the Biblical record, circumcision was first undertaken 5,000 years ago as a sign of a covenant between the patriarch Abraham and the Creator God of the Universe. 1. Since then it has been widely practiced as either a religious or social custom by many nations.

As with many other regulations required of the Jews under Mosaic law it is only in the last century that medical science has discovered clear evidence of the wisdom which inspired these requirements and it is ironic that at a time in which many facts indicating the prophylactic value of circumcision have been discovered and published, the proceedure is still largely discouraged.

The medical lobby against circumcision has been largely led by paediatricians, who argue that there is minimal benefit in childhood from the proceedure so it is better to wait until a problem occurs rather than needlessly remove many completely normal foreskins. Certainly if morbidity in early childhood only, is considered, the benefits of circumcision are marginal, the advantages long term however are considerable and well documented, in this the case for circumcision paralells that of immunisation for in both proceedures there are possible short term complications (fortunately rare) but significant reductions in morbidity long term.

#### HEALTH ADVANTAGES

1. a 6 - 8x reduction in urinary tract infection

2. facilitation of penile hygiene (the foreskin is often not fully retractable up to the age of 17yrs). 9.2.7.

3. prophylaxis against transmission of STDs especially viral eg Herpes, HPV and HIV. (a 9.5x reduction in risk) 8.14.

4. prophylaxis against penile cancer .....

5. prophylaxis against cancer of the cervix. 3. 4. 5. 6. 12. 13.

6. prophylaxis against mechanical difficulties associated with erection. (phimosis and paraphimosis which can be very painful and the latter can be a surgical emergency).

Some doctors who were vocally anticircumcision have, after studying the evidence become so convinced of the value of the proceedure that they have recommended that it be promoted to parents.

If you or your doctor are skeptical about the weight of evidence a list of references is appended for your further study.

#### THE PROCEEDURE

While there are a number of methods commonly used I prefer and recommend the plastibel method. It can be safely employed up to the age of 8 or 9 years under local anaesthetic in the surgery and has the advantage of greatly minimizing the risk of post op. haemorrhage.

Local anaesthetic I believe to be essential to minimise the discomfort and post operative 'shock' and should be employed even in the youngest patient.<sub>15</sub>

Children above the age of five months are still able to be circumcised under local anaesthetic using the hypnosedative Hypnovel which is given by intramuscular injection and produces a compliant sedation within minutes which lasts up to two hours.

Local anaesthesia induced by confluent subouticlar blebs of plain Lignocaine at the base of the penis takes about 2 mins to spread and almost always results in some bruising and oedema but is very effective for every part of the proceedure except stretching of the foreskin.

The plastibel is a small bell shaped plastic device



which is firmly secured by a linen ligature under the foreskin before it is trimmed. In this way the risk of bleeding post op. is made virtually nil. The ring usually drops off spontaneously within 3 - 6 days the parents being advised that in the unlikely event of it failing to separate in one week they should bring the child back for review.

It is my practice to administer a small dose of paracetamol elixir immediately the proceedure has ended, as there is usually about 3,4 hours of discomfort after the local anaesthetic has worn off. (1.5ml of the 120mgm/5ml elixir is sufficient for the newborn).

Continuing pain beyond the first four hours is rare and should be checked by a doctor,

Following circumcision using this method, the baby can be bathed and handled normally. Dressings are unnecessary and the occasional gauze dressing at the base of the penis to cover oozing local anaesthetic puncture sites can be dispensed with at the first napkin change.

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# **Appendix B**

### POSITION STATEMENT ON CIRCUMCISION

This document has been developed at the instigation of the Division of Paediatrics and Child Health of the Royal Australasian College of Physicians (formerly the Australian College of Paediatrics) following critical analysis of the literature by a working party consisting of representatives of the Royal Australasian College of Physicians, Australasian Association of Paediatric Surgeons, New Zealand Society of Paediatric Surgeons, Urological Society of Australasia and the Royal Australasian College of Surgeons.

It represents an agreed position adopted by the following professional organisations:

- Division of Paediatrics and Child Health of the Royal Australasian College of Physicians Australasian Association of Paediatric Surgeons
- New Zealand Society of Paediatric Surgeons
- Urological Society of Australasia
- Royal Australasian College of Surgeons
- Paediatric Society of New Zealand

The purpose of this document is to assist parents who are considering having this procedure undertaken on their male children, and for doctors who are asked to advise on or undertake it.

#### Routine Circumcision Of Normal Male Infants And Boys - Summary Statement

The Division of Paediatrics and Child Health, Royal Australasian College of Physicians (RACP) has prepared this statement on routine circumcision of infants and boys assist parents who are considering having this procedure undertaken on their male children and for doctors who are asked to advise on or undertake it. After extensive review of the literature the RACP reaffirms that there is no medical indication for routine male circumcision.

Circumcision of males has been undertaken for religious and cultural reasons for many thousands of years. It remains an important ritual in some religious and cultural groups. In Australia and New Zealand, the circumcision rate has fallen considerably in recent years and it is estimated that currently only 10 percent of male infants are routinely circumcised. It is now generally performed with some form of local or general anaesthesia, and usually outside the neonatal period. The best recognised indication for circumcision is phimosis.

There have been increasing claims over recent years of health benefits from routine male circumcision. The most important other conditions where some benefit may result from circumcision are urinary tract infections, HIV and later cancer of the penis.

- Urinary tract infections in boys are uncommon, affecting at most 1 %-2%, and may be about 5 times less frequent in circumcised boys, whilst circumcision has a complication rate of 1% to 5%. Routine neonatal circumcision can not be supported as a public health measure on this basis.
- Whilst there is some evidence, particularly from sub-Saharan Africa, that male circumcision reduces the risk of acquisition of HIV, evidence is conflicting and clearly this can not be seen as an argument in favour of universal neonatal circumcision in countries with a low prevalence of HIV.
- Penile cancer is a rare disease with an incidence of around 1 per 100,000 in developed countries. Even though the evidence suggests neonatal circumcision may reduce the risk 10-fold, the rarity of the condition is such that universal circumcision is clearly not justified on these grounds.

The complication rate of neonatal circumcision is reported to be around 1% to 5% and includes local infection, bleeding and damage to the penis. Serious complications such as bleeding, septicaemia and meningitis may occasionally cause death.

The possibility that routine circumcision may contravene human rights has been raised because circumcision is performed on a minor and is without proven medical benefit. Whether these legal concerns are valid will be known only if the matter is determined in a court of law.

If the operation is to be performed, the medical attendant should ensure this is done by a competent operator, using appropriate anaesthesia and in a safe child-friendly environment.

In all cases where parents request a circumcision for their child the medical attendant is obliged to provide accurate information on the risks and benefits of the procedure. Up-to-date, unbiased written material summarising the evidence should be widely available to parents.

Review of the literature in relation to risks and benefits shows there is no evidence of benefit outweighing harm for circumcision as a routine procedure.

# 1. <u>Recent Literature and Policy Statements</u>

There is an extensive literature on circumcision in general, and male neonatal circumcision in particular. This includes a number of books<sup>1,2</sup> and recent reviews<sup>3</sup> including those by the Canadian Paediatric Society (CPS)4 and the American Academy of Pediatrics (MP)<sup>5,6</sup>.

The CPS recommended "Circumcision of newborns should not be routinely performed" (reaffirmed February 2001 : <u>(www.cps.ca/english/statements/FN</u>) and the MP concluded "we can not recommend a policy of routine newborn circumcision". <u>(www.aap.org/mrt/factscir.htm</u>).

Following the present review of the evidence, the RACP concurs with these statements and endorses the 1996 statement of the Australian College of Paediatrics



(now the Division of Paediatrics and Child Health of RACP) and Australasian Association of Paediatric Surgeons that "Neonatal male circumcision has no medical indication".

## 2. <u>History of Circumcision</u>

Circumcision of males has been undertaken for religious and cultural reasons for many thousands of years. It probably originated as a hygienic measure in communities living in hot, dusty and dry environments. It remains an important ritual in several religious and cultural groups.

Medicalisation of male circumcision seems to have occurred in the 19<sup>th</sup> century in English speaking countries. Being circumcised was a sign that the individual had been delivered by a doctor rather than by a midwife<sup>1</sup>. Over the years, circumcision has been seen as a cure or preventative measure for all manner of conditions including paralysis, insanity, epilepsy, tuberculosis, enuresis, masturbation and phimosis, through to the contemporary claims for prevention of urinary tract infections in boys, and penile cancer and sexually transmitted diseases in adult males.

During the last 50-100 years, routine neonatal male circumcision became widespread in many English speaking countries. Until the late 1960s or early 1970s, it was generally performed without any form of anaesthesia.

The rates of circumcision vary from country to country, being about 60% in the USA (with recent data suggesting falling rates, particularly amongst the growing Hispanic population), 30% in Ontario, Canada, 6% in the UK (rates fell when circumcision became unavailable on the NHS), and less than 2% in Scandinavia. Estimates for Australia range between 10%-20% (most of which are now performed under a general anaesthetic in boys older than six months), and for New Zealand somewhat less than that. The procedure is more common in Pacific Island communities where traditional circumcisers are often used.

# 3. Anatomy of the Foreskin

# 3.1 Background

The foreskin is a redundant fold of penile skin which overlaps the glans penis<sup>7</sup>. It first appears at eight weeks of fetal life and soon grows forwards over the glans penis. By 16 weeks it covers the glans. At this stage the epidermis of the undersurface of the foreskin is continuous with the epidermis covering the glans. Both consist of squamous epithelium. The foreskin (prepuce) and glans penis enclose a potential cleft, the preputial sac. A preputial space is then formed by a process of desquamation, and the prepuce increasingly separates from the glans<sup>8</sup>.

At the time of birth this process is incomplete in the vast majority of boys, and the foreskin is non-retractable. Complete separation of the foreskin with full retractability occurs in almost all boys by the time of puberty<sup>9</sup>.

# 3.2 Care of the foreskin

It is normal for the inner surface of the foreskin to be fused to the glans in newborn males. Separation of the foreskin from the glans occurs spontaneously during childhood. By five years of age most of boys are able to retract their foreskin<sup>9</sup>. A small percentage of boys are unable to fully retract their foreskin until puberty.

The foreskin requires no special care during infancy. It should be left alone<sup>10</sup>. Attempts to forcibly retract it are painful, often injure the foreskin, and can lead to scarring and phimosis.

Later in childhood, the foreskin can be gently retracted to the point where resistance is met and the distal portion of the penis and the urethral meatus become visible. The glans and the inner-surface of the foreskin can be cleaned along with the rest of the body once separation has occurred and the foreskin is fully retractable<sup>11</sup>.

By around the time of puberty, all uncircumcised boys should be able to retract their foreskin and clean underneath it in the bath or shower. It is important that they always return the foreskin to its original position after they have finished. If the foreskin is left retracted behind the glans, it may swell up and become painful (paraphimosis).

As the foreskin separates from the glans, dead skin cells will collect between the two layers. These dead cells appear as white crumbly or cheesy material and have been termed smegma. Smegma may produce a noticeable (and often asymmetrical) swelling beneath the foreskin. This material rarely causes problems and usually discharges spontaneously. Accumulation of smegma assists the normal process of separation of the inner surface of the foreskin to the glans of the penis in the young boy. Infection of smegma as it is released may cause inflammation.

Although there is evidence that boys who are uncircumcised have a higher incidence of urinary tract infections, there is no evidence that the increased incidence of infection is due to poor hygiene.

# 4. Medical Indications for Circumcision

# 4.1 Phimosis

Pathological phimosis, which needs to be distinguished from the normal non-retractile foreskin of early childhood<sup>12</sup>, is an indication for circumcision<sup>13,14</sup>. The condition occurs in at least 1% of boys<sup>15,16</sup>, is rare in the first five years of life and may be due to secondary cicatrisation of the foreskin due to balanitis xerotica obliterans (BXO)<sup>17,18</sup>. Topical application of steroid ointment may resolve phimosis in the majority of boys<sup>19,20</sup> except in those with BXO where steroids are rarely successful.



Names have been removed to protect privacy. Identifying letters are assigned in alphabetical order and bear no relationship to the person's actual name.

Physiological phimosis (normal narrowing of the foreskin that may make visualisation of the glans difficult during infancy) will normally resolve by the age of three to four years and requires no treatment If pathological (ie non-physiological) phimosis fails to respond to steroid cream/ointment applied to the tight part of the foreskin two to four times a day for two to six weeks, there is a reasonable probability that it will cause problems in the future and the child may well benefIt from circumcision. In a proportion of boys the phimosis redevelops after cessation of applications of steroid treatment

## 4.2 Recurrent balanoposthitis

Recurrent balanoposthitis is a relative indication for circumcision. The condition needs to be distinguished from the more benign ammoniacal dermatitis<sup>13</sup>. Balanoposthitis affects 3%-4% of boys, and is recurrent in about 1% of boys<sup>21</sup>. Balanoposthitis and balanitis may also occur in adults. Diabetes may be a risk factor<sup>22</sup>.

## 4.3 Paraphimosis

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Recurrent paraphimosis is extremely rare and may represent a relative indication for circumcision. In children, the condition is usually secondary to forceful retraction of the foreskin and is associated with a minor degree of phimosis. In adults, paraphimosis typically occurs in the elderly. Men requiring frequent bladder catheterisation are particularly at risk<sup>23</sup>. Treatment in children involves manipulation of the foreskin forwards over the glans, and requires some form of analgesia (general or local). In a minority of children, after reduction of paraphimosis circumcision may be required, if topical application of a steroid preparation fails to resolve the underlying phimosis, or if paraphimosis recurs.

# 5. <u>The Role of Circumcision In Preventing Other Conditions</u>

### **5.1 Urinary tract infections (UTIs)**

The cumulative incidence of UTI in boys by the age of about 10 is  $1-2\%^{24,25}$ . Ginsburg and McCracken<sup>26</sup> first reported a higher incidence of UTIs in uncircumcised boys. This is biologically plausible because uropathogens have been shown to bind to the foreskin and then gain access to the renal tract via the ascending route: removal of the foreskin would abolish this mechanism. Other factors may be important in determining the prevalent organisms. For example, rooming in with mother may favour colonisation with non- pathogenic bacteria<sup>4,27</sup>, and breast feeding has been associated with lower rates of UTI than bottle feeding in one brief report<sup>28</sup>.

There have now been ten case control and cohort studies published, which have evaluated the association between circumcision and UTIs<sup>24,29-37</sup>, but no randomised controlled trials have been done. All have demonstrated a statistically significant reduction in risk of UTI in circumcised males compared with uncircumcised males,



with most data concerning the risk of UTI during infancy. The magnitude of the reported protective effect varies from a three-fold reduction to a twelve-fold reduction in risk of UTI due to circumcision. These data may be used to assess possible benefits and harm from neonatal circumcision. Assuming an annual incidence of UTI of 1% during the first year of life for uncircumcised boys, the risk of UTI may be reduced from 10 per 1,000 to 1-3 per 1000, a difference of 7-9 per 1,000, or a need to circumcise between 110 to 140 boys to prevent one UTI during the first year of life.

On the other side of the equation, taking a mid-range figure of 2% (20 per 1,000) for major complications from circumcision, mainly from haemorrhage and infection (see earlier section), for every 1,000 infants circumcised, about eight fewer will develop a UTI but 20 will develop a significant complication. Assuming that the "harm" of a UTI is about the same as a complication, routine circumcision is difficult to advocate as a public health measure.

Other figures can be used to come to a different conclusion but even then many parents and caregivers would believe this should not be the only consideration<sup>38</sup>.

The benefit-harm trade-off is also sensitive to the baseline risk of UTI. Assuming the same protective benefits of circumcision for the prevention of UTI extends to boys at higher risk of UTI, such as those with underlying renal tract abnormalities, then is it likely that a small group of boys, who continue to have symptomatic recurrent UTI despite conventional clinical care such as chemoprophylaxis, will benefit from circumcision. The risk of UTI in these boys is not 1% as it is in the general population, but closer to  $30\%^{39,40}$  so that only 4-5 boys would need to be circumcised to prevent UTI, or 200-270 UTIs prevented for every 1000 circumcisions with about 20 complications.

In summary, routine circumcision in boys cannot be justified on the basis of preventing a UTI. On the other hand, there may be a role for circumcision in boys with recurrent symptomatic UTI and/or underlying renal tract abnormalities.

# 5.2 Sexually transmitted diseases (STDs)

The published evidence concerning the relationship between circumcision and STD is often conflicting<sup>41</sup>. An Australian study from 1983<sup>42</sup> suggested herpes genitalis, candidiasis, gonorrhoea and syphilis were all more common in uncircumcised men. A more recent Australian study<sup>43</sup>, however, suggested that circumcision has no significant effect on the incidence of common STDs. One study has suggested a higher risk of non-gonococcal, urethrrtis among circumcised men than among uncircumcised men<sup>44</sup>. Genital ulcer disease, on the other hand, has been reported as being more common among uncircumcised men, and those with a genital ulcer are more likely to contract HIV.

There is increasing evidence, particularly from sub-Saharan Africa, which suggests an increased risk of female to male transmission of HIV in uncircumcised men<sup>45-48</sup>.



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However, how much circumcision could contribute to ameliorate the current epidemic of HIV is uncertain<sup>49</sup>. Whatever the future direction of this debate it can not be seen as an argument in favour of universal neonatal circumcision in countries with a low prevalence of HIV.

### 5.3 Human papilloma virus and carcinoma of the cervix

A recent international study reported an increased risk of human papilloma virus (HPV) infection in uncircumcised men who indulged in high-risk behaviours, compared with circumcised men<sup>50</sup>. Monogamous women whose male partners had six or more sexual partners and were circumcised had a lower risk of cervical cancer than women whose partners were uncircumcised. Public health measures aimed at early detection have been shown to decrease cervical cancer fatalities; targeting sexually promiscuous men to decrease risk taking and increase condom use may inhibit sexual transmission of HPV and prophylactic vaccination against HPV is being developed. At present there are no data to suggest advocating neonatal circumcision would be of additional benefit to these strategies<sup>51</sup>.

## 5.4 Carcinoma of the penis

Carcinoma of the penis is a rare condition, with an annual incidence of approximately 1:100,000 men in developed countries, regardless of whether there is a high or a low circumcision rate<sup>4,5</sup>. There is evidence that neonatal circumcision confers protection from carcinoma of the glans penis but not of the penis shaft<sup>52-56</sup>. Even though the evidence suggests neonatal circumcision does reduce the risk of carcinoma 10-fold, universal circumcision is clearly not justified on these grounds<sup>46</sup>.

Other risk factors for penile cancer include phimosis (which is limited to uncircumcised men), genital warts, increased number of sexual partners and cigarette smoking<sup>57,58</sup>. It has been hypothesised that good penile hygiene may help prevent both phimosis and penile cancer<sup>59</sup>.

### 6. <u>Complications of circumcision</u>

Apart from pain and distress, and the side effects of local anaesthesia, there have been many complications of circumcision reported<sup>5,60,61</sup>. Most complications are minor, but some can be more severe, such as penile amputation and even death. The overall reported rate of complications after circumcision varies between 0.06%<sup>62</sup> to 55%<sup>63</sup> depending on the situation in which it is performed and the precise definition of complication. Most series describe a complication rate of about 2%-10%<sup>64-66</sup>. A detailed summary of complications has been provided by Williams and Kapila<sup>61</sup>, and includes the following:

- Haemorrhage
- Infection
- Glanular ulceration
- Meatal stenosis



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- Inadvertent injury of the urethra (fistula)
- Too much skin removed
- Anaesthetic complications
- Psychological trauma
- Secondary phimosis
- Secondary chordee

The true incidence of **major** complications after newborn circumcision is unknown but is reported to be from between 0.2% and  $0.6\%^5$  to  $2\%-10\%^{61}$ . The most frequent acute problem is haemorrhage, and may indicate an underlying vitamin K deficiency or haemophilia. Infection is usually minor, but rarely septicaemia and meningitis may occur. Longer term complications include meatal stenosis, cutaneous tags, poor cosmetic appearance, and psychological trauma. Children with prominent prepubic fat may have a concealed penis following surgery which tends to resolve at puberty.

# 6.1 Absolute contra indications to neonatal circumcision

Contraindications to routine neonatal circumcision include:

- Hypospadias and other congenital anomalies of the penis, eg epispadias
- Chordee (ventral angulation of the penis)
- Buried penis
- Sick and unstable infants
- Family history of a bleeding disorder or an actual bleeding disorder
- Inadequate expertise and facilities.

# 7. Legal and Bioethical Issues

The legal and bioethical issues surrounding male neonatal circumcision have been discussed in recent legal journal reviews<sup>60,67</sup>. Parents have the right, indeed duty, to make informed medical decisions on behalf of their children. It is equally established in law that parents may not make decisions about their child's medical care when such a decision is not in the child's best interests. Many legal precedents exist to establish that Courts will deny parents the right to refuse medically indicated procedures required by their child that are contrary to their religious beliefs.

The difficulty with a procedure which is not medically indicated is whether it may still be in the child's "best interests" (that is, in the case of circumcision, decreasing the risk of UTI and penile cancer, and ensuring acceptance with a religio-cultural group) on the one hand<sup>60</sup> or whether it may constitute an assault upon the child and be a violation of human rights on the other<sup>67</sup>. Arguments to justify the "best interests" case are based upon data to suggest a decreased risk of medical conditions later in life, none of which, with the possible exception of UTIs in boys, requires a decision in the neonatal period, and this could be seen to be an argument to defer a decision until the individual can express his own preferences. Generally the courts



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have avoided jurisdiction in this area<sup>60</sup>. However, there has been a 1999 UK case where separated parents disagreed on the question of circumcision with the court finding circumcision not to meet the "paramountcy of welfare" standard and not be in the best interests of the child<sup>60</sup>. One issue, which is agreed, is that before parents make a decision about circumcision they should have access to unbiased and clear information on the medical risks and benefits of the procedure. Whether this has always been the case in the past is uncertain, and many parents make such a decision on cultural and religious grounds alone<sup>68</sup>.

## 8. <u>Analgesia</u>

Until recent times a majority of neonatal circumcisions were performed without analgesia. Stated justifications for not using analgesia include a belief that circumcision causes minimal pain, that rapid expert circumcision causes less pain than that engendered by local anaesthetic procedures and that newborns have no memory of pain. There are good experimental data to refute the first two of these contentions and, even though the third suggestion can not be considered a sufficient reason to withhold analgesia, there is an emerging body of evidence to show that painful neonatal experiences do have long term consequences, even if not rooted in conscious memory<sup>69</sup>. Taddio reported that circumcised boys had higher pain and cry scores during routine immunisation at 4-6 months of age than uncircumcised boys<sup>70</sup> and scores were again higher if circumcision was unaccompanied by analgesia compared with those receiving topical anaesthesia<sup>71</sup>.

Newborn infants subjected to a variety of noxious stimuli have hormonal, physiological and behavioural responses<sup>72</sup>. There have been **two recent consensus statements on the prevention and management of pain in the newborn**<sup>73,74</sup> which should be used to guide the clinical approach to analgesia for circumcision *if* such an operation should be deemed necessary. Both statements emphasise that compared with older age groups newborns may experience a greater sensitivity to pain, such pain may have long term consequences, and a lack of behavioural response (for example lack of crying) does not necessarily indicate alack of pain.

Whilst general anaesthesia will often be used for circumcision beyond the neonatal period it has rarely been considered as an option for newborn circumcision. Local or regional anaesthesia for newborn circumcision has been provided by local application of a eutectic mixture of local anaesthetics (EMLA cream), dorsal penile nerve block (DPNB), penile ring block (PRB) and caudal epidural block.

Recent trials have demonstrated that combined analgesia and local anaesthesia (for example, pre- and post-operative paracetamol, EMLA cream to the abdomen and foreskin, oral sucrose, and DPNB or PRB<sup>75</sup>), are more effective than either alone<sup>74,76,77</sup>. In Australia, most circumcisions are undertaken in boys older than six months under a general anaesthetic, with local anaesthetic often being administered during the general anaesthetic.

# 9. <u>Technique of Circumcision</u>

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When a circumcision is performed in an older child it is usually performed under general anaesthesia and regional  $block^{78}$ .

There are numerous descriptions of circumcision but in most, the following steps are undertaken<sup>78</sup>.

- 1. Any residual adhesions between the inner surface of the foreskin and the glans are separated until the coronal groove is fully exposed circumferentially .Any smegma is removed.
- 2. The foreskin is returned to its normal position and a dorsal slit is made, stopping short of the coronal groove.
- 3. A similar manoeuvre is performed on the ventral surface as far as the frenulum.
- 4. The foreskin is excised around each side leaving a rim of inner surface adjacent to the coronal groove.
- 5. The edges of the foreskin are retracted to enable haemostasis. Usually the vessels are ligated with absorbable suture, or diathermied.
- 6. The edges of the foreskin are sutured around the circumference with interrupted absorbable sutures.
- 7. No circumferential dressing is applied, because of the risk of making the glans ischaemic if swelling occurs.

Potential intraoperative problems include:

- 1. Removal of excessive skin
- 2. Removal of inadequate skin
- 3. Haemorrhage
- 4. Injury to the urethra

Early postoperative complications include bleeding, infection and glanular ulceration.



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# **Appendix**

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Names have been removed to protect privacy. Identifying letters are assigned in alphabetical order and bear no relationship to the person's actual name.

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