

Ms Wendy Beggs
Assistant Chief Legal Adviser
Directorate of Legal Services
2 Franklin Street
BELFAST
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Your Ref: NSCB04/1
NSCW50/1
NSCS071/1

Our Ref: AD-0196-10

Date: 6th December 2010

Dear Ms Beggs,

Re Investigation into the death of Adam Strain

I refer to the above.

I would be grateful if you would provide me with a copy of the "*Protocols for monitoring, anaesthetic set-up and drug administration*" to which Dr Fiona Gibson refers in her report (reference 011-005-017), a copy of which is attached for your ease of reference.

In addition, please forward me a copy of a handout entitled "*Anaesthetic Record Set – Suggestions as to reasonable content*", referred to in an attachment to Dr Joe Gaston's witness statement to the Inquiry dated 15th July 2005. A copy of that attachment is enclosed.

I am obliged for your assistance.

Yours sincerely,



Anne Dillon
Solicitor to the Inquiry

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To Whom it may concern

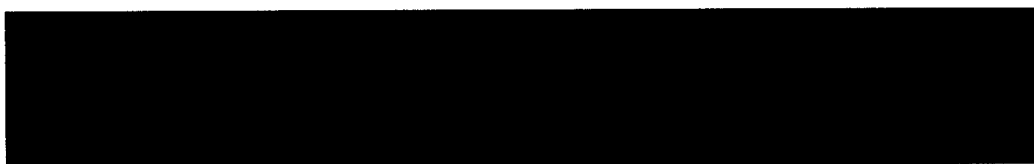
I visited the operating theatre suite of the Childrens Hospital on 02/12/95 at the request of Drs G Mumaghan and J Gaston to discuss with Dr R Taylor three patients whose post-mortem examinations had been brought to the attention of the Coroner.

I was accompanied by Mr J Wilson and Mr B McLaughlin Senior Medical Technical Officers on the site who carried out checks into the ventilators and other equipment in the theatre.

The technical checks demonstrated a high degree of vigilance in this area, found nothing at fault in relation to the cases in question but identified a problem relating to pin indexing which the whole hospital will now address.

The three cases in question were all very complex in different aspects

Case 1



Case 2



Case 3

A four year old child with polyuric renal failure was brought to theatre for renal transplant and a very carefully thought out and well monitored anaesthetic was delivered with great care to fluid management – in a child whose normal urine output was 100mls per hour. This child was well known to the anaesthetist as he had anaesthetised the youngster very many times in its short life. Full records of all monitored parameters are available on this case and show that no untoward episode took place and that a very stable anaesthetic was given. At the end of the operation the child was found to have fixed and dilated pupils and a C.T. scan showed it to have gross cerebral oedema.

Although all these cases were tragic in their consequences and outcome, all three were cases of significant complexity with a substantial increased risk of morbidity and mortality. All cases were performed in the same operating room – that being the room used in the suite for all major surgical procedures. Each case was performed by a different surgeon and each anaesthetic conducted by a different anaesthetist – all of Consultant standing. All the cases were extensively monitored, including the use of pulse oximetry.

The Protocols for monitoring, anaesthetic set-up and drug administration in this area are among the best on the Royal Hospitals site and I can see no reason to link these very sad cases into any pattern.

Signed

A handwritten signature in cursive script, appearing to read 'Fiona Gibson'.

Fiona Gibson MD FFARCSI
Consultant Anaesthetist

CONFIDENTIAL

ROYAL GROUP HOSPITALS

ANAESTHETICS DIRECTORATE CLINICAL AUDIT MEETING

Date: 10 December 1996

Venue: Lecture Theatre 2 School of Radiography

Attendance: See Register

Morbidity & Mortality

Two cases were presented: Atypical Ventricular Fibrillation
Airway obstruction in a child

Education

Sevoflurane Update was presented.

Audit

Topic: *Anaesthetic Record Keeping*

Two problems were identified - Inadequate Records and no records at all.
The two obvious reasons for good record keeping are medicolegal and Clinical.
Common areas of inadequate information were found to be in:

- Pre-op assessment
- Difficult intubation
- Drug and Fluid administration
- Untoward Events

Taking one of the above areas ie Difficult intubation, the presenter showed how improvements could be made
eg. *Why was intubation difficult*

How difficult was it

How was the patient intubated

Other information - was airway easy to maintain

was saturation maintained

any cuts to lips - was everything okay when completed

were there any special precautions when extubating the patient.

A handout titled *Anaesthetic Record Set - Suggestions as to a reasonable content* was given to everyone present. This document had been jointly produced by the Association of Anaesthetists of Great Britain & Ireland and the Society for Computing & Technology in Anaesthesia.

The Anaesthetic Chart Review which is ongoing will tie into this and will be discussed further at a later date.

Topic: *Review of Acute Pain Service*

The Acute Pain Service in the main hospital of the Royal Hospitals oversees the use of patient-controlled analgesia (PCA) for some 1,500 patients per year. This audit relates to 2,300 patients seen by the Pain Control Nurse between April 1995 and September 1996. Morphine was administered in 99% of cases, with an initial PCA dose of 1mg for 97.5% of patients. Only 0.5% of these patients required a subsequent increase in the PCA dose to 1.5mg

1. 24hr consumption of morphine was less than 50mg for over 50% of patients and between 51 and 100mg for approx. 30% during the first 2 days of PCA and thereafter tended to decrease. Eight percent of patients consumed more than 100mg in 214 hrs. Possible reasons for this included major complex surgery, chronic opioid intake preoperatively and a history of drug dependence or misuse.

Regardless of surgical speciality 40-60% of all patients required PCA for 2-3 days, and only 1% of patients continued with PCA for 8-18 days. Early discontinuation of PCA was recorded for 19% of all patients but was as high as 42% for those patients who had had spinal surgery. The indications for early cessation of PCA in the latter group were: - no need for potent analgesia (25%), nausea (20%), vomiting (13%), inadequate patient use of PCA (15%) and inadequate analgesia, despite satisfactory use of PCA (14%).

The overall incidence of postoperative nausea/vomiting for patients on pCA was 16% on day 1 and 8% by day 2. Other complications which occurred within the first 48hrs of PCA use included pruritis (3%), urinary retention (2%) and hallucinations (1%). These complications were associated with a relatively high mean 24hr consumption of morphine. The incidence of CNS depression, sedation or bradypnoea was less than 1%. Of note 4/14 patients had bradypnoea were significantly sedated and only 4/16 oversedated patients had bradypnoea.

Over 90% of general surgical patients had satisfactory analgesia at rest during the first 3 postoperative days. However, pain relief on movement was inadequate for 70% of patients on day 1 and over 30% of patients on day 2.

Epidural analgesia was employed for 122 patients between January 1996 and November 1996. The average duration of its use was 2-3 days. The mean infusion rate of fentanyl (5mcg/ml) and bupivacaine 0.1% was 6ml/hr for both lumbar and low thoracic epidurals. Hip flexion was preserved in 63% of patients and only 1 patient was restricted to ankle flexion during the first 24 hrs postoperatively. On day one pain scores were satisfactory for 90% of patients at rest and 66% of patients on movement. The incidence of nausea or vomiting was 20%. Only 3 patients with lumbar epidurals became hypotensive during the first 24 hrs, the upper level of sensory block being T7-T12. Respiratory depression occurred in 2 patients, but only 1 patient required intravenous naloxone. One patient developed hallucinations. There were no major complications of epidural analgesia.

Comments:

The use of both PCA and epidural analgesia are well established methods of postoperative analgesia for adult patients in the Royal Hospitals, the latter technique providing superior analgesia on movement. There is a low incidence of respiratory depression with either method of analgesia and no other major complications of epidural analgesia have occurred. Nausea and vomiting are the most common undesirable complications associated with these perioperative analgesic techniques.