Regulation & Quality Improvement Authority

Review of the Lessons Arising from the Death of Mrs Janine Murtagh

October 2005 **Quality Improvement Review**

Preface

This report presents the findings of an independent review following the tragic death of Mrs Janine Murtagh.

The remit was

> "*to consider the report submitted by HM Coroner Mr John Leckey LLM to the Minister for Health, Social Services and Public Safety;*
> *to consider the report submitted by the Royal group of hospitals;*
> *to review the wider issues involved; and*
> *to make recommendations to the Department of Health and Social Services as to the good practice that needs to be disseminated to all Health and Social Care Trusts in Northern Ireland."*

Recommendations are made in this report in the sincere hope that lessons are learned from this sad and unnecessary loss of life and that these lessons are used in the development of good practice throughout the healthcare services so that the risk of reoccurrence is minimized throughout the service.

The Regulation and Quality Improvement Authority (RQIA) will monitor progress made by the Royal Group of Hospitals Trust in implementing the proposed action plan for improving services. The RQIA will work in collaboration with other organisations throughout all sectors that provide healthcare in Northern Ireland to ensure that the lessons are applied throughout the service.

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1. Introduction

1.1 Following an inquest into the death of Mrs Janine Murtagh, the Coroner for greater Belfast wrote to the Minister for Health, Social Services and Public Safety and outlined issues which had caused him concern. (Appendix A) [d1]The Minister, Angela Smith, requested that the issues would be reviewed so that lessons could be learnt and repetition of the circumstances, which led to the death, could be avoided. An independent review to be undertaken by the Regulation and Quality Improvement Authority was requested. The findings of the review are presented in this report.

1.2 The Regulation and Quality Improvement Authority operates within the legislation of the HPSS Quality Improvement and Regulation Order (Northern Ireland) 2003 (Appendix D). It is an independent, non-Departmental public body that has responsibility for monitoring, inspecting and reviewing standards of health and social care across all sectors and keeping the Department of Health, Social Services and Public Safety (DHSSPS) informed on those standards.

1.3 The HPSS Quality Improvement and Regulation Order (Northern Ireland) 2003 also places a statutory duty of quality upon HSS organisations. The Department of Health and Social Services & Public Safety (DHSS&PS) determines the development of standards for care and for clinical and social care governance, and requires the Regulation and Quality Improvement Authority to encourage continuous improvement in quality of care and services throughout all sectors of Health and Personal Social Services (HPSS) in Northern Ireland.

1.4 Clinical governance is described as a framework within which HPSS organisations can demonstrate their accountability for continuous improvement in the quality of services and for safeguarding high standards of care and treatment.

1.5 The events which are the subject of this review happened before the enactment of the legislation on quality improvement and commencement of the Regulation and Quality Improvement Authority. The review team has examined the issues as determined by the terms of reference and made recommendations for ensuring that the learning is applied throughout the HPSS in Northern Ireland.

2. Background

2.1 On 6 October 2002 Mrs Janine Murtagh, a woman of 31 years, was admitted to the Royal Jubilee Maternity Hospital (RJMH), Belfast for a routine laparoscopic examination under anaesthetic on 7 October 2002. Complications arising from the procedure resulted in peritonitis. Mrs Murtagh was transferred to the Royal Victoria Hospital (RVH) on the evening of 8 October 2002, for emergency abdominal surgery, and from there to its intensive care unit where she remained until her death on 18 November 2002.

2.2 An inquest was held and the Coroner for greater Belfast reported the circumstances of the death to the Minister, outlined the points which caused concern and suggested an independent review of the issues to minimise the likelihood of any reoccurrence.

3. The Review

3.1 The DHSSPS requested that the Regulation and Quality Improvement Authority consider the reports submitted by the Coroner and the Royal Hospitals Trust (the Trust) in order,

> *'to review the lessons to be learned within the wider context; and to make recommendations as to how these lessons can be used in the development of good practice throughout the health and social care services.'*

3.2 The Regulation and Quality Improvement Authority agreed a process for the review that would take account of the views of the family of Mrs Murtagh, the documentary evidence, good practice guidelines and external expert opinion recruited from outside Northern Ireland.

3.3 The first step to the development of the review was a meeting between the members of the review team and the family of Mrs Murtagh. The family expressed concerns following the inquest and outlined the further actions which they, as next of kin, would pursue. The review team members outlined the purpose of the review i.e. to focus on the lessons to be applied, the process of securing independent experts, expected time frames and a commitment to meet with the family on completion of the review. This was understood and accepted by the family.

3.4 The membership of the review team was completed with a senior surgeon, a director of nursing and a senior nurse with extensive theatre management experience, all recruited from England. The membership is detailed on Page 19.

3.5 Discussions on how the review would be carried out led to agreement on the need to examine the following documents:

- the evidence from the inquest
- the Coroner's report
- the letter and tabulated response which had been provided to DHSSPS by the Trust

3.6 The review team also examined good practice guidelines on clinical and management practices from standard texts, peer-reviewed journals and guidance sources; e.g. NCEPOD (National Confidential Enquiry into Patient Outcome and Death, 2005).

4. Consideration of the report submitted by the Trust

4.1 Consideration of the letter and tabulated response which had been provided to DHSS&PS in February 2005 by the Trust, led to a unanimous view that the Trust's documentation, was not sufficiently robust in its detail to allow the review team to identify the adequacy of the response or the wider lessons to be shared.

4.2 The review team requested the Trust to provide full and detailed documentation including the report of an internal Root Cause Analysis (RCA) investigation of this critical incident that was carried out in April 2004. Details of subsequent actions taken were also requested. The comprehensive information that was provided by the Trust was helpful to the review, and it is upon the full documentary evidence (Appendix E) that the findings and recommendations of this review are based.

5. The findings

5.1 Mrs Murtagh was admitted to the Royal Jubilee Maternity Hospital (RJMH) on Sunday 6 October 2002 and was transferred by ambulance to Royal Victoria Hospital for urgent surgery at 11.20 pm on Tuesday 8 October 2002. The review team found it helpful to separate this critical period of Mrs Murtagh's hospitalisation into three distinct phases within which different actions could have led to a different outcome:

- Phase 1
  Admission to the ward on Sunday 6 October until return from theatre at 3.45pm on Monday 7 October
- Phase 2
  3.45 pm on Monday 7 October to approximately 5pm on Tuesday 8 October when serious signs of deterioration were acknowledged.
- Phase 3
  Around 5pm Tuesday 8 October until transfer to RVH at 11pm.

Phase 1.

5.2 During this period Mrs Murtagh was admitted to hospital, met with the consultant and gave consent to a laparoscopic procedure. This should have been a relatively minor procedure followed by a straightforward period of time in hospital. However, the procedure that was carried out was almost certainly more complex than was anticipated by either Mrs Murtagh or the surgeon.

Comments by the review team:

5.3 Consent was obtained for an operative laparoscopy. In his evidence to the Coroner Mrs Murtagh's husband, who was present when consent was obtained, reported that the interview was brief and there was no discussion about possible complications. The review noted that clinical records did not fully display that clear information on complications or risks associated with this procedure had been given to Mrs Murtagh to enable valid informed consent to be obtained.

Phase 2

5.4 During the next few hours the condition of Mrs Murtagh appeared to be generally satisfactory although there is sparse evidence of physiological observations having been taken or recorded. From 9 pm Mrs Murtagh's condition may have begun to deteriorate as she had pain and a raised temperature. Whilst the signs and symptoms may have been indicative of emerging clinical complications it is also possible that it was a response to the surgery. The consultant saw Mrs Murtagh at 8.30 on the morning of Tuesday 8 October 2002 and recorded that a further night in hospital was required. During this period a variety of clinical and physiological observations were taken. Some were recorded, others were either poorly recorded, or not at all.

Comments by the review team

5.5 The review team views the response by medical and nursing staff, to a patient having undergone a surgical procedure that had presented with some difficulty, as inadequate. It is felt that if the surgeons carrying out the laparoscopy had given clearer instructions on the post-operative care following the unexpected findings at the time of surgery, then the nursing staff may have been more vigilant in their observations. The risk of Mrs Murtagh developing post-operative complications was not recorded in either the post-operative medical notes or the nursing care plans. Systematic recording of clinical and physiological measurements and observations was not carried out. These observations and recordings would have been appropriate, given the risk posed by the procedure, the subsequent rise in body temperature and persistent pain. At 1.00 pm on Tuesday 8 October 2002, it was recorded that regular physiological observations were discontinued. While it is within the competence of a nurse to make such a decision it is unclear on what basis it was made at this time. The inconsistency of general observations compounds the absence of measured physiological observations which should have been the basis upon which the health care team would make an informed assessment of Mrs Murtagh's clinical state. As a consequence Mrs Murtagh's deteriorating condition was not heeded by clinical staff. The evidence from the clinical records did not provide systematic or adequate information on which to assess the condition of Mrs Murtagh. The review team regard the standard of record keeping as an inadequate basis for clinical care.

Phase 3

5.6 When it was realised that there was deterioration in Mrs Murtagh's condition she was seen by senior members of the gynaecological and on-call surgical teams and fluid resuscitation was commenced immediately. Thereafter, a differential diagnosis was agreed and a decision made that an urgent laparotomy should be carried out in the RVH where there was greater capacity for providing a higher level of care for the critically ill patient.

Comments by the review team

5.7 It was appropriate that the ambulance transfer to the RVH was delayed until Mrs Murtagh's condition was stabilised. Fluid resuscitation had been started but does not appear to have been adequate to stabilise Mrs Murtagh's physical condition. There was no evidence from the clinical notes that the administration of intravenous fluids was checked to ensure that it was having the desired effect. Documentary evidence has led the review team to the conclusion that the lack of adequate resuscitation resulted in Mrs Murtagh becoming weak and in a collapsed state. It is the view of the review team that this seriously collapsed state caused the ultimate delay in operating on Mrs Murtagh.

5.8 Evidence presented to the Coroner indicated that the main concern of the clinical team had focused on the arrangements for a pre-operative bed and the availability of an emergency operating theatre. The review finds that the level of attention to the resuscitation and reassessment of Mrs Murtagh were crucial issues. Had these issues been given greater attention, actions would have been taken that could have changed the outcome.

5.9 The absence of explicit guidance on roles and responsibilities contributed to confusion of ownership and leadership of the care of Mrs Murtagh. This allowed vital time to pass without the vigorous actions which were essential to stabilise Mrs Murtagh's physical condition prior to transfer. The review team regard the clinical management of Mrs Murtagh as the predominant issue which therefore was of greater significance than the protocol or policy for use of emergency theatre or bed finding.

6. Key Findings

6.1 The findings illustrate that in each of these three time phases there were opportunities for medical and nursing staff to take actions that could have led to a different outcome. Substantial causes for concern are raised from which lessons must be learnt so that the risk of recurrence is minimised. The Coroner's judgement, the Root Cause Analysis investigation and the findings of this review have a significant degree of consistency in substance, with some variation in emphasis.

6.2 In order to identify the lessons that must be learned from this critical incident and to make recommendations for the wider health services in Northern Ireland, the review has identified three important key areas into which these causes for concern can be grouped:

- Patient care
- Leadership and communication
- Protocols and procedures

6.3 For ease of reference the thirteen concerns raised by the Coroner (Appendix A) are clustered into these key areas as shown in Table 1:

Table 1

Key Area	Patient Care	Leadership/ Communication	Protocols and Procedures
Issue number *	(3) (4) (5) (6)	(1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12)	(1) (2) (3) (7) (8) (9) (10) (11) (12) (13)

Table 1: Clustered key areas of Coroner's concerns.

***** The numbers relate to the concerns listed by the Coroner in Appendix A

6.4 **Patient Care**

6.4.1 The family portray a picture of Mrs Murtagh as someone who looked unwell, and who was not improving after her operation. In their evidence they reported that they drew attention of nursing staff to the deteriorating condition of Mrs Murtagh. The evidence suggests that nursing and medical staff were not sensitive to a patient whose physical condition and general well-being was not improving as they might have expected. There was a lack of information in the nursing records as to the action that was taken by nursing staff in response to the concerns raised by the family. There is no evidence that medical and nursing staff listened to or communicated with Mrs Murtagh and her family to light up the clinical picture and to understand what her unique care needs were during this time.

6.4.2 There is little documentary evidence that the impact of significant surgery on Mrs Murtagh was given consideration in the post-operative recovery period. Mrs Murtagh was experiencing pain that required oral medication and intramuscular

injection. Further to an analysis of the analgesia administered to Mrs Murtagh post operatively, the drug administration team in the Trust noted that the large amounts and opioid content of the analgesia administered should have alerted staff to a potential underlying problem. There is no evidence that medical and nursing staff were taking appropriate action to manage the pain that Mrs Murtagh was experiencing, nor was it clear as to what methods were used to determine the severity of that pain. The ward's post-operative care plan for laparoscopic surgery did not lead nurses and doctors to record interventions, observations taken or instructions to members of the health care team.

6.5 Leadership and communication

6.5.1 There is a lack of evidence to substantiate that skilled nurses and doctors worked together as a coherent team, to provide the best possible care for Mrs Murtagh.

6.5.2 It was unclear who was responsible for the resuscitation and clinical stabilisation of Mrs Murtagh. The apparent confusion or lack of clarity as to who was ultimately in charge of her care contributed to considerable shortcomings in the practical arrangements.

6.6 Protocols, procedures and guidelines

6.6.1 The Royal Group of Hospitals has protocols and procedures for booking an emergency theatre slot and the requirement for a preoperative bed in a surgical ward. It would appear from the evidence that those protocols and procedures were not pursued rigorously. Emphasis of some evidence at the inquest was on the availability of emergency theatre and a bed in Main block RVH as contributing factors. The emphasis on this 'search' detracted from the need to provide Mrs Murtagh with robust resuscitation in readiness for emergency surgery. Whilst the review did not retrospectively audit emergency theatre availability, in this instance, there was no evidence to substantiate the allegations made by consultant surgeons in a letter dated 18 October 2004 to the chief executive that there was "*obstruction in getting gravely ill patients into theatre for necessary surgery*".

6.6.2 Had the stabilisation of Mrs Murtagh been robust the transfer protocols could have been adequate. The transfer of an ill patient requires a plan to optimise the patient's clinical stabilisation and readiness for transfer.

6.6.3 The Coroners judgement, the root case analysis investigation and the findings of this review have a substantial degree of consistency in their criticism of the standards of quality of care and documentation provided for Mrs Murtagh.

7. The Trust – What has changed?

7.1 Following Mrs Murtagh's unscheduled return to theatre at the RVH 'a clinical incident report' had been submitted to the risk management team. The subsequent tragic death of Mrs Murtagh led to the Trust's decision to carry out an investigation using the root cause analysis process. The lack of timely staff training in using the root cause analysis process resulted in a significant delay in commencing an investigation.

7.3 The Trust has recognised this and has taken steps to develop more effective and timely investigative processes using the RCA framework.

7.4 The Trust has stated in writing that, further to the report of the RCA investigation, the following action has been taken:

- A service development proposal for the development of a Critical Care Outreach Service was prepared.

- The hospital has revised the policy on the use of emergency theatres /urgent surgical operations. The revised policy was implemented in June 2005 and is included in the induction programme for medical and nursing staff including locum staff. A prospective audit of access to emergency theatre was commenced in April 2005.

- A draft policy on the transfer of patients within the hospital site has been developed and implemented in May 2005.

- The care pathway that was in use at the time of the critical incident has been reviewed by the clinical governance team and a revised integrated care pathway for operative laparascopy has been developed. On-going audit and review is an agreed part of the implementation plan and is scheduled to be carried out within the next year.

- A new physiological observation chart with an integrated early warning score (Royal Alert Warning) has been introduced. On-going audit and review is an agreed part of the implementation plan.

- Patient documentation for in-patient gynaecology is being reviewed at three monthly intervals.

- New consent forms and procedures for examination, treatment or care were implemented on 1 April 2004. An audit is planned.

- A preliminary service development proposal for the development of acute pain services was prepared.

- The following policies, protocols and guidelines have been developed as a result of this critical incident:

    - support of critically ill patients
    - education and practice systems for the development and support for nurses and doctors
    - orientation, induction and training of locum staff
    - communication protocols and systems for locum staff
    - critical care escalation policy

8. The Trust – Future monitoring by the Regulation and Quality Improvement Authority

8.1 The review team agreed that the actions listed at paragraph 7.4 are appropriate, and that the Regulation and Quality Improvement Authority should now draw up a schedule of monitoring visits (over the next year) to the Trust. These visits should be undertaken to assess the progress made in implementing the actions and recommendations as listed.

8.2 The monitoring visits will initially focus specifically on the progress made by the Trust in implementing, monitoring, evaluating and auditing:

- the new care pathway
- observation charts
- patient documentation
- new consent forms and procedures for examination, treatment or care
- newly developed policies, protocols and guidelines

8.3 The RQIA will review the systems for monitoring patterns of concern, complaint and incident reporting for personnel and clinical events as part of clinical governance within the Trust.

9. A Way Forward – Recommendations to DHSS&PSS and good practice that needs to be disseminated to all Health and Social Care Trusts in Northern Ireland

9.1 The review team's independent examination of the documentation from all sources in this case provided a unique and important opportunity to identify the lessons to be learned for all healthcare settings in order to increase patient safety and improve on the quality of care.

9.2 On examination of the issues for wider learning, upon which recommendations are based, the review team was conscious of the frequency with which similar issues are reported in international patient safety research literature, and of the important opportunity to improve services through this review process.

9.3 The following recommendations have been made from the evidence received by the review team. The conclusions that have led to the recommendations are explained in the text of the report and are referenced by the paragraph in the report or by a key finding in the report.

Paragraph 5.3 - Consent

1. A regional audit of the application of *DHSSPS (April 2004) Reference Guide to Consent for examination, treatment or care* should be carried out.

Paragraph 6.4 - Patient care

2. A system of clinical assessment of patients that is based on recognised and validated systems such as MEWS (Modified Early Warning Scoring System) or ALERT (Acute Life-threatening Events Recognition and Treatment) should be used in all acute hospitals.

3. Organisations must ensure that in-service continuing professional development programmes encompass basic clinical care alongside basic life-support training as a regular update programme.

4. The DHSSPS strategy for improving health and social services must focus on the development of effective documentation and clinical recording practices as part of clinical governance in all clinical settings.

5. There is a very clear need to provide clinical teams with formalised protocols and guidance to support critically ill patients until critical-care outreach services are fully developed.

Paragraph 6.5 - Leadership and communication

6. Leadership of any resuscitation effort must be clearly established as part of a formally determined protocol.

7. The curriculum for critical care should re-emphasise practitioners' accountability for developing patient partnerships in the provision of patient care.

8. The dynamics and protocols of communication, accountability and responsibility should be re-emphasised in education and training throughout the career path of every discipline.

9. There should be a system whereby clinical staff including locum staff can communicate with a designated accountable senior manager at any time.

10. Organisations should provide staff with specific and continuous training opportunities for improving their skills in listening to and communicating with patients and families.

Paragraph 6.6 - Policies and procedures

11. Each clinical setting should ensure that all staff (permanent, short term, locum or agency) have a clear understanding of all relevant protocols and standard operating procedures.

10. What happens next?

10.1 The review team recommends that the DHSSPS, in collaboration with the Regulation and Quality Improvement Authority, educational institutions and professional bodies, drives forward the regional implementation of the recommendations made in this report.

10.2 The Regulation and Quality Improvement Authority will specifically monitor these issues as part of the future assessment of quality of care and standards of clinical governance in Northern Ireland.

10.3 The Regulation and Quality Improvement Authority will undertake, as a minimum, twice yearly clinical safety seminars with educational establishments and risk managers. These seminars will highlight issues that have emerged from quality and clinical governance reviews and clinical incident reporting that need to be highlighted in various curricula and will provide the opportunity for organisations to share learning and up to date relevant safety information.

10.4 These findings will be disseminated by RQIA throughout the healthcare services and will be specific criteria for assessment of quality as part of clinical governance within organisations.

11: The Review Team Membership

Chair

Stella Burnside
Chief Executive of The Regulation and Quality Improvement Authority.
Chair of the independent review.

Members

Richard Adams
Member of the Regulation and Quality Improvement Authority Board.

Hilary Brownlee BSC(Hons), RGN, Dip N, ONC
Professional officer in the Regulation and Quality Improvement Authority.
Manager of the independent review process.

Jennifer East Msc RGN, Dip. ICN,
Nurse consultant in infection control. Previously held senior management positions in operating theatres.

Gill Heaton
Director of patient services/chief nurse in Central Manchester and Manchester Children's University Hospital NHS Trust.

Ian Scott M.A., M.Chir., F.R.C.S.
Medical Director at the Ipswich Hospital since 1993 and is a general surgeon with an interest in colorectal surgery.

Secretariat

Doris Patton
Personal assistant in the Regulation and Quality Improvement Authority. Provided administrative support to the independent review.

Appendix A: Coroner's letter to Angela Smith, Minister for Health

HER MAJESTY'S CORONER

DISTRICT OF GREATER BELFAST

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H.M. Coroner
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Angela Smith MP
Minister for Health
Room C5.10
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BELFAST
BT4 3SQ

22nd November 2004

Dear Minister,

JANINE MURTAGH, DECEASED

At the conclusion of the inquest into the death of Janine Murtagh I announced that I would be reporting the circumstances of the death to you pursuant to my powers under Rule 23(2) of the 1963 Coroners Rules. For your information I am enclosing a copy of this Rule. Also I am enclosing a copy of my verdict and a full set of inquest papers. If you wish me to provide a typed up copy of my longhand notes please let me know.

In the course of the evidence a number of issues emerged relevant to the death and each of which gave me cause for concern. These are as follows:-

1. Whether there is a need for further training of all surgical, anaesthetic and theatre staff in relation to the use of emergency theatres. Does the existing protocol provide sufficient clarity?

2. Whether there is a need for a more formal structure governing contact with theatres in relation to theatre availability and a recording of any such contacts to include what was discussed, by whom, and any decisions made.

3. The training needs of locum surgical staff.

4. Whether it should be a requirement for a doctor who is called by nursing staff to examine a patient whose condition has given rise to some measure of

concern, to consult with the senior nurse on duty in the ward and any family members who are present at the time.

5. Whether, under present arrangements, consultants are kept adequately informed about such interventions, assessments subsequently made and any changes in the condition of their patient.

6. Whether it is appropriate for a staff nurse to be able to discontinue patient observations without consulting anyone else.

7. The role of a Ward Sister and whether she is always deemed to be a member of the team responsible for each patient in her ward.

8. Whether there is any confusion amongst surgical and anaesthetic staff as to the chain of responsibility for a patient at the various stages of their treatment and the circumstances in which responsibility changes.

9. Record-keeping.

10. The efficacy of a written patient care management plan.

11. Transfer arrangements between the Royal Maternity Hospital and the Royal Victoria Hospital.

12. Whether there is a need for a formal recording of a notification of bed availability by the Bed Manager, to include the name of the person to whom it was made and an acknowledgment by that person of the notification. Should the notification by the Bed Manager be to the surgeon concerned or any member of the ward staff?

13. Whether there is substance in the allegations of the consultant general surgeons who signed the letter to the Chief Executive of the Royal Group of Hospitals of obstruction "*in getting gravely ill patients into theatre for necessary surgery*".

As Minister for Health in Northern Ireland you are in a position to ensure that so far as possible the events which, in combination, led to the death of Janine Murtagh will not recur and lead to the death of another patient. I believe that the majority of the issues I have set out above may well apply not only to the Royal Group of Hospitals but to all other hospitals in Northern Ireland. My personal view is that a review of the inquest findings and these issues would be desirable and should be carried out by independent experts with the appropriate medical and management backgrounds. I would ask you to consider in particular point number 13. If this allegation is found to be substantiated I would regard it as a very serious matter indeed.

You will note that I am sending a copy of this letter to the Chief Executive of the Royal Group of Hospitals, Mr William McKee, and the Chief Medical Officer, Dr Henrietta Campbell.

I would have no objection to meeting with officials from your Department if you thought that would be appropriate.

Yours sincerely

J L LECKEY
HM CORONER FOR GREATER BELFAST

Encs

Cc Mr W S McKee, Chief Executive, Royal Group of Hospitals
Dr Henrietta Campbell CB, Chief Medical Officer
Miss Judith Hill, Chief Nursing Officer

Appendix B: Guide to terms used in the report

Analgesia: Medication used for pain management.

Care pathway: A pre-determined plan designed for patients who have a specific diagnosis. It is intended as a guide to treatment and an aid to documenting patients' progress.

Clinical incident report: A report of an event or omission arising during clinical care resulting in physical or psychological harm or death of a patient.

Clinical and physiological measurements and observations: Because of the body's physiological response to stress and the surgical risk of shock and haemorrhage, regular post-operative observations are the cornerstone of safe surgical practice. These should include:
Blood pressure, peripheral oxygen saturation, pulse, respiratory rate and temperature.

Collapsed state: Deterioration in the body's physiological condition as a result of stress, shock or haemorrhage.

Critical-care outreach service(usually termed outreach): Is part of a new approach to the management of all critically ill patients. There are three main aims for outreach services to avert admissions or to ensure that admissions are timely by:

- Identifying patients who are deteriorating;
- Enabling discharges;
- Sharing critical care skills.

(Comprehensive Critical Care, Department of Health, 2000)

Differential diagnosis: The determination of which one of two or more diseases or conditions a patient is suffering from, by systematically comparing and contrasting their clinical findings.

Fluid resuscitation: The intravenous replacement of fluids and electrolytes that may have been lost during surgery.

Laparoscopic procedure : A surgical procedure in which a scope is inserted into the abdomen through a small incision. It is used for a variety of procedures and often to diagnose disease of the pelvic cavity.

Laparotomy: An operation to open the abdomen.

Nursing care plan: A written, structured plan of action for the care of patients based on holistic assessment of patient care needs, identification of specific care problems and the development of a plan of action for their resolution.

Opioid drugs: Class of drugs used for pain management. Opioids have a very strong analgesic effect. The most well known opioid is morphine.

Peritonitis: Inflammation of the lining of the abdominal cavity.

Risk management team : A multidisciplinary team of people who are appointed to cover all the processes involved in identifying, assessing and judging risks, assigning ownership, taking actions to mitigate or anticipate them, and monitoring and reviewing progress.

Root cause analysis investigation: An internal investigation using a procedure designed to help identify not only what happened and how the incident occurred, but also why it happened in order to specify workable corrective measures that prevent future similar events occurring.

Appendix C: References

1. Department of Health. *An Organisation with a Memory*. Report of an expert group on learning from adverse events in the NHS. London: The Stationery Office, 2000.

2. Brennan TA, Leape LL, Laird NM, Hebert L, Localio AR, Lawthers AG, Newhouse JP, Weiler PC, Hiatt HH, *Incidence of adverse events and negligence in hospitalized patients. Results of the Harvard Medical PracticeStudy I*. N Engl J Med. 1991 Feb 7;324(6):370-6.

3. Corrigan J, Kohn L, Donaldson M (eds). *To err is human: building a safer health care system.* Committee on Quality of Health care in America, Institute of Medicine. National Academy Press.

4. Vincent CA. *Clinical risk management. Enhancing patient safety.* London, BMJ Publications, 2001.

5. Westwood M, Rodgers M, Sowden A. *Patient safety: a mapping of the research literature.* Report to Professor Richard Lilford, Department of Health Patient Safety Research Programme.
http://www.publichealth.bham.ac.uk/psrp 2002.

6. National Patient Safety Agency, (April, 2004), *Seven steps to patient safety – An overview guide for NHS staff*, 2nd Edition, National Patient Safety Agency, London.

7. National Confidential Enquiry into Patient Outcome and Death (NCEPOD), Classification of Interventions, December 2004.

8. DHSS&PS (2004) Reference Guide to Consent for examination, treatment and care.

Appendix D: The Regulation and Quality Improvement Authority

The HPSS (Quality Improvement and Regulation) (Northern Ireland) Order 2003 No 491 placed statutory duty of quality upon Health and Social Services organisations, imposed a responsibility to develop new standards for care, and for clinical and social care governance standards, upon the DHSS&PS and instituted power of review, regulation and inspection of the quality of services upon the anticipated HPSS Regulation and Quality Improvement Authority. The HPSS Regulation and Quality Improvement Authority commenced on April 1 2005 with the assimilation of the former four area board registration and inspection units and, on a phased basis over the next nine months, will assume the full range of responsibilities arising from the HPSS (Quality Improvement and Regulation) (Northern Ireland) Order 2003 across all sectors of health and social care.
The general duties of the Regulation and Quality Improvement Authority are to encourage improvement in the quality of health and social care services and to keep the DHSSPS informed on the quality of services.

Clinical and social care governance standards
The clinical and social care governance standards for Northern Ireland have recently been drafted and are at consultation in preparation for implementation in autumn 2005. Clinical and social care governance is a framework within which organisations can demonstrate their attention to and assurance of the quality of their services. A central tenet of clinical governance is the extent to which organisations can create a culture which facilitates staff to learn from near misses or untoward incidents through reporting and reviewing. This provides the organisation opportunity to reflect upon and learn from incidents and thereby improve patient safety and increase the quality of service. This is generally described as a blame-free culture which requires openness and a commitment to learning to ensure improvement in standard practice.

Appendix E: Documents reviewed

The review team pursued original primary sources of evidence for review, along with the reports submitted by the Coroner and the Trust as follows:

- Report and verdict of inquest by the Coroner;
- The Trust's report on action being taken by the hospital further to the report and verdict of inquest by the Coroner
- Court transcripts.
- The Royal Hospitals Report of RCA investigation of April 2004
- Mrs Murtagh's case records for the period of time spent in E ward RJMH, from admission to until transfer to A Block, RVH :

  Admission records
  Consent form and procedure for obtaining consent
  Medication records
  Pre-operative records
  Anaesthetic records
  Intra-operative care records
  Operation sheet
  Recovery room records
  Post-operative care records
  Clinical observation records and charts
  Nursing care records

- Mrs Murtagh's case records (relevant nursing and medical notes) for the period of time spent in RJMH during December 1998.
- Documentary evidence of consent that was obtained for the procedures carried out on 12 December 1998 and 17 December 1998.
- Documentary evidence that policies as stipulated in the RCA report dated March 2004 have been developed and are being implemented.
- Documentary evidence of achievement of action plans as outlined in the RCA report (April 2004) and in the response to the Coroner's findings (February 2005) together with evidence of what has been put in place to improve clinical practice.
- Action that was taken subsequent to the receipt of the Risk management critical incident report logged by a senior member of nursing staff in the Royal Jubilee gynaecology theatre on 11 October 2002.
- Information and subsequent identification of resource implications that was communicated to the commissioning board further to this incident.

Appendix F: Terms of reference

ISSUES ARISING FROM THE DEATH OF THE LATE JANINE MURTAGH

INDEPENDENT REVIEW GROUP

Terms of Reference

The independent review group will:

- consider the report submitted by HM Coroner Mr John Leckey LLM to the Minister for Health, Social Services and Public Safety;
- consider the report submitted by the Royal Group of Hospitals;
- review the wider issues involved; and
- make recommendations to the Department as to the good practice that needs to be disseminated to all HSS Trusts in Northern Ireland.