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23 February 2006

To: Clinical Directors
Clinical/Nursing Services Managers
Heads of Department

Dear Colleague

At its meeting today, the Trust Board considered a report prepared by Deloitte Management Consultants following a risk assessment of key acute services prior to the implementation of *Developing Better Services (DBS)*.

As you will be aware, under DBS the profile of services will change at both Mid Ulster and Whiteabbey Hospitals, which will become local hospitals while their current acute services will transfer mainly to Antrim Area Hospital. This will require further development of capacity at Antrim. In the interim, the Minister for Health, Social Services and Public Safety asked Boards and Trusts to endeavour to ensure that, in the interim period, existing services are maintained until adequate capacity is available elsewhere, but also to be mindful of the overriding need to ensure the safe and effective treatment of patients. The Trust has therefore kept services under constant review, and Deloitte's study is the most recent of these reviews.

The report raises a number of concerns regarding clinical risks associated with services currently provided at Mid Ulster and Whiteabbey Hospitals. In response, the Trust Board has considered and initiated consultation on a number of recommendations for interim changes to some of these services.

I am aware that any proposals for change cause anxiety for staff who may be affected, and I would be grateful if you will make this information available to relevant staff, together with my personal reassurance that any staffing issues will be addressed under the Trust Personnel Policy for dealing with changes in service provision. The Trust has successfully managed a number of such changes while avoiding compulsory redundancy as far as possible, and considers it important to keep affected staff informed.

While the developments proposed within Developing Better Services have been considered previously in terms of their equality of opportunity implications by the NHSSB (1998) and subsequently by the DHSSPS (2002), and it was concluded that they represented a balanced approach, before implementing the full recommendations the Trust intends to write to its consultation list to advise them of the draft policy and invite them to request a summary document and a consultation response proforma, with a response time of 12 weeks.

Pending the outcome of this consultation, the Trust, NHSSB and NIAS have agreed that arrangements for management of paediatric surgery and trauma at Mid Ulster Hospital should be temporarily suspended, and further guidance on the practical implications will be issued shortly.

Copies of the Deloitte report and of the Trust's response are attached to this email. The Staff Consultative Committee has also been informed.

If you have any queries whatsoever about any aspect of these changes, please contact your Head of Department in the first instance.

Yours sincerely

Mr J B Mitchell
Chief Executive

UNITED HOSPITALS HSS TRUST

RISK ASSESSMENT OF KEY ACUTE SERVICES PRIOR TO THE IMPLEMENTATION OF DBS

Final Report

February 2006

CONTENTS

1. EXECUTIVE SUMMARY

Background

In June 2002, the recommendations arising from the Northern Ireland Acute Hospitals Review Group were published in *Developing Better Services* (DBS). Following consultation, and subsequent approval by the Minister in February 2003, work is underway on taking forward various developments and changes to the pattern and role of hospitals throughout the Province, including the NHSSB area.

DBS stipulates that Antrim Area Hospital will become the focus for acute hospital services in the southern sector of the NHSSB area, and that the two other acute hospitals in that sector – Mid Ulster Hospital (MUH), Magherafelt and Whiteabbey Hospital (WAH), Newtownabbey – should be transformed into local hospitals. Acute activity currently undertaken at these two hospitals will transfer to Antrim Area Hospital, although a portion of activity is expected to transfer from Mid-Ulster to Craigavon Hospital and from Whiteabbey Hospital into Belfast Hospitals.

The then Minister for Health, Social Services and Public Safety asked Boards and Trusts to endeavour to ensure that in the interim period, existing services are maintained until adequate capacity is available elsewhere, but also to be mindful of the overriding need to ensure the safe and effective treatment of patients.

In November 2001, United Hospitals Trust undertook a contingency planning exercise in respect of services at Mid Ulster Hospital and Whiteabbey Hospital. This exercise identified actions that needed to be taken to safely sustain services pending implementation of DBS, including additional investments by the NHSSB to strengthen services, many of which have since been implemented.

As time passes, however, the need to ensure adherence to appropriate clinical standards, while the difficulty of maintaining services at the smaller acute hospitals has not eased. It is appropriate therefore that the Trust and NHSSB regularly review the appropriateness of the present service profile.

Terms of Reference

Deloitte & Touche LLP (Deloitte) was commissioned, in May 2005, to carry out a risk assessment to assess whether the services provided at Mid Ulster and Whiteabbey Hospitals remain safe and sustainable, pending the introduction of the new service model set out in DBS. In addition, the Trust must ensure the effective utilisation of capacity at Antrim Area Hospital prior to the development under DBS. This assessment may also be used to assist with the prioritisation process for capital and revenue funding for implementation of DBS.

The risk assessment will assess the following:

- the clinical risks associated with the maintenance of key acute services at Mid Ulster and Whiteabbey Hospitals;
- the adequacy of arrangements already in place to manage those risks;
- the need for further action to address the risks identified;

- the risk of earlier failure of acute services at Mid Ulster and/or Whiteabbey Hospitals, and
- the potential impact of this on Antrim Area, Craigavon Area and Belfast Hospitals and Northern Ireland Ambulance Service (NIAS).

Relevant clinical standards, as advised by the Trust, were also used to compare the current services in key acute specialties to identify where services fall short of clinical standards.

Methodology

To perform the risk assessment the Australian Standard of Risk Management as outlined in Standard AS/NZS 4360:1999 was adopted. This methodology was selected as it is currently regarded as best practice within the HPSS.

The methodology involves four main stages: setting the context, identifying the key risks, evaluating the risks and presenting a total risk score. We identified the risks following discussions with Trust management and key clinical staff. A number of key stakeholders then evaluated the risks in two workshop sessions, and we reviewed the current services provided in the key acute services against key clinical standards.

Contextual Background

United Hospitals Trust is made up of Antrim Area Hospital (AAH), Mid Ulster Hospital (MUH) and Whiteabbey Hospital (WAH) as well as Braid Valley Hospital and Moyle Hospital.

Antrim Area Hospital is the largest hospital in the Northern Board and provides a full range of services compatible with its status as an Acute Hospital. Whiteabbey and Mid Ulster Hospitals are both small acute hospitals but still provide a range of acute hospital services for the local population. At present, both Whiteabbey and Mid-Ulster provide services in the following key specialties:

- a range of inpatient general medical services, including Cardiology and Gastroenterology;
- an inpatient general surgery service;
- accident and emergency services;
- day case and elective surgery; and
- outpatients.

In addition, Mid Ulster has a consultant led maternity service, a full gynaecology service and ambulatory care in paediatrics.

Ongoing Review

The services provided at Mid Ulster and Whiteabbey Hospitals have been under review for some time. Although the Trust and NHSSB have taken significant steps to maintain the acute services at the two hospitals, there have been problems maintaining the consultant and junior medical rotas at both the hospitals. Therefore the provision of services, has, in line with the Minister's request, been reviewed on several occasions, and there has been some restructuring of services over recent years.

Paediatric Services

Currently Paediatric Services are provided at Antrim Area and Mid Ulster Hospitals.

Whiteabbey Hospital has never had a Paediatric Medical Service and has not provided major paediatric surgery for a considerable time. Bypass protocols for paediatric trauma were introduced in 2002 following a risk assessment which recommended that patients under 13 years should not be brought to Whiteabbey Hospital A&E.

Mid Ulster Hospital's Inpatient Paediatric Medical service ceased in 1996. Children requiring admission are directed to Antrim Area Hospital, which has a 24 hour Paediatric Medical Service. Some Paediatric Surgery has continued to be undertaken at Mid Ulster Hospital.

Risk Assessment of Maternity Services at Mid Ulster

In 1999, the NHSSB carried out a review of Maternity services at the Mid Ulster Hospital. The Professional Panel concluded that among the shortfalls identified in maternity services at the Mid Ulster Hospital, the most significant shortfalls relate to the out of hours arrangements for neonatal resuscitation and paediatric medical cover. The Panel also had concerns regarding the limited availability of regional anaesthesia for deliveries by caesarean section, and the extent to which the consultant medical cover (both obstetric and, to a lesser extent, anaesthetic) was locum cover. In addition, the Panel was concerned regarding the length of time it can take for cross-matched blood to be available in the maternity unit out of hours. It was the view of the Panel that these shortfalls could not be addressed in the Mid Ulster Hospital.

The Trust agreed to take all reasonable steps to maximise quality and safety for mothers and babies, and subsequently implemented these measures, however there were some problems such as lack of 24 hour paediatric support and limitations of anaesthetic cover which continued to create a high degree of fragility in the service, and made it vulnerable to the dangers of prolonged uncertainty.

Service Maintenance Plans for of Mid Ulster and Whiteabbey 2001

In November 2001, United Hospitals Trust undertook a contingency planning exercise in respect of services at Mid-Ulster Hospital and Whiteabbey Hospital.

The objective of the analysis was to:

- identify and assess the vulnerability of services at Mid Ulster and Whiteabbey hospitals and the action required to minimise risk;
- assess the implications of an inability to address the difficulties identified;
- quantify the volumes of activity which would be displaced on a specialty basis, if elements of the service were to prove unsustainable;
- assess what action would require to be taken to accommodate this displaced activity; and
- assess the implications for Antrim Area Hospital should it be required to respond to such a failure and quantify potential displaced activity which may flow out with this Trust.

It was found that the staffing structures within the United Hospitals Trust were exceptionally susceptible to any loss of personnel, and vulnerabilities existed on both the Mid Ulster and Whiteabbey Hospital sites.

Risk Mitigation Options

Following discussion with senior clinical and Trust staff a range of options were considered for mitigating risk in the provision of key acute services at Mid Ulster and Whiteabbey Hospitals. In this section we describe each option considered and the rationale for each option.

Whiteabbey Hospital

Four potential options for mitigating risk in the provision of key acute services at Whiteabbey Hospital have emerged from workshops. These are detailed below:

- **Option 1**: Status Quo – all services are maintained as now.
- **Option 2**: restricted A&E opening hours
- **Option 3**: withdrawal of Emergency Surgery
- **Option 4**: full implementation of DBS

Mid Ulster Hospital

Five options were considered for mitigating risk at Mid Ulster.

- **Option 1**: Status Quo – all services are maintained as now pending implementation of DBS.
- **Option 2**: withdrawal of Obstetric & Gynaecology Services.
- **Option 3**: restricted A&E opening hours.
- **Option 4**: withdrawal of Obstetrics and Gynaecology Services and restricted A&E opening hours.
- **Option 5**: full implementation of DBS.

The fourth option was not formally part of the risk assessment exercise, however, it was possible to examine the effect of this option on the overall risk profile by combining the results of option 2 and 3.

Risks to the sustainability of each of these options relate partially to the timeframe each option is provided for. The risk assessment exercise hence examines the risks associated with sustaining key acute services over a period of 12-18 months.

Risk Identification

Following discussions with key managerial and clinical staff, a number of risk assessment criteria were developed for each of the specialties being considered at each of the hospitals:

Anaesthetics

- Inability to provide anaesthetic support: staffing
- Inability to provide anaesthetic support: during transfers

- Inability to provide anaesthetic support: dual requirements

Accident & Emergency

- Inability to sustain staff rotas
- Inability to provide Backup Services
- Inability to secure timely ambulance transfer
- Inability of other network hospitals to manage additional activity

General Medicine

- Inability to maintain medical rotas
- Inability of other network hospitals to manage additional activity

General Surgery/Trauma

- Inability to maintain surgical rota
- Inability to provide backup services (blood, labs, ICU, radiology)
- Inability of other network hospitals to manage additional activity

Maternity

- Inability to sustain 24/7 staff rota
- Inability to provide Paediatric support to maternity service
- Inability to provide Haematology
- Inability of other network hospitals to manage additional activity

Risk Evaluation

Deloitte facilitated a risk workshop at which a risk scoring exercise was carried out with key stakeholders to quantify the risks associated with the service options. The results of this exercise were:

Whiteabbey Hospital

	Risk to Service (Ranking)	Risk to network (Ranking)
Option 1	4	1
Option 2	3	2
Option 3	2	3
Option 4	1	4

Mid Ulster Hospital

	Risk to Service (Ranking)	Risk to network (Ranking)
Option 1	5	1
Option 2	3	2
Option 3	4	3
Option 4	2	4
Option 5	1	5

Consultation with the NIAS

Meetings were held with senior NIAS representatives to consider how the changes proposed would impact on their service.

There was discussion with NIAS concerning the need for clear selection criteria to enable ambulance crews to determine the appropriate destination hospital for patients affected by the changes, and the arrangements eventually agreed will be formalised in protocols.

NIAS highlighted the need to address not only the numbers of patients but also the additional journey time, which may cause ambulances to be 'out of area'. NIAS also emphasise that these changes in the Northern Board should be considered in the context of other changes planned in the Western Board and Eastern Board areas which will also increase demand for their services. It is expected that there will be a need for increased ambulance provision as a result.

NIAS have estimated that there will be a need for additional ambulance cover at both Mid Ulster and Whiteabbey as a result of these changes, and this will be further clarified during the consultation process.

The Trust will agree with NIAS, the NHSSB and the DHSSPS how this additional requirement can be met before changes in provision are finally introduced.

Key Issues

Based on the information provided by the Trust, gathered during our consultation programme and the risk evaluation workshops there is strong evidence that the risks associated with maintaining the key acute services at Mid Ulster and Whiteabbey Hospitals are considerable.

The key findings of this risk review are summarised as follows:

- there have been sustainability issues surrounding services at both Mid Ulster and Whiteabbey for a number of years. Key stakeholders are aware of these issues and DBS is just the latest strategy which has identified the preferred model of care for each hospital;

- implementation of the preferred model of care for both Mid Ulster and Whiteabbey is dependent on the completion and approval of Outline Business Cases which were submitted to the DHSSPS by the NHSSB in November 2005. In the interim, the Trust and Board have carried out the required steps to ensure that current services are supported. These measures have included the recruitment of additional medical

staff from abroad, heavily reliance on locum staff, investment in CT facilities in the Mid Ulster, the development of bypass protocols for trauma at Whiteabbey Hospital and Paediatric medicine at Mid Ulster Hospital , and the transfer of high risk births to Antrim from Mid Ulster;

- during the consultation process we were made aware that despite these measures, a number of services are still not meeting relevant college or professional standards. This is becoming less acceptable in an environment strongly influenced by clinical governance;
- senior clinical staff have worked hard to maintain services to the best possible quality but they feel themselves to be under increased pressures and risk due to the requirements of best practice and a more rigorous governance framework; and
- whilst the range of services provided at both Mid Ulster and Whiteabbey have a number of limitations, these are partially offset by the willingness of consultants to provide a first on call, consultant led service.

2. INTRODUCTION

2.1 Background

In June 2002, the recommendations arising from the Northern Ireland Acute Hospitals Review Group were published in *Developing Better Services* (DBS). Following consultation, and subsequent approval by the Minister in February 2003, work is underway on taking forward various developments and changes to the pattern and role of hospitals throughout the Province, including the NHSSB area.

DBS stipulates that Antrim Area Hospital will become the focus for acute hospital services in the southern sector of the NHSSB area, and that the two other acute hospitals in that sector – Mid Ulster Hospital (MUH), Magherafelt and Whiteabbey Hospital (WAH), Newtownabbey – should be transformed into local hospitals. Acute activity currently undertaken at these two hospitals will transfer to Antrim Area Hospital, although a portion of activity is expected to transfer from Mid-Ulster to Craigavon Hospital and from Whiteabbey Hospital into Belfast Hospitals.

In order to accommodate this activity, Antrim Area Hospital will require to be expanded, and the NHSSB and Trusts are currently working to develop Outline Business Cases for this capital development. However, many of the major changes are unlikely to occur for 5-10 years.

The then Minister for Health, Social Services and Public Safety asked Boards and Trusts to endeavour to ensure that in the interim period, existing services are maintained until adequate capacity is available elsewhere, but also to be mindful of the overriding need to ensure the safe and effective treatment of patients.

In November 2001, United Hospitals Trust undertook a contingency planning exercise in respect of services at Mid Ulster Hospital and Whiteabbey Hospital. This exercise identified actions that needed to be taken to safely sustain services pending implementation of DBS, including additional investments by the NHSSB to strengthen services, many of which have since been implemented.

As time passes, however, the need to ensure adherence to appropriate clinical standards, while the difficulty of maintaining services at the smaller acute hospitals has not eased. It is appropriate therefore that the Trust and NHSSB regularly review the appropriateness of the present service profile.

2.2 Terms of Reference

Deloitte & Touche LLP (Deloitte) was commissioned, in May 2005, to carry out a risk assessment to assess whether the services provided at Mid Ulster and Whiteabbey Hospitals remain safe and sustainable, pending the introduction of the new service model set out in DBS. In addition, the Trust must ensure the effective utilisation of capacity at Antrim Area Hospital prior to the development under DBS. This assessment may also be used to assist with the prioritisation process for capital and revenue funding for implementation of DBS.

The risk assessment will assess the following:

- the clinical risks associated with the maintenance of key acute services at Mid Ulster and Whiteabbey Hospitals;

- the adequacy of arrangements already in place to manage those risks;
- the need for further action to address the risks identified;
- the risk of earlier failure of acute services at Mid Ulster and/or Whiteabbey Hospitals, and
- the potential impact of this on Antrim Area, Craigavon Area and Belfast Hospitals and Northern Ireland Ambulance Service (NIAS).

2.3 Overview of Approach

The exercise required significant inputs from Trust clinicians and staff, with the findings ultimately being based on their judgement. We facilitated the review by carrying out risk workshops and consultation with key stakeholders, as detailed in the methodology below in section 3. We also reviewed key clinical standards, as advised by the Trust, in order to highlight deficiencies in the services at the two hospitals, in the key acute services. The specialties that were reviewed as part of this project were:

- General Medicine;
- Maternity (Obstetrics at MUH only);
- Accident & Emergency;
- Anaesthetics; and
- General Surgery.

Paediatric services were not considered at the risk workshops, however discussions were subsequently held with key clinicians at the hospitals, and current services were compared to key clinical standards, as advised by the Trust.

We did not consider the following specialties per se, however in some cases these specialties were considered in the context of clinical standards in relation to the key acute services (e.g. as required backup services): Audiology; Cardiology; Coronary Care; Dermatology; Dental Surgery; ENT; Geriatric Medicine; Gynaecology; Haematology; Infectious Diseases; Ophthalmology; Orthopaedics; Orthodontics; Radiology; Rheumatology; and Thoracic Medicine.

The review was designed to focus on these key specialties agreed in the terms of reference, as detailed above. It was not designed to assess all risks at Mid Ulster and Whiteabbey hospitals.

We assume that all information supplied to us and taken from discussions with Trust employees is complete and reliable for our purposes.

Detail of the methodology used is contained in section 3 of this document.

2.4 Use of Report

This report is private and confidential and addressed to the Chief Executive of the United Hospitals Trust. This report and the work connected therewith are subject to the Terms and Conditions of the contract between United Hospitals HSS Trust and Deloitte & Touche LLP. The report is produced solely for the use of United Hospitals HSS Trust. Its contents should

not be quoted or referred to in whole or in part without our prior written consent, except as required by law.

The risks identified in this report are only those which came to our attention during the course of the risk workshops and are not necessarily a comprehensive statement of all the risks that exist. The identification of further risks could confirm, alter or supplement these findings.

It should be also be noted that there may be other options open to the Trust which have not been considered in this review, and which the Trust may wish to consider in future.

We accept no responsibility for matters not covered by our report or omitted due to the limited nature of our review. Deloitte & Touche LLP will accept no responsibility to any third party, as the report has not been prepared, and is not intended for any other purpose.

2.5 Structure of this document

This document is structured into nine sections as outlined below:

Section 3 sets out the approach that we have taken to the assessment of risks at Mid Ulster and Whiteabbey hospitals;

Section 4 looks at the current services offered by Mid Ulster and Whiteabbey Hospitals and the activity at the hospitals over recent years;

Section 5 discusses the context within which this review has been conducted, including a review of previous risk assessment documentation;

Section 6 outlines clinical standards relevant to the issues discussed in this review;

Section 7 identifies the options available to the Trust to reduce the risk at Mid Ulster and Whiteabbey Hospitals;

Section 8 lists the risks identified and risk evaluation for Mid Ulster Hospital;

Section 9 lists the risks identified and risk evaluation for Whiteabbey Hospital;

Section 10 summarises the key points arising from the risk assessment process.

3. RISK ASSESSMENT METHODOLOGY

This section outlines our approach to this risk assessment exercise. This consisted of a number of stages including a desk based review, a consultation phase and then we conducted a more formal exercise to estimate and measure the risk associated with sustaining services in both Mid Ulster and Whiteabbey Hospitals.

3.1 Stage 1. Desk Based Review

The Trust completed a contingency planning exercise in November 2001 in respect of the services at Mid Ulster and Whiteabbey Hospitals. This exercise identified actions that needed to be taken to safely sustain services pending implementation of DBS. During the first stage of our assessment we critically assessed the continued applicability of this risk assessment, given the passage of time and changing clinical standards.

3.2 Stage 2. Consultation with Key Stakeholders

The second stage in the process was the identification of relevant risks to the provision of key acute services at Mid Ulster and Whiteabbey Hospitals. A series of meetings were conducted with key stakeholders, both clinical and managerial, within the HPSS to discuss the sustainability of the service models during the transitional period before the implementation of DBS. These were carried out over the summer months 2005. A detailed list of the stakeholders consulted is provided at Appendix I.

The purpose of these meetings was to discuss the context for the risk assessment process and understand the key areas of risk by specialty. This was completed following discussion with Trust management and NI Ambulance Services (NIAS), key clinical staff and the Northern Health and Social Services Board.

A full list of those consulted during this process is provided in Appendix 1.

3.3 Stage 3. Risk Evaluation Workshop

Two risk workshops were facilitated with key representatives from the Trust and relevant HPSS stakeholders (MUH on 5/7/05, and WAH on 18/7/05). One of these workshops was focused on services provided by Whiteabbey Hospital, and the second on services provided by the Mid Ulster Hospital. Members of the Trust's senior management team, lead clinicians and nursing staff from the key acute services participated in the risk workshop.

The specialties that were considered in the workshop were:

- General Medicine;
- Maternity (at MUH only);
- Accident & Emergency;
- Anaesthetics; and
- General Surgery.

Paediatric services were not considered at the risk workshops, however discussions were subsequently held with key clinicians at the hospitals, and current services were compared to key clinical standards, as advised by the Trust.

We did not consider the following specialties per se, however in some cases these specialties were considered in the context of clinical standards in relation to the key acute services (e.g. as required backup services): Audiology; Cardiology; Coronary Care; Dermatology; Dental Surgery; ENT; Geriatric Medicine; Haematology; Infectious Diseases; Ophthalmology; Orthopaedics; Orthodontics; Rheumatology; and Thoracic Medicine.

During the risk workshop we facilitated a discussion on the main risks to the sustainability of services by specialty were discussed. A number of options for mitigating risk at each site were generated and a formal risk scoring framework was used to quantify the effect of each option on the sustainability of services. We used a framework derived from the Australian Standard of risk management (Standard AS/NZS 4360:1999) and quantified each of the risks in terms of the likelihood of the risk occurring and the impact of the risk should the risk occur.

Likelihood Scores:

0 The event cannot happen under any circumstances (impossible)

1 The event may occur only in exceptional circumstances (rare)

2 The event could occur at some time (unlikely)

3 The event should occur at some time (moderate)

4 The event will occur in most circumstances (likely)

5 The event is expected to occur in most circumstances (near certain)

Impact Scores:

0 No impact on service

1 Little impact on service

2 Minor disruption to service

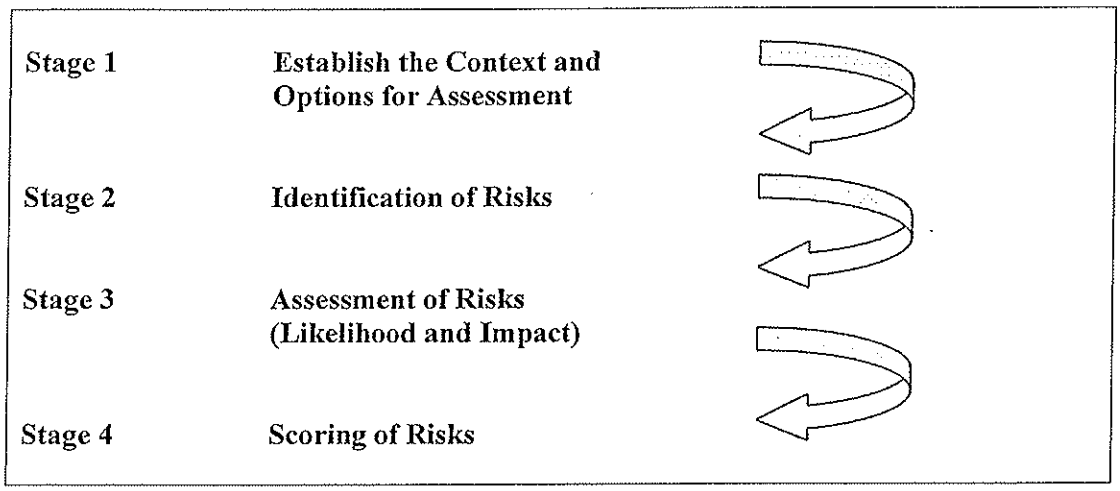
3 Disruption to service

4 Major disruption to service

5 Closure of service

A high risk score indicates significant risk associated with the service. An overview of the method is illustrated in Figure 3.1 below.

Figure 3.1 Risk Assessment Framework



The scoring was undertaken based on clinical consensus and management judgement. The final stage in the risk assessment process was to calculate a total risk score which was expressed as the product of the likelihood score and the impact score.

Note that the scores from the two hospitals should not be used to compare the relative risks of the two hospitals. This is due to the fact that the scores were compiled at two separate workshops using the individual judgement of the staff involved. The scores should only be used to compare the relativity of each of the options in terms of risk levels within each of the hospitals.

3.4 Stage 4. Consideration of Key Clinical Standards

Current service provision of the key acute services was compared to key clinical standards, in order to highlight where these acute services fall short of recommended clinical standards. Standards considered were advised by the Trust, and a full Bibliography of publications reviewed is held in Appendix II. The standards considered covered the following specialties:

General Medicine;

Maternity;

Paediatrics;

Accident & Emergency;

Anaesthetics; and

General Surgery.

3.5 Stage 5. Reporting

The results of the consultation process and risk evaluation workshops were written up and presented to senior medical staff and management within the Trust to ensure the validity and accuracy of the reporting. This document outlines the finalised findings of the risk assessment exercise, which were heavily informed by the stakeholders consulted from the Trust.

4. CURRENT SERVICES AND ACTIVITY

In this section we provide context to the risk assessment exercise, highlighting the current size and range of services provided at each site as well as the staffing profile at each hospital.

4.1 Current Services and Activity

United Hospitals Trust is made up of Antrim Area Hospital (AAH), Mid Ulster Hospital (MUH) and Whiteabbey Hospital (WAH) as well as Braid Valley Hospital and Moyle Hospital.

Antrim Area Hospital is the largest hospital in the Northern Board and provides a full range of services compatible with its status as an Acute Hospital. Whiteabbey and Mid Ulster Hospitals are both small acute hospitals but still provide a range of acute hospital services for the local population. At present, both Whiteabbey and Mid-Ulster provide services in the following key specialties:

- a range of inpatient general medical services, including Cardiology and Gastroenterology;
- an inpatient general surgery service;
- accident and emergency services;
- day case and elective surgery; and
- outpatients;

In addition, Mid Ulster has a consultant led maternity service, a full gynaecology service and ambulatory care in paediatrics. Table 4.1 illustrates current activity levels at both Mid Ulster and Whiteabbey Hospitals.

Table 4.1 Activity Rates at MUH and WAH

Activity Type	2000/01	2001/02	2002/03	2003/04	2004/05	% Change from 2000/01
Mid Ulster						
Inpatient - Elective	2,366	2,194	2,367	1,955	1,885	-20%
Inpatient - Emergency	6,690	6,524	6,159	5,790	6,496	-3%
Day Case	2,091	2,305	2,270	2,827	2,853	36%
Outpatient	20,516	20,759	20,275	22,145	22,416	9%
A&E Attendance	23,831	25,016	23,907	24,477	23,566	-1%
Whiteabbey						
Inpatient – Elective	698	651	711	610	500	-28%
Inpatient - Emergency	4,213	4,275	3,915	4,180	3,981	-6%
Day Case	3,260	3,806	4,026	4,635	4,600	41%
Outpatient	14,219	16,412	17,775	17,061	16,948	19%
A&E Attendance	30,648	31,215	30,098	30,615	30,693	0%

Source: Northern Health and Social Services Board

It can be seen from Table 4.1 above that elective inpatient activity at MUH has fallen by 20% and emergency inpatient activity has fallen by 3% over the five year period. In contrast, day case procedures and outpatient attendances have increased over the five year period. A&E attendances are relatively constant. The trend in activity at WAH is similar to that at MUH, with elective inpatient activity falling (-9%), whilst both day case (41%) and outpatient (19%) activity have increased substantially. A&E attendances have also remained static.

4.2 Proposed Service Profile

Both Whiteabbey and Mid Ulster Hospitals have been identified under DBS as Local Hospitals and service profiles are expected to reconfigure accordingly. Under DBS, all inpatient services will be transferred to a combination of Antrim Area Hospital, Craigavon Hospital and the Belfast Hospitals. Latest estimates indicate that approximately 58% of Mid-Ulster's inpatient activity will transfer to Antrim and 12% to Craigavon, with 50% of Whiteabbey's inpatient activity transferring to Antrim and 26% to the Belfast Hospitals. This will leave 30% of Mid-Ulster's and 24% of Whiteabbey's inpatient activity remaining.

As outlined in the Minister's statement of February 2003, services remaining on both sites will include a minor injuries unit, an ambulatory care centre, a day surgery unit, diagnostic imaging, a day hospital, out-patient clinics, assessment and rehabilitation services for the elderly and cardiac rehabilitation. In addition, Mid Ulster Hospital will provide paediatric ambulatory care. This represents a very significant shift in the clinical profile to be provided at both hospital sites, and will substantially increase activity levels at Antrim Area Hospital. Table 4.2 illustrates the range of services proposed for each site under DBS.

Table 4.2 Proposed Service Profile for MUH and WAH

Service	MUH	WAH
Local treatment unit	✓	✓
Ambulatory Care Centre	✓	✓
Visiting Consultant Services	✓	✓
Outpatient clinics	✓	✓
Primary and Community Services	✓	✓
Ambulatory Paediatric Care	✓	
Acute Mental Illness		✓
Cardiac Rehabilitation	✓	✓
Day Surgery Unit	✓	✓
Diagnostic imaging	✓	✓
Day Hospital	✓	✓
Inpatient assessment & rehabilitation	✓	✓
Consultant step up/step down care	✓	✓
Pharmacy and pharmaceutical advice	✓	✓
Social Services	✓	✓
General Practice	✓	✓
Voluntary sector advice and support	✓	✓

Source: Northern Health and Social Services Board

4.3 Current Consultant Staffing Levels

Tables 4.3 and 4.4 illustrate the current consultant staffing levels at each of the hospital sites. (as at October 2005). It illustrates that a high proportion of established posts are filled by locum consultants.

Table 4.3a Consultant Staff at Mid Ulster Hospital

Specialty	Consultant Establishment	Permanent Appointments	Locum Posts
General Surgery	3	3	-
General Medicine	4	2	2
Obstetrics & Gynaecology	2	2	1
Anaesthetics	4	1	3[1]

Source: United Hospital Trust

Table 4.3b Junior Medical Staff at Mid Ulster Hospital

Specialty	House Officer	Senior HO	Specialist Registrar	Staff Grade	Associate Specialist
General Surgery	3	3	1	1[2]	-
General Medicine	3	7	1	-	1
Obstetrics & Gynaecology	-	4	-	-	-
Paediatrics	-	-	-	1	-

Table 4.4a Consultant Staff at Whiteabbey Hospital

Specialty	Establishment	Permanent Posts	Locum Posts
General Surgery	3	3	-
General Medicine	5	4	1
Anaesthetics	3	1	2[3]
Dermatology	1	1	-

Source: United Hospital Trust

[1] Includes one WTE due to start on 6/12/05

[2] Locum

[3] includes one WTE due to start in January 2006

Table 4.4b Junior Medical Staff at Whiteabbey Hospital

Specialty	House Officer	Senior HO	Trust Grade Dr	Specialist Registrar	Staff Grade	Associate Specialist
General Surgery	3	3	-	-	1	-
General Medicine	4		8	1	1	1
Care of Elderly	-	2	1	-	-	-
A&E	-	-	1	-	1	2
Anaesthetics	-	-	-	-	1	-

Radiology

Radiology at both hospitals is provided by the 10 WTE Radiologist rota at Antrim. There are currently 6 permanent and 2 Locum Consultants, with two further permanent Consultants due to commence in February and September 2006.

Both sites have a requirement of 16 sessions per week, but only 15 at Mid Ulster and 12 at Whiteabbey are currently covered, leaving a shortfall in both instances.

4.4 Costs Associated with Maintaining Services

In order to maintain current services the Trust has had to invest substantial sums on locum staff to maintain rotas. Consultant rotas in particular have required substantial investment and as a result the costs of employing locum cover has increased at both Mid Ulster and Whiteabbey Hospitals.

Table 4.5 overleaf illustrate that total locum bill in Mid Ulster was £1.8m in 2004/05 and just over £0.6m in Whiteabbey. There are substantial costs associated with the anaesthetic services at both Mid Ulster and Whiteabbey whilst the Trust spends just over £0.8m on General Medical locums alone.

Table 4.5 Locum Costs at MUH and WAH

	2003/04 £	2004/05 £	Change %
Mid Ulster Hospital			
A&E	75,652	88,346	16.8%
Anaesthetics	472,483	499,187	5.7%
Obstetrics & Gynaecology	150,883	305,169	102.3%
General Surgery	59,126	68,535	15.9%
General Medicine	492,713	813,860	65.2%
Orthopaedics	7,463	1,114	(85.1)%
Total	**1,258,320**	**1,776,211**	**41.2%**
Whiteabbey Hospital			
A&E	28,881	99,376	244.1%
General Surgery	24,278	111,019	357.3%
General Medicine	95,479	77,069	(19.3)%
Geriatric Medicine	40,832	42,271	3.5%
Anaesthetics	153,538	269,981	75.8%
Dermatology	26,226	40,062	52.8%
Total	**369,234**	**639,778**	**73.3%**

Source: United Hospitals Trust

5. RISK ASSESSMENT CONTEXT

In this section we describe the results of a number of previous risk assessment exercises conducted by United Hospital Trust, based on a review of documents provided by the Trust. We also considered the risk assessment exercise recently conducted in Sperrin Lakeland HSS Trust.

5.1 Ongoing Review of Services 1995-2005

The services provided at Mid Ulster and Whiteabbey Hospitals have been under review for some time. Although the Trust and NHSSB have taken significant steps to maintain the acute services at the two hospitals, with investment in locum staff at MUH of £1.3m in 2004 and £1.8m in 2005, and at WAH of £0.4m in 2004 and £0.6m in 2005. There have been problems maintaining the consultant and junior medical rotas at both the hospitals. Therefore the provision of services, has, in line with the Minister's request, been reviewed on several occasions, and there has been some restructuring of services over recent years.

5.2 Paediatric Services

Currently Paediatric Services are provided at Antrim Area and Mid Ulster Hospitals.

Whiteabbey Hospital has never had a Paediatric Medical Service and has not provided major paediatric surgery for a considerable time. Bypass protocols for paediatric trauma were introduced in 2002 following a risk assessment which recommended that patients under 13 years should not be brought to Whiteabbey Hospital A&E.

Mid Ulster Hospital's Inpatient Paediatric Medical service ceased in 1995, at which time a Paediatric Ambulatory service was introduced between the hours of 9a.m. and 5p.m. on week days. Children requiring admission are directed to Antrim Area Hospital, which has a 24 hour Paediatric Medical Service. The Northern Ireland Ambulance Service and General Practitioners have been fully appraised of this policy.

Some Paediatric Surgery has continued to be undertaken at Mid Ulster Hospital, although ENT inpatient tonsillectomies ceased in February 2005. However, this provision falls outside the recommendations and guidelines produced by the Paediatric Surgical Services in Northern Ireland Working Group 1999.

Paediatric trauma is still brought to the Mid Ulster A&E, but any child requiring high dependency care is transferred to an appropriate hospital.

During the risk assessment process a number of issues regarding the risks associated with the paediatric service were discussed. The risks associated with delivery of the paediatric services at Mid Ulster Hospital were not discussed at the Risk Workshops, and thus have not been scored in the risk scoring exercise. However they have been considered subsequent to the Work shop through discussions with key clinicians and staff of the Trust, and compared to medical standards relating to Paediatric services.

5.3 Risk Assessment of Maternity Services at Mid Ulster

5.3.1 NHSSB Review

In December 1998 the HSS Executive requested the NHSSB to review the safety of hospital maternity services in the Board's area which were not supported on site by paediatric cover.

In 1999, the NHSSB carried out a review of Maternity services at the Mid Ulster Hospital. The Professional Panel, established by the Director of Public Health in the Northern Board, concluded that among the shortfalls identified in maternity services at the Mid Ulster Hospital, the most significant shortfalls relate to the out of hours arrangements for neonatal resuscitation and paediatric medical cover. The Panel also had concerns regarding the limited availability of regional anaesthesia for deliveries by caesarean section, and the extent to which the consultant medical cover (both obstetric and, to a lesser extent, anaesthetic) was locum cover. In addition, the Panel was concerned regarding the length of time it can take for cross-matched blood to be available in the maternity unit out of hours. It was the view of the Panel that these shortfalls could not be addressed in the Mid Ulster Hospital.

5.3.2 United Hospitals Trust Response

The United Hospitals Trust responded to the Board's review in April 1999, and the findings of the report showed that MUH was failing to meet a range of professional standards set by Royal Colleges and others.

The Trust agreed to take all reasonable steps to maximise quality and safety for mothers and babies, including:

- the Trust will make arrangements to provide additional training for nursing staff to facilitate dedicated anaesthetic assistant support;
- the Trust will, as an interim measure, take a blood sample from every mother to be sent to and held at Antrim, ready for cross-matching should the need arise, to reduce the present response time;
- a review will be undertaken of clinical guidelines to ensure that the specified guidelines are available within the unit;
- consultant staff will develop more specific guidance, particularly for locum staff; and
- the Trust will develop more comprehensive information for patients.

These measures were subsequently implemented, however there were some problems such as lack of 24 hour paediatric support and limitations of anaesthetic cover which continued to create a high degree of fragility in the service, and made it vulnerable to the dangers of prolonged uncertainty.

5.4 Service Maintenance Plans for of Mid Ulster and Whiteabbey 2001

In November 2001, United Hospitals Trust undertook a contingency planning exercise in respect of services at Mid-Ulster Hospital and Whiteabbey Hospital.

The objective of the analysis was to:

- identify and assess the vulnerability of services at Mid Ulster and Whiteabbey hospitals and the action required to minimise risk;
- assess the implications of an inability to address the difficulties identified;
- quantify the volumes of activity which would be displaced on a specialty basis, if elements of the service were to prove unsustainable;
- assess what action would require to be taken to accommodate this displaced activity; and
- assess the implications for Antrim Area Hospital should it be required to respond to such a failure and quantify potential displaced activity which may flow out with this Trust.

It was found that the staffing structures within the United Hospitals Trust were exceptionally susceptible to any loss of personnel, and vulnerabilities existed on both the Mid Ulster and Whiteabbey Hospital sites. These vulnerabilities are summarised below.

5.4.1 Summary of Findings - Mid Ulster Hospital

Accident and Emergency did not have sufficient staff for the Out of Hours service to meet Royal College of Surgeons in Ireland (RCSI) guidelines, and the service remained at risk if any of the major specialties were lost. Additional Nurse practitioners would be needed to maintain a Minor Injuries Unit.

Anaesthetics was one of the most vulnerable elements of the service, and possibly the most likely point of failure because of its significance for other specialties. The service relied heavily on locum cover.

Radiology services were covered on a sessional basis by Consultants based at Antrim, supplemented by locum cover.

Obstetrics and Gynaecology weekend locum cover was provided by the Trust, but this placed considerable pressure on the Consultants. There was also a shortfall in the clinical infrastructure. The service was highlighted as one to be considered for early transfer. Continuing Paediatric cover was not available.

General Medicine workload was seen as high. Additional staff were required to maintain the service.

The key actions arising from the 2001 review and the current status against these actions are shown in Table 5.1 overleaf.

5.4.2 Summary of Findings - Whiteabbey Hospital

Accident and Emergency services were at risk if any of the other major specialties were lost, and there was risk of loss of recognition by the Royal College of Surgeons as the service was not consultant led.

Anaesthetics cover was expected to be by additional sessions for existing staff plus locum cover.

Radiology services were inadequately covered on a sessional basis by Consultants based at Antrim, supplemented by locum cover.

General Medicine service continued to be at risk due to the splitting of Cardiac and Gastroenterology services.

Two **High Dependency Beds** for post surgical recovery will continue to be required as long as acute surgical admissions continue to be received.

Theatres required major refurbishment if the hospital were to continue to undertake surgical procedures.

In addition to the requirements above, the Trust made a case for the immediate establishment of a new ward at Antrim Area Hospital, and justified the proposed investment, in part, by the need to provide some contingency for unforeseen service failure at Mid Ulster or Whiteabbey. The new ward is due to open in the current year.

The key actions arising from the 2001 review and the current status against these actions are shown in Table 5.2 overleaf.

Table 5.1 Current status of Key Actions against 2001 Plan - MUH

Specialty	Key Action		Current Status
A&E	Appoint 2.5 additional Staff Grade doctors		Failed to recruit, locum cover utilised
	Appoint an additional consultant to Antrim with sessions in MUH		In place
	Commence training of 2 nurse practitioners with 2 per annum thereafter		4 trained, 2 of whom are still in Trust employ, but no nurse practitioner posts have been funded.
	Provide teleconferencing link		Business case prepared for telemedicine system. Approval received for funding, August 2005.
Radiology	Appoint a 9th consultant Radiologist to the Trust		Trust Rota with 6 permanent and 2 locum consultants, with 2 further appointments in February and September 2006.
	Train one Radiographer per annum to undertake an enhanced role		Not in place, as Trust was unable to identify the necessary staffing.
	Extend Teleradiology system to MUH		In place
	Develop Business Case for CT scanner at MUH		Completed and Installed
	Develop Business Case for mobile X-ray unit at MUH		Completed and Installed
Obstetrics & Gynaecology	Appoint 3rd Consultant Obstetrician and 1 Staff Grade doctor:		Consultant appointed, albeit unfunded, but Staff Grade not funded and therefore not appointed.
	Seek to provide daytime Paediatric cover		In place
General Medicine	Appoint 4th Consultant Physician and 1 Staff Grade doctor		Locum in place, but not funded. No Staff Grade appointed in absence of funding NB Since the 2001 report, the Trust has appointed 3 additional Consultant level staff at Mid Ulster (including a 4th Consultant Anaesthetist) who are not funded or not recurrently funded. Recurrent funding for these posts would assist significantly in stabilising services.

Source: United Hospital Trust

Key:

Fully Implemented

Partially Implemented

Outstanding

Table 5.2 Current status of Key Actions against 2001 Plan - WAH

Specialty	Key Action		Current Status
A&E	Commence training of 2 Nurse Practitioners, with 2 per annum thereafter.		Three trained, but no Nurse Practitioner posts have been funded
	Provide teleconferencing link		Business Case prepared for Telemedicine system. Approval for funding received, August 2005.
Anaesthetics	Appoint replacement Consultant Anaesthetist in advance of anticipated retirement.		Anaesthetist appointed
Radiology	Appoint 9th Consultant Radiologist to the Trust		Trust Rota with 6 permanent and 2 locum consultants, with 2 further appointments in February and September 2006.
	Train one Radiographer per annum to undertake an enhanced role		One radiographer in training (ultrasound), and plans for a rotation from Antrim through Whiteabbey
	Extend teleradiology system to Whiteabbey		In place
	Develop Business Case for CT scanner at Whiteabbey		Addressed as part of NHSSB Acute Services OBC, 2005
	Develop Business Case for replacement of screening room at Whiteabbey:		Developed and installed
	Develop Business Case for ultrasound scanner at Whiteabbey		In place
	Develop Business Case for mobile X-ray unit at Whiteabbey		Developed and awaiting approval
General Medicine	Appoint 1 Locum Consultant for enhanced out of hours cover 1 night in 4 and 1 weekend in 4		Now 1 in 4 rota during the week, and 1 in 5 at weekends
High Dependency	Commission 2 High Dependency beds at Whiteabbey		In place
Theatres	Develop Business Case for refurbishment of theatres at Whiteabbey	N/A	Not taken forward in light of DBS plans

Source: United Hospital Trust

5.5 Sperrin Lakeland Trust Risk and Governance Review

Phase 1

In early 2005, Sperrin Lakeland Health and Social Care Trust (SLT) commissioned members from the NHS Clinical Governance Support Team to perform a comprehensive risk and governance review of acute hospital services within the Trust. In May 2005, the Trust published the findings of Phase 1 of the review. Phase 1 was the 'Validation of the Trust's initial risk assessment on anaesthetics and critical care services'. The main focus of the review team was on patient safety, quality of care and staff welfare.

The review highlighted that the ICU at Tyrone County Hospital was insufficient to provide intensive care services, and recommended that the Unit should be subject to reconfiguration. Until the Unit is reconfigured, the report recommended that Tyrone County Hospital should only provide an HDU service and if a patient required intensive care then they should be stabilised and transferred when a bed is identified. The report recommended a Northern Ireland wide network of critical care services be established.

United Hospitals Trust's response to DHSSPS, on the implications of the Sperrin Lakeland review, dated 29th June 2005, stated the following:

The situation at Mid Ulster and Whiteabbey Hospitals is significantly different from that described within the Sperrin Lakeland Trust in that neither hospital has an Intensive Care Unit although both have high dependency beds and both would seek to transfer ventilated patients as soon as possible. However, reliance on a single tier Consultant rota in both hospitals, currently dependent on locum support does not provide the appropriate level of anaesthetic cover at all times.

Report by the Royal College of Surgeons

The Royal College of Surgeons produced a report in the General Surgical Services at Sperrin Lakeland HSS Trust. The key extracts from the report included the following comments:

'Hospitals serving a population of less than 250,000 should not be expected to be able to provide a full range of surgical services. In particular, they cannot provide a 24 hour a day, 7 day a week, surgical service that accepts all unscheduled and undifferentiated emergency cases without network support. The staffing needed to provide such a service cannot be sustained either in economic terms of in the range of cases attending the hospitals which would create a very low case load for surgeons'

6. RELEVANT SERVICE STANDARDS

There are a number of policy documents outlining the minimum standards required for each of the clinical service areas, provided at Mid Ulster and Whiteabbey Hospitals. We have summarised some of the standards relevant to each of the clinical area using information from a variety of sources including the Royal Colleges, Expert Working Groups and policy papers. This is not a full list of all the standards available, but provides a focus on the key areas of concern (bibliographic details are provided in Appendix 2).

6.1 General Medicine

The 'Consultant Physicians Working for Patients' report published by the Royal College of Physicians stated, amongst others, the following strong recommendations for General Medical Services:

- The acute on call rota should be no more than one in five;
- No consultant should work single-handed in a hospital in the major medical specialties;
- There should be one consultant per 80,000 population in all major medical specialties (cardiology, gastroenterology, endocrinology and diabetes, thoracic medicine);
- Acute medical teams should not have to handle more than 20 patients in a 24 hour period, and should not be responsible for more than 25 inpatients;
- Consultants should be supported by the appropriate medical team – house officer, senior house officer and specialist registrar;
- Acute medical and surgical specialties should both be present in the hospital on take.

6.2 Maternity Service Standards

There are range of standards which apply to the provision of maternity services covering the organisation, clinical care and training of staff. However, in this section we focus upon the relevant staffing and support service requirements for running a consultant-led maternity service. We highlight two areas in which standards are currently not being met within Mid Ulster.

Dedicated Obstetric Anaesthetic Services

A number of sources have highlighted that all consultant led maternity units should have dedicated anaesthetic services with trained dedicated assistance at all times. These include the Clinical Negligence Scheme for Trusts Maternity Services Risk Management Standards and Obstetric Anaesthetics' Association/The Association of Anaesthetists of Great Britain and Ireland Guidelines for Obstetric Anaesthetic Services Revised Edition 2005. These guidelines highlight that obstetric anaesthetic services should have:

- dedicated anaesthetic services with trained dedicated assistance at all times;
- a duty anaesthetist should be immediately available for the Delivery Suite 24 hours per day;

- as a basic minimum, there should be 10 consultant anaesthetic PAs/sessions for every maternity unit;
- there should be a named consultant anaesthetist and obstetrician responsible for all HDU patients 24 hours per day.

If the anaesthetist has other responsibilities, these should be of a nature that would allow the activity to be delayed or interrupted should obstetric analgesia or anaesthesia demands arise (Obstetric Anaesthetists' Association, The Association of Anaesthetists of Great Britain and Ireland: Guidelines for Obstetric Anaesthetic Services Revised Edition, 2005). In addition to the contracted consultant obstetric anaesthesia sessions, an obstetric unit with an anaesthesia service should have a consultant anaesthetist on call and responsible for the unit at all times (Guidelines for Obstetric Anaesthesia Services, 1998).

This standard is not currently met at Mid Ulster.

Provision of Paediatric Support Services

Consultant-led obstetric units should provide cover on a 24 hour on-call basis by consultant obstetricians, consultant anaesthetists and consultant paediatricians (The commissioning and provision of maternity services: policy guidelines).

Guidelines from Scotland (Expert Group on Acute Maternity Services: Reference Report) state that a Level IIb consultant-led maternity unit with <1000 deliveries per annum, should have 24 hour paediatric cover and a SCBU.

The maternity service at Mid Ulster does not meet these standards.

6.3 Paediatric Service Standards

There are a range of standards which apply to the provision of paediatric services. We have only highlighted those relating to paediatric surgery as Mid Ulster does not have an inpatient paediatric medical service. Children who require admission to a Paediatric Medical bed are transferred to Antrim Area Hospital.

The British Association of Paediatric Surgeons, Paediatric Surgery: Standards of Care, May 2002, states that a paediatrician must be available 24 hours a day for consultation and assistance in the care of any surgical child. There is currently not 24 hour paediatric consultant cover at the Mid Ulster Hospital.

If paediatric surgical services are provided a number of back up services are required:

- radiological services for children;
- immediate availability of paediatric high dependency care and a clearly defined policy for access to a paediatric intensive care unit;
- surgical outpatient clinics specifically for children, with child friendly amenities.

The DHSS produced the Paediatric Surgical Services in Northern Ireland report in 1999, which recommended that:

- a specially designated child friendly area within the accident and emergency department should be available;

- a specially equipped area should be set aside for the resuscitation of ill children;
- all accident and emergency staff should receive training specifically related to the care of children;
- children with major trauma within the Greater Belfast area should be taken to Accident and Emergency, Royal Belfast Hospital for Sick Children;
- children with major trauma outside the Great Belfast area should be taken to the nearest appropriate acute hospital (appropriate being defined by the working group report in the Management of Major Trauma in Northern Ireland, May 2003, which states:
  - for children under 2 years, an anaesthetist well practiced in practiced in resuscitating children and infants is vital. The Working Group therefore recommended that hospitals receiving injured children should be appropriately staffed and equipped.
- All units admitting children following trauma should have clearly defined arrangements for transfer to a Paediatric Intensive Care Unit.

The Royal College of Anaesthetists: Guidance on Paediatric Anaesthetic Services highlighted the requirements for specialist paediatric anaesthetics services and stated that services should be:

- led by consultants who anaesthetise children regularly
- adequate assistance for the anaesthetist by staff with paediatric training and skills must be available
- paediatric anaesthetic equipment must be available where children are treated.

The current paediatric service at Mid Ulster does not meet these standards.

6.4 A&E Service Standards

There are a range of standards which apply to the provision of Accident and Emergency services covering a range of issues. In this section we focus upon the relevant standards which should influence the shape and nature of services at both Mid Ulster and Whiteabbey:

The Faculty of Medicine (Royal College of Surgeons in England) recommends the following levels of emergency care:

Large Departments:	with all specialty facilities for major accidents and receiving more than 100,000 emergencies per year;
Medium Departments:	average DGH (no burns, cardiac or neurosciences) receiving between 40-70,000 emergency admissions per year; and
Small Departments:	a minor injuries unit receiving about 40,000 emergency admissions per year (the absolute minimum for any unit at all)

Support Services

- a Type I A&E department should have a consultant led, 24 hour service (National Audit Office Press Office, DHS: Improving Emergency Care in England);
- CT scanning should be readily available, on a 24 hour basis, to A&E Departments responsible for assessing head injured patients. Authoritative sources recommend 24 hour access in all Accident and Emergency Departments (SIGN: Early Management of Patients with a Head Injury);
- all of the following support services should be available 24 hours, seven days a week – near patient diagnostics or satellite laboratories in emergency departments where possible, shared with other emergency assessment areas. Alternatively, arrange for rapid turnaround of an agreed list of laboratory tests (Reducing Delay for A&E patients, NHS);
- rapid access for radiology with agreement that all designated staff can request tests according to protocols. CT, USS, endoscopy and ETT emergency workload, to be incorporated into scheduling of elective diagnostic work (Reducing Delay for A&E patients, NHS).

Whiteabbey does not have CT facilities whilst the CT scanner at Mid Ulster is fully utilised during the day, it is only used for head scans out of hours.

Paediatric Cases

Children, with anything other than minor injuries, should not be taken to A&E Departments which do not have appropriate paediatric back-up, that is, an on-site paediatric unit (Hospital Services for the Acutely Ill Child in Northern Ireland – Report of a working group, 1999).

Those responsible for the organisation and management of hospitals with A&E Departments but without on-site paediatric services, should ensure that parents, GPs, teachers, etc are aware of the scope of services which their unit can provide and the location of the nearest A&E Department which has onsite paediatric cover (Comprehensive Critical Care: A review of Adult Critical Care Services, 2000). Appropriate communications should be established between networked hospitals and the NIAS to ensure that paediatric patients are seen at the appropriate hospital.

Services at Mid Ulster and Whiteabbey do not have the ability to treat paediatric cases. Whiteabbey has formal bypass protocols so paediatric cases are not brought into the A&E. We understand similar arrangements are in place for medical patients at Mid Ulster and that these will be extended to surgical cases.

Treatment of Head Injuries

'Implementing the Galasko report on Head Injury Care' document states that resuscitation of patients with serious head injuries is universally agreed to be the responsibility of A&E. Resuscitation should ideally be carried out internally by A&E staff but this is not possible for most units out of hours and all units should have:

- adequate back up by experienced anaesthetists;
- invasive monitoring equipment;
- full emergency imaging provision; and

- good transfer facilities.

6.5 Anaesthetics Service Standards

There are a number of standards for the provision of anaesthetics services in hospitals, we have split these into three types:

General Standards

- anaesthetist staff will be consultant led with a director and nominated consultants responsible for the individual components of the service (The Royal College of Anaesthetists: Key points for the provision of Anaesthetic Services);
- where general anaesthetics are being administered there must be in place facilities providing 24 hour access to a full range of laboratory and radiological services for both routine and urgent investigations (Royal College of Anaesthetists – Key points for the provision of Anaesthetic Services);
- a trained anaesthetic nurse or operating department assistant (ODA) should be assigned to assist the anaesthetist at all times when anaesthesia is being conducted in the A & E Department (The Association of Anaesthetists of Great Britain and Ireland – The role of the Anaesthetists in the Emergency Service, 1991).

DHSSPS correspondence of 25 May 2005 sought assurance 'inter alia' that the Trust's services provided for a 'safe and acceptable level of Consultant anaesthetics cover at all times'. This was particularly understood to refer to on-site anaesthetic support for ventilated patients and available Consultant on-call cover at all times (e.g. in the event of a patient transfer).

Paediatric Standards

- there will be a nominated consultant anaesthetist, suitably trained in paediatric anaesthesia, responsible for services for children. The service will be led at all times by consultants who anaesthetise children regularly, at least the equivalent of one full operating list per week. Children under five years of age will normally be anaesthetised by consultants or under the direct supervision of a consultant;
- when a consultant with adequate training and continuing experience is not available, arrangements will be made for the transfer of children to another hospital with the necessary staff and facilities;
- adequate assistance, from nurses or operating department practitioners with paediatric training and skills will be available to the anaesthetist at all times.

These standards are all based on the Royal College of Anaesthetists – Guidelines for the provision of anaesthetic services.

Obstetric Standards

These are similar to those outlined in section 6.1.

6.6 Surgical Service Standards

There are a number of more general standards for surgical services which are relevant to both the Mid Ulster and Whiteabbey, including:

- there must be adequate anaesthetic, radiology and pathology services (The Royal College of Surgeons in Ireland: Surgical Guideline & Protocols/Clinical Guidelines.)
- no surgeon should work in isolation from other surgeons. The minimum number for a surgical unit should be 3 general/acute surgeons (The Royal College of Surgeons in Ireland: Surgical Guideline & Protocols/Clinical Guidelines);
- surgical services should be delivered by fully trained surgeons (The Royal College of Surgeons of England: Developing a modern surgical workforce, Jan 2005);
- every consultant surgeon requires adequate support staff and facilities (The Royal College of Surgeons of England: The Surgical workforce in the new NHS, Nov 2001).

The Royal College also stated that, from 2001, that they would only recognise basic surgical training posts in A&E departments that are consultant led.

6.7 Summary

In this section we have highlighted a range of staffing and support service standards relevant to both Whiteabbey and Mid Ulster Hospitals. The standards are particularly clear in relation to the requirements for a maternity, paediatric and anaesthetic service. These have clear implications for services, especially at Mid Ulster. Some of these standards are not currently being met and most are unlikely to be met in the near future. This is becoming less acceptable in an environment strongly influenced by clinical governance.

Table 6.1 below overleaf where Mid Ulster and Whiteabbey Hospitals meet or do not meet these standards.

Table 6.1 Summary of Key Standards

Specialty	Standard	Standard met at Mid- Ulster Hospital	Standard met at Whiteabbey Hospital
General Medicine	The acute on call rota should be no more than 1 in 5	NO	NO
	No consultant should work single-handed in a hospital in the major medical specialties	YES (only GM at MUH)	NO
	There should be one consultant per 80,000 population in all major medical specialties	YES	YES
	Acute medical teams should not have to handle more than 20 patients in a 24 hour period	YES	YES
	Acute medical teams should not be responsible for more than 25 inpatients	YES	YES
	Consultants should be supported by the appropriate medical team (House Officer, SHO and specialist registrar	Partially met – intermediate support available	Partially met – intermediate support available
	Acute medical and surgical specialties should both be present in the hospital on take.	YES	YES
Maternity	dedicated anaesthetic services with trained dedicated assistance at all times	NO	Not Applicable
	a duty anaesthetist should be immediately available for the Delivery Suite 24 hours per day;	Partially met, not dedicated anaesthetic, but there is always duty anaesthetic cover available	Not Applicable
	as a basic minimum, there should be 10 consultant anaesthetic PAs/sessions for every maternity unit;	NO	Not Applicable
	there should be a named consultant anaesthetist and obstetrician responsible for all HDU patients 24 hours per day.	N/A (no Obstetrics HDU)	Not Applicable
	consultant anaesthetist on call and responsible for the unit at all times	Partial, not dedicated anaesthetist	Not Applicable

Specialty	Standard	Mid Ulster Hospital	Whiteabbey Hospital
Paediatric	a paediatrician must be available 24 hours a day Consultant-led obstetric units should provide cover on a 24 hour on-call basis by consultant obstetricians, consultant anaesthetists and consultant paediatricians. A Level IIb consultant-led maternity unit with <1000 deliveries per annum, should have 24 hour paediatric cover and a SCBU.	NO	NO
	Paediatric back up services to include: radiological services for children	YES	NO
	Paediatric back up services to include: immediate availability of paediatric high dependency care and a clearly defined policy for access to a paediatric intensive care unit	NO	NO
	Paediatric back up services to include: surgical outpatient clinics specifically for children, with child friendly amenities.	YES	NO
	paediatric anaesthetics services should be: led by consultants who anaesthetise children regularly	NO	NO
	a specially designated child friendly area within the accident and emergency department should be available	NO	NO
	a specially equipped area should be set aside for the resuscitation of ill children	NO	NO
	all accident and emergency staff should receive training specifically related to the care of children	YES	YES
	children with major trauma within the Greater Belfast area should be taken to Accident and Emergency, Royal Belfast Hospital for Sick Children	YES	YES
	children with major trauma outside the Great Belfast area should be taken to the nearest appropriate acute hospital for children under 2 years, an anaesthetist well practiced in practiced in resuscitating children and infants is vital, hospitals receiving injured children should be appropriately staffed and equipped.	NO	NO
	All units admitting children following trauma should have clearly defined arrangements for transfer to a Paediatric Intensive Care Unit.	YES	YES
	paediatric anaesthetics services should be: adequate assistance for the anaesthetist by staff with paediatric training and skills must be available	NO	NO

Specialty	Standard	Mid Ulster Hospital	Whiteabbey Hospital
	paediatric anaesthetics services should be: paediatric anaesthetic equipment must be available where children are treated.	YES	NO
A&E	Minimum of 40,000 admissions per year	NO	NO
	24 hour Consultant led A&E,	NO	NO
	CT scanning should be readily available, on a 24 hour basis	Partial, only used for head scans OOH	NO
	all of the following support services should be available 24 hours, seven days a week – near patient diagnostics or satellite laboratories in emergency departments where possible, shared with other emergency assessment areas. Alternatively, arrange for rapid turnaround of an agreed list of laboratory tests	YES	YES
	rapid access for radiology	Partial	Partial
	For Head Injuries: adequate back up by experienced anaesthetists;	NO	NO
	invasive monitoring equipment;	YES	YES
	full emergency imaging provision; and	YES	NO
	good transfer facilities.	Partial	Partial
Anaesthetics	anaesthetist staff will be consultant led	YES	YES
	24 hour access to a full range of laboratory and radiological services	NO	NO
	a trained anaesthetic nurse or operating department assistant (ODA) should be assigned to assist the anaesthetist at all times when anaesthesia is being conducted in the A & E Department	NO	NO
	when a consultant with adequate training and continuing experience is not available, arrangements will be made for the transfer of children to another hospital with the necessary staff and facilities	YES	YES
Surgical	adequate anaesthetic, radiology and pathology services	Partial	Partial
	the minimum number for a surgical unit should be 3 general/acute surgeons	YES	YES

Source: Advised by Trust, full Bibliography contained in Appendix II

In the following sections we discuss a number of options for addressing these issues, although we primarily focus on the sustainability of services in light of these standards and other difficulties associated with staffing levels.

7. RISK MITIGATION OPTIONS

Following discussion with senior clinical and Trust staff a range of options were considered for mitigating risk in the provision of key acute services at Mid Ulster and Whiteabbey Hospitals. In this section we describe each option considered and the rationale for each option.

7.1 Whiteabbey Hospital

Four potential options for mitigating risk in the provision of key acute services at Whiteabbey Hospital have emerged from workshops. These are detailed below:

- **Option 1**: Status Quo – all services are maintained as now.
- **Option 2**: restricted A&E opening hours. The opening hours at WAH are currently 9am-11pm, 5 days per week, and 9am-5pm at weekends and on bank holidays. Due to the risks identified regarding the lack of consultant surgical cover during out of hours in the A&E department, it was felt necessary to consider the further reduction of the opening hours of the A&E department.
- **Option 3**: withdrawal of Emergency Surgery. Emergency surgery is due to be withdrawn from WAH under DBS. Early in the risk review process, the lack of staffing cover in Emergency surgery was highlighted as an issue. This would mean that there would be no facility for emergency medicine admissions through A&E. Medical admissions would be GP referrals and select cases which have been identified as low risk cases. Elective surgery would remain.
- **Option 4**: full implementation of DBS. Under this option, WAH would become a local hospital as defined in DBS. This would mean that acute inpatient services, including General Surgery, General Medicine and Cardiology would be removed from WAH. Day case and outpatient services will remain, and A&E department will convert to a minor injuries service.

7.2 Mid Ulster Hospital

Five options were considered for mitigating risk at Mid Ulster.

- **Option 1**: Status Quo – all services are maintained as now pending implementation of DBS.
- **Option 2**: withdrawal of Obstetric & Gynaecology Services. The maternity service at MUH was identified, early in the risk assessment exercise as being necessary to review. Given the strategic direction envisaged in DBS for the hospital, where the consultant led maternity services will be removed, it was felt that the early removal of the service should be considered.
- **Option 3**: restricted A&E opening hours. Due to the risks identified regarding the cover during out of hours in the A&E department, and the lack of support services required in an A&E department, and the lack of provision of operators for the CT scanner during out of hours, it was felt necessary to consider the reduction of the opening hours of the A&E department. All paediatric surgery inpatients will be transferred to Antrim Area Hospital, and by-pass protocols should be implemented for all paediatric emergencies. Minor injuries for children could continue to be

undertaken in A&E. By-pass protocols should also be implemented for all major trauma and head injuries.

- **Option 4**: withdrawal of Obstetrics and Gynaecology Services and restricted A&E opening hours (as in option 3). This option considers the impact of withdrawing maternity services, as with option 2, as well as restricting A&E opening hours, as with option 3.

- **Option 5**: full implementation of DBS. This option would mean that MUH would become a local hospital as defined in DBS. The proposals will mean that all inpatient services in General Surgery, General Medicine and Obstetric and Gynaecology will be removed. The A&E department would change to a Minor Injuries Unit. Inpatient Rehabilitation will remain, as well as elective surgery on a day case basis.

The fourth option was not formally part of the risk assessment exercise, however, it was possible to examine the effect of this option on the overall risk profile by combining the results of option 2 and 3.

Risks to the sustainability of each of these options relate partially to the timeframe each option is provided for. The risk assessment exercise hence examines the risks associated with sustaining key acute services over a period of 12-18 months.

8. WHITEABBEY HOSPITAL RISK IDENTIFICATION AND EVALUATION

In this section we outline the key risks to the Whiteabbey Hospital in terms of the sustainability of services. These were based on the consultation process with staff and have been reviewed by the Trust management to ensure factual accuracy. We also describe the consensus risk score allocated to each risk during the workshop process.

These scores apply only to Whiteabbey Hospital, and are not meant to be compared to the scores for similar risks at Mid Ulster Hospital. They should only be used to compare the relative risks of the different options considered for Whiteabbey Hospital. The scores differ for the two hospitals due to the fact that they were based on staff judgement and only to be considered in terms of relativity to the other options.

8.1 Risk Criteria – Whiteabbey Hospital

8.1.1 Anaesthetics

Risk 1 – Inability to provide anaesthetic support: staffing

There are currently 2 WTE consultant posts, with a third due to commence in January 2006. The service is being provided by the one permanent consultant with the help of two long term locums. There is also a vacant associate specialist post and one staff grade who is on long term sick leave.

The Trust has advertised for a 3rd locum consultant and expects to make an appointment in the near future. However, the staffing will still be one permanent substantive consultant and two permanent locum consultants, and the Out of Hours rota will remain dependent on locum support.

There is also reported to be an increasing number of junior doctor anaesthetists due to complete training in the near future. With a full complement of filled posts and all staff available the Trust has adequate staffing levels for routine anaesthetic services at WAH.

Without a full anaesthetics rota the service would close, however, this was considered unlikely to happen under any of the options considered.

Risk 2 – Inability to provide anaesthetic support: during transfers

The anaesthetists cover the transfer process which can take a significant time as the anaesthetist has to prepare and monitor the patient prior to transfer, accompany the patient and return to Whiteabbey Hospital. Transfers are mainly from A&E to Antrim Area or Belfast Hospitals, typically involving patients with complex medical or surgical problems. The option is available to utilise NICaTS (Northern Ireland Critical Care Transfer Service) but it was reported that this can take up to three hours, requires patient preparation, has specific patient selection criteria and it can be quicker for the local anaesthetist to accompany the patient.

The unit reports that for short periods during the year an anaesthetist needs to stop a list in order to accompany a transfer. The Clinical Director reports having twice closed the hospital to new admissions for short periods in the last year as a result of loss of anaesthetic cover for a transfer.

If the Trust appoints another consultant, and there are no staff on sick leave, then there should be 2 tier cover during the day, 9am-5pm, and hence sufficient cover both to continue a surgical list and to accompany a transfer, as there is only 1 theatre for the anaesthetists to staff at Whiteabbey. If the A&E service was to close at 5pm every day, the current pressures felt by staff would be reduced, although this would not be the case at the weekends.

During the risk workshop the group highlighted that the inability to provide anaesthetic support during transfers causes major disruption to the service (impact score = 4). This impact was considered likely to happen under the do nothing option (likelihood score = 4) whilst restricting the A&E opening hours would reduce the likelihood of this occurring.

Risk 3 – Inability to provide anaesthetic support: dual requirements

The inadequacy of the anaesthetic cover at Whiteabbey can also cause an issue if a dual requirement arises. This requirement happens when there are two patients requiring an anaesthetist. This could happen if the anaesthetist is required for an elective surgical procedure, and an emergency patient requiring resuscitation is brought into A&E.

On return to work the staff grade will work 9am-5pm only, thereby posing some difficulties in covering A&E hours if opening is not restricted to 9am-5pm. At nights and weekends there is only 1 anaesthetist on call but to date the department does not believe that significant problems have been experienced with this level of cover. A critical dual requirement for anaesthetists is regarded as a relatively rare occurrence.

During the risk workshop the group considered that the likelihood of a dual requirement occurring was low (likelihood score = 2).

8.1.2 Accident & Emergency

There has been an A&E department at WAH for approximately 25 years. Current opening hours are 9am to 11pm weekdays, and 9-5 weekends and Bank Holidays. The department is led by an Associate Specialist, not a Consultant, who is supported in the main by staff grades. All training recognition has been withdrawn and recruitment has proved to be difficult in the past, as they are non-training posts and do not afford any major trauma experience, thereby threatening the continued functioning of the department. Two staff grade posts are about to be advertised. Reliance on Locum cover within A&E has risen, with spending increased by 244% from 2003/04 to 2004/05.

There is no out of hour's supervision, and the Associate Specialist is not on call. If required A&E staff can call an SHO from the wards for advice. If the opening hours were reduced to 9am-5pm, the risk associated with a lack of Out of Hours cover would be greatly reduced.

A&E average daily attendances in 2004/5 were split by time of attendance as follows:

	No of attendances
8am – 5pm	67
5pm – 11pm	23
Total	**90**

Risk 4 – Inability to sustain staff rotas

Two staff grade posts are about to be advertised. If these posts are filled it is felt that the only remaining risk to sustaining appropriate staffing levels will be that of long term sickness.

The do nothing option has been scored on the understanding that additional staff grades are successfully appointed by the Trust, and therefore, the staffing complement will be higher than it is at present. This is a major assumption and clearly failure to appoint raises major implications over the sustainability of an adequate service based on continued reliance on significant levels of locum cover.

Risk 5 – CT Scanning Availability

There are bypass protocols in place so that inappropriate patients, such as major trauma with head injuries, penetrating chest wounds or long bone fractures, are not brought to the Whiteabbey Hospital A&E but are taken to a more appropriate department in other hospitals. However the department still receives cases such as strokes, possible subarachnoid haemorrhages and walk-in head injuries, approximately two cases per month, where appropriate clinical practice requires CT scanning. Currently there is a need to transfer these patients to AAH, which can take the anaesthetist out of WAH for a period of time, leaving the hospital uncovered (mostly 'Out of Hours' but also sometime 'In Hours').

Clearly under the Do Nothing and Restricted A&E options the lack of a CT scanner continues to be a significant problem in terms of both the quality of care that can be delivered and disruption to the department in arranging and supporting the transfer process.

Risk 6 – Paediatrics

There are no inpatient paediatric services and protocols are in place to divert NI Ambulance Service to other hospitals. In respect of self referrals, there are occasions when there is a need to transfer out paediatric patients, as there is no paediatric opinion available at WAH and appropriate care cannot be provided. This requirement is estimated to occur in the region of once every 3 months.

The lack of paediatric support causes a major disruption to service but was considered less likely as the extent of emergency services provided in Whiteabbey was reduced.

Risk 7 – Transfer Process

The transfer process is often prolonged. The options are to transfer the patient under the supervision of a WAH anaesthetist or to wait for NICaTS. NICaTS is reported to take up to 3 hours to arrive, during which time, the anaesthetist has to wait with the patient and so cannot respond to other demands. The hospital has had to restrict admissions for short periods as a result of an anaesthetist being involved with transfers.

An inadequate transfer process causes major disruptions to services. These disruptions are relatively frequent and hence the group allocated both the do nothing and restricted A&E options a likelihood score of 5.

Risk 8 – Inability of other network hospitals to manage additional activity

From 5pm-11pm A&E sees approximately 23 patients. It is felt that if A&E was to close at 5pm then some patients would come earlier and some would wait till the next morning. Consequently, not all of the demand would transfer to other centres. However, the load

would increase if A&E was to close completely. Previous analysis in 2001 suggests that around 65% of the current workload would be appropriate for a minor injuries unit at WAH.

The transfer of this activity to other network hospital would cause some disruption to services (impact score = 3).

8.1.3 General Medicine

There are four consultant physicians based at WAH. In addition, one consultant cardiologist is based at Whiteabbey Hospital, who also takes primary responsibility for the CCU.

In addition there are 9 SHOs on the medical rota. Recruitment to these posts in the past has been acceptable.

Risk 9 – Inability to maintain medical rotas

The staff find the current 1 in 4 (during week days), and 1 in 5 (at weekends) consultant rotas onerous. The 1 in 4 rota makes recruitment more difficult.

With regard to dependencies between specialties, it was felt that if there was no emergency surgical service it would still be feasible to provide a general medical service. However, there would be a need to be more selective in relation to acceptable admissions and these would need to be agreed in advance with GPs. For example patients with GI bleeds would not be suitable for admission due to the lack of surgical cover. It was anticipated that there would continue to be surgical cover from 9am-5pm from surgeons undertaking elective work on-site. An arrangement would be needed whereby a surgical opinion could be obtained outside these hours, i.e. in the evenings and on the weekends, with anaesthetic cover continuing to be available for intubation etc.

There is only one Consultant Cardiologist at Whiteabbey, and one Staff Grade. The Cardiology on call and cover support at Whiteabbey hospital is provided by an Antrim Area Hospital Cardiologist. This consultant is on call, but is part of a split site rota between Antrim Area Hospital and Whiteabbey Hospital, and works a 1 in 4 rota. This is an inappropriate level of cover. If the General Medical service does not have cardiology support, it is likely that it would collapse.

During the risk workshop the group highlighted that the service and probably the hospital would close if the General Medical rota collapsed (either due to an inability to maintain the general medical rota or maintain consultant cardiac support).

Risk 10 – Inability of other network hospitals to manage additional activity

If emergency surgery is restricted, there would be a requirement to transfer a number of surgical and medical admissions to other network hospitals. However, it was not felt that this would be an insurmountable problem. If the WAH becomes a local hospital as envisaged in DBS, there will be a need to transfer out a very high proportion of medical admissions, and it is highly likely that the hospital networks will not be able to manage the additional activity at present (likelihood score = 5).

8.1.4 General Surgery/Trauma

The surgical service comprises 24 beds and 3 consultant surgeons. There are 2 beds primarily utilised for post-surgical recovery. The consultants work a 1 in 3 on call rota.

Current theatres fall below required building standards and need to be rebuilt. The planned circa £1m refurbishment of theatres was deferred pending the implementation of DBS.

Risk 11 – Inability to maintain surgical rota

One of the three consultants is likely to retire in the next two years and the post is regarded as likely to be difficult to fill given the current commitments and job profile.

The SHO rota is non-compliant and is likely to remain so until the implementation of DBS. Loss of emergency surgical admissions could make the posts less attractive, although the volumes are not significant and in practice the effect may be minimal.

The inability to maintain either the surgical SHO or consultant rotas would cause the closure of the service. This would be impossible under the local hospital or removal of emergency surgery options. Under the Do nothing option, it is unlikely that the service would close due to the inability to maintain the SHO rota, but there is a moderate likelihood of not being able to maintain the surgical rota.

Overall it was felt that a significant risk of an adverse event presently exists as a result of the current staffing arrangements and facilities. Options to mitigate this risk were felt to be:

- availability of local CT scanning;
- a reduction in A&E hours to 9am – 5pm;
- access to faster transfer arrangements through NICaTS;
- completing the anticipated full staffing of anaesthetics posts;
- access to more near patient testing capability.

Overall, it was thought that the level of risk would be slightly reduced if A&E hours are restricted but more significantly if there was no emergency surgical service. However, some risk was felt to remain even if WAH becomes a local hospital as outlined in DBS (as some emergencies may still come to WAH by self referral).

Risk 12 – Inability to provide backup services (blood, labs, ICU, radiology)

A CT scanner is required to investigate various conditions including diverticular disease, pancreatitis, abdominal pain and post-operative problems. The number of patients transferred to AAH for CT over the 3 years, to December 2004, was as below.

Table 8.1 Transfers for CT Scans

	2002	2003	2004
Transfers to AAH for CT scanning	787	833	769

Source: United Hospital Trust

In addition Radiology lacks an urgent ultrasound service and other investigations such as barium enemas. There is no on-site blood bank, with just 6 units being held locally, any further requirements needing to be met from AAH.

The inability to provide backup services causes major disruption to the service and the quality of care to patients. This will continue under both the do nothing and restricted A&E options (likelihood score = 5). These issues would only fully be addressed under the no emergency surgery or local hospital option.

Risk 13 – Inability of other network hospitals to manage additional activity

There are currently approximately 4 emergency surgical admissions per day through A&E, with a range from a low of 2 admissions to a high of 8 admissions. This would reduce slightly if A&E hours were to be reduced.

Overall if WAH was not to take emergency admissions it would have a small impact on the network as the volume is low and they would probably be spread across Belfast hospitals and AAH.

It was also noted by the group that getting patients placed into ICU around the system can be a major issue. This was regarded as a Northern Ireland wide issue.

8.2 Risk Scoring

A risk scoring exercise was carried out with key stakeholders to quantify the risks associated with the four service options. The results of the risk scoring exercise are illustrated in Table 8.2 overleaf.

Table 8.2 Detailed Risk Scores – Whiteabbey Hospital

Risk Criteria	Option 1 Do Nothing	Option 2 Restricted A&E	Option 3 No Emergency Surgery	Option 4 Local Hospital	Impact Score
Anaesthetics					
Inability to provide anaesthetic support: staffing	2	1	1	0	5
Inability to provide anaesthetic support: during transfers	4	2	1	1	4
Inability to provide anaesthetic support: dual requirements	2	2	1	1	4
A&E					
Inability to sustain staff rotas	2	2	1	1	5
Inability to provide CT scanning facilities	5	4	2	1	4
Lack of paediatric cover	4	3	2	1	4
Transfer process	5	5	2	1	4
Inability of other network hospitals to manage additional activity	0	1	3	3	3
General Medicine					
Inability to maintain medical rotas					
A. SHO rota	3	2	1	0	4
B. Consultant rota	4	3	2	0	5
C. Cardiac rota	4	4	4	0	5
Inability to access surgical opinion/GI	1	1	4	0	5
Inability of other network hospitals to manage additional activity	0	1	3	5	4
General Surgery/Trauma					
Inability to maintain surgical rota					
A. SHO rota	2	2	0	0	5
B. Consultant rota	3	3	0	0	5
Inability to provide backup services (e.g. blood, labs, ICU, radiology)	5	5	0	0	4
Inability of other network hospitals to manage additional activity	0	2	5	5	0

Source: UHT staff at Risk Workshop, 18th July 2005

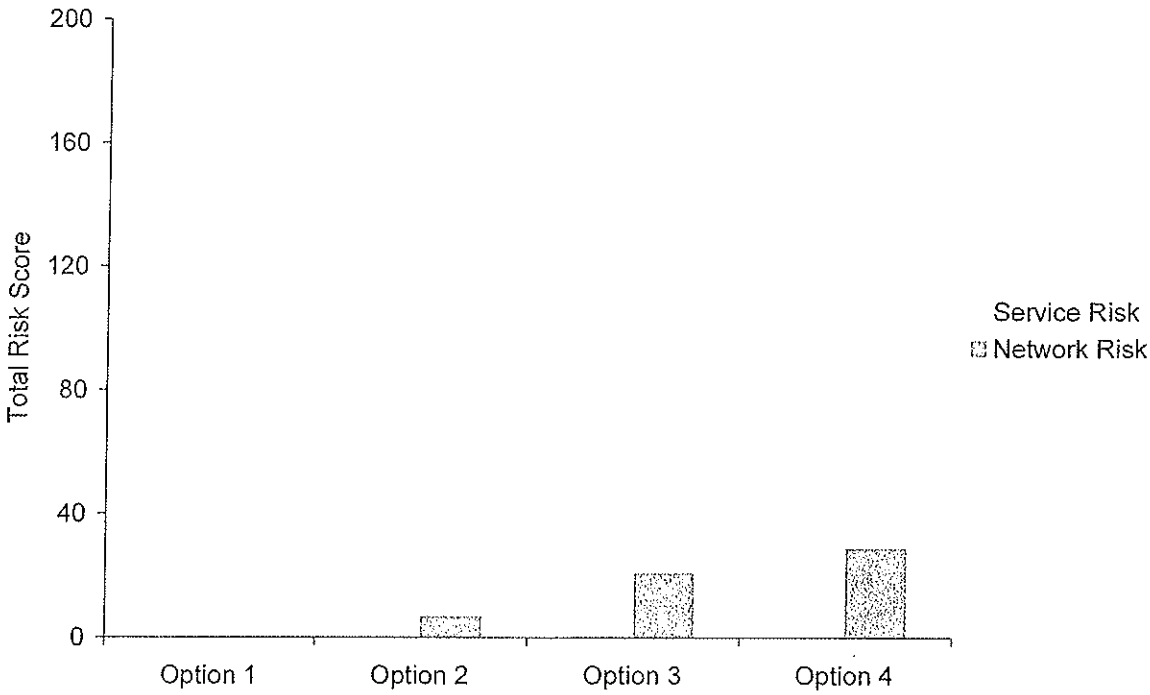
Note: Likelihood scores range from 0 (impossible) to 5 (the event is certain to occur). Impact scores range from 0 (no impact) to 5 (service closure)

8.3 Total Risk Scores

The total risk scores for each option are presented in Figure 8.1. We have separately identified risks associated with sustaining services in Whiteabbey and risks to other network hospitals in managing any additional activity transfers. The results illustrate that a number of services at Whiteabbey face risks associated with their sustainability in the short to medium term.

A strategy of restricting A&E opening hours to 9am to 5pm would mitigate some risk although it has a limited impact on the overall risk profile of Whiteabbey. Withdrawing all emergency services would substantially reduce the overall risk profile of the hospital. However, as additional services are withdrawn this has a greater impact on other network hospitals, particularly Antrim Area in terms of its ability to manage additional activity transfers. The least risk option was option 4 the local hospital model.

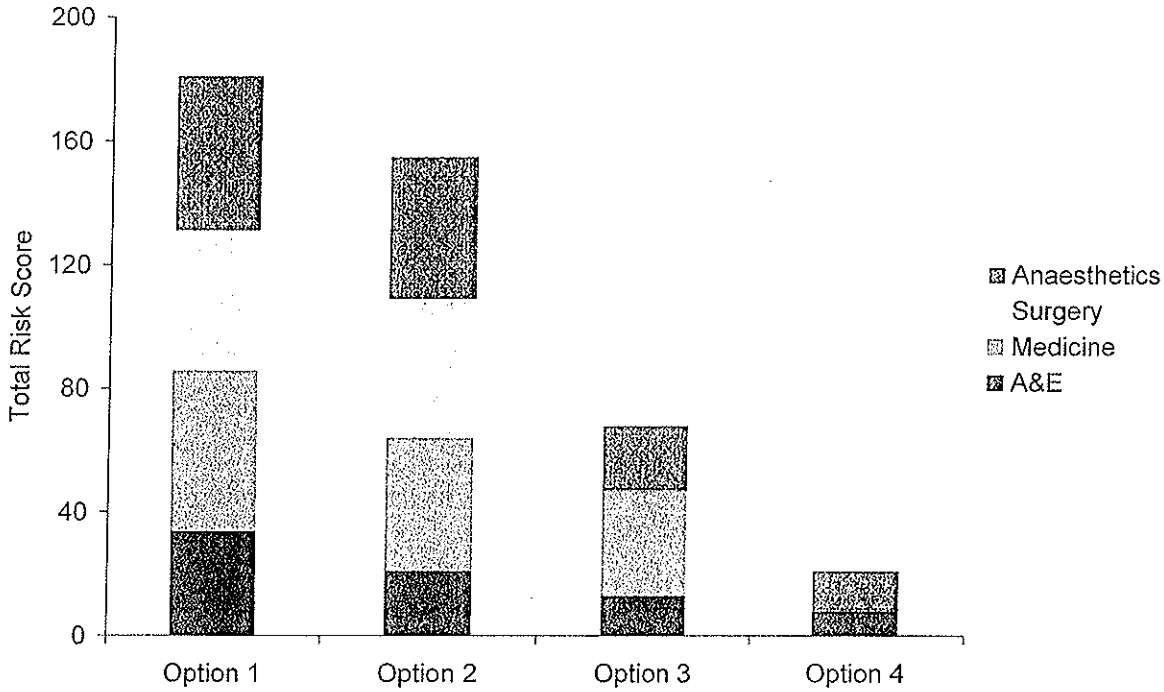
Figure 8.1 Risk Profiles of Services by Option



Source: Risk Workshop with Key Stakeholder, 18th July 2005

Figure 8.2 overleaf show the likely impact on services, by specialty, of the service and network risks scored above on each of the options identified. It shows that surgical services will only be at risk under options 1 and 2 (i.e. if they remain at WAH). Option 4 (Local Hospital) shows only a small risk to A&E and Anaesthetics.

Figure 8.2 Risk Profiles of Services by Option and Specialty



Source: Risk Workshop with Key Stakeholders, 18th July 2005

9. MID ULSTER HOSPITAL RISK IDENTIFICATION AND EVALUATION

In this section we outline the key risks to the Mid Ulster Hospital in terms of the sustainability of services. These were based on the consultation process with staff and have been reviewed by Trust management to ensure factual accuracy. We also describe the consensus risk score allocated to each risk during the workshop process.

These scores apply only to Mid Ulster Hospital, and are not meant to be compared to the scores for similar risks at Whiteabbey Hospital. They should only be used to compare the relative risks of the different options considered for Mid Ulster Hospital. The scores differ for the two hospitals due to the fact that they were based on staff judgement and only to be considered in terms of relativity to the other options.

9.1 Risk Criteria – Mid Ulster Hospital

9.1.1 Maternity Services

The current Maternity service is a stand alone consultant led service. Currently there are procedures in place where women who book their care based at MUH are selected according to their obstetric risk. This is assessed according to standard criteria and is influenced by obstetric history and pre-existing medical conditions.

There is no dedicated obstetric theatre or theatre team. There is a possibility that a delay may occur when closing an ongoing list in theatre, if a decision has been made to perform an urgent or emergency Caesarean section.

When necessary, it is possible to arrange transfer patients to Antrim when they are in labour, and possibly after the birth.

Risk 1 - Inability to sustain 24/7 staff rota

a) Midwifery

Recruitment of midwives has not proved to be difficult, and staffing levels are considered to be adequate. Midwives are said to be attracted to the "hands-on" role at MUH.

Out of hours, delays in transferring labour ward patients to theatre are more likely to be due to lack of theatre staff. The second-on-call theatre nurse goes home, leaving only one theatre nurse in the hospital. They may take up to half an hour to get back to the hospital when called in. Midwives at MUH do not scrub for sections and do not provide anaesthetic support. It is therefore unsafe to start a section without the second-on-call present, but the delay waiting for them to arrive could compromise fetal/maternal condition.

There are, apparently, no recorded instances of delay in Caesarean sections being carried out due to lack of theatre staff.

b) Senior House Officers

Good SHOs can be hard to recruit. The Trust often has to appoint SHOs in their first posts in the UK. They may have considerable obstetric experience in their own countries, but are lacking expected basic skills in the UK such as cannulation (routinely performed by midwives in other countries).

c) Consultants

There are two substantive consultant posts and one long term locum (currently unfunded), whose appointment has meant that there is now dedicated in-hours labour ward consultant cover. Consultants are on call from home, but the consultant on-call rota is heavily dependent on locum support. Consequently, expenditure on locum Obstetrics & Gynaecology staff has increased by 102% from £150,883 in 2003/4 to £305,169 in 2004/5. The 1 in 3 consultant rota is maintained by the use of locum cover.

The maternity unit will close if full staffing cover cannot be maintained. During the risk workshop the group considered the likelihood of this scenario occurring. It was considered unlikely that the service would close due to a lack of SHO or midwifery staff, however, the group considered it likely (likelihood score = 4) in the short to medium term that the consultant rota would prove unsustainable.

Risk 2 - Inability to provide Paediatric support to maternity service

There is no paediatric support for the maternity service and there never has been. There is a paediatrician in the hospital between 9am-5pm, Monday-Friday - not always at a Consultant level – covering the paediatric ambulatory care service Their goodwill may be called upon to cover labour ward during this time.

Currently the Anaesthetist often performs the paediatric role, if required as the person most competent to carry out paediatric resuscitation, which may also include intubation and/or ventilation.

During the risk workshop the group recognised that not having paediatric cover has a major impact on the service and that the likelihood of needing this cover was moderate (likelihood score = 3). The group also noted that a lack of paediatric cover means that the service does not comply with a number of professional standards and definitions for a consultant-led maternity unit.

Risk 3 – Inability to provide Haematology

There is a blood bank at Mid Ulster, but there is no cross-matching service on site. Samples are taken from mothers and sent to Antrim for cross-matching. This can cause a delay unless urgent transport is requested. There is a "Major Haemorrhage Protocol" developed by the Trust Transfusion Committee and supported by Obstetricians which details the actions to be taken by the Maternity Unit and by the Laboratory in the event of a major haemorrhage. It has been instigated only once in the last 12 months. Uncross-matched emergency stock is available on site, but is not often used (none in the past 12 months) by the maternity service. Generally group specific blood is issued to Mid Ulster, but of 260 units issued in the past year only 33 units were required.

Risk 4 – Inability of other network hospitals to manage additional activity

Antrim Area Hospital is likely to have adequate capacity to take on the MUH Obstetric & Gynaecology activity, with staffing adjusted. At present, AAH does not have dedicated consultant in-hours cover for labour ward, but the addition of the MUH consultants would alleviate this. Antrim Area Hospital would, however, have to enhance the current anaesthetic services to provide a dedicated consultant rota for Obstetrics and Gynaecology.

United Hospitals Trust has carried out some scenario analysis looking at options for the Obstetrics & Gynaecology service at MUH. The analysis showed the following:

- if all Gynaecology Inpatient Activity moves from MUH to AAH, AAH will be able to cope with the additional activity transferred. If all activity is transferred to AAH, the Gynaecology occupancy level would increase from 78.4% (2004/05 level) to 83.9%. This is in keeping with the target occupancy set by the DHSSPS for DBS;
- if all Obstetrics Inpatient and Day case activity was transferred from MUH to AAH, the Obstetrics bed occupancy would increase from 64.8% (2004/05 level) to 87.6%. This exceeds the target occupancy for DBS (75% for Obstetrics). DBS assumptions on activity transfer showed that 48 bed days of activity would transfer to Craigavon Area Hospital.

Therefore it is concluded that AAH could cope with the increase in activity transferred from MUH, albeit with some additional investment at Antrim Area Hospital. There would also be the option of retaining selected elective inpatient gynaecology at Mid Ulster.

During the risk workshop the group considered the impact of this activity transfer on Antrim and it was agreed that it would only have a minor impact (impact score = 2).

9.1.2 A&E

A&E is currently open for 24 hours, covered Out of Hours by SHOs with consultant surgeons on call from home. Attendances between the hours of 12 midnight and 8am are mostly alcohol-related. If the service were to cease to be 24-hours, the surgical specialist registrar (SpR) post would possibly lose Royal College recognition, due to lack of experience.

Based on 2004/05 data of A&E attendances, there are approximately 58 attendances per day. These are split by time of arrival as follows:

	No of attendances
8am – 5pm	31
5pm – 12midnight	22
12midnight – 8am	5
Total	**58**

The surgical SHO training is due to have its 5 yearly accreditation visit in the next 6 months which may result in recommendations regarding the accreditation of some posts.

Risk 5 – Inability to provide backup services

A&E does not meet Royal College Guidelines in terms of Paediatric and Surgical backup facilities.

The CT scanner is not available at night time for anything apart from head scans. Training is planned, to extend the range of use, but presently any patients in whom more extensive CT is indicated are transferred. The number of patients transferred to AAH from MUH for CT scans, in the 3 years to December 2004, is shown below:

Table 9.1 Transfers for CT Scans

	2002	2003	2004
Transfers to AAH for CT scanning	693	764	400

Source: United Hospital Trust

There are no paediatric-trained A&E nurses and no paediatricians with paediatric support provided from the ward during the day. The Trust has developed by pass protocols for urgent Paediatric medical cases via A&E. The Trust has formalised bypass protocols agreed with NIAS and local GPS in place for emergency paediatric medical cases. There is currently no such protocol in place for paediatric trauma or head injuries.

During the risk workshop the group recognised that the lack of appropriate support services did cause disruption to the service (impact score = 3) and that by restricting opening hours the likelihood of disruption was slightly reduced (likelihood score = 3 versus 5). The group considered that disruption would be reduced under this option because during normal working hours there is a greater staff presence on site, in particular, paediatric support.

Risk 6 – Inability to sustain staff rotas and 24/7 medical presence

The A&E department is staffed by one consultant, 2 staff grades and supported by the general medical SHOs. Consultant surgeons cover out of hours from home, and in hours, could be busy elsewhere in the hospital. The SHOs covering A&E are of varied experience. Although there is consultant cover, A&E is predominantly staffed by SHOs treating potentially the sickest patients. During the risk workshop the group considered it unlikely that the service would collapse due to a lack of medical staff, although, this risk was marginally lower when the opening hours were restricted.

Risk 7 – Inability to secure timely ambulance transfer

If a patient with a major trauma requiring ventilation or fracture intervention required fracture or head injury attends the A&E at MUH, they are transferred out to an intensive care unit using NICaTs, however this service can be very slow.

The inability to secure timely ambulance transfer currently causes major disruption to service (impact score = 4). If the A&E was closed out of hours it would substantially reduce the likelihood of this disruption at night.

Risk 8 – Inability of other network hospitals to manage additional activity

If A&E hours are restricted, or MUH becomes a local hospital, and A&E is changed to a Minor Injuries Unit, the other network hospitals would have to cope with a large amount of additional activity and may have to invest additional funding in order to cope with this.

United Hospitals Trust has carried out some scenario analysis looking at options for the A&E service at MUH. The analysis showed the following:

- if Accident & Emergency opening Hours were reduced at MUH to 9am-5pm, AAH would not have the capacity to take all the activity required to transfer. Approximately 12% of current (2004/05) MUH activity would have to be transferred

elsewhere (i.e. 2,846 A&E attendances will have to be transferred to hospitals other than AAH);

- if the Accident and Emergency opening hours were reduced at MUH to 9am-9pm, or 9am-11pm, the following transfers would take place (based on NHSSB estimated transfer percentages), and current new attendances in MUH A&E:
  - 9am – 9pm: 4,550 attendances will transfer to AAH, and 620 to CAH;
  - 9am – 11pm: 2,643 attendances to AAH, 360 to CAH

Given capacity constraints in A&E services in Antrim the group considered that closing the A&E at MUH at 5.00pm or 9.00pm would have a major impact on Antrim Area Hospital (impact score = 4). If the A&E was closed as envisaged under the DBS model then this would be certain to cause major disruption (likelihood score = 5).

9.1.3 Anaesthetics

There are 4 WTE funded consultant posts. One permanent consultant provides the service with the support of 2 locums and one long term locum consultant.

There is significant risk around the transfer of patients to other hospitals, due to the fact that there may only one anaesthetist on duty at any one time, in particular during out of hours. If the anaesthetist has to accompany patient being transferred, there is no cover in the hospital.

Risk 9 – Inability to provide anaesthetic support: staffing

The anaesthetic consultants are in the hospital during the day, but are on call from home at night. All live within one mile of the hospital. There are no Operating Department Assistants, no recovery staff, no junior staff and no administration staff in Anaesthetics, i.e. this is a single tier consultant service.

The Trust is going to recruit an agency Locum, from outside the UK, for one year, with the view to extending the contract to a substantive post. This addition will improve the situation to a great extent.

In the short term, if the person in substantive post were to become unavailable, the service would not be sustainable, however, the group considered this unlikely (likelihood score = 2).

Risk 10 – Inability to provide anaesthetic support: during transfers

If NICaTS is not an option, the Anaesthetist on duty may have to accompany a transfer to Antrim Area Hospital (or other hospitals). If this happens, there is a risk that there will be no anaesthetist cover at MUH. This occurs infrequently. It usually takes approximately one and a half to two hours to transfer a patient to Antrim Area Hospital.

The likelihood of this occurring was considered to be relatively high within the current service configuration (likelihood = 3), however, this risk would be mitigated if the A&E service closed out of hours. During normal working hours there is a greater degree of on-site anaesthetics cover.

Risk 11 – Inability to provide anaesthetic support: dual requirements

There is no split rota for anaesthetics, i.e. the consultants cover ICU, theatres and obstetrics, which would create problems, if there was a dual problem (i.e. two emergencies requiring anaesthetics support at the same time).

The group considered that the likelihood of a dual problem occurring was low. However, the likelihood of this occurring would be reduced if the maternity service was withdrawn. It is important to note that a number of professional standards relate to the need for a dedicated obstetric anaesthetics rota in order to avoid these potential problems.

9.1.4 General Medicine

Risk 12 – Inability to maintain medical rotas

There are 7 SHO, 1 Registrar and 4 Consultant posts in the Medical Directorate. Two of the consultant posts are currently filled by locums and two are permanent staff posts.

The medical rota is compliant with the relevant standards for General Medicine, however the hospital is exposed, as the majority of the SHOs are junior, and do not have a high level of experience of caring for patient with strokes, myocardial infarction or heart failure. Once or twice per week, the SHO has to go with a transferred patient or cardiac ambulance, which leaves the hospital covered by a pre-registration house officer with a consultant on-call from home.

Only two of the four consultants can do temporary pacing procedures, although there is an agreement with AAH that they will take these patients.

The General Medical service was considered to be reasonably sustainable in the short to medium term. During the risk workshop the group considered the service would only close in exceptional circumstances (likelihood score = 1).

Risk 13 – Inability of other network hospitals to manage additional activity

If the A&E at MUH is restricted or if MUH becomes a local hospital, the network of hospitals may struggle to cope with the additional activity generated from MUH. The group highlighted this risk during the workshop. It was considered certain that the closure of the medical service would cause major disruption to network hospitals such as Antrim. If the A&E service was closed out of hours, this would also cause some disruption to medical services in other hospitals as it would increase emergency admissions at these sites.

9.1.5 General Surgery/Trauma

The staffing in the Surgery department consists of 3 consultants, 1 Surgical Registrar, 3 SHOs and 1 Staff grade. The department is training accredited and the rota is not compliant. There is no Vascular Surgery, no Breast Surgery and a small amount of Paediatrics, which, as already discussed, is not appropriate under current guidance.

Risk 14 – Inability to provide backup services (blood, labs, ICU, radiology)

There is 24-hour radiography cover at MUH but the CT scanner can be used only for head scans out of hours. Training is planned to extend the range of use, but presently any patients in whom more extensive CT is indicated are transferred to AAH, and then may be transferred to the major trauma centre in Belfast. There is a Blood Bank at MUH, but no cross matching service is available.

There are 7 HDU beds available at MUH. 3 HDU beds are used for post surgical care and 4 for coronary care, but there is no provision for sustained ventilation of patients. This does not comply with full A&E standards. The lack of these backup services causes major disruptions to the service. This disruption would be reduced if the A&E was closed out of hours.

Risk 15 – Inability to maintain surgical rota

The current rota is not New Deal compliant with standards, as there is not enough rest time.

It is a one in five on call rota. At night, the surgical cover is by a Registrar only one night in five. For the remainder of the time the cover is by a SHO. There is also cover from a Pre Registration House Officer who also covers all wards. The SHO also covers A&E when on duty between 9pm and 9am. Locums are often employed from 5pm-9pm during the week, and 9am-9pm at the weekend for A&E.

If the Trust could not maintain either the SHO or consultant rota this would cause a closure in the service. However, during the risk workshop exercise the group considered either scenario as unlikely to occur (likelihood score = 2).

Risk 16 – Inability of other network hospitals to manage additional activity

If the A&E at MUH is restricted or if MUH becomes a local hospital, the network of hospitals may have to cope with the surgical activity generated from MUH, which may require investment by the network hospitals. This was reflected in the risk scoring exercise.

9.2 Risk Scoring Exercise

A risk scoring exercise with key stakeholders was carried out to quantify the risks associated with the four service options (scores for the fifth option were estimated by Deloitte). The results of the risk scoring exercise are illustrated in Tables 9.2.

Table 9.2 Detailed Risk Scoring – Mid Ulster Hospital

Risks	Option 1 Do Nothing	Option 2 Withdraw Maternity	Option 3 Restricted A&E	Option 4 Maternity and A&E	Option 5 Local Hospital	Impact Score
Maternity Service						
Inability to sustain 24/7staff rota						
A. Midwife rota	1	0	1	0	0	5
B. SHO rota	2	0	2	0	0	5
C. Consultant rota	4	0	4	0	0	5
Inability to provide paediatric support to maternity service	3	0	3	0	0	4
Inability to provide haematology	1	0	1	0	0	4
Inability of other network hospitals to manage additional activity	1	5	1	5	5	2
A&E						
Inability to provide backup services (e.g. labs, ICU, radiology, paediatrics)	5	5	3	3	0	3
Inability to sustain staff rotas and 24/7 medical presence	2	2	1	1	0	5
Inability to secure timely ambulance transfer	4	4	2	2	0	4
Inability of other network hospitals to manage additional activity	0	2	4	4	5	4
Anaesthetics						
Inability to provide anaesthetic support: staffing	2	2	1	1	0	5
Inability to provide anaesthetic support: during transfers	3	3	1	1	0	4
Inability to provide anaesthetic support: dual requirements	2	1	1	1	0	4
General Medicine						
Inability to maintain medical rotas						
A. SHO rota	1	1	1	1	0	5
B. Consultant rota	1	1	1	1	0	5
Inability of other network hospitals to manage additional activity	0	0	3	3	5	4
General Surgery/Trauma						
Inability to provide backup services (e.g. blood, labs, ICU, radiology)	4	4	2	2	0	4
Inability to maintain surgical rota						
A. SHO rota	2	2	1	1	0	5
B. Consultant rota	2	2	2	2	0	5
Inability of other network hospitals to manage additional activity	0	0	3	3	5	4

Source: UHT staff at Risk Workshop, 5th July 2005

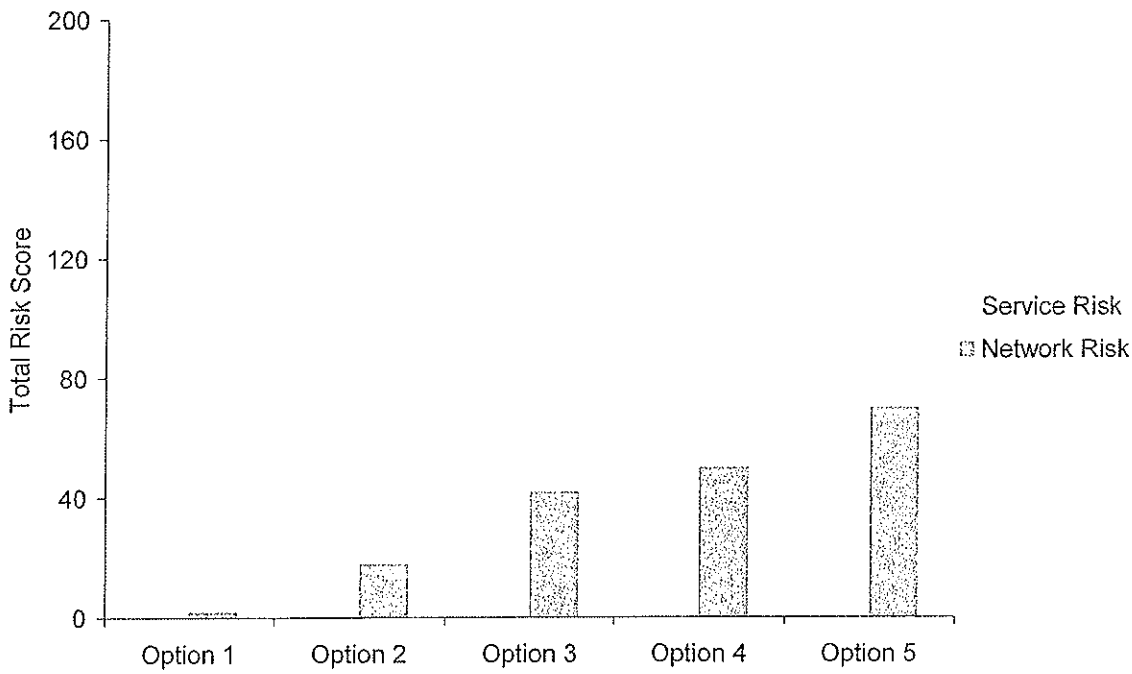
Likelihood scores range from 0 (impossible) to 5 (the event is certain to occur). Impact scores range from 0 (no impact) to 5 (service closure)

9.3 Total Risk Scores

Figure 9.1 below shows the total risk score for each of the options. We have separately identified risks associated with sustaining services in Mid Ulster and risks to other network hospitals in managing any additional activity transfers.

The results illustrate that a number of services at Mid Ulster face risks associated with their sustainability in the short to medium term. A strategy of withdrawing the maternity service or restricting A&E opening hours would reduce the overall level of risk at Mid Ulster Hospital. However, as additional services are withdrawn this has a greater impact on other network hospitals, particularly Antrim Area Hospital in terms of its ability to manage additional activity transfers.

Figure 9.1 Risk Profiles of Services by Option

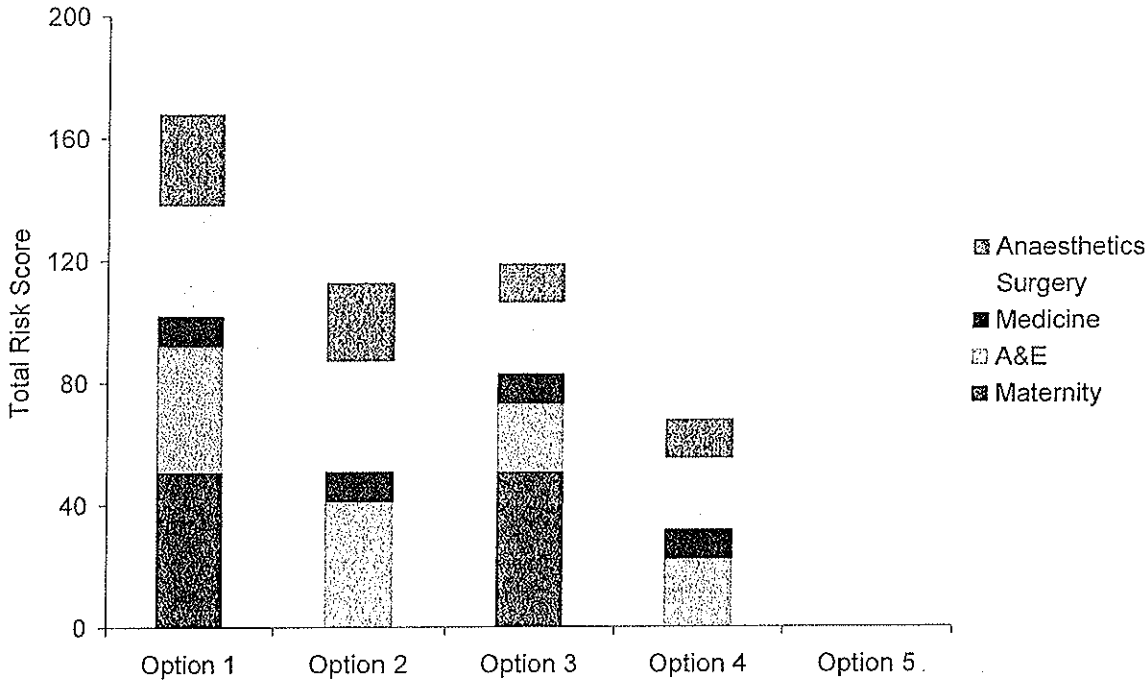


Source: Risk Workshop with Key Stakeholders, 5th July 2005

Figure 9.2 overleaf show the likely impact on services, by specialty, of the service and network risks scored above on each of the options identified. It illustrates that under option 1 there are risks to virtually all services within Mid Ulster, with significant risk to the maternity, anaesthetics, surgical and A&E services. General Medicine was perceived as the most sustainable service.

Under option 2 the risk profile is reduced by the withdrawal of the maternity service. Under option 3 the restriction of A&E opening hours would reduce but not completely eliminate risks to the A&E service.

Figure 9.2 Risk Profiles of Services by Option and Specialty



Source: Risk Workshop with Key Stakeholders, 5th July 2005

Whilst staff considered that there were substantial risks to the sustainability of services the level of clinical risk was considered to be similar to that highlighted in the previous risk assessment exercise. However, senior clinicians considered that this risk profile was becoming less acceptable in an environment strongly influenced by clinical governance.

Overall, there was the general feeling that clinical risks were mitigated by the delivery of services by consultants.

9.4 Northern Ireland Ambulance Service (NIAS)

Meetings were held with senior NIAS representatives to consider how the changes proposed would impact on their service.

There was discussion with NIAS concerning the need for clear selection criteria to enable ambulance crews to determine the appropriate destination hospital for patients affected by the changes, and the arrangements eventually agreed will be formalised in protocols.

NIAS highlighted the need to address not only the numbers of patients but also the additional journey time, which may cause ambulances to be 'out of area'. NIAS also emphasise that these changes in the Northern Board should be considered in the context of other changes planned in the Western Board and Eastern Board areas which will also increase demand for their services. It is expected that there will be a need for increased ambulance provision as a result.

NIAS have estimated that there will be a need for additional ambulance cover at both Mid Ulster and Whiteabbey as a result of these changes, and this will be further clarified during the consultation process.

The Trust will agree with NIAS, the NHSSB and the DHSSPS how this additional requirement can be met before changes in provision are finally introduced.

10. SUMMARY OF KEY ISSUES

Based on the information provided by the Trust, gathered during our consultation programme and the risk evaluation workshops there is strong evidence that the risks associated with maintaining the key acute services, identified in the Approach, at Mid Ulster and Whiteabbey Hospitals are considerable. In this section we have set out a summary of the key findings and issues identified at each of the two hospitals for consideration by Trust management.

It should be noted that the risks highlighted in this review will require further work from the Trust to develop a clear strategy, implementation and phasing plan as well as taking into account DHSSPS guidance and developments elsewhere. There may also be some additional options that should be considered by the Executive team, in order to identify the best potential option for the two hospitals.

10.1 Overview

The key findings of this risk review are summarised as follows:

- there have been sustainability issues surrounding services at both Mid Ulster and Whiteabbey for a number of years. Key stakeholders are aware of these issues and DBS is just the latest strategy which has identified the preferred model of care for each hospital;
- implementation of the preferred model of care for both Mid Ulster and Whiteabbey is dependent on the completion and approval of Outline Business Cases which were submitted to the DHSSPS by the NHSSB in November 2005. In the interim, the Trust and Board have undertaken to support services where necessary. These measures have included the recruitment of additional medical staff from abroad, heavily reliance on locum staff, investment in CT facilities in the Mid Ulster, the development of bypass protocols for trauma at Whiteabbey Hospital and Paediatric medicine at Mid Ulster Hospital , and the transfer of high risk births to Antrim from Mid Ulster;
- during the consultation process we were made aware that despite these measures, a number of services are still not meeting relevant college or professional standards. This is becoming less acceptable in an environment strongly influenced by clinical governance;
- staff are keen to support services at both sites, however, the heavy reliance on one or two substantive post holders can place services at risk and also places considerable pressure on these individuals;
- whilst the range of services provided at both Mid Ulster and Whiteabbey have a number of limitations, these are partially offset by the willingness of consultants to provide a first on call, consultant led service.

10.2 Whiteabbey

During the risk assessment exercise and consultation process a number of key issues were raised as summarised below:

Emergency Services

- a number of limitations to the A&E service were identified during the consultation. Three particular risks were highlighted:
  - appropriate clinical practice requires a CT scan for certain patients attending the A&E department. There is a need to transfer these patients to Antrim for a CT scan and patients may eventually require a second transfer to Belfast. This can result in a significant delay in treatment and is not an efficient use of Ambulance resources;
  - while rare, it can happen that the patient transfer process can occasionally take an anaesthetist out of Whiteabbey for a period of time, which can leave the hospital without appropriate anaesthetic cover;
  - although bypass protocols for paediatric cases and major trauma are in place patients can still self-refer to the A&E Department. This creates a risk because Whiteabbey does not have appropriate facilities for major trauma and there is no paediatric service.
- a number of steps were discussed with senior clinical staff in relation to the mitigation of these risks including the restriction of A&E opening hours to 9am to 5pm, 7 days a week. This would reduce problems associated with anaesthetics cover from 5pm to 11pm midweek, however, would not address concerns regarding anaesthetics support at weekends. This specific risk could be mitigated by developing a second tier weekend anaesthetics rota to provide cover whilst the A&E is open;
- risks associated with the A&E would be reduced further if a local CT scanning service was available and transfer arrangements through NICaTs were speeded up;
- following discussions with senior clinical staff, a more radical risk mitigation strategy would involve the withdrawal of all emergency services from Whiteabbey. Only selected medical patients referred by GPs would be admitted as inpatients. This was considered feasible given the relatively short distance to full A&E services in Belfast or Antrim, however, it may not be possible to maintain a medical service without appropriate surgical support.

Other Services

- a number of risks were identified in relation to the ability to maintain medical cover in General Medicine. These risks were particularly related to the need to maintain a consultant rota and also maintain cardiac support to the medical service (the cardiac rota is currently a split site rota). The risk scoring exercise highlighted that it was likely that a lack of consultant medical staff would close the General Medical service;
- it was considered by those consulted that the anaesthetic consultant rota (contingent on the full staffing of anaesthetic posts) and General Surgery consultant rota would be sustainable in the short term. However, in the longer term as substantive post holders retire services may no longer be sustainable in their present form.

Impact on other Network Hospitals

- a number of risks to network hospitals (particularly Antrim and the Belfast hospitals) were identified in relation to their ability to manage additional activity following any

potential withdrawal of services. The group considered that the impact on network hospitals would be substantial if the full DBS Local Hospital model was implemented unless there was significant investment in capacity on other sites. The impact on services at other network hospitals would be more limited if certain services were maintained at Whiteabbey. The group considered that the withdrawal of emergency services would only have a minor impact on network hospitals.

Impact on Risk Scores

- based on the results of the risk scoring exercise the implementation of option 2 would reduce the risk score for Whiteabbey by 19 points (11%). The reduction in risk is relatively modest because this strategy would only result in a marginal reduction in A&E attendance;
- the risk scoring exercise highlighted that the implementation of option 3 would reduce the risk score for Whiteabbey from 181 to 89 a total reduction of 50%. However, some concern was expressed regarding the feasibility of implementing option 3, being the complete withdrawal of emergency medicine, as there would be no facility for emergency medicine admissions through A&E in this option.

The review of number of relevant standards in relation to the key services highlighted some deficiencies at both Whiteabbey and Mid Ulster Hospitals. The standards that have not been fully met at Whiteabbey Hospital are detailed in Table 10.1 below.

Table 10.1 Summary of where Whiteabbey hospital falls short of key standards

Specialty	Standard
General Medicine	The acute on call rota should be no more than 1 in 5
	No consultant should work single-handed in a hospital in the major medical specialties
	Consultants should be supported by the appropriate medical team (House Officer, SHO and specialist registrar
Paediatric	a paediatrician must be available 24 hours a day Consultant-led obstetric units should provide cover on a 24 hour on-call basis by consultant obstetricians, consultant anaesthetists and consultant paediatricians. A Level IIb consultant-led maternity unit with <1000 deliveries per annum, should have 24 hour paediatric cover and a SCBU.
	Paediatric back up services to include: radiological services for children
	Paediatric back up services to include: immediate availability of paediatric high dependency care and a clearly defined policy for access to a paediatric intensive care unit
	Paediatric back up services to include: surgical outpatient clinics specifically for children, with child friendly amenities.
	paediatric anaesthetics services should be: led by consultants who anaesthetise children regularly
	a specially designated child friendly area within the accident and emergency department should be available

Specialty	Standard
Paediatrics	a specially equipped area should be set aside for the resuscitation of ill children
	children with major trauma outside the Great Belfast area should be taken to the nearest appropriate acute hospital for children under 2 years, an anaesthetist well practiced in practiced in resuscitating children and infants is vital, hospitals receiving injured children should be appropriately staffed and equipped.
	paediatric anaesthetics services should be: adequate assistance for the anaesthetist by staff with paediatric training and skills must be available
	paediatric anaesthetics services should be: paediatric anaesthetic equipment must be available where children are treated.
A&E	Minimum of 40,000 admissions per year
	24 hour Consultant led A&E,
	CT scanning should be readily available, on a 24 hour basis
	rapid access for radiology
	For Head Injuries: adequate back up by experienced anaesthetists;
	full emergency imaging provision; and
	good transfer facilities.
	24 hour access to a full range of laboratory and radiological services
	a trained anaesthetic nurse or operating department assistant (ODA) should be assigned to assist the anaesthetist at all times when anaesthesia is being conducted in the A & E Department
Surgical	adequate anaesthetic, radiology and pathology services

Source: Advised by Trust, full Bibliography contained in Appendix II

10.3 Mid Ulster

During the risk assessment exercise and consultation process a number of key issues were raised as summarised below:

Maternity Services

- a number of risks were identified in relation to the sustainability of the maternity service including the ability to recruit sufficient senior medical staff. In particular the risk assessment exercise highlighted the risks associated with the unit having no paediatric support, limited access to an epidural service and no dedicated anaesthetics rota;

- it is understood that the maternity service at Antrim would have capacity for all births currently undertaken at Mid Ulster. The transfer of births and medical staff to Antrim would improve the sustainability of the medical rotas;

- following discussion with senior clinical staff the most feasible risk mitigation strategy identified would be a planned withdrawal of the consultant led service in line with strategic direction outlined in DBS. A number of proposed dates were discussed during the risk assessment process including August 2006 as this date would coincide with the SHO rotation.

Emergency Services

- a number of limitations to the A&E service were identified during the consultation. These mainly relate to the ability of the unit to appropriately manage major trauma cases especially out of normal working hours. These limitations were especially acute at night because of a lack of experienced senior medical staff on site, the lack of a paediatric service and restrictions on the type of CT scans that can be conducted;

- the lack a full surgical service means that major trauma cases are transferred to Belfast. The transfer process can be slow and during this process it is difficult to maintain full anaesthetics cover for the hospital;

- a number of steps were discussed with senior clinical staff in relation to the mitigation of these risks, these included:

  - the formalisation of paediatric surgical transfer protocols with the Ambulance service;

  - the implementation of major trauma bypass protocol at night (similar to the protocol in place at Whiteabbey);

  - the restriction of A&E opening hours. This would prevent serious trauma cases and paediatric cases 'walking' into the Emergency Department at night.

Other Services

- a number of risks were identified in relation to the sustainability of medical rotas in General Medicine, General Surgery and Anaesthetics. It was considered unlikely in the short term that these services would close due to a lack of medical staffing. However, in the longer term as substantive post holders retire services may no longer be sustainable in their present form.

- during the risk assessment process a number of issues regarding the risks associated with the paediatric service were discussed. In this assessment we did not consider paediatric services at the risk workshop, but it was subsequently discussed at meetings with key clinicians, and therefore the current paediatric services were compared to relevant standards. As shown in Table 10.2 below, the paediatric service at MUH does not comply with some of the key standards reviewed.

Impact on other Network Hospitals

- a number of risks to network hospitals (particularly Antrim) were identified in relation to their ability to manage additional activity following any potential

withdrawal of services. The group considered that the impact on Antrim would be substantial if the full DBS Local Hospital model was implemented without significant investment in capacity at Antrim.

Impact on Risk Scores

- based on the results of the risk scoring exercise the implementation of the risk mitigation strategies identified in option 2 and option 3 would reduce the total risk score for Mid Ulster from 168 to 68 a total reduction of 60%.

The review of a number of relevant standards in relation to the key services highlighted some deficiencies at both Whiteabbey and Mid Ulster Hospitals. The standards that have not been fully met at Mid Ulster Hospital are detailed in Table 10.1 below.

Table 10.2 Summary of where Mid Ulster Hospital falls short of key standards

Speciality	Standard
General Medicine	The acute on call rota should be no more than 1 in 5
	No consultant should work single-handed in a hospital in the major medical specialties
	Consultants should be supported by the appropriate medical team (House Officer, SHO and specialist registrar
Maternity	dedicated anaesthetic services with trained dedicated assistance at all times
	a duty anaesthetist should be immediately available for the Delivery Suite 24 hours per day;
	as a basic minimum, there should be 10 consultant anaesthetic PAs/sessions for every maternity unit;
	consultant anaesthetist on call and responsible for the unit at all times
Paediatric	a paediatrician must be available 24 hours a day Consultant-led obstetric units should provide cover on a 24 hour on-call basis by consultant obstetricians, consultant anaesthetists and consultant paediatricians. A Level IIb consultant-led maternity unit with <1000 deliveries per annum, should have 24 hour paediatric cover and a SCBU.
	Paediatric back up services to include: immediate availability of paediatric high dependency care and a clearly defined policy for access to a paediatric intensive care unit
	paediatric anaesthetics services should be: led by consultants who anaesthetise children regularly
	a specially designated child friendly area within the accident and emergency department should be available
	a specially equipped area should be set aside for the resuscitation of ill children
	children with major trauma outside the Great Belfast area should be taken to the nearest appropriate acute hospital for children under 2 years, an anaesthetist well practiced in practiced in resuscitating children and infants is vital, hospitals receiving injured children should be appropriately staffed and equipped.

Source: Advised by Trust, full Bibliography contained in Appendix II

Specialty	Standard
Paediatric	paediatric anaesthetics services should be: adequate assistance for the anaesthetist by staff with paediatric training and skills must be available
A&E	Minimum of 40,000 admissions per year
	24 hour Consultant led A&E,
	CT scanning should be readily available, on a 24 hour basis
	rapid access for radiology
	For Head Injuries: adequate back up by experienced anaesthetists;
	good transfer facilities.
Anaesthetics	24 hour access to a full range of laboratory and radiological services
	a trained anaesthetic nurse or operating department assistant (ODA) should be assigned to assist the anaesthetist at all times when anaesthesia is being conducted in the A & E Department
Surgical	adequate anaesthetic, radiology and pathology services

10.4 Northern Ireland Ambulance Service (NIAS)

NIAS highlighted the need to address not only the numbers of patients but also the additional journey time, which may cause ambulances to be 'out of area'. NIAS also emphasise that these changes in the Northern Board should be considered in the context of other changes planned in the Western Board and Eastern Board areas which will also increase demand for their services. It is expected that there will be a need for increased ambulance provision as a result.

NIAS have estimated that there will be a need for additional ambulance cover at both Mid Ulster and Whiteabbey as a result of these changes, and this will be further clarified during the consultation process.

The Trust will agree with NIAS, the NHSSB and the DHSSPS how this additional requirement can be met before changes in provision are finally introduced.

11. APPENDIX 1 – LIST OF PARTICIPANTS

We would like to thank all the participants in the risk assessment process for their input at such short notice. Staff who attended included:

Whiteabbey

Risk Workshop	Consultation	Workshop
Mr D Gilroy, Clinical Director (Consultant Surgeon)	yes	yes
Mr R Wylie, Lead Associate Specialist in A&E	yes	yes
Dr C Ferris, Consultant Anaesthetist	yes	yes
Dr J Andrews, Consultant Physician	yes	yes
Dr C Rodgers, Consultant Gastroenterologist	yes	
Dr V Mohan, Consultant Cardiologist	yes	
Mr D Magee, Consultant	yes	
Dr J Gilmore (written comments)		
Mrs H Findlater	yes	yes
Prof. F Kee (Public Health Medicine, NHSSB)		yes
Mr H Logue (Nursing Services Manager)		yes

Mid Ulster

Risk Workshop	Consultation	Workshop
Mr JB Mitchell (Chief Executive)	yes	
Dr Cleland – Consultant Obs & Gynae	yes	
Mr Pyper – Clinical Director	yes	yes
Mrs Martin – Nursing Services Support Manager	yes	yes
Mr Ian Erskine – Consultant A&E	yes	
Dr E Hunter – Consultant Physician	yes	
Dr Walker – Consultant Physician	yes	
Dr M O'Neill – Consultant Anaesthetist	yes	yes
Mr M Hawe – Consultant Surgeon	yes	yes
Dr H Clark – Consultant Obs & Gynae	yes	yes
Dr L Johnston – Consulant Obs & Gynae	yes	yes
Mr A Dan – Consultant Surgeon	yes	
Dr Shankar – Consultant Anaesthetist	yes	yes
Dr A Dawood – Consultant Anaesthetist	yes	
Mr P McIlrath - Staff Grade -A&E		yes
Dr Peter Flanagan (Medical Director)		yes
Miss Bronagh Scott (Director of Nursing & AHPs)		yes
Prof. F Kee (Public Health Medicine, NHSSB)		yes
Mr E McClean (Director of Strategic Planning, NHSSB)		yes

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