

**NHS GREATER GLASGOW AND CLYDE**  
**Vale of Leven Hospital**

**REVIEW OF ANAESTHETIC SERVICES**

**1. Purpose of Paper**

1.1 In September 2006 at the time of considering services within Clyde by the Greater Glasgow and Clyde Health Board, the then Health Minister requested further work be undertaken to review the anaesthetic position at the Vale of Leven Hospital in light of being part of a larger organisation and the opportunities that this might offer. This paper has been prepared to report on the findings of the review of Anaesthetic Services across NHS Greater Glasgow and Clyde.

**2. Background**

2.1 Between 2002-2004 significant service reconfiguration was undertaken at the Vale of Leven Hospital (VOL) in order to address the challenges of delivering and sustaining safe specialist acute clinical services for the local population. Reconfigurations of obstetrics, paediatrics, gynaecology, urology, general surgery and accident and emergency services gave rise to a reduced volume, variety and complexity of work for the Anaesthetic Department at the VOL. These services are now provided at the Royal Alexandra Hospital (RAH).

2.2 Accident and Emergency services transferred to the RAH Hospital in January 2004. The anaesthetic community had made it clear at that stage that, due to the low levels of activity remaining at the VOL, anaesthetics would not be sustainable there beyond the short term. In order to sustain unscheduled medical admissions at the VOL, anaesthetics cover continued to be provided locally but this continued on the understanding that "Shaping the Future", the Argyll and Clyde Clinical Strategy, which was published in June 2004 would inform the way forward and that the provision of anaesthetics would only be an interim position.

2.3 Dr Douglas, Clinical Director (VOL) wrote to the Chief Operating Officer, Neil Campbell and the then Health Minister, Malcolm Chisholm, in June 2004 highlighting that anaesthetics could be sustained only in the short term. His letter outlined the profound consequences of the actions taken to stabilise obstetrics, general surgery, urology, gynaecology and A&E services on the anaesthetic department. He reiterated to the Minister that it had been made clear, during the process of planning for the reconfiguration of surgical services, that the interim measures in place for the VOL could be sustained for only a limited period due to a number of clinical and professional reasons. The reduction in range, diversity and volume of work at the VOL had been considerable and had major consequences. These risks and consequences to anaesthetic services and the knock on impacts on remaining services at VOL were discussed with the members of NHS Argyll and Clyde Board prior to the November 2004 meeting of the Board.

2.4 It was clear to the Anaesthetic Service, since the letter to the Minister in 2004 that it would not be possible to sustain a 2 tier rota (resident middle grade and consultant on-call) at the VOL beyond the short term. In addition, there were immediate difficulties in sustaining a 2 tier anaesthetic rota at the VOL, where volume and complexity of work did not justify the existing level of resource.

2.5 This was compounded by the need to sustain rotas at the RAH to provide safe cover for the increased surgical, obstetric and level 3 critical care workload that had transferred as the services had been reconfigured.

2.6 Recognising the fragility of the anaesthetics service and its potential for sudden collapse it was clear that there was a major risk around the sustainability of unscheduled medical care. If unscheduled medical care was to be retained on the Vale of Leven site it would have to be done so via the development of a new model of care which did not require on-site anaesthetics support. Steps were therefore taken to develop a new model of care for unscheduled medical patients which would not require on-site anaesthetics. This model was called Lomond Integrated Care.

## **2.7 Lomond Integrated Care Model**

2.7.1 The Lomond Integrated Care pilot project was an innovative solution which proposed breaking down the boundary between Primary and Secondary Care. It involved upskilling nurses and producing a new type of Generalist Doctor, who would be involved in managing the majority of the in-patient medical care on the Vale of Leven site out of hours. In the shorter term, general medical input would be available from some upskilled local GPs interested in supporting the development of the model. In the longer term it was envisaged that primary care physicians who were specifically trained for this purpose would provide this care. In this model of care the most acutely unwell patients would bypass the VOL and be treated in the RAH.

2.7.2 The proposed model of care at the VOL would allow 85-88% of medical admissions to continue at the VOL under the management of medical consultants. Based on the audit data available it was anticipated that 12-15% of medical assessment patients would be transferred to the RAH

2.7.3 Scoring systems were established to support the identification of critically ill patients who would need to be by-passed or transferred in the absence of an on-site anaesthetist / ITU facilities.

2.7.4 The model proposed that medical staff / GPs and nursing staff would support the service, including airway management, without on-site anaesthetic cover. A rapid retrieval service would support the transfer out of patients requiring care with anaesthetic input. The pilot was to be phased so that initially there would be onsite anaesthetic cover, which would move to off site on-call anaesthetic cover. The off-site on call cover would act as a proxy for the retrieval service until the pilot was completed and conclusions formed on the way forward.

2.7.5 In April 2006, when NHS Greater Glasgow and Clyde was established, the Lomond Integrated Pilot had been launched. At this stage anaesthetic support was still available on-site. The planned next stage of the pilot would have seen the withdrawal of the on-site out of hours anaesthetic cover from the VOL, leaving GPs to run the service. However, by July this had still not occurred – both Anaesthetists and physicians had indicated concerns about clinical safety. Consequently a series of meetings with clinicians led NHSGGC to conclude in September 2006 that Lomond Integrated Care Pilot could not be taken to the next stage and was ultimately unsustainable. This was followed by a number of meetings with staff and culminated on 21<sup>st</sup> September 2006 with a public meeting when NHS GGC stated that the pilot could not be fully implemented based on clinical concerns.

### 3. Review Process

3.1 Following the meeting on 21<sup>st</sup> September 2006 NHS GGC established a substantial planning and community engagement process to identify what alternative arrangements were required. At the end of October 2006 the process was further widened at the behest of the then Minister for Health to incorporate a further review of the work undertaken by Argyll and Clyde in relation to the sustainability of the anaesthetics cover at the VOL Hospital. Therefore it was agreed that a small group would be established to undertake a review of the sustainability of Anaesthetic Services.

#### 3.2 Membership and terms of reference Anaesthetic working group

3.2.1 The anaesthetic group was made up of Anaesthetic representatives from Glasgow, Paisley and the Vale of Leven hospitals including the clinical directors for both areas. Representatives from both general practice and acute medicine were invited to participate in the group.

3.2.2 The terms of reference for the group were to:

- Review anaesthetic services across GGC to consider if the combined workforce of the services would allow any different cover of the VOL site, considering the anaesthetic demands of the VOL Hospital.
- Identify other models across the country to see if other sites solutions for anaesthetics would be transferable to the service at the VOL Hospital.

3.2.3 It was subsequently agreed, following the meeting with the community engagement group that a key task for the group was to:

- Consider the questions raised by the community engagement group. In November 2006 a community engagement meeting was organised to consider the previous report on Anaesthetic Services by NHS Argyll and Clyde. At this meeting a number of questions in relation to anaesthetics were identified that the group felt needed further answers.

3.3 To meet the terms of reference 4 key actions were identified:

- A review of the anaesthetic activity at the VOL
- Review the anaesthetic rota requirements across Glasgow and Clyde
- Identify other models across the country to see if other sites had found solutions for anaesthetics that would be transferable to the service at the VOL.
- Answer the questions identified by the Community Engagement group that they felt needed further consideration. These questions are listed below:
  - *Why was this situation not foreseen?*
  - *Was Anaesthetics being reviewed in isolation?*
  - *Due to the large numbers of Anaesthetists in post across both Glasgow and Clyde, can cross-site cover/ working be pursued?*
  - *Can another rota be developed?*
  - *Can we develop the posts to make them more appealing?*
  - *Can the pilot be extended beyond June?*
  - *Why did the pilot not move to stage 2?*
  - *Why can't we use the rapid retrieval team?*

## 4. Findings

In undertaking the review the group and individuals from the group were required to consider the different strands outlined above. This section documents the findings of the group in relation to each of these components.

### 4.1 Review of Anaesthetic Services across Glasgow and Clyde

#### 4.1.1 Level of demand on the current anaesthetic provision at the VOL

There are 2 components to the anaesthetic requirements at the VOL

- 1) Elective requirements in relation to inpatient short stay and day case surgery, which is covered by the Consultant grade staff and would continue with the support as currently with the support of pre-assessment and out of hours support from the hospital at night team where required.
- 2) Anaesthetic On-call Requirements.

It was anticipated following the removal of on site ITU support that approximately 12-15 % (10%) of patients would bypass or be transferred off the site. Provisions were therefore put in place at Paisley to accommodate this cohort of patients. To enable this transfer to take place tools were put in place to identify inappropriate patients by both the hospital and the ambulance service, in order to avoid delays in recognition of the acutely unwell patients.

The anaesthetic workload following the change for ITU to support the patients requiring transfer off site is shown in table 1 below.

**Table 1. Lomond Integrated care information from February 2006 - April 2007**

Number of patients that have bypassed	41
Number of patients who have been transferred off site by the shock team	28
Number of anaesthetic incidents or calls	144
Number of cardiac arrests	72

Of the anaesthetic calls received 55% of the calls occurred between the hours of 8am and 6pm, the remaining 45% occurred out of hours between 8pm and 8am.

**Table 2. Breakdown of Anaesthetic Calls from \*May 2006 – April 2007**

Code	Code Definition	Total Number
1	Pt requires to move off site	29
2	Cardiac arrest	40
3	Clinical issue e.g. venflon/ chest drain	28
4	Opinion re ventilation/ airway management	39

\* This information has only been collected since May 2006.

The information within the tables indicates that the number of patients being transferred or bypassed is less than anticipated. The demand on Anaesthetics in relation to the work remaining was 144 calls within a 15-month period. This equates to an average of slightly more than 2 calls each week. Of the 144 calls 28 calls were for clinical reasons that could have been undertaken by non-anaesthetic staff. Taking these calls into account means that there were 116 calls which required anaesthetics input. 55% of calls are within day time hours, where cover remains for

theatre sessions, there is therefore daytime activity requiring anaesthetic on-call input of just over 1 patient per week. The remaining 45% of these calls are out of hours. Therefore approximately 1 patient per week out of hours requires anaesthetics input.

#### **4.1.2 Review of Anaesthetic Staffing across Glasgow and Clyde**

##### **4.1.2.1 Training Grade Staffing**

1.1 In terms of trainees there are not sufficient doctors to cover the current number of rotas required both in Glasgow and Clyde. This position is expected to worsen over 2007-9 as Modernising Medical Careers (MMC) is implemented fully and the rotas are organised to comply with the European Working Time Directive (EWTD) by 2009. Although the full implications of MMC are yet to be understood in terms of impact on service delivery it is expected that these changes will result in a shortfall increasing the gaps in the service.

1.2 In terms of Clyde there are insufficient staff to support the rotas currently with problems at the RAH in achieving a compliant rota within the RAH Maternity Service which is an additional pressure to the problems of providing a rota at the VOL Hospital. It is also likely that the rotas at IRH will require to change in light of MMC and the EWTD.

1.3 If it is assumed that 6 - 8 people minimum are required to provide a rota there would be a requirement for 24 - 32 middle grade/trainees to run these rotas. There are currently 17.

1.4 In terms of Glasgow rotas work had previously been undertaken by the Clinical Director to consider if there was any slack or duplication within the existing rotas which could allow for reconfiguration. This work had been driven in part due to the service demands within Glasgow. The outcome of this piece of work highlighted that there was no slack within the current service; in fact it highlighted gaps in the service within Glasgow. This position is expected to worsen with MMC and the requirement to meet the EWTD.

1.5 Even if sufficient number of training grade staff were available across NHSGGC the volume of workload at the Vale of Leven would not allow training accreditation to be granted. This has been confirmed by the Regional Education Advisor. Indeed, even prior to the service reconfigurations between 2002 and 2004, which considerably reduced the anaesthetics workload, a trainee rota did not exist at the VOL.

1.6 An anaesthetics training grade rota solution is therefore not feasible at the Vale of Leven Hospital.

##### **4.1.2.2 Non-Training Grade Staffing**

2.1 Clyde does not have enough experienced middle grade anaesthetists to provide resident cover to all necessary areas out of hours where they are essential, i.e. RAH ITU, PMH and the VOL Hospital. This is the major limiting factor on rotational cover.

2.2 Within the IRH it is also difficult to meet the rota requirements with the numbers available particularly with the same loss of time due to the training requirements there is a need for non-training grade staff to support the rotas. There is no capacity to aid the other hospitals.

2.3 To create a staff grade / non-training grade rota we would require 6 posts. This was the situation previously at the VOL although there were only 5 people on the rota before the changes were implemented and locum posts were required to support the service. The use of locums is not a viable way to provide a sustainable service. Even if sufficient non-training grade staff could be found there would still exist a requirement to have a named consultant taking overall clinical responsibility for the service.

2.4 It is not acceptable that an anaesthetic consultant provides cover to the Vale of Leven at the same time as they are on call for another busy site across Glasgow or Clyde. They are not able to be in 2 places at one time and the risk associated with this model is therefore not one that we would be prepared to accept.

2.5 Therefore, even if a non-training grade rota was developed to support the Vale there would also need to be an additional consultant on-call rota developed for the Vale. This would have significant cost implications without the workload required to sustain this level of staff input. With the limited workload it would be extremely difficult to retain the level of skills required on an ongoing basis.

#### **4.1.2.3 Consultant Provided Model**

3.1 This model would see the Consultant being first on call without resident middle grade support. This is not an attractive option for recruitment. There would need to be 6 wte posts at the VOL to provide this rota. Currently at the VOL there is a reliance on 3 locum Consultants to provide this type of cover to support the site. The basis on which this is provided cannot be considered to be a long-term solution in part because it relies on the use of locum Consultants. To date, the department has been fortunate to keep the same group of locums allowing continuity of service. This cannot, however, be relied upon for the longer term. It is not acceptable to the NHS in Scotland to attempt to maintain a service with a workforce who could leave at short notice and leave the service uncovered. It is also an expensive option for the level of input required.

3.2 As with the middle grade rota one of the key challenges is in relation to the limited workload which would make it difficult to retain the level of skills required on an ongoing basis. The type of anaesthetist required to support the provision of unscheduled medical services is one who has skills in airway management in emergency situations. This skillset is more aligned to the Intensivist Anaesthetist or the emergency care doctor and is not within the average competencies of a general anaesthetist, which is what is required to maintain the major part of the service i.e. the need for cover for theatres. To maintain these intensivist skills requires exposure to considerably more patients than 2 per week during on-call periods. This means that a stand-alone consultant anaesthetics rota is not sustainable at the Vale of Leven site due to the volume of activity being seen.

3.3 The other option for providing consultant cover to the Vale of Leven is to rotate anaesthetists who are predominantly based on other sites through the Vale for specific time periods. In theory spending only short times at the Vale (say a one week period every six months) would mean that they are able to maintain their skills when based at other, busier, sites. This option is one that has been widely regarded by community groups within the Vale catchment as being straightforward to implement. The practicalities of this model, however, mean that it is not one that is possible to deliver. The reasons for this conclusion are outlined in the following points:

1. The service required at the Vale of Leven is essentially critical care airway support for sick medical patients.

2. The vast majority of anaesthetists across Glasgow and Clyde have not had recent training, or more importantly ongoing experience, in intensive care medicine, which is the type of care this group of patients requires.
3. Consequently, the provision of the type of care required at the VOL involves a degree of responsibility which is potentially outwith the competence of the majority of anaesthetists.
4. Most anaesthetists who are not trained in intensive care medicine are therefore unwilling to deliver this type of care.
5. There are currently 33 consultant anaesthetists across Glasgow and Clyde who are trained in intensive care medicine. In addition, within Clyde there are several anaesthetists who provide care critical care coverage who were trained under the older system and who have maintained their skills in order to sustain critical care services at the RAH and the IRH.
6. This body of consultants provides cover to 7 intensive care units across Glasgow and Clyde.
7. Within their total available hours this group must ensure a number of different objectives are fulfilled:
  - i. Deliver a demanding on-call service
  - ii. Undertake adequate ongoing experience in an ICU to ensure that their intensive care skills are maintained
  - iii. Provide sufficient anaesthetic input into theatres to enable the theatre work to continue
  - iv. Undertake sufficient work in theatres to maintain their competence as theatre anaesthetists.
8. In order to balance these objectives and maintain their skills in both theatre anaesthetics and intensive care it is not appropriate for this group of staff to spend time undertaking duties which do not maintain or enhance their skills.
9. Maintaining services at the Vale of Leven would require each of these consultants to deliver approximately 2 weeks of resident on-call cover at the Vale each year. Resident on call would represent a very significant departure from current work patterns for the overwhelming majority of consultants in Glasgow and Clyde, including intensive care specialists. We would expect very few intensive care consultants to be willing to take up such a radical change to their job plan.
10. Maintaining the same level of rota frequency as currently provided (around 8 weeks per year) would mean this group of consultants being exposed to 6 weeks on-call intensive care workload in a busier acute site and 2 weeks resident each year at the Vale of Leven. Given the low levels of activity at the Vale of Leven any time spent in the Vale would result in this group having less exposure to patients who require the use of their specialist skills.
11. These circumstances would potentially result in the de-skilling of this group of staff and in the interests of clinical standards this is not a situation that we are prepared to attempt to impose on these highly trained, senior doctors.
12. More importantly, however, the requirement to have anaesthetic consultants providing resident on-call cover would have a profound impact on the ability of NHS Greater Glasgow and Clyde to sustain services across all sites. The reason for this is that providing resident cover for one night from 5pm to 9am is

equivalent to providing 5 sessions of work. Providing one 24 hour period of resident cover on a Saturday or Sunday is equivalent to 8 sessions. A consultant providing resident cover at the Vale of Leven for one week would therefore be “working” for the equivalent of 41 sessions. This is 25 sessions for the weekday overnight cover (5 sessions x 5 days) and 16 sessions for the weekend cover (8 sessions x 2 days). This is the equivalent to 6 weeks of direct clinical workload for an anaesthetic consultant and effectively means that providing one week of resident on call cover at the Vale would mean that the consultant was not able to work for the next six weeks.

13. This would result in NHSGGC being unable to provide intensive care services at other sites. It would also result in the de-skilling of anaesthetists.
14. We can not simply pay consultants extra to have them provide cover at the Vale over and above their normal working patterns. Even if anaesthetists were prepared to do this it would not be compliant with the EWTD requirements.
15. Simply recruiting more consultants to this cohort of staff across Glasgow and Clyde and then rotating these staff to cover increased numbers of sites is not a practical solution because:
  - a. The contact time that the consultants have with the type of patients who maintain or enhance their skills would be considerably reduced when they were based at the VOL.
  - b. The requirement to provide resident cover at the Vale would mean each consultant requiring approximately six weeks away from patient care for every one week spent at the VOL. This would reduce their skillset and be cost prohibitive.
  - c. We are unlikely to be able to convince this cohort of staff to provide resident cover at the VOL.

#### **4.1.2.4 Review of anaesthetics staffing conclusion**

4.1 It is the view of the Anaesthetic workstream that they have explored the potential solutions based on the current model of service provision, including the rotation of staff across Glasgow and Clyde, and have found no answers.

4.2 Due to the level of activity requiring on-call anaesthetics provision at the Vale of Leven, training accreditation will not be received to provide a rota made up of doctors in training.

4.3 Due to the level of activity at the Vale it is not appropriate to deliver services based on non-training grade anaesthetists providing services. Even if a non-training grade rota could be developed it would require oversight from a consultant anaesthetist. This consultant cover could not be provided by the same consultant who was on-call at another site due to the risk of the consultant requiring to be called to two places at once.

4.4 A stand-alone consultant rota could not be developed at the Vale of Leven due to the level of activity requiring anaesthetic input. This would not be conducive to maintaining consultant skill level.

4.5 The potential for recruiting additional anaesthetists across Glasgow and Clyde and then rotating them out to the Vale was also explored. Analysis of the working practices of anaesthetists with specialist training in intensive care across NHS Greater Glasgow and Clyde shows that there are a number of different objectives that must be met by this group of staff. These objectives are currently met by balancing a

number of different priorities one of which is having access to enough critically unwell patients to maintain their skills. Introducing greater number of intensive care anaesthetists and then having them cover a greater number of sites will reduce the number of patients that each anaesthetist sees and therefore reduce the opportunity that they have to maintain their skills. This would not be appropriate to the continued delivery of high quality care.

#### **4.1.3 Other Anaesthetic Models of Care**

4.1.3.1 Having concluded that it is not possible to sustain anaesthetics at the Vale of Leven based on the current configuration of services the workstream has also reviewed other models of care for either providing anaesthetics to the Vale or for sustaining unscheduled medicine without anaesthetics on-site.

4.1.3.2 A number of sites in Scotland and England have been contacted to determine whether there are alternative models available.

4.1.3.4 The attached table in appendix 1 provides detailed information in relation to the sites contacted for alternative anaesthetic models across the country. These sites were selected as it was assumed that due to the similarity of their function they might inform the search for a safe and sustainable future anaesthetic model on the VOL site. None of the sites, however, offered a viable alternative model or a direct comparison in terms of the population served, or the services delivered. Previous comparison had been made between the Vale of Leven Hospital and Kendal Hospital who had attempted to develop a model of care which provided unscheduled medical admissions without anaesthetic support out-of-hours. Kendal has, however, faced the same challenges as anticipated at the Vale of Leven and has subsequently required to have its services downgraded to a nurse led unit due to staff recruitment issues and clinical governance concerns. The inpatient beds at Kendal will become rehabilitation beds.

4.1.3.5 It was also anticipated that the interim report from the nationally established Remote and Rural Steering Group would inform the search for alternative models following its publication on the 16<sup>th</sup> of April 2007. The main aim of the steering group is to deliver a strategy for sustainable health care in remote and rural Scotland. The definition of remote and rural is informed by the clinical peripheral index. This takes into account population density, practice size and the time to reach secondary care. Given its proximity to hospitals which provide the full range of acute services the Remote and Rural Steering Group have not identified the Vale of Leven as being either a remote or a rural hospital. It was hoped, however, that the interim report would highlight new ways of working within smaller sites that could be adopted by the VOL. One of the issues being considered by the group was the anaesthetic support required on a remote and rural site. The interim report suggests there will be no change in the model of anaesthetics cover required in the rural general hospital in future and that the current "consultant protected model of anaesthesia" will apply. It would appear, therefore, that there are no new models of care available.

#### **4.1.4 Response to Questions from the Community Engagement Group**

4.1 Whilst the general points raised by the community engagement group are answered in detail in previous sections of this report this section will summarise

4.2 The following responses were provided by the Anaesthetic Working group in relation to the specific questions raised by the community engagement group in terms of anaesthetics.

#### **4.3 Why was the situation not foreseen?**

- As early as 2004 it had been identified formally that there would be issues around the provision of anaesthetics at the VOL. This was primarily due to the reconfiguration of obstetrics, paediatrics, gynaecology, urology and general surgery to create sustainable services for the population. These services changes would ultimately lead to the reduction in the volume, variety and complexity of the work that was required within the VOL site.
- A paper presented to the board of NHS Argyll and Clyde outlined the concerns and the action required. The key issues were:
  - A heavy reliance on locum cover to meet the service needs.
  - Challenging on call commitments for local staff
  - Concerns re the staffs ability to cover level 3 critical care patients
  - Inappropriate use of the consultant staff at paisley resulting in a reduction in emergency workload.
- Lomond Integrated Care, as described above, was developed as a direct response to the understanding that anaesthetics was not sustainable at the Vale of Leven site.

#### **4.4 Is Anaesthetics being reviewed in isolation?**

- Anaesthetics is not being reviewed in isolation. It is being reviewed along with Acute Medicine and Rehabilitation to determine the future model of acute services at the Vale of Leven. At a board level a Health Needs Assessment is being undertaken to identify the specific health needs of the West Dunbartonshire population. A review of Glasgow wide midwifery and mental health services across Clyde are also being undertaken.

#### **4.5 With the large group of Anaesthetists across GGC - can cross-site cover be pursued?**

Both Dr Cameron Howie Clinical Director for anaesthetics within Glasgow, and Dr John Dickson Clinical Director for Clyde were asked to identify through looking at the current rotas within Clyde and Glasgow, whether any cross cover is possible within the existing workforce.

From a Glasgow perspective Dr Howie explained that the recent changes in medical training arrangements (Modernising Medical Careers) has highlighted the fact that Anaesthetic services in Glasgow have relied on large numbers of SHOs. This grade is disappearing and services are being sustained by the appointment of a relatively large number of Fixed Term Training Posts (FTSTA). This is not unique to Anaesthetic services and derives from a failure, to date, to rationalise acute services within Glasgow. While there will be rationalisation of Maternity services in the city, substantial rationalisation will be difficult to achieve prior to completion of the new South Glasgow Hospital. Employing large numbers of doctors in FTSTA posts is not seen as a long-term solution so the Glasgow service will require to identify ways of reducing dependence on trainee doctors over the next two years.

The situation has been further aggravated by the new training arrangements for doctors embarking on a career in Emergency Medicine, which now involves an obligatory one-year of training in Anaesthetics and Intensive Care. These doctors now substitute for Anaesthetic trainees. This means each Anaesthetic department will have a greater proportion of trainees who are in the first year of training. New

trainees in Anaesthesia cannot contribute anything to on call services in their first three months and must be very closely supervised in their second 3 months. Consequently while overall numbers have been maintained in the short term, the change in the profile of seniority will put pressure on current rotas. From a Glasgow perspective Dr Howie work had previously been undertaken looking at existing rotas to see whether there was any duplication or slack within the current staffing configuration. This work had been driven in part due to the service demands within Glasgow. The outcome of this piece of work highlighted that there was no slack within the current service; in fact it highlighted gaps in service.

In light of these findings, and with enhanced pressures due to the European working time directive along with the reduction in trainee numbers due to Modernising medical careers then the service gaps in Glasgow were going to expand rather than contract. This in essence means that Glasgow services will be looking at ways of resolving its own service gaps within the near future.

With the reduction in the hours which each junior doctor can work, there is ever increasing need to guarantee that where trainees are required to be at work in the hospital, they work intensively in settings which provide regular use of core skills. A trainee anaesthetist working in a low work intensity setting, providing a service with limited reliance on their core skills is providing a service, which is to the detriment of their overall training. It is for this reason that those in charge of training critically evaluate all the settings in which trainee anaesthetists provide a service.

Compliance with the European Working Time Directive will put even greater emphasis on guaranteeing quality of training opportunities offered by each post and put further pressure on the number of sustainable rotas.

Anaesthetic services must adapt to these pressures in the same way surgical specialties in Clyde have been required to adapt, by centralisation of services.

Within Paisley Dr John Dickson outlined similar issues to Glasgow, however there gap was slightly more acute as they are currently unable to cover there existing Maternity rota, and are in fact doing so through the current consultant team working excess hours in order to back fill the gaps within the service.

Both Clinical Directors identified the lack of training opportunities at the VOL as an absolute impediment to utilising anaesthetic trainee staff for out of hours work. Advice was sought from Dr Paul Wilson, Regional Education Advisor, in relation to the potential to create additional training posts to service the VOL. He confirmed that the posts would not fulfil the training requirements.

A detailed analysis is provided in section 3.3, which highlights why it is not possible to simply recruit more anaesthetists across Glasgow and Clyde and then rotate intensive care specialists to the Vale.

#### ***4.6 Can we develop the posts to make them more appealing?***

- The current profile of out of hours work precludes use of a trainee anaesthetist.
- A trained anaesthetist, whether staff grade or consultant, who had a substantial proportion of their total hours devoted to covering infrequent clinical events overnight, would see a progressive deterioration in their clinical skills.

- An anaesthetist whose main interest is theatre work would be unlikely to be attracted to provide a service to a hospital where there was no emergency surgery and would be of limited use in contributing to the overall care of patients out with dealing with clinical scenarios involving airway problems.
- An anaesthetist with a particular interest in Intensive Care would have a broader range of skills appropriate to contributing to overall care of the sickest patients but would be unlikely to work in a setting in which there was no Intensive Care Unit
- None of these concerns preclude appointment of an anaesthetist to provide these services, but there would be a real concern about the quality of applicants who would be attracted to such a post and their ability to sustain their current level of competence in such a low intensity clinical setting.

#### ***4.7 Can another rota be developed?***

- Anaesthetists provide out of hours services for emergency surgery, maternity services and intensive care. In the absence of such services being provided there is no need for on-site anaesthetic services. The only exception would be where a major elective surgical service and or acute medicine service was being provided which generated sufficient critical care activity to provide an adequate workload. The current service arrangements where an average of two episodes per week require anaesthetics input does not provide an adequate workload. Prior to rationalisation of surgical services the VOL was able to sustain a only a very small critical care unit.

#### ***4.8 Can the pilot be extended beyond June?***

- The current model of care delivery could possibly be extended beyond June and it would remain in place until an outcome has been reached.

#### ***4.9 Why did the pilot not move to stage two?***

- The pilot did not progress to the next stage as there were clinical concerns about the ability to provide unscheduled medical care without anaesthetic input.

#### ***4.10 Why can't we use the rapid retrieval team?***

- It was agreed that the offsite anaesthetic provision would act as a proxy for the retrieval team rather than commit funding to this until pilot had been concluded. The concerns over clinical safety without anaesthetic cover on site resulted in the stopping of the pilot has meant that this has not been further explored.

## 5. Conclusions

5.1 It is the view of the Anaesthetic workstream that they have explored the potential solutions based on the current model of service provision, including the rotation of staff across Glasgow and Clyde, and have found no answers.

5.2 Due to the level of activity requiring on-call anaesthetics provision at the Vale of Leven, training accreditation will not be received to provide a rota made up of doctors in training.

5.3 Due to the level of activity at the Vale it is not appropriate to deliver services based on non-training grade anaesthetists providing services. Even if a staff grade rota could be developed it would require oversight from a consultant anaesthetist. This consultant cover could not be provided by the same consultant who was on-call at another site due to the risk of the consultant requiring to be called to two places at once.

5.4 A stand-alone consultant rota could not be developed at the Vale of Leven due to the level of activity requiring anaesthetic input. This would not be conducive to maintaining the skill level of consultant staff.

5.5 The skills of an intensive care specialist are more relevant to the needs of the VOL. No anaesthetist who has undergone training in intensive care medicine would be willing to provide such a limited service on a stand-alone basis. The potential for recruiting additional anaesthetists across Glasgow and Clyde and then rotating them out to the Vale was also explored. Analysis of the working practices of anaesthetists with specialist training in intensive care across NHS Greater Glasgow and Clyde shows that there are a number of different objectives that must be met by this group of staff. These objectives are currently met by balancing a number of different priorities one of which is having access to enough critically unwell patients to maintain their skills. Introducing greater number of intensive care anaesthetists and then having them cover a greater number of sites will reduce the number of patients that each anaesthetist sees and therefore reduce the opportunity that they have to maintain their skills. This would not be appropriate to the continued delivery of high quality care.

5.6 A number of sites across Scotland and England were contacted to determine whether alternative models of care either for providing anaesthetics or for delivering unscheduled medical services without on-site anaesthetics provision. None of the sites, however, offered a viable alternative model or a direct comparison in terms of the population served, or the services delivered. Previous comparison had been made between the Vale of Leven Hospital and Kendal Hospital where a model was being developed which would have seen unscheduled medical patients admitted without out of hours anaesthetics cover. Due to staffing and clinical governance concerns this model is being downgraded and the inpatient beds at this site will become rehabilitation beds.

5.7 The compromises, which sustain anaesthetic services in remote and rural areas, are not readily applied to the geographic setting of the VOL given its proximity to urban centres. The remote and rural group have taken a view that the Vale of Leven is not a remote and rural hospital.

**Sites Contacted for Alternative Anaesthetic Model**

### Sites Contacted for Alternative Anaesthetic Model

	<b>Dr Grays, Elgin</b>	<b>New Galloway, Dumfries</b>	<b>Falkirk, Stirling</b>	<b>St Johns, Livingston</b>	<b>Westmoreland, Kendal</b>	<b>Hexham</b>
<b>Hospital function</b>	DGH, with 190 beds. HDU facilities on site, no ITU.	Small rural site, with 20 inpatient acute beds, plus 24 inpatient GP assessment beds. No ITU beds on site.	Community hospital providing Intermediate care and day care. No unplanned emergency activity on site.	This is a large University teaching Hospital, with on site ITU beds.	Small community hospital with emergency unit and day surgery unit, with 100 beds.	Small DGH with 98 in patient beds. No ITU beds on site, however there are HDU and CCU beds.
<b>Conditions treated on site</b>	Emergency Surgical, Medical, Ophthalmology, Orthopaedics, ENT, gynaecology and Obstetrics patients.	Emergency surgical and medical patients, however ambulances will bypass the acutely unwell and trauma patients.	Day surgery patients who have been fully screened at surgical preassessment clinics, and patients that are suitable for rehabilitation.	Full accident and emergency department, which treats all presenting conditions i.e. burns, emergency surgery and medicine.	Currently medical emergencies are seen on site, however bypass protocols are used by the ambulance service as the site has no ITU beds	Emergency medical and surgical patients are treated on site, with trauma patients being moved off site.
<b>Staffing</b>	8 Consultant anaesthetists in post. No problem with recruitment and retention currently. 24-hour consultant cover provided, with 2 on at any one time.	Anaesthetics covered by 1 x anaesthetist and 1 x GP, plus a locum- delivering a 1:2 rota	Anaesthetic provision is only available during 9 –5 i.e. theatre activity. No out of hours anaesthetic Cover.	Full anaesthetic rota 24/ 7, covered by both consultants and middle grade staff.	Consultant anaesthetist during 9-5, for day surgery, no cover out with these hours. Patients are transferred off site.	Full 24 hour anaesthetic provision on site provided by consultants

	<b>Dr Grays</b>	<b>New Galloway</b>	<b>Falkirk</b>	<b>St Johns</b>	<b>Westmoreland</b>	<b>Hexham</b>
<b>Nearest blue light centre</b>	Closest centre 40miles away (Inverness) however patients are transferred 60 miles to Aberdeen.	75 miles to the nearest blue light centre at Dumfries	Stirling Royal Infirmary 10 miles away.	Not required	Patients requiring ITU support would travel 23 miles to the nearest blue light centre in Lancaster.	Patients requiring ITU support would travel 26 miles to the nearest blue light centre.
<b>Is this model transferable to the VOL</b>	Busy small DGH, seeing a cross section of emergencies thus ensuring the skill base of the staff group. Due to this cross section of both surgical and medical emergencies this is not a model that is transferable.	This is not a model that could be applied to the VOL, as it is not a sustainable model in terms of workforce planning and on call demands on the staff.	This model has no emergency activity and therefore is not comparable to the VOL site.	Not a transferable model as it is a fully functioning acute site.	Similar to the VOL in terms of emergency medicine. However the model is being down graded to a nurse led facility due to clinical governance issue and medical staff recruitment problems. The inpatient beds will become rehabilitation beds.	Not similar as it has full anaesthetic provision.