ACUTE SERVICES REDEVELOPMENT PROJECT

SERVICE/DEPARTMENT

Out-put Based Specification

Main Theatres, Endoscopy & Short-Stay Unit

(*Including Admission on Day of Surgery Area - AODOS*)

Planning Group Lead:  J Knox

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<th>Date</th>
<th>Author</th>
<th>Comments</th>
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INTRODUCTION AND OUTLINE OF SERVICES

1.1 Departmental Function

This clinical brief refers to the areas within the schedule of accommodation identified as:

- Main Theatres & Endoscopy
- The Short-Stay Unit (day surgery, 23-hour)

The function of these areas is:

To build upon effective pre-admission assessment, which is a cornerstone of the overall surgical model, by supporting admission on day of surgery (AODOS) for upwards of 95% of all admissions for endoscopy, surgery and other investigations under anaesthesia

- To ensure that patients attending for elective or emergency surgery, endoscopy or other procedures planned to take place within the unit are appropriately prepared prior to the procedure
- To provide safe intra and post-operative, care including stage 1 recovery for all patients
- To provide stage 2 recovery up to and including discharge for short stay patients managed within the short-stay unit

It is essential that the short-stay unit and theatre/endoscopy area be located immediately adjacent to each other in order to optimise the overall endoscopy/surgical journey for the majority of patients.

1.2 Specialist/Tertiary Services

No specialist or tertiary services are currently delivered from the unit, although it does support a wide range of surgical and medical sub-specialties.

1.3 Current Service Configuration

1.3.1 Bed/Treatment Area Numbers

Currently, the services described in this brief are delivered/supported from a wide range of different locations on the existing Dumfries & Galloway Royal Infirmary (D GRI) site. These include:

- Main Theatres (6 theatres, including emergency theatre)
- Ophthalmology Unit (1 theatre)
- Obstetrics Unit (1 theatre)
- Day Surgery / Endoscopy Unit......this also includes sigmoidoscopies carried out in Out-patients
- 23-hour, from Ward 4 (previously an in-patient ward)......this also includes ambulatory care
- Outpatients

Main theatres

The existing main theatre block includes 6 x theatres in a single block with all support accommodation. 2 of these theatres are currently equipped with laminar flow. The area is
supported by 5 x theatre reception bays and 7 x stage 1 recovery bays. All patients accessing the area arrive from either a general surgical ward, Ward 4 or via the day surgery/endoscopy unit. This is also the location of 2 endoscope washer/disinfectors.

The combined day surgery/endoscopy unit

The existing combined day surgery/endoscopy unit includes a wide range of patient admission/support/preparation areas as well as 6 x stage 1 recovery trolleys and 14 x stage 2 recovery trolleys. These are used flexibly as required and support 2 x endoscopy rooms and 1 x minor treatment room. The area is also the location of one endoscope washer/disinfector.

The ophthalmology unit

The current ophthalmology area includes a single operating theatre and treatment room as well as accommodation to support the admission, recovery and discharge of all ophthalmic patients requiring surgical intervention.

The obstetric unit

The existing obstetric unit includes 2 x operating theatres and a range of support accommodation, including ward and recovery areas. Currently there is no requirement to access any operative areas out with the unit.

Ward 4

Ward 4 is currently used to support a range of ambulatory and short-stay surgical and medical procedures. These relate to a wide range of medical and surgical sub-specialties including gynaecology. Specifically, the component of Ward 4 that currently relates to the future services described within this clinical brief are; 12 x short stay beds (2 x 4 bedded bays, 1 x 2 bed bay and 2 x single rooms) and 2 x short stay trolleys in a multi-bed bay along with a range of clinical support accommodation.

Out-patients

A large number of sigmoidoscopies are currently carried out within a small treatment room in the out-patient department that is serviced by a single hepa-filter cabinet.

These patients are not scheduled to attend for these investigations but are instead deemed to require them through a scheduled out-patient appointment. The scopes used in out-patients are currently disinfected in main theatres.

1.3.2 Access to Imaging & Laboratories

It is often necessary to undertake imaging activity within the operating department, both intra and post-operatively. Imaging activity is supported by staff from the imaging department using dedicated mobile x-ray machines and image intensifiers which are kept within the operating theatre department area.

Whilst post-operative imaging is generally restricted to mobile plain film activity, e.g. to assess the correct location of central lines, prior to transfer to ward/critical care areas, etc, intra-operative imaging includes the extensive use of image intensifiers, e.g. in intra-operative cholangiogram, pacemaker insertion, etc.

Consequently, it must be assumed that image intensifiers may be used in any theatre and any endoscopy/treatment room. In addition, at least one theatre will be a designated laser
theatre and should be appropriately equipped with screens, protection and “laser in use” warning lights, etc.

Whilst effective pre-assessment and “surgical work-up” will mean that all patients requiring elective surgery arrive appropriately prepared – including having had all relevant laboratory tests performed – it is sometimes necessary to undertake additional laboratory tests as part of the overall theatre journey. This is particularly true during emergency procedures.

This requires that operating department and recovery staff have ready access to laboratory investigations and results, necessitating access to the preferred method of specimen delivery within the operating department, e.g. vacuum tube system.

In addition, ready access to locally performed tests is also required, most notably blood gas analysis. Currently, this is performed within ICU – a model which continues to be acceptable as long as travel distances do not exceed the current distance between main theatres and ICU.

Blood and blood products are currently located within a single fridge that is associated with (and monitored/managed by) the laboratory area and again this continues to be the preferred model for future.

1.3.3 Specialist Technical Infrastructure Requirements

It should be noted that operating theatre areas and associated recovery spaces are some of the most technically demanding infrastructure within any acute hospital build.

Specific technical infrastructure requirements are identified both within this document and the whole hospital technical brief.

1.4 Effect Of System Redesign/Balance of Care/National Strategy

A wide range of factors have been identified that are likely to have an impact on current and future operating theatre, endoscopy and associated capacity. These include but are not restricted to:

- The impact of Screening Programmes – impact on scope numbers
- The impact of JAG recommendations
- Decontamination Guidelines – need for improved decontamination areas
- British Society of Gastroenterology Guidelines
- Changes to waiting time regimes/targets
- Increasing day case and 23 hour care activity
- Changes/developments in technology and clinical practice
- Strategic reviews of a number of services on a supra-regional basis, most notably vascular surgery
- Re-patriation of activity/services from other hospitals/areas, e.g. Orthopaedic activity from the Golden Jubilee Hospital
- Requirement to maximise use of theatre at Galloway Community Hospital
- CSSD – may be off site

1.4.1 Current Links with Primary Care & Community Services

DGRI does not function in isolation; rather it is a DGH and central clinical hub within a healthcare system that includes cottage hospitals, health centres and GP practices that all support surgical and endoscopy pathways and models.
Key links include:

- The Galloway Community Hospital, which delivers a range of surgical and endoscopic procedures – with a key planning assumption that this capacity will be used optimally in future.

1.5 Impact Of Current Location/Configuration On The Running Of The Service

1.5.1 Positive

Include, in no particular order:

- Proximity of scope washer/disinfectors to main suite and endoscopy
- Proximity of main theatres to imaging and ICU
- Proximity of main theatres to A&E
- Dedicated entrance/exit to/from day surgery
- Excellent patient feedback
- Pleasant feel within patient lounge
- Easy access to wards
- Close proximity between obstetric theatre and Obstetrics

1.5.2 Negative

Include, in no particular order:

- Capacity to realise waiting times is constrained, eg in endoscopy
- Geographical spread of operating theatres
- Combined recovery unit with no separate patient “divisions”
- Pre and post op patients frequently mix
- Chronic lack of capacity in admission areas
- Poor flows
- Lack of toilets
- Lack of storage
- Lack of privacy at reception
- Multiple decontamination locations
- Lack of private rooms for obtaining consent, etc
- Conducting sigmoidoscopies in out-patients
- Multiple recovery areas
- Poor paediatric flows/mixing of children and adults
- Theatre/recovery capacity and expertise split (main suite, day surgery, obstetrics, out-patients, eyes)
- Obstetric patients managed surgically within obstetrics

1.6 Current Service Risks

Current identified service risks include, in no particular order:

- Access to sufficient capacity to support service needs and appropriately manage waiting times
- The provision of effective decontamination
- Service sustainability and continuity – particularly given the number of different, geographically remote areas to be staffed
• Clinical risk – again, particularly given the number of different, geographically remote areas to be staffed
• The recruitment and retention of suitably experienced staff
• Financial affordability in key areas, e.g. 6 year repair costs
• Failing to meet JAG requirements in endoscopy
• Failing to meet SEAN guidelines for ECT

In addition, the current out-patient treatment area that is used for endoscopies is not fit for purpose and presents a range of challenges that cannot be met within an out-patient setting. Consequently, the preferred future model is that all of these patients will continue to be offered endoscopies during their out-patient attendance but will receive these endoscopies within the theatre/endoscopy unit – still on the same day.

This is seen as a key operational challenge but also has implications on the proximity/relationship between out-patient consulting areas, admission on day of surgery areas and endoscopy rooms.

2. SERVICE TRENDS

2.1 Demand on Specialty/Service

2.1.1. Anticipated Future Activity

- Increased workload from bowel screening
- Increasing specialisation
- Question over future of vascular service
- Centralisation of certain services
- Increase in endoscopy and therapeutic activity; refer transfer of sigmoidoscopies from OPD to Day Surgery
- Impact on x-ray of any additional theatre activity
- Galloway Community Hospital to play more of a role in capacity
- Re-patriation of elective activity eg orthopaedics
- Increase in bariatric surgery

2.1.2 Anticipated Shifts in the Locus of Care

95% admission on day of surgery

2.2 Technology / Developmental Technology

Further development of laparoscopic and endoscopic surgery

2.3 Assessment & Admission Criteria

Further development of pre-assessment support region wide.

2.4 Links with Primary Care and Community Services

Continue to maximise theatre services at the Galloway Community Hospital

2.5 Nurse Practitioner/AHP Role Enhancement

• Expansion of Nurse Endoscopist roles e.g. Upper Gi, Colorectal
• Nurse Consultant Urology/Physicians assistant
2.6 Multi-Disciplinary & Multi-Agency Working

Provide access to specialists from other Boards, as required.

2.7 Other Factors Affecting Activity And Treatment By 2015 / 2020

- Increase in elderly population
- Development of new treatments and technology
- Screening programmes
- Workforce planning

2.8 Treatment Trends

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<th>Department Impact</th>
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<tr>
<td>Vascular Surgery</td>
<td>Stents</td>
<td>Theatre &amp; Interventional Radiology</td>
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Robotic surgery is becoming more common but it is unlikely that this will be in place when the new facilities open however the capability to undertake this function is embedded within the future functional requirement.

2.9 Likely Technical Advances

Further development of interventional radiology, laparoscopic and endoscopic surgery.

2.10 Service Delivery Transitional Risks

- Failure to implement new models of care
- Risk of continued decrease in trainee numbers for anaesthetic and surgical specialties
- Getting capacity projections wrong

3 CLINICAL/SERVICE MODEL & PHILOSOPHY OF CARE

3.1.1 Philosophy of Care

Theatres / Endoscopy / Day Surgery / 23-hour Care services at Dumfries and Galloway Royal Infirmary are currently provided from 5 locations.

The key changes to the delivery of these services will:
- improve and enhance all existing surgical and associated journeys through a whole scale review and redesign of processes, services, staffing and accommodation
- ensure that patients are always cared for in the most appropriate locations by the most appropriate staff groups
- minimise non-value adding process steps through ensuring that patients only access staff, services and process elements if they will benefit from them
- minimise duplication of effort and resources whilst ensuring longer-term sustainability through optimising and consolidating physical accommodation
• further reduce journey times through optimising physical adjacencies within the operating department/endoscopy/support areas and between these and related areas including surgical wards and critical care

3.2 Model of Care Delivery (Pathway & Patient Flows)

The anticipated flow through the operating theatre/endoscopy department is as shown in Appendix 1. This represents the optimal flows that the Board wish to achieve and should be reflected in any subsequent design of the scheduled areas.

Aside from the flow described through the operating department/endoscopy and associated recovery areas there will be two primary care pathways – relating to emergency (unscheduled) and elective (scheduled) activity.

3.2.1 Emergency (Unscheduled) Care

Patients presenting for emergency surgery will do so via the Combined Assessment Unit (CAU) or the Emergency Department (ED). Those self-presenting will go to the Emergency Department (ED) either by ambulance or by public or private transport whilst GP referrals will be admitted directly to CAU (again travelling either by ambulance or public/private transport).

All patients will be assessed and the need and timing for emergency intervention determined.

Those deemed to require an immediate procedure will be transferred directly to the appropriate theatre and, post recovery, from there either back to CAU or to a Ward or Critical Care.

Other patients requiring intervention may be held in CAU for up to 24 hours, during which time they will undergo any tests and assessments that may be required, prior to surgery. They will then follow the same path as that described above.

Some patients may require elective intervention following additional surgical ‘workup’. This group of patients may be admitted to an appropriate in-patient bed or be discharged home (depending on the diagnosis, co-morbidities etc) for re-admission at a later date. Alternatively, they may be referred for day surgery.

A number of patients may also follow the unscheduled route via in-patient wards and critical care.

On occasions it may be necessary to transport very sick patients into theatre who are in an extremely distressed state and require immediate life-saving surgery.

It is important that these patients do not have an adverse effect on others who may be waiting for surgery and it would clearly be preferred that they could access an operating theatre without being seen/heard by routine elective or other emergency patients through a direct route.

3.2.2 Elective (Scheduled) Care

Patients undergoing elective surgery will have been seen either as an out-patient or will have come onto the pathway through the emergency model as described above.

Patients will require detailed ‘work-up’ prior to surgery with the necessary tests, treatments and medication defined and ordered at presentation and/or upon pre-admission assessment based on an increasing range of protocol-driven referral pathways.
A key element in all referral pathways will be pre-admission assessment, which is seen as an essential component of the surgical journey in order to:

- Optimise admission on day of surgery
- Prevent patient cancellation
- Optimise session utilisation
- Reduce length of stay
- Improve patient preparation and overall outcomes

It is consequently planned that all elective patients will be supported through pre-assessment, building upon an existing established model.

Following effective pre-admission assessment and scheduling for surgery/endoscopy/other treatment, patients will be admitted on day of surgery, unless there are clinical reasons not to do so, through the AODOS area within the Short Stay Unit.

Patients will arrive at the Short Stay Ward reception in their outdoor clothing where they will be administratively “clerked in”. They will then initially wait in a shared lounge area until they are seen by nursing and medical staff as appropriate in the consultation rooms provided where any essential additional pre-operative activity will be undertaken, e.g. physical examination, marking of limbs, etc. Pre-operative consent will also be confirmed at this time. At an appropriate time in the process (dependent upon their clinical and social needs) they will be asked to change into theatre attire (where necessary).

Once changed into theatre attire, it is not appropriate for Male and Female patients to be in the same waiting area so they will have access to gender-specific waiting areas thereafter. They will then be escorted either directly to the anaesthetic room or onto a trolley/chair to await transfer to the anaesthetic room.

Patients accessing theatres from wards, i.e. in-patients not admitted via the AODOS area will normally arrive on either a bed or a trolley, being received into the theatre area in the in-patient trolley waiting area. This is also where patients who are admitted on day of surgery but require transfer to theatre on a trolley will be transferred onto a trolley, e.g. those who have been administered a “pre-med”.

It is also within this area that a transfer from chair to theatre trolley or bed to theatre trolley will be conducted as necessary.

### 3.2.3 Patient / Process Flow within Theatres/Endoscopy

Once the relevant information and details have been checked and confirmed by theatre staff, patients will leave the relevant pre-operative waiting area (trolley or seated waiting area) and flow through the department in broadly similar ways, regardless of their method of presentation and diagnosis.

Most accompanying relatives/carers will not go further into the theatre complex, although where this differs, e.g. birthing partners, parents, etc the relevant theatre policy will be followed regarding process and dress/attire.

The patient will be escorted to an anaesthetic room (walking or on a trolley as required) where they will be received by their allocated anaesthetist. Consent and comprehension will be ascertained, final pre-operative checks will be undertaken and they will be attached to the relevant monitoring equipment which will include ECG, BP and SpO2 as a minimum.
In addition, either before or after anaesthesia is induced the patient may be attached to additional monitoring whilst still within the anaesthetic room that may include invasive procedures, e.g. the insertion of CVP lines, arterial pressure monitoring, etc.

These procedures will require the preparation of instrument trays and associated equipment and should be thought of as surgical interventions in their own right – requiring anaesthetists and other staff supporting them access to hand washing/gowning facilities as appropriate. These facilities may be shared with the OR but should also allow anaesthetic staff a clear view of the patient and monitoring equipment at all times as well as immediate rapid access to the patient as required (less than 10 seconds).

Once anaesthesia is induced and any additional preparatory interventions are completed, the patient will be moved through connecting doors into the operating room.

NB In some circumstances – particularly serious emergencies or where the patient has been transferred directly from Critical Care – they may move directly into theatre, by-passing the anaesthetic room completely.

The surgical procedure will be carried out by a surgeon, supported by a team of staff, including nursing and other healthcare professionals. It will also frequently provide opportunities for teaching (medical and other staff).

Once the surgical procedure is complete, the patient will be transferred to the post anaesthetic recovery room or directly to the critical care area according to their condition.

All patients requiring stage 1 recovery will receive this in the single stage 1 recovery area. In addition, short stay patients will receive stage 2 recovery within the short stay unit however, as adjacent to stage 1 as can be designed.

Transfer to all wards and departments will be by portering staff, accompanied by a nurse (and doctor as necessary).

Transfer to Critical Care will involve a team of staff including anaesthetic, portering and nursing staff. In this case the patient will be transferred on a level 3 bed, not a trolley and the design must allow for this. Specifically, as noted elsewhere, the minimum size to be accommodated is the equivalent of a fully laden bariatric bed with up to 5 attendant staff. Some patients may be transferred direct from theatre to Critical Care and some will be transferred to stage 1 recovery.

It is to be noted that:

- patients may flow from the critical care area (CCA) to the operating room and back to the CCA again on one or more occasions during their episode of care – indicating a key design challenge

- an increasing number of patients may be given a local or regional anaesthetic block rather than/along with general anaesthesia (where this is the case, anaesthetic staff will again require access to hand-washing/gowning facilities as identified above)

Key principles of the intra-operative journey include that:

- no one will enter the operating department unless they need to
- no one will spend any longer in the operating department than they need to
- no one will access an area unless they require to, e.g. patients not requiring stage 1 recovery will move immediately to stage 2
• no one will travel any further into the operating department than they have to, eg treatment and endoscopy rooms should ideally be located closest to pre-operative areas

Endoscopy patients will follow broadly the same pathway, although they will not normally undergo general anaesthesia and not therefore require access to stage 1 recovery.

Recognising the wide range of procedures being conducted within the theatre/endoscopy area, a key design will be structuring all facilities such that they can manage widely differing turnovers, i.e. endoscopy rooms may be required to manage up to 16 patients per room per session, whilst operating theatre may, in extreme circumstances, conduct only 1 operation in a day.

3.2.4 Specific Patient Group Journey Issues

Whilst there is a distinct advantage in consolidating theatre staffing, capacity and accommodation into a single operating department – and this is seen as an essential component of the overall strategic re-design of operating theatre services - the differing needs of the wide range of patient groups who must journey through a single operating department requires careful consideration and planning to ensure that they are not disadvantaged by such a model.

Examples of these patient groups include, but are not restricted to:

- Children
- Pregnant women and their birthing partners
- Patients attending for Electro Convulsive Therapy (ECT)
- Prisoners

**Children**

Despite extensive review and consideration it is not possible within Dumfries & Galloway to deliver exclusive paediatric operating sessions or even lists, primarily due to the numbers of cases involved. Consequently it will be essential to manage children passing through the operating department at the same time as adult patients whilst adhering to all good practice guidelines relating to the care of children in hospitals.

In order to minimise time within the operating department and ensure that children can remain separate – with appropriate adults where necessary – all children will be admitted via the paediatric unit; make use of a separate waiting area; be transferred directly into a theatre whenever possible; and be recovered in a stage 1 recovery area without adults prior to transfer back to the paediatric unit as soon as possible.

This process requires separate waiting areas (*although these need not be exclusively for children*); ready access to theatres from waiting areas; divisions within stage 1 recovery areas that allow different patient group separation (*including single rooms*); minimal travel distances to/from paediatric beds; and careful consideration to “child-friendly” design in all areas that may be used by children.

**Pregnant women and their birthing partners**

Despite an obstetric model that actively promotes normality and the natural process of childbirth, it is occasionally necessary for pregnant and recently pregnant women to undergo both elective and emergency surgical procedures. In extreme circumstances these require rapid transfer to an operating theatre for life-saving surgical interventions.
It is consequently essential to ensure that the theatre journey – particularly into a shared operating department - does not impact negatively on the overall experience of child birth or treat pregnant women as “patients”. Specifically, obstetric journeys should be managed such pregnant women and their birthing partners spend the minimum amount of time both in transit and within the common theatre area, not mixing with surgical and/or endoscopy patients as far as possible.

This process requires ready access to the dedicated obstetric theatre from the relevant wards/clinical areas and divisions within stage 1 recovery areas that allow different patient group separation (*specifically single rooms in the case of obstetrics*).

**Patients attending for Electro Convulsive Therapy (ECT)**

Electro Convulsive Therapy ECT is used as a treatment for a minority of patients with severe and/or treatment resistant mental illness. It has been shown to be effective in a wide range of psychiatric disorders but it is generally accepted as a first line treatment in severe or life threatening depression and treatment resistant depression.

The basic aim of ECT treatment is to induce a generalised cerebral seizure of a tonic–clonic or grand mal type, and to do so with an electrical dose that is sufficient to maximise the clinical efficacy of treatment, but not so high that it needlessly causes cognitive adverse effects of treatment. To do this requires that the patient receives a General Anaesthetic.

Patients attending for ECT need to be managed separately from general surgical patients as far as possible and require a journey to the procedures room that minimises overall journey times.

These patients will arrive by taxi from another health facility and will return to that facility with an escort upon completion of recovery.

This process requires separate waiting areas (although these need not be exclusively for ECT patients); ready access to the procedures room from these waiting areas; divisions within stage 1 recovery areas that allow different patient group separation (*including single rooms*); and minimal travel distances to/from main entrance areas.

**Prisoners**

The facility will be required to support surgical and endoscopic interventions for prisoners who are in legal detention and will be accompanied by prison staff, with this group again requiring appropriate management and separation as far as possible.

This process requires separate waiting areas (*although these should not be exclusively for prisoners*); ready access to theatres from these waiting areas; divisions within stage 1 recovery areas that allow different patient group separation (*including single rooms*); and minimal travel distances to/from main entrance areas.

In considering the needs of each of these patient groups it is important to recognise that, although they all present specific challenges, these can generally be met through a design that successfully combines flexibility and opportunities for privacy in pre and post-operative areas whilst maintaining effective monitoring/observation and consolidating staffed locations.

* In addition it is noted that, although all elective local anaesthetic surgical ophthalmology activity will take place within a separate facility, all GA elective and emergency ophthalmology will be conducted within this facility (*including paediatrics*) on a sessional basis.
3.3 Future Service Scope

This facility will realise consolidation; rationalisation; appropriate capacity; increased flexibility.

3.4 Future Service Delivery Risks

- Recruitment and retention of staff with the required specialist skills
- Screening programmes, causing increased need for intervention
- Future use of Galloway Community Hospital operating theatres

4.0 FUNCTIONAL CONTENT

4.1 The Proposed Facilities/Accommodation Overview (What is included)

The proposed facilities and accommodation required to deliver the planned services are as described in the relevant section of the schedule of accommodation.

4.2 Clinical Facility Requirements (How it will work)

4.2.1 Configuration

The combined operating/endoscopy department and short stay unit should be located on a single floor in order to capitalise upon the economies of scale associated with being serviced by a single recovery and endoscope decontamination area and keep all operating department staff working within the same vicinity.

In outline it will consist of 4 distinct “zones” as identified in Appendix 1 which is also indicative of the proposed flows and configuration required. These zones will contain a range of rooms/areas as specified within the schedule of accommodation.

There should be well defined routes within the department and to other areas for staff, patients and FM services. It should also be capable of maintaining appropriate flow separations including:

- Clean and dirty equipment separation (including sterile supplies)
- Pre/post-operative patient separation
- Patient sub-group separation (as discussed previously)
- Clinical/FM transport route separation
- Computer access in all clinical and staff areas, with access to PACS, TOPAS, VC equipment and all other patient administration systems with label/wristband printers eg Sapphire, Unisoft, Traceability access.

The unit should also:

- Have strictly controlled access at all times (eg card entry system and CCTV/video entry that is consistent with the whole hospital security strategy)
- Comply with the NHS D&G operating dept protocol which identifies; dress code; patient journey issues; control areas; etc
- Identify the operating area (including endoscopy/treatment rooms) and potentially stage 1 recovery as being within highest-level control area from an infection control, security and operational discipline perspective (“inside the red line”)
• Be configured such that unnecessary movement of staff to/from and within the department is avoided (thus changing, rest, beverage, essential office and post anaesthetic recovery accommodation must be integral to the department)

• Be close to anaesthetic departmental facilities, training space and workstations

• Be configured such that it is possible to call staff to any theatre from anywhere within the operating suite in less than 2 minutes

• Be configured such that it is possible to alert staff within adjacent operating theatres, the recovery area and anaesthetic dept to a problem that may require their assistance utilising an emergency call system/buzzer or alternative

• Have access to natural light wherever possible – in particular, all bedrooms or areas where patients will be present for more than 2 hours, e.g. Stage 2 recovery will require windows/natural light as will staff rest areas or any areas deemed a permanent place of work

The administrative component of the operating suite, specifically the anaesthetic department, may be located on a different floor if it can be demonstrated that this will not adversely affect travel times to theatre in an emergency. This administrative accommodation component should also be accessible through a non-clinical route, although entry to clinical areas through admin space should also be strictly controlled.

Functionally, the department should provide a single block of operating and endoscopy rooms with associated support accommodation. It is important that all rooms are serviced by a single reception and separate post-anaesthetic recovery area with beds and appropriate supporting utilities.

If appropriate pre and post-operative patient separation can be maintained it may be possible to combine these areas to a certain extent in order to provide improved space utilisation, e.g. make use of recovery space to support AODOS activity first thing in the morning and/or make use of AODOS space to support recovery activity later in the day.

4.2.2 AODOS

A component of the central support core/patient reception area should be an area that will support admission on day of surgery (AODOS) for patients who have attended pre-admission assessment clinics and who will undertake an anaesthetic/surgical and/or endoscopy before being transferred to a bed in a ward.

This AODOS area should support basic clerking-in/checking of pre-admission information and the short-term secure storage of personal belongings prior to transfer to a ward post-operatively.

4.2.3 Operating Rooms

Each Operating Room should have stand-alone ventilation and air management systems that conform to infection control and Scottish Govt legislation and guidance and the OD/Endoscopy department should be serviced by a range of central support facilities including:

• Staff support facilities such as changing areas with shower/WCs, workstations, rest, food and beverage preparation and dining areas
• Clinical support facilities including storage for bulk and other supplies (including pharmacy)
• Endoscopy/Scope Support area
• Recovery areas
Each individual operating room will:

- Be served by an anaesthetic room *(NB the larger anaesthetic room associated with the dedicated obstetric theatre may also in extreme circumstances be required to support emergency obstetric intervention – but only if no general theatre is available. This is an operational policy decision)*
- Have an adjacent preparation room
- Have a three place scrub-up and gowning room
- Lead into an exit bay that should also be equipped with a single person “stand-up” workstation *(NB this may be a larger space shared between two OR’s but should still include the same floor area)*
- Have a dedicated dirty utility area with a defined journey to disposal hold
- Have access to a shared supplies storage area

In addition:

- Those 3 theatres designated as “ultra-clean”, which will be used by specialties such as orthopaedics/trauma will be equipped with laminar flow cabinets in operating rooms and all associated engineering/ventilation

4.2.4 Endoscopy/Procedures Rooms

Each individual endoscopy/minor procedures room will:

- Include a scrub sink within the room
- Have an operating light
- Be equipped with piped gases that enable the use of an anaesthetic machine (oxygen, nitrous oxide, vacuum, gas scavenging and medical air - 4 bar & 7 bar)
- Lead into an exit bay that should also be equipped with a single person “stand-up” workstation *(NB this may be a larger space shared between two OR’s but should still include the same floor area)*
- Have access to a shared dirty utility room, prep area, DSR and store

4.2.5 Endoscopy/Scope Support Area

In addition both operating rooms and endoscopy rooms must have ready access to the endoscopy/scope support area. In particular, hepa-filter cabinets will ideally be located to minimise the travel distance of scopes once decontaminated and staff who require to use these i.e. will be located central to the endoscopy and operating theatre area.

The endoscopy/scope support area is based upon a 2 room EDU model with ante-rooms and includes:

- A wash room with ante-room capable of locating up to 5 washer disinfectors although it is anticipated that only 4 are likely to be required on commissioning
- An inspection/storage/dispatch room with ante-room
- A plant and chemical storage area
- Associated support spaces as scheduled
- Scope store that should ideally be en-suite to all endoscopy and treatment rooms with 4 x 10 scope hepa-filter cabinets
- A case store to store the storage cases required for scopes in transit

4.2.6 Internal relationships/adjacencies
For the single floor operating department to realise its full potential all operating and endoscopy, rooms must be configured around the central core reception/recovery/AODOS areas with internal journey times kept to a minimum.

In addition, operating rooms must be adjacent to Endoscopy in order that decontamination facilities can be shared and endoscopy patients can have access to both operating rooms and post anaesthetic recovery if required. To this end the location of the endoscopy decontamination area is critical and should be easily accessible to all theatres/endoscopy rooms.

Patients flow into, through and out of the department will follow the process identified in Appendix 1 and described in more detail elsewhere in this document.

4.3 Functional Relationships

Functional relationships are as described in the whole hospital adjacency matrix.

4.4 Access Requirements

Patient access to the Operating Department should ideally be through a single secure entrance (after AODOS and in-patient streams have met) to support effective controls, although this may require re-consideration in light of the specific patient sub-group considerations identified previously.

The accommodation must conform to the requirements of the Disability Discrimination Act 2005 (as pertaining to staff and visitors). Entrances and exits to and from the complex must be strictly controlled to prevent all unauthorised access.

The facility to move patients rapidly from the Emergency Department and to and from critical care areas is essential. Routes and lifts (numbers and size) must allow for this when horizontal transfer is not possible and similarly, rapid access routes for staff to and from these areas must be identified. Transfer routes to and from the wards, critical care areas and from the assessment beds must be also be identified.

The bulk transfer of sterile instrument packs and supplies from the external loading bay must also be facilitated.

The decontamination facilities shared with Endoscopy must be accessible to the theatre suite to enable the transfer and decontamination of equipment. Additionally, Endoscopy patients will need to make use of both the AODOS area and theatre recovery.

The journey for waste and decontamination equipment must have a defined journey.

It is essential that routes to and from the admin/anaesthetic facilities and critical care areas are kept to a minimum in order that staff can return rapidly to the theatre complex in case of emergency. This also applies to the rest and dining facilities within the operating department.

4.5 Opening Times (When will it work?)

Most theatres and endoscopy/procedures rooms engaged in routine elective surgical work will operate between approximately 8am and 5pm Mon-Fri, although pre and post operative areas are likely to open earlier and close later. Elective facilities will normally “lock down” around 10.00pm, although designated emergency theatres (normally 1 x general theatre and the designated obstetric theatre) will be available 24/7.
There is also likely to be an increasing demand for additional operating theatres to be available into the evening and at weekends as this is an element of the planned model for future capacity growth.

4.6 Specific Design Considerations

The key issue will be the provision of a department which will deliver an efficient flow of patients, from admission – to reception – to treatment – to recovery – to discharge/transfer. The design should also ensure that efficient use will be made of staff throughout the various stages of the patient pathway, by minimising the number of “handovers”.

4.7 Design Guidance

In general, design guidance is given in an overarching section of the Output Specification relating to the whole development. However, the guidance below is specific to the Operating Department:

The technological nature of the operating department has the potential to cause distress to patients and their relatives. It is important, therefore, that when designing these facilities the patient experience is taken into account together with that of their relatives and carers. The emphasis should be on providing a pleasant but safe environment for patients paying particular attention to areas such as reception, anaesthetic rooms and recovery where the patient is conscious. However, as a number of patients may remain conscious throughout their journey, it is vital that all areas are designed with this in mind. It is also essential to consider the needs of staff and the impact that the working environment has on job satisfaction, recruitment and retention.

The design must be flexible enough to cater for all cultures and ethnicity. It should create an environment that will allow patients and their carers to feel at ease whilst contributing to efficient staff working and morale. Manual handling regulations and the requirements of the Disability Discrimination Act must be factored into the design.

Protecting the patient’s privacy and dignity at all stages of the process is of paramount importance. In addition infection control, decontamination, laser and radiological protection guidance must be taken into consideration when designing finishes and surfaces within the department.

Key technical guidance includes:

SHPN 26 Operating Departments, Vol. 1 2004
HFN 30 ‘Infection control in the built environment’
Endoscope Reprocessing: Guidance on the requirements for Decontamination Equipment, Facilities and Management, HPS, December 2004
HBN 13 ‘Sterile Services Department’
HTM 2030 Disinfection in healthcare
HTM 2022 Medical gas pipeline systems: Operational management
HTM 2025 ‘Ventilation in healthcare premises’
HTM 2040 The control of Legionellae in healthcare premises
HBN 6 ‘Facilities for diagnostic imaging and interventional radiology’
4.8 Environmental and Services Requirements

There must be separate lifts and routes for visitors and relatives; these lifts should also be accessible to staff. There must also be separate well-defined routes for pre and post procedure patients with no crossover.

Direct access from the main loading bay should be possible to facilitate the transfer of bulk sterile supplies in and used instruments and waste out.

Natural light in patient areas and staff office and training accommodation is essential. In the operating rooms, availability of natural light is not essential, however if provided, there must be blackout capability.

Each light in the recovery area should be dimmable from the patient’s bedside. Additionally adequate arrangements should be made for the illumination of anaesthetic machines and monitors.

The operating and anaesthetic rooms must conform to radiological and laser protection specifications where designated. All areas in which anaesthetic gases are inhaled or exhaled must be provided with active gas scavenging systems. Air management systems must conform to relevant HBN, HTM and Infection Control guidance and standards.

All floor, wall and ceiling surfaces must be washable and seamless and able to withstand frequent deep cleaning processes and chlorine based decontamination.

Storage should be off floor on metal racking (or similar) mobile units.

4.9 Schedule of Accommodation

The current SoA is attached and should be considered the primary reference document regarding all areas to be provided. It may be possible to rationalise areas through the design process and every opportunity should be taken to realise such savings where they are clinically and operationally appropriate.

The additional information provided in this section is intended to provide a brief description of key areas only and in so doing aid design development. These areas are considered in the order that they appear in the SoA, which in turn reflects intended flow as far as possible.

4.9.1 Entrance, reception & external waiting areas

This area is best thought of as “the front end” of a day surgery unit.

Reception area
This area will be the administrative centre for all patients arriving for admission on day of surgery at the Operating Department and as such must be able to support administrative “clerking in”. It should be accessible separate from the main “in-patient” entrance to theatres, supporting patients walking in with their outdoor clothes on. The clerking process is likely to become increasing patient-led with more requirements to access IT systems and less traditional administration desks.

The area may need to be separated 3 or 4 different reception points in order to support both operational management and patient confidentiality on a sessional basis.

**Waiting Room/Lounge (50 places)**

This area should provide seating/waiting space for patients being admitted on day of surgery *(walking in)* and their relatives as well as immediately prior to discharge.

It should be located adjacent to the reception area and be configured informally to present a low-stress and relaxing environment.

It will also ideally feel like a number of smaller spaces to support increased privacy.

Adjacent to this area will be toilet access, as per Schedule of Accommodation.

### 4.9.2 Patient Preparation Areas

The transitional zone must be capable of supporting the transition period from when patients arrive at the Operating department *(either from other areas within the hospital or elsewhere, still dressed in their outdoor clothes)* until they have been fully prepared for theatre and are awaiting transfer to the anaesthetic room. Adjacent to this area will be a number of changing rooms, as per Schedule of Accommodation.

**Staff Base**

Ideally the same staff group will look after the whole “transitional zone” so this must be located centrally, ideally with an optimal view of all other areas.

**Consulting room (small)**

These small rooms are intended to primarily provide a confidential location for pre-operative consultation. They are not equipped with examination trolleys and are only required to contain up to 3 chairs and a small desk.

**Consulting/Examination**

These rooms will have a similar function to the small consulting rooms but in addition are capable of supporting physical examination through the inclusion of a surgical examination trolley.

At different times they may be used by surgeons, anaesthetists and members of the nursing team to support all elements of the admission process and should be specified in the same manner as a conventional outpatient type consultation room. 2 of these rooms will require en-suite toilets to support bowel preparation where required and should also have piped oxygen and suction.
When not in use to support AODOS assessment they may also be used as additional consulting space for appropriate services, e.g. they could provide an additional base for pre-assessment staff.

**Locked space for storage of patients bags on baggage trolleys**

The AODOS model requires patients to change from their outdoor clothing into theatre attire within the AODOS suite before surgery is conducted and they are transferred to a ward for longer-term post-operative recovery. This model will mean that there is a requirement to securely store patient’s personal belongings in the short-term prior to transfer to the stage 2 recovery area.

The preferred model is a “hotel baggage” model that sees bags transferred by porters using secured portable trolleys.

**Secondary Waiting Areas**

Secondary waiting areas are provided simply to support gender specific waiting once patients are in theatre attire. Areas should be configured as normal waiting areas and should be supervisable from the staff base.

**Trolley Waiting Areas**

A number of trolley waiting areas are provided for patients who arrive in beds or those who need to be transferred to theatre on a trolley or bed, e.g. following a pre-med. Although described adult and paediatric areas these should be flexible enough to support the separation of pre-operative patients as required. Also adjacency to stage 1 recovery would allow flexibility.

This is also the area where someone arriving on a bed would be transferred direct to a theatre trolley if required. Consequently, it would be beneficial if the designated trolley waiting areas are separated by portable partitions.

### 4.9.3 Operating Room Suite

**Operating theatre: General and Maternity**

The theatre should be approximately square with the patient and surgical team centrally positioned. The operating table will be electrically operated and will have attachments requiring storage or to be in theatre ready for attachment. The actual method of transfer onto the theatre table will be a procurement decision based upon operating table and trolley configuration.

Ceiling mounted medical pendants are preferred to a gantry arrangement. Pendants should be arranged conveniently for the surgeon and anaesthetist and should have a tandem articulated crossover action. For maximum flexibility, each pendant should contain medical gas and operating table electrical supplies.

An above table articulated operating light is essential. Additionally a variety of pumps, plus monitoring and a patient records recording system will be required. A mobile anaesthetic machine will also be needed.

An appropriate clear height between the finished floor level and ceiling is required to allow unrestricted adjustment of the operating luminaire and other ceiling mounted equipment. The structure should be capable of supporting ceiling mounted medical supply unit, if
installed. This permits unrestricted access to the patient and allows staff of all heights to operate them easily.

A clinical workstation, with touch screen monitors for accessing a variety of information systems, and work surface will be required as well as a range of wall mounted equipment such as white board, clock and viewing monitor for scans, x-rays, etc. The PC will need to link into the main hospital network and provision must be made for this. The workstation should be mobile for ease of cleaning and flexibility of use. The operating room will require an external warning light for X-ray and laser where designated.

Doors through which beds or trolleys will pass should allow for easy passage; all doors will require to be automatic. All doors should be fitted with vision panels capable of being obscured and have laser proof blinds in designated laser theatres. All doors should close quietly.

Video recording/output may be required from the theatre.

**Operating theatre: Ultra Clean (55m2)**

Ultra-clean theatres should be specified as for General Theatres (above) but should also be equipped with laminar flow cabinets and the associated ventilation systems.

Laminar flow cabinets should be of a sufficient size to allow all surgical trolleys to be accommodated including during pre-operative preparation.

**Anaesthetic room (19m2) (1 per OR)**

Complex clinical procedures are carried out in the anaesthetic room; each room should be configured identically and not be ‘handed’. The room should contain worktop and storage units for accessories, sterile supplies, pumps that require electrical charging, infusion fluids, etc. It should also be piped for gases and feature an anaesthetic machine. A lockable cupboard is required for controlled drugs. A clinical HWB must be provided.

The patient must be accessible from all sides of the trolley when in the anaesthetic room.

**Obstetric anaesthetic room/emergency procedure room (22m2)**

This area is configured as a standard anaesthetic room but will also include an operating light and additional baby resuscitation equipment.

It is primarily provided as an anaesthetic room but will also act as a third stage emergency theatre area – capable of supporting obstetric emergency intervention only if the primary obstetric theatre or any other theatre is unavailable.

**Scrub-up & gowning room: 3 places**

The scrub up and gowning space, sized for 3 persons, should lead straight in to theatre. A view of the theatre should be possible from this room. The height of the scrub sink should be 1000mm to rim from floor level, with non touch taps, scrub solution and nail brush dispensers. Shelving is required for storage of gown packs. Ideally this room should also have a view to the anaesthetic room in order that it can be used by anaesthetic staff as required in preparation for invasive, pre-operative procedures.

**Preparation room (Daily Use Store)**
The preparation room will have sterile instrument trays, lotions, suturing material and supplementary packs on appropriate shelving and in storage cupboards, topped up for each day’s operating lists. Sterile fluids will also be stored here as will a fluid warming cabinet. Instrument trolleys are laid-up therefore adequate space is required to open packs and maintain a sterile field. This room opens into the theatre and if it requires doors these should be wide enough for a trolley to pass through undisturbed. Additionally direct access is required from this room to the corridor to allow re-stocking of shelves without travel through theatre.

**Exit/parking bay: theatre, 1 bed/trolley**

The exit bay, apart from providing double door exit from the theatre should also be able to park a bed or trolley as this may be used as a holding area for the bed/trolley the patient arrived on or is to be transferred to post-operatively. *(This may be a “special bed” from a critical care area and adequate space will be required for also storing the equipment required to transfer the patient there safely, eg Mobile ventilator, transport monitor, pumps, infusions, etc)*.

NB exit/parking bays may be combined to support 2 adjacent OR’s although the same space will be required per OR.

**Store: equipment, local to theatre**

Large items of equipment will be stored here. Some of the equipment may need charging and thus at least 6 power outlets should be supplied. Access to this area should be from the corridor between the operating rooms without the need to penetrate into the operating rooms.

Storage area also required out with the above store for vascular table, trauma table, bariatric table etc, next to theatre or reception/recovery; charging points will be also necessary. Up to 6 trolleys will be stored in this area.

**Dirty utility room**

The dirty utility room, accessible from theatre, will have a fluid disposal area. A bucket sink and storage of mops and buckets is also required. Shelving to hold disposal bags and specimen containers is required. Temporary holding of re-usable instruments is required, until they are transferred to the disposal hold at the end of each procedure as well as a range of bins. A door to the corridor with a suitably short route to the disposal hold will be appropriate. There should also be a hand wash sink in this room.

Should endoscopes be used they will be immediately transferred to the endoscope washer disinfecter area.

**4.9.4 Endoscopy/Procedures Suite**

**Endoscopy/procedure rooms**

These rooms will be used both as endoscopy rooms as well as procedure rooms, supporting activity such as ECT, pacemaker insertion, “lumps and bumps” surgery, etc. They should be thought of as "largely self-contained" operating rooms with shared access to support spaces such as prep room and dirty utility.

They will include a scrub sink within the room and be equipped with an operating light, gases and equipment such that general anaesthesia can be safely induced.
As they are not associated with an anaesthetic room or “air-lock” care should be taken that it is not possible to see what is being undertaken within these rooms if/when the door is opened during a procedure.

**Trolley bay**

This area is primarily for the storage of transfer trolleys but has a secondary function that is similar to that of an exit room.

Also located in the Endoscopy/Procedures Suite will be Preparation Room, Dirty Utility and General Store, as per Schedule of Accommodation.

### 4.9.5 Endoscopy/Scope Support Area

The Endoscopy Decontamination Unit (*EDU*) will be designed to be fully compliant with SHPN 13, part 3, two room model with ante room. The EDU will reprocess flexible, thermo-labile endoscopes and their accessories. These endoscopes can be lumened or non-lumened and require manual cleaning and high level chemical disinfection. There must be clear separation of ‘clean’ and ‘dirty’ flows.

The rooms must be sized to accommodate 5 of the largest pass-through Endoscope Washer Disinfectors (*EWD*) currently on the market to allow for capacity expansion though it is anticipated that 4 EWD will be included at this design stage. These must be compliant to SHTM 2030, BS EN ISO 15883:1, with final rinse water compliant with BS EN ISO 15883-4 for pass through decontamination between the ‘dirty’ and ‘clean’ room.

The ante rooms require clinical hand wash basins with hands free tap operation, wall mounted soap and paper towel dispenser together with sufficient space for donning personal protective equipment and disposal of waste in at least 1, 50L foot operated bin.

On entering the ‘dirty’ room there must be space to allow two trolleys with endoscopes for decontamination prior to testing and cleaning.

3 sinks are required with sufficient space between them for set down of endoscopes during the cleaning process. These will be used for leak testing, washing and rinsing of the scopes. A spray gun and automated detergent dispenser should be incorporated into the design.

There must also be space for four cassettes loaded with endoscopes which are waiting to be placed into the EWD.

A system allowing the tracking and tracing of medical devices passing through the EDU (and any HEPA cabinet) is required. An administration area is required in both dirty and clean rooms to facilitate this tracking and the audit process.

Air changes should be as specified in SHPN 13 part 2 appendix 3.

There should be suitable facilities for cleaning all surfaces of the transit containers and trolleys between use.

An inspection area with task lighting and magnification should be within the clean room.

Environmental cleaning must be managed to minimise the risk of transferring contamination from a dirty area to a clean area. Separate DSRs for storage of items allocated to clean and dirty areas within the operating department should be planned for.

Chemical bottles will be stored within the operating department prior to disposal (*up to 16 bottles per week*). A store for 50 scope cases is required (*1 case for each scope*).
4 HEPA filtered air cabinets are required within the operating department to accommodate the processed scopes. This will ideally be located to minimise the travel distance of scopes once decontaminated and staff who require to use these. Some of these cabinets may be within the clean room within the EDU. Also a cupboard will be required to store “non-hepa” scopes.

4.9.6  Support Facilities (Theatres)

Theatre Management Office

An office is required to accommodate 2 staff.

Service Room: Equipment

This room, which will be managed by Medical Physics staff, is intended to support the maintenance and repair of the full range of mobile theatre equipment including anaesthetic machines, etc.

It should have all of the piped gases and services available in theatres in order to support the testing of equipment under normal usage and should be centrally located.

Parking bay: mobile x-ray & ultrasound unit

For the storage of mobile imaging equipment. This bay should be equipped with electrical outlets that will support the charging of mobile equipment when parked/overnight.

Parking bay: resuscitation trolley

For the storage of resuscitation trolleys and other emergency equipment as appropriate, e.g. difficult intubation, lines insertion trolley.

Parking bay: e.g. fibre optic bronchoscope light source trolley & emergency scopes

For the storage of emergency equipment as appropriate, e.g. intubation equipment, intubating bronchoscope, light source, other patient trolleys e.g. emergency vascular, urology etc. This bay should be equipped with electrical outlets that will support the charging of mobile equipment when parked/overnight.

Store: consumables / bulk supplies

This is an area for consumables. It should be accessible from out with theatres for deliveries and within to allow theatre usage.

It is noted that, in order to make optimum use of the space provided that mechanical storage solutions should be a feature of this space.

It is also the base for a store person and should include a fixed desk area with IT access.

Store: CSSD

This storage is for CSSD equipment, trays, etc. It should be accessible from out with theatres for deliveries and within to allow theatre usage.
It is noted that, in order to make optimum use of the space provided that mechanical storage solutions should be a feature of this space.

A fixed desk area with IT access, for traceability purposes, should be provided.

**Store: clinical equipment**

Equipment including ultrasound and monitoring will be stored here, preferably off-floor to facilitate cleaning and dust control. Shelving should be supplied to enable smaller items to be stored; electrical power sockets must be provide around the walls to allow equipment to be charged. Access from recovery and to the equipment service room is required.

**Note:** that all storage and supplies areas must be equipped with power sockets.

It is also noted that, in order to make optimum use of the space provided, mechanical storage solutions should be a feature of this space.

**Store: ophthalmology equipment**

Although all elective local ophthalmology activity (*Circa. 98% of all procedures*) will be conducted in a separate health building, emergency and GA eye surgery will be hosted within this unit. This secure store recognising that this will necessitate the permanent storage of a limited range of expensive and sensitive equipment e.g. An operating microscope, biometry equipment, etc. It will require limited shelf space and electric sockets to support electrical charging.

Also required, as per Schedule of Accommodation, will be
- Store: ready to use medical gas cylinders
- Disposal Hold.....to include empty cylinders
- Switchgear Room
- UPS & IT Hub Room

### 4.9.7 Stage 1 Recovery

**Recovery bays x 14**

**Recovery rooms x 4;** 1 room with ceiling mounted hoist to accommodate bariatric patient

The recovery area will serve all operating rooms as well as endoscopy patients requiring stage 1 recovery.

The area will consist of recovery spaces and rooms that will be serviced by a single staff base.

Natural daylight is highly desirable within this area and artificial lights should be dimmable. Each space requires medical gases and vacuum, nurse call, power, monitoring, patient record data entry, exam lamp etc. These services can be rail mounted to provide greater flexibility. Each space will have a clinical hand wash basin with sensor taps.

The single rooms will be glazed and used to source isolate patients requiring this level of care and or separation for specific clinical or other reasons. There will be an audio link to the staff base; it will otherwise be equipped as for a recovery space. An emergency call system and intercom should be supplied.
As noted elsewhere in this schedule it would be advantageous if the spaces and rooms within this area could flex between both a pre and post operative function to meet changing daily demands whilst being capable of maintaining pre and post-operative patient separation. It would also be advantageous if this area could be located immediately adjacent to trolley waiting areas to make better use of available staffing.

**Staff and Communication Base**

This should be an open area, with clear views into recovery area; it should accommodate 3 staff and have access to all relevant IT systems.

**Clean utility room**

Provision is required for the preparation and storage of all drugs, medicines and lotions, and for a working supply of clean and sterile supplies, and the preparation of trolley. A clinical hand-wash basin is required. Electrical power sockets will be required to allow PCA and epidural pumps, etc to be charged.

**Dirty utility room**

Provision is needed for the cleaning of dressing trolleys and other items of equipment, and for the temporary holding of items requiring reprocessing or disposal. A combined disposal unit with separate worktop will be needed. Clinical hand-wash facilities are required.

Also to be provided, as per Schedule of Accommodation, will be - Parking Bay for resuscitation trolley and DSR.

**Linen Store**

Store or linen exchange trolley options?

4.9.8 **Staff Support Facilities**

**Rest & dining room with beverage & snack preparation bay: 20 staff (2 x rooms)**

This room should have natural light, a window, a telephone and be comfortably furnished. It should be within easy reach of the operating rooms. Dining tables and chairs should be provided in addition to easy chairs and coffee tables.

**Hot desk area – for 4 persons**

To support flexible administrative functions, these workstation areas should be open spaces equipped with high-level benching and IT/network accessed PC’s/connectivity.

Also provided:
- Staff Changing Room including boot change: 50 places
- Staff Changing Room including boot change: 50 places
- Utility: footwear cleaning
- Staff wc/shower facilities
  as per Schedule of Accommodation.

4.9.9 **The Short Stay Unit**
Although immediately adjacent to the operating theatre/endoscopy area, the short stay unit can effectively be thought of as a ward, servicing the longer-term recovery needs of day case and short stay patients.

Operationally, it is highly likely that it is the same staff group who will manage this area as supporting AODOS so this should be reflected in the design.

Briefing cues for this area should be taken from the brief relating to generic wards, although the scheduled space includes a combination of bedrooms (for patients staying up to 23 hours) and trolley areas for those staying up to 8 hours.

Specifically, trolley areas should be configured as those spaces in stage 1 recovery, whilst bedrooms with en-suites should be exactly the same as those in generic wards although no overhead hoists will be required in these areas.

4.9.10 Trolley Area Facilities *(Day Case Stage 2 Recovery)*

Trolley Spaces x 20

Touchdown Space x 4

WC – disabled size x 4

4.9.11 Bed Area Facilities *(23 Hour Recovery)*

Acute Single Bedroom with en-suite x 14; 1 room with ceiling mounted hoist to accommodate bariatric patient

Touchdown Space x 2

Linen Store - Store or linen exchange trolley options?

4.9.12 Patients Support Facilities *(SSU)*

Store Cupboard
Interview Room
Resuscitation Trolley Parking Bay
Pantry/ Beverage Making Area
Ward Food Trolley Parking Bay
Wheelchair Bay
Staff Base

4.9.13 Backup Storage *(SSU)*

Linen Store
Clean Utility
Large Equipment Store

4.9.14 Utilities *(SSU)*
Dirty Utility / Sluice / Test Room x 2 (one each for Stage 2 and 23-hour)
Hand wash Station
Disposal Hold
DSR

4.9.15 Office and Administrative Services (SSU)

Reception - 2 positions
Printer/ IT/ Admin Store Room
Charge Nurse / Sister’s Office
Hot Desks (3 spaces)
Staff Locker Bay

4.9.16 The Anaesthetic Dept

The Anaesthetic Dept is scheduled within the overall operating department area as per HBN 26, primarily to ensure its proximity to critical areas – as noted previously. It is essentially administrative accommodation however and should be based on those design requirements identified elsewhere.

This should include:
- Waiting Area (3 persons)
- Admin Office (3 persons)
- Office (15 persons)
- Trainees Office (6 persons)
- Break-out / Interview Room
- Store: general and stationary
APPENDIX 1

NHS Dumfries & Galloway Proposed Flow of a Combined Operating Theatre & Endoscopy Facility DRAFT Overview

Peak Capacity Planning (Per Zone/Session)

Planning Assumptions:
- All ACTOS admissions 24/7 8.0 sessions.
- 1.5 admits per bed on average.
- Minimal staggering of admission times.
- Peak demand is 75% of total peak volume per day.
- An increase in management of patients in group settings on a daily basis, e.g., endoscopy, nycr, etc.

- No admissions to endoscopy unless significant demand.
- Children will require admission to children’s ward (ACTOS area).
- Children will require separate prep area and a dedicated recovery area.
- No Trolley unit and Stage I recovery must be flexible enough to deal with different age groups, e.g., infants.
- Nucleus will be used for clinical staff/occupational therapy, etc.
- A dedicated area for clinical staff/occupational therapy, etc.
- Surgical admissions will be processed to the appropriate target area.
- Flexible is required to deal with different age groups, etc.