

Acute medical care

The right person,
in the right setting – first time

Report of the Acute Medicine Task Force

October 2007



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Contents

Members of the Acute Medicine Task Force	vi
Acknowledgements	viii
Foreword	ix
Executive summary and recommendations	x
Glossary	xxi
1 Vision, remit and background	1
Vision and remit	1
Methodology	1
References and information sources	2
Structure of the report	2
Background	3
Reading this report	5
2 Acute medical care	6
Clinical decision makers	7
Expanding the provision of diagnostic support	7
Improving access to urgent medical assessment and treatment	8
Configuration of acute medical services at the community/hospital interface	8
The spectrum of acute care	8
Models of acute medical care provision	9
Urgent care centres	10
Acute deterioration in long-term illness	11
Acute medical illnesses in nursing homes, residential homes and community hospitals	12
End-of-life care	13
Emergency medical care	13
The emergency care network	13
Navigating acute medical services: getting the patient to the right person, in the right place – first time	14
Pre-hospital care and ambulance services	16

Acute medical admission to an acute hospital – generic principles	17
Acute and local hospitals	17
Emergency medicine and acute medicine	19
Acute medical care in hospitals without an emergency department	20
Acute specialist medical services	20
Acute general surgery	20
Acute medicine and acute general surgery – configurations	21
Watershed conditions	21
Critical care (high dependency and intensive care)	21
Patient flow and planning the transfer of care (discharge planning) – generic requirements	22
Leadership, organisation and management	22
3 Patient safety and clinical effectiveness	24
Standardising the assessment of illness severity	24
Improving the standard of patient clinical records and documentation	25
Standardising clinical management protocols for common acute medical illness	25
Monitoring clinical performance – clinical performance indicators	26
The importance of accurate clinical coding in acute medical care	26
Recording patient and carer experience	26
Information technology	26
4 Acute medical care within hospitals	28
The acute medical unit	29
AMU configuration	30
Location	30
Size	30
Design principles	31
Operational principles	32
Patient flows – gearing up capacity to meet changes in demand	33
Interface with other specialties and their bed bases	34
Acute medicine commitment from medical specialties	34
Specialist in-reach	34
Care of older people: special considerations for older patients admitted to hospital with acute medical illness	34
Access to diagnostics	35

Patient transfers to the specialty bed base	35
Configuration of the specialty bed base beyond the AMU	36
AMU and medical outreach and the acute response team	36
Acute medical unit staffing and operations – general principles	37
The medical team	37
The nursing team	38
Other acute medical unit staff	38
Acute medical unit ward rounds, patient review and handover of care	39
Extended day working	40
5 Workforce planning, education, and training	41
The acute medical unit as a training environment	41
Flexibility and career opportunities	42
Structures important to promote recruitment and retention	43
Job planning and workforce configuration	43
Implications for job planning for specialties	44
Innovative roles	45
Opportunities for medical staff – dual training and dual roles	45
Funding	46
Research and development	47
References	48
Appendix: Further information	49

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As Chair of the Acute Medicine Task Force it has been an honour and a pleasure to have had the opportunity to work and interact with so many talented people over the past two years. In 2005 Dame Carol Black, past president of the Royal College of Physicians (RCP), recognised the time was right for an updated RCP report on acute medicine and went on to launch the Task Force. Since 2006, President Ian Gilmore has been tremendously supportive and has provided invaluable guidance and advice in managing the many professional interfaces that deliver and depend on acute medicine services.

The Task Force brought together a wealth of talent from many stakeholders in acute medical care, ranging from the full spectrum of healthcare professionals, NHS managers, policymakers and patient representatives. They all gave their time to participate enthusiastically in discussions and to support the work of the Task Force in many ways, on many occasions, alongside their busy lives. It has been inspiring to witness their commitment and passion to continuously improve acute medical care.

Beyond the Task Force, there has also been invaluable discussion with leaders and representatives of many other key stakeholder groups, specialist societies and the Council of the RCP, London: a process which has further improved this report. It was produced in collaboration with the Society for Acute Medicine, and many members of the society sat on the Task Force.

In writing this report, I am indebted to the outstanding work and commitment of the leaders of the working groups who comprised the executive team: Professor Derek Bell, Dr Solomon Almond, Dr Mike Jones, Dr Rhid Dowdle and especially Dr Susan Shepherd who was Secretary to the Task Force and without whose skill and guidance the climb would have been much more daunting and far less enjoyable.

October 2007

Professor Bryan Williams
Chair, Acute Medicine Task Force

Foreword

In January 2006 the RCP convened a working party – the Acute Medicine Task Force – to consider in depth the changing landscape of acute medical care in England. The outcome of that work is distilled into this report and provides a blue print for the development of acute medical services going into the 21st century. Professor Bryan Williams and members of the Acute Medicine Task Force are to be congratulated on setting out their vision so clearly.

The care of patients with acute medical illness needs to be improved right across the NHS: to ensure a consistently high quality of care throughout the service and with respect to access to an appropriate level of care, out of traditional office hours. This principle applies to patients developing acute medical illness in the community, as well as to those who develop acute medical illness while in hospital.

The report makes a number of recommendations that, if implemented, will improve the efficiency and efficacy of patient assessment and treatment, while at the same time enhancing their experience and clinical outcome.

This report is not just for doctors. It is for all those who work in acute medical services and those who plan, commission, and use them – all of which were reflected in the Acute Medicine Task Force composition.

Consultation was at the heart of the way the Acute Medicine Task Force went about its work, but special thanks are due to the Society for Acute Medicine who collaborated extensively at all stages in the development of the report.

The RCP wishes acute medical care in the NHS to be at the cutting edge of medicine with rapid translation of new developments into patient care. The overarching philosophy of this report is captured by its title – to ensure that patients get access to the highest quality of acute medical care *by the right person, in the right setting – first time*. This is a formidable challenge – a challenge to harness the talent and commitment of all those who work at the front line of medicine to shape and lead the reform of acute medical services. A challenge to change what we do, when we do it, and how we do it.

October 2007

Professor Ian Gilmore
President, Royal College of Physicians

Executive summary and recommendations

Executive summary

This report of the Acute Medicine Task Force of the Royal College of Physicians (RCP) is about excellence in the provision of acute medical services, and provides recommendations for the organisation and delivery of clinical care for people with acute medical illnesses.

Acute medical care

The report makes a number of recommendations, at the heart of which is the need to ensure that the first assessment of acutely ill patients is by competent clinical decision makers, supported when necessary by ready access to senior clinical decision makers. Competent decision making also requires diagnostic support, and the availability of these services must be improved and better aligned to when and where they are needed. The combination of competent first assessment and appropriate levels of diagnostic support guarantees that the right assessment and treatment are delivered – first time. This may be life saving for the critically ill but is important at every level of illness severity to provide a fast and efficient service. The Task Force wishes to replace ‘see and greet’ with ‘see and treat’.

Patient access to ‘out-of-hospital’ general practice or community-based acute medical care, especially out of hours, is largely inadequate and inflexible. Too often patients present to acute hospitals because there is nowhere else for them to go to get the reassurance and care they need. An expansion of the range of services, providers and facilities offering unscheduled and acute medical care in the community is required. However, there is an important caveat. Those who deliver acute care in the community must acquire and maintain the same competencies in acute medical care as those who deliver it in hospital. This is particularly important in the context of current policy to move more care into the community and by inference, away from acute hospitals. Careful planning is required, driven by clear evidence that it will deliver improvements in the quality of acute medical care. Before existing services are decommissioned, we must be certain that new services will deliver care that is more convenient, safer and better organised than that offered now.

Acute medical care for older patients

For older patients developing acute illness in community-based longer-term care facilities, we recommend the wider use of outreach from specialist multidisciplinary hospital teams to manage these patients more effectively *in situ*. This would avoid hospital admission whenever possible, and facilitate it when necessary. In addition, such patients should have long-term care plans that define the most convenient and appropriate pathways for acute medical care, agreed levels of intervention, and plans for end-of-life care.

Acute medical care in hospitals

Acute medical care in hospitals also needs to develop in a number of ways. Not all hospitals admit patients with life-threatening acute medical illness but those that do should follow the principle

of ensuring rapid streaming of patients to the right setting. We recommend consolidation of acute services in large acute hospitals, while taking account of local demographics and the need to provide safe travel times.

We support the development of direct acute care pathways for acute myocardial infarction and acute stroke. We recognise the importance of emergency physicians in the emergency department (A&E) for the immediate assessment and management of those with a range of undifferentiated acute illnesses.

We also endorse and expand recommendations from previous RCP reports about the importance of the development of acute medicine as a specialty and the establishment of acute medical units (AMUs) as the focus for acute medical care in hospitals.

We emphasise the importance of critical care teams and adequate critical care facilities and support in all hospitals caring for patients with acute medical illness.

Acute medical care – the front door

However, it is clear that more could be gained by closer working of these related clinical specialities. We recommend that in large acute hospitals that receive critically ill patients, the ‘front door’ should comprise an ‘emergency floor’ with co-location of the emergency department, the AMU, critical care, and other acute and urgent care facilities and key support services, including the ambulance service. This would foster greater integration and collaboration and would improve the interface between these key services, bringing together their different skill mixes and expertise within a single setting. In turn, this would facilitate more effective streaming of patients to the right place for their ongoing care.

The acute medical unit

We provide detailed recommendations about the remit, configuration and operational policies for the AMU. The quality of the first 48 hours of acute medical care is an important determinant of clinical outcomes and we recognise the need to guarantee the quality of this care and access to this care, 24 hours a day, seven days a week (24/7). The AMU will provide the optimal environment for acute medical care in hospitals, consolidating the appropriate clinical and support services in a ‘fit for purpose’ single setting – staffed by clinical staff with competencies in acute medical care and supported by in-reach from specialist multidisciplinary teams. A closer interface with critical care teams is essential and many AMUs will require embedded higher dependency care facilities.

Many patients with acute medical illness will complete their care within the AMU, while those requiring more specialist ongoing care will be streamed to the specialist bed base within the hospital network. When deemed appropriate, patients developing acute medical illness in the community should be streamed directly to the AMU. The new cadre of acute physicians will need to expand. They will play a key role in the leadership of the AMUs. However, it is essential that other specialists continue to participate fully in acute medicine to provide a broad-based skill mix, and to retain their own competencies in acute medical care.

Some patients develop acute medical illness when in hospital and the quality of the immediate response and care of these patients must continue to improve, especially out of hours. The AMU clinical team, working closely with critical care teams, should become the hub for coordinating medical outreach within hospitals.

Emergency care networks

The planning and management of an expanded provision of acute and urgent care options in the community and in hospitals will require the establishment of emergency care networks in regions to provide better coordination of acute services. Moreover, some life-saving interventions, specialist services and complex diagnostics will be provided across local and regional networks, rather than in every hospital. These networks must be led by senior boards with strong clinical leadership, comprising key commissioners and providers, with direct accountability. The networks will need to ensure that patients are granted safe access to acute medical care wherever they are and whenever they need it.

Public information

We also recognise that there is little point in developing a wider range of acute services if patients and staff working within the NHS do not know how to access them. Much more detailed public information about the remit and boundaries of local urgent and emergency care services is required and we recommend the development of a local navigation hub, with a well publicised single access number distinct from 999, that enables a dialogue with a competent decision maker to reassure and/or direct patients to the most appropriate service within the local network. The ambulance service will play a key role in acute medical services and we make a number of recommendations to extend this role and strengthen their interface with acute clinical teams.

Patient safety and clinical effectiveness

Our report is founded on improving patient safety and we want to ensure that all patients and staff are confident that acute medical care is of the highest quality wherever and whenever it is needed. We need to standardise processes for the assessment, documentation and treatment of acute medical illness across the NHS. We recommend the development and implementation of an NHS early warning (NEW) score. This NEW score should be familiar to all staff and should be used to trigger the most appropriate response, either in the community or in hospital. We also recommend the development of national clinical performance indicators to benchmark and improve performance.

Workforce planning, education and training

All of our recommendations have major implications for the NHS workforce – especially for those working at the front line of acute services. Clinical leadership for local services should evolve from within the service. Such leadership is essential to drive the development of services and inspire others to follow.

We encourage the development of a supportive culture of education, training, self-improvement, excellence and teamwork founded on the principles at the core of this report, notably patient safety and quality clinical care. Robust training programmes are required for all staff to guarantee the competencies required to empower clinical decision making. Training budgets and dedicated time in job plans must reflect training needs and leadership roles.

The workforce will need to change and adapt to the requirement for a greater presence of competent decision makers at the front line of services across extended hours. In so doing, we must recognise that acute service work is especially demanding and the risk of ‘burn out’ is real. Staff working in these areas must be supported and their job plans should be flexible and varied, with clear

opportunities for career progression. This is essential to encourage recruitment of the most able staff into acute specialties at all levels, and to retain the existing expertise. All specialties interfacing with acute medicine will need to gain and maintain competencies in acute medicine. Acute medicine should become a mandatory component of the medical undergraduate curriculum.

Research and development

We want acute medical care in the NHS to be at the cutting edge with rapid translation of new developments into patient care. The evidence base for best practice in acute medical care is weaker than it should be and needs to be strengthened. For this to occur, the culture of research and development in acute medical services should be given a higher priority than it has at present. We have recommended the development of a research and development network for acute medicine to facilitate this.

Funding

Finally, acute medical care must be adequately resourced and funding mechanisms should be carefully evaluated to ensure that they do not distort clinical priorities and instead drive the development of a world class coordinated service, providing comprehensive and safe levels of care. Acute medical care is not a luxury – we have to get it right, not least of all because one day, we will all need it.

Recommendations

Acute medical care

We recommend that patients with acute medical illness should get access as soon as possible to a competent clinical decision maker at the front-line of acute medical services.

We recommend the need for an expanded provision of out-of-hours diagnostic facilities for community- and hospital-based care. For community care these services should be available as a minimum for extended seven-day working. However, it is essential that this is aligned to competent clinical decision making providing a ‘one stop shop’ for certain clinical presentations.

We recommend that within regions there must be a wider range and more innovative options for acute medical care, scaled to meet patients’ specific needs, fit for purpose and conveniently located.

We recommend that medical care out of hours (both in hospital and community) must be supported by better access to diagnostics to enable a competent clinical decision maker to complete an assessment and deliver appropriate treatment first time.

We recommend that defined pathways to facilitate rapid access to specialist in patient care for people with acute deterioration of long-term illnesses should be developed. These pathways may also include mental health services and end-of-life care.

We recommend that there should be clear lines of clinical accountability and responsibility and that the implementation of community care plans should be rigorously evaluated and monitored to ensure patient safety and satisfaction.

We recommend the development of more multidisciplinary specialist outreach teams from acute hospitals to support community-based healthcare.

We recommend that explicit and effective acute care plans should be developed for patients in long term care, in order to reduce unscheduled hospital admissions. Such plans should be clear about levels of agreed intervention and should be discussed and agreed with patients and/or their representatives, especially regarding levels of intervention and resuscitation. Acute care plans must be accessible by ambulance services and other responders to acute crises in these settings.

We recommend that end-of-life care plans should become an important part of clinical assessment and ongoing review of patients with terminal illness.

We recommend the development of major acute hospitals serving local regions, providing the most intensive level of emergency and complex acute medical care. These hospitals should have major emergency departments co-located with the acute medical unit and critical care units, ideally as part of an emergency floor.

We recommend that emergency care networks should be established in regions to develop and coordinate acute services. We further recommend that emergency care networks should be managed by a Senior Board comprising providers and commissioners with strong clinical leadership. These Boards must have real power to commission and configure local emergency services and should be fully accountable for the work of the network.

We recommend the development of a navigation hub for the emergency care network to direct patients requiring urgent medical care to the most appropriate service.

We recommend that the local navigation hub should have a single, well publicised telephone number for patients who need access to urgent medical care – this could be integrated with a more locally relevant NHS Direct service.

We recommend that there is a need for more extensive public information about the role, remit, and boundaries of the various services within the emergency care network.

We recommend that acute medicine services should be in close geographical proximity to the emergency department, to facilitate direct access to the AMU for differentiated acute medical problems for the community.

We recommend that all hospitals within an acute care network admitting patients with acute medical illnesses (even those without emergency departments) should establish AMUs as the focus for acute medical care.

We recommend that AMUs develop an augmented care area (up to level 2 care) and staff with competences to deliver this level of care. Safe transfer arrangements must be in place to ensure level 3 care when required.

We recommend that large acute hospitals dealing with complex acute medicine must have on-site access to level 3 critical care (ie intensive care units with full ventilatory support).

We recommend that a date of transfer of care should become a routine part of the admission process, and be in place within 12 hours of admission.

We recommend that all AMUs should have nominated clinical and nursing leads for acute medicine. These leads should work on a regular basis within the unit. Services interfacing with the AMU, for example, the emergency department, critical care, imaging and primary care, should also have

a defined clinical lead. We further recommend that leaders of the interface services should meet on a regular basis to facilitate planning and development of the acute service.

Patient safety and clinical effectiveness

We recommend that clinical assessment, clinical documentation and clinical management of common acute medical conditions should be standardised nationally, to reflect best practice. This would improve clinical practice, support clinical governance, and facilitate case review, transferability of clinical information and clinical audit.

We recommend that the physiological assessment of all patients should be standardised across the NHS with the recording of a minimum clinical data set result in an NHS early warning (NEW) score.

We recommend that a working group is commissioned to develop the NEW score and evaluate it. This work should take into account both the levels of training and the setting of the healthcare professionals making these assessments.

We recommend that the NEW score be used at all stages in the acute care pathway, including pre-hospital assessment, eg by the GP, ambulance service or other healthcare professionals seeking advice on acute medical care. The NEW score should also be used as part of inpatient assessment of illness severity and as a trigger for appropriate prioritisation of patient review.

We recommend that all healthcare staff would be trained in the use of the NEW score and the level of response required at each level of NEW scoring.

We recommend that documentation should be standardised across the NHS in three key areas:

- ▶ clerking forms for acute medical admissions to hospital
- ▶ inpatient basic observation charts eg for temperature, pulse rate, blood pressure, conscious level and urinalysis, which could be part of the NEW scoring
- ▶ inpatient drug and iv fluid prescription charts.

We recommend that roll-out of the EPR, when available, should be prioritised for acute care areas – this would help standardise the ongoing documentation by multiple practitioners and carers and also improve hand-over and transfer of care documentation – all of which are important guarantors of patient safety.

We recommend standardising clinical management with the development of evidence-based national guidance for the clinical management of common acute medical illnesses. This would improve patient care and provide a more effective basis for training and audit.

We recommend that an approved list of national clinical performance indicators (CPIs) should be developed for acute medical care. These should be used to provide a more standardised evaluation of clinical performance and outcomes for out-of-hospital and in-hospital acute medical care. These should assess at least three domains: mortality; some cause-specific outcomes and patient satisfaction and experience.

We recommend that accurate clinical coding information should be recorded by a competent clinician on the clerking forms.

We recommend that networks should record data on patients' experiences of their whole episode of acute care to help emergency care networks identify ways to improve this service.

We recommend that the provision of reliable, high quality, IT support is prioritised in acute clinical areas to support efficient working of the emergency care network and its related parts.

Acute medical care within hospital

We recommend that the AMU should be the hub for all acute medical care within hospitals. This will involve close collaboration with critical care teams and should lead to the establishment of a single, multidisciplinary Acute Response Team that provides 24/7 outreach care from the AMU to all areas of the hospital, for patients requiring urgent medical review. Because the clinical condition of patients in hospital can deteriorate unpredictably at any time, all hospitals will need an AMU and staff with competencies in acute medical care, irrespective of whether or not they have an emergency department.

We recommend that the AMU operates a number of streams for patients related to clinical need. These include the acutely unwell requiring close supervision and monitoring, short stay patients, older patients, complex needs patients, and ambulatory care.

We recommend that visitor access to AMUs should be controlled because of the continuous ongoing admissions process and frequent review of acutely ill patients. The desirability of open visitor access must be balanced by the priorities of acute clinical care, patient comfort and dignity.

We recommend that the AMU should incorporate sufficient capacity for single sex bay accommodation whenever possible recognising that this is not always feasible in monitored environments.

We recommend that where the AMU receives direct admissions, it should have a fully monitored direct admission area with appropriate levels of medical and nursing staff support and include modern trolleys/chairs/and waiting areas.

We recommend that AMUs should have operational procedures for defining appropriate and safe mental health accommodation and behavioural problem areas. This is to cater for patients with mental illness who develop acute medical problems, or patients with acute medical illness who develop acute confusional states.

We recommend that the AMU should provide the base for 'Hospital at Night' teams and for 'Hospital out of hours' services and acute medical outreach. This will need administrative space and IT support. This focus is appropriate as the majority of patients managed by these teams have medical problems. For the trainees taking part in these activities, it is important that they have ready access to the senior physicians working within the AMU for support and educational feedback.

We recommend that the AMU should also contain ready access to teaching and training facilities for staff and students. For larger units a seminar room for teaching and training should be embedded because it is less practical for staff to leave the AMU for training periods.

We recommend that transfer of care planning should begin at the time of the initial patient assessment and an accurate coding of the diagnosis and an estimation of anticipated length of stay should be recorded for all patients and reviewed regularly.

We recommend that length of stay for a patient on an AMU should be dictated by the clinical need of the patient and not by predefined arbitrary limits – this will involve typical lengths of stay of between 24–72 hours, with an average length of stay in established AMUs of approximately 24–30 hours, allowing many patients to complete their episode of care with the same clinical team.

We recommend that the pace of life in the main hospital bed base beyond AMU must be geared to respond dynamically to changes in demand so as to increase capacity during busy periods. This gearing requires real time monitoring of demand and capacity, and robust escalation policies that are capable of responding quickly to early signals to distribute acute pressures more evenly from the front door to the entire bed base. This gearing must also involve community bed access beyond the acute hospital and must be operational 24/7.

We recommend that modern acute hospitals will require daily clinical review of the entire bed base by a competent clinical decision maker to ensure efficient patient flows and to reduce length of stay. This is an essential component of gearing to meet fluctuations in demand.

We recommend that physicians from other medical specialties continue to commit to sessions in their contract dedicated to acute medicine on the AMU. This provides a healthy mix of disciplines working in the acute care environment and enables all participating medical specialists to retain competencies in acute clinical care.

We recommend clearly defined contact pathways for named senior clinical opinions (SpR or consultant) should be on a rota for all specialties likely to require regular interaction with the AMU. These include: geriatric medicine, gastroenterology, diabetes and endocrinology, dermatology, rheumatology, neurology, cardiology, respiratory medicine, infectious diseases and mental health teams

We recommend that specialty teams should develop rotas of clearly identified adequately experienced staff who can provide advice or attend and review patients expeditiously on the AMU, within a maximum of 4 hours of a request and ideally sooner. This is important for clinical governance, patient safety, education, and to facilitate efficient patient discharge.

We recommend that AMUs tailor their operations to meet the needs and expectations of an ageing population with more complex illness. Operational policies should reflect this to ensure the dignity and the highest quality of care for frail, older and vulnerable patients with acute illness. This requires a multiprofessional approach, working in close liaison with the specialist teams.

We recommend that there should be no discrimination on the basis of patient age when decisions are made about access to acute medical services, and about the quality of service subsequently provided and received.

We recommend that the AMU should have scheduled seven-day access to diagnostic and treatment procedures such as diagnostic GI endoscopy, echocardiography, diagnostic ultrasound, bronchoscopy and CT and MR imaging – with easy and convenient access for larger AMUs in large acute hospitals, and available to smaller AMUs via clearly defined pathways within the local emergency care networks.

We recommend that there should also be 24/7 urgent access to ‘life saving’ interventions such as GI endoscopy within the emergency care network, ideally located on the same site as the AMU in large acute hospitals.

We recommend that patients requiring continued specialist inpatient care should be streamed from the AMU to a hospital bed base appropriate to their clinical needs as defined by their diagnosis and illness severity. When patients require inpatient care within the specialty bed-base, there should be no barriers for patient transfer to that bed base. Patient transfers from the AMU should only occur if the receiving environment provides an appropriate, safe and sufficient level of continuing acute clinical care – this is an important consideration for the most acutely ill patients out of hours and at weekends.

We recommend that the acute hospital bed base beyond the AMU should reflect the patient need. The configuration of the hospital bed base with regard to specialty should reflect the acute care demand. The bed configuration of most hospitals needs to be reconfigured to match the acute patient flows and demand to ensure that there is the greatest opportunity to transfer patients to the most appropriate specialty destination for their ongoing clinical care.

We recommend that the AMU should be the hub for coordinating acute medical outreach care and many of the activities currently undertaken by the Hospital at Night team and out-of-hours medical cover arrangements for the hospital. This would provide a focus for coordinating acute medical outreach care and would provide continuity and review to ensure the patient is cared for in the most appropriate environment according to their dependency score.

We recommend that acute medical outreach should involve much greater integration between the existing on-call medical team and the critical care outreach team with competencies in emergency resuscitation, airway management and acute medical care. This could result in the development of a multidisciplinary acute response team (ART) that would replace the independent medical on-call and critical care outreach teams and would provide a single team to respond to urgent calls for support.

We recommend that consultant work patterns should include protected session time for AMU, ideally in blocks of days. Seven-day blocks are considered too onerous and work less well. Precise work patterns should be developed to reflect local needs and all other clinical duties and responsibilities should be cancelled for clinical staff while working on AMU.

We recommend that junior medical staff should be allocated to the AMU in blocks, for example, two to four months at a time. This helps build teamwork and provides a concentrated period of time to develop competencies in acute care. The model of junior medical staff ‘dipping in and out’ of AMU for isolated short shifts of duty is strongly discouraged as being much less effective, less safe and an inadequate training experience. Acute physicians must be their mentors and be responsible for their training and appraisal during this attachment. Physicians must never work in isolation in acute medicine.

We recommend that nurses based in AMUs should develop enhanced skills (ECG, venepuncture, cannulation, IV drugs, arterial blood gas analysis). Those working in higher dependency areas should develop and maintain critical care competencies. It is also important that nurses have had experience of nursing patients with severe physical disability, lack of which may compromise outcomes and delay transfer of care.

We recommend that nurses based in AMU should also be encouraged to develop specialist nursing skills by secondment or rotation. Larger AMUs should designate a lead nurse with clinical leadership and training responsibilities for specific specialist areas, such as critical care, NIV,

asthma care and oxygen therapy, care of the elderly, mental health and so on. Likewise, nurses from specialties other than acute medicine should be seconded to, or rotate to, the AMU to acquire and maintain competencies in undifferentiated acute medical care.

We recommend that the clinical team on the AMU should be consultant led.

We recommend that there should be a twice-daily consultant-led ward round/review of all patients in the AMU, seven days a week, to support ongoing decision making and to review the management plans and results.

We recommend that the NEW score and plans for investigations and discharge or transfer plans for each patient should be clearly displayed within the AMU using a 'clinical management board' and should be reviewed and updated regularly and at the end of every ward round.

We recommend that there must be time included in the shift patterns for junior medical staff to ensure there is a formal handover of care, akin to that adopted for many years by nursing teams.

We recommend new models of working that are predicated on ensuring adequate levels of competent clinical decision makers are present on the AMU and other front-line services 24/7.

Workforce planning, education and training

We recommend that exposure to the AMU should be part of the core undergraduate medical curriculum.

We recommend that medical and nursing education and training leads are identified to promote and coordinate education and training for medical and nursing AMU staff.

We recommend that all medical specialties in acute hospitals or in emergency care networks servicing acute hospitals will need to acquire and maintain competencies in the assessment and clinical management of acute medical problems pertinent to their specialty. This important aspect of training needs to be incorporated into specialist training programmes.

We recommend that training objectives for physiotherapists and occupational therapists should be adopted for all allied health professionals in AMUs.

We recommend that flexible career options are encouraged and maintained for those practising acute medicine.

We recommend that the typical programmed activities that are available within a job plan should be comparable across AMUs according to the commitment of the individual. This will facilitate job planning and is a piece of work that should be promoted within management. Within job planning there must be a reasonable balance of capacity and demand with regard to the activity of the AMU and the personnel available.

We recommend that job planning recognises the work that flows from the clinical interface including the necessary administrative work and talking to carers and relatives.

We recommend the development of nationally agreed allocations of programmed activities to these roles and model job plans to facilitate equitable job planning and appropriate resource (both staff and funding) allocation to prioritise and sustain the proposed reconfiguration and enhancement of acute medical services for patients.

We recommend that people working in support roles should not work in isolation, but must work as part of a multidisciplinary team with clear lines of responsibility and support.

We recommend standardisation of training packages for transferable skills to ensure their wider and more consistent application. This will also decrease the need for local initiatives that may restrict the ability of the trainee to extend their role beyond a specific department or clinical discipline.

We recommend that there should be opportunities for doctors who are skilled at acute and critical care medicine to combine these interests and train in both acute medicine and critical care medicine to CCT level. There should also be opportunities for primary care physicians to train in acute medicine and to work within the AMU.

We recommend that new training structures are sufficiently flexible to allow physicians to train in related areas of acute care to CCT level and thereby develop job plans that allow them to combine clinical roles beyond the AMU, eg AMU, ITU, or Emergency Department responsibilities.

Funding

We recommend that clinical leaders develop an understanding of the funding mechanisms so as to allow them to effectively impact on service development and ultimately, patient care.

We recommend that payment systems and tariffs should be better aligned to best clinical practice so that they do not distort clinical priorities.

We recommend that funding mechanisms should be adjusted to incentivise the development of high quality emergency and acute medical care while at the same time not disenfranchising chronic disease management.

Research and development

We recommend the establishment of a national clinical research network for acute medicine that will provide the infrastructure for high quality research programmes in acute medical care.

As explained on [p5](#) under Reading this report, additional points are set out in the body of the report in green but without the preceding words 'we recommend'. These should also be regarded as Task Force recommendations.

Glossary

Acute care common stem programme: a training programme immediately after foundation years that incorporates experience in acute medicine, emergency medicine, anaesthetics and critical care over a two-year period.

Acute medicine is that part of general (internal) medicine concerned with the immediate and early specialist management of adult patients suffering from a wide range of medical conditions who present to, or from within, hospitals requiring urgent or emergency care.

Acute physician: a doctor who has taken responsibility for acute medical care within an acute medical unit and, often, administrative responsibility for that unit.

Acute medical unit: a specialised area of an acute hospital where patients suffering from acute medical illness can be assessed and initially admitted.

Acute response team: a team of individuals who have the capacity, and are equipped, to respond to urgent patient need. This may be an acute clinical need and the team is often based in a critical care setting or, in the context of a social work response team, may be responding to the patient's complex needs.

Ambulatory care is clinical care which may include diagnosis, observation, treatment and rehabilitation, that is not provided within the traditional hospital bed base or within traditional out-patient services, and that can be provided across the primary/secondary care interface.

In the context of acute medicine, it is care of a condition that is perceived either by the patient or by the referring practitioner as urgent, and that requires prompt clinical assessment, undertaken by a competent clinical decision maker. The healthcare setting may vary, but for optimal clinical care will often require prompt access to diagnostic support.

Ambulatory care must be high quality care, designed to ensure the best outcomes for patients. It is the responsibility of those delivering the care to ensure that resources are deployed in the most cost-effective manner.

CCT (Certificate of Completion of Training): this is awarded to trainee doctors who successfully complete a training programme.

Clinical discussion: there has been an erosion of clinical discussion opportunities at the primary/secondary care interface. There is a real need for more effective dialogue between clinical decision makers to direct the patient to the most appropriate urgent care facility for their needs, and reduce the default to hospital admission.

Clinical performance indicators: comparative data that demonstrate the performance of a clinical service compared with others or more frequently agreed standards.

Competent clinical decision maker: competence in clinical decision making comes after a period of specific training to use the various tools of clinical assessment combined with appropriate use and interpretation of investigation. This facilitates the development of a rational differential diagnosis followed by prompt, safe and effective treatment of the patient. These skills are subject

to assessment by more senior members of the team who have already developed these specific competencies.

Emergency admission: an admission that is unpredictable and at short notice because of clinical need, including:

- ▶ to an A&E or dental casualty department of the hospital
- ▶ to a GP – after a request for immediate admission has been made direct to a hospital, ie not through a bed bureau
- ▶ to a bed bureau
- ▶ to a consultant clinic, of this or another hospital (healthcare provider)
- ▶ patients admitted from the A&E department of another hospital where they had not been admitted.

Emergency medicine: a field of practice based on the knowledge and skills required for the prevention, diagnosis and management of acute and urgent aspects of illness and injury affecting patients of all age groups with a full spectrum of undifferentiated physical and behavioural disorders. It further encompasses an understanding of the development of pre-hospital and in-hospital emergency medical systems and the skills necessary for this development.

Within this definition, the day-to-day practice of emergency medicine in the UK encompasses the reception, resuscitation, initial assessment and management of undifferentiated urgent and emergency cases and the timely onward referral of those patients who are considered to require admission under inpatient specialist teams or further specialist assessment and/or follow up. Consultants in the specialty have responsibilities for the standards of care in emergency departments as well as the training and development of staff within these departments. Emergency medicine consultants contribute to research into all aspects of emergency medicine, including accident prevention and related subjects.

Source: College of Emergency Medicine

Emergency care networks: these were established by the Department of Health under the auspices of reforming emergency care. The defined remit of this was:

- ▶ to optimise the emergency care of all patients in the locality
- ▶ to ensure that the patient perspective and quality of care are the priorities in planning emergency healthcare in the local health and social care community
- ▶ to ensure ease of access to appropriate services at the appropriate time without unnecessary duplication for the patient and in line with national standards
- ▶ to coordinate emergency healthcare across all organisations in a community
- ▶ to ensure the engagement of external organisations whose services contribute to the effective delivery of emergency care
- ▶ to work with health and social care commissioners to determine priorities in emergency care
- ▶ to promote knowledge of developments in emergency care among health and social care professionals and users

- ▶ to develop and maintain improvement work including that initiated by the Emergency Services Collaborative
- ▶ to agree and develop local standards and protocols to facilitate comparative audit and training.

Extended day working: working hours that are outside the traditionally accepted 9 am–5 pm. Extension of the day may include 7.30–8 am starts and/or completion by 9 pm.

Hospital during the day and night: the Hospital at Night team has developed as a multiprofessional team providing care across a hospital site to cope with the unexpected needs of patients at night. This is now being extended to cope with similar problems during the day.

Levels of care: critical care includes Level 2 and Level 3 patients:

Level 1: patients at risk of their condition deteriorating, or those recently relocated from higher levels of care, whose needs can be met on an acute ward with additional advice and support from the critical care team.

Level 2: patients requiring more detailed observation or intervention including support for a single failed organ system or postoperative care and those ‘stepping down’ from higher levels of care (eg HDU).

Level 3: patients requiring advanced respiratory support alone or basic respiratory support together with support of at least two organ systems (eg ICU).

Source: Critical to success, Audit Commission, London, 1999

National early warning score (NEW): a proposed physiologically based system of scoring a patient’s condition to help determine severity of illness and predict patient outcomes. Although many similar systems may exist, the development of a national system would promote clinical communication and facilitate wide adoption.

Navigation hub: a mechanism by which the frequent opacities of pathways of patient care may be overcome. This takes the form of a locality-based organisation that is able to direct, in real time, patients or clinicians to the service that is most appropriate for their needs.

Out-of-hours services: services provided outside of traditional working hours usually by primary care organisations to cope with unexpected acute illness.

Payment by results: a Department of Health initiative that should provide a transparent, rules-based system for paying trusts. It should reward efficiency, support patient choice and diversity and encourage activity for sustainable waiting time reductions. Payment will be linked to activity and adjusted for case mix. For acute care there may be a perverse incentive for trusts to promote more admissions to increase income.

Physician of the day: the consultant physician who is responsible for the acutely ill medical patients admitted to hospital within a specified 24-hour period.

Primary care provides the assessment, management and prioritisation of undifferentiated problems in the general population in all age groups. Most of this care is delivered by GPs and their teams.

Senior clinical decision maker: a medical practitioner who has the competencies and experience to make a prompt clinical diagnosis and decide the need for specific investigations and treatment, the mode of treatment and the most appropriate setting for that treatment and ongoing care.

Short stay unit: a specialised in-hospital unit that provides care for patients whose inpatient stay is expected to be short.

Specialist registrar: a senior medical trainee who is on a specific specialty based training programme before being awarded a CCT (see above). This is the grade that is usually followed by appointment to consultant.

ST3/ST2 trainees, FY2/CMT FY1: grades of medical trainee. ST = specialty training and the number refers to the year of training. Thus a ST1 is a specialty trainee in year 1 of training. FY= foundation year and the number also refers to the year in training. Thus an FY1 doctor is in the first year of foundation training and in their first year beyond medical school. CMT = core medical training ie years ST1 and ST2 in medicine. ST3 and beyond are equivalent to the old specialty registrars. This terminology is the subject of further change.

Transfer of care: relates to patients moving within disparate areas of healthcare or from healthcare to social care. In either case the associated information transfer must be robust to support high quality patient management

Urgent care provides the assessment and management of common problems where the patient thinks there is a moderate degree of urgency. Much of this care is delivered by GPs and their teams, although GP out-of-hours services, urgent care, and emergency departments deal with increasing numbers of patients with urgent care needs.

Urgent care centres: these are becoming increasingly popular in a variety of locations as a means of front ending emergency and urgent care services with a non-appointment primary care service. The model is seen in two main forms: a 'front door' pre-emergency department, where the service is an optional stream for patients attending without an appointment who have a minor injury or illness presentation; and remote services which build – in some cases – on existing community facilities such as a walk-in centre, minor injury unit or community hospital.

I Vision, remit and background

Vision and remit

1.1 This report is for medical practitioners, nurses, allied health professionals, deaneries, policy-makers, commissioners, health service managers, the public, and all others concerned with the design and modernisation of acute medical services. The recommendations provide explicit guidance for change and development within acute medicine, and for other directly related services.

1.2 Our vision is a new system of acute medical care, led by a modern, well-trained and flexible workforce, working in facilities fit for purpose, offering wider and more convenient access. The title of the report captures its overarching philosophy – to ensure that all patients with acute medical illness get access to the highest quality of acute medical care, wherever they are, by *the right person, in the right setting – first time*.

1.3 The Acute Medicine Task Force was established by the Royal College of Physicians of London, and comprised a broad group of key stakeholders involved in the design and delivery of acute medicine services, both in the community and in hospitals.

1.4 The remit of the Task Force was to provide recommendations for the organisation and delivery of clinical care for people with acute medical illnesses. The remit was necessarily wide ranging to capture the complexity of the many interfaces between services, professions, and patients, which ultimately impact on the delivery of safe and efficient acute medical care. However, the Task Force was mindful of the need to produce a pragmatic and focussed report with practical examples to aid implementation.

1.5 The report aims to identify the overarching principles for acute medical care that can be configured to meet local circumstances and needs. These principles take full account of issues such as size and scale of services, existing community and hospital configurations and the impact of rural settings and community demographics, all of which will influence local implementation.

Methodology

1.6 The Task Force held two scoping meetings to explore the remit and consider previous reports from the royal colleges¹⁻⁷ and other professional bodies and agencies, as well as examples of service configurations nationally and internationally. In order to complete its work the Task Force divided into three working groups, to examine issues in greater depth:

- ▶ access to acute medical care
- ▶ the acute medical unit
- ▶ workforce planning, education, and training.

1.7 Each working group met twice, and the product of this work forms the content of subsequent sections of the report. Overlap between the remits of the working groups was resolved by cross-group discussion. Additional evidence was gathered from the organisations acknowledged in the report. Notes of the working group meetings were circulated to all members of the Task Force for review and comment.

1.8 A smaller executive group comprising the Task Force Chair, Working Group Chairs, and the Secretary met on a number of occasions to review material and draft the report. The first draft was presented to the full Task Force in February 2007, and was circulated to a number of stakeholders for comment.

1.9 The Task Force executive considered comments from this extensive review process and produced a second draft which was presented to the RCP Council in July 2007. Comments from this meeting, plus material gathered from an additional round of consultations, were incorporated into a final draft that was re-submitted to the RCP Council in September 2007.

References and information sources

1.10 The Task Force identified a number of key reports and publications,¹⁻⁷ and many more excellent examples of good practice, to help frame and support its recommendations. The challenge was to produce a report that described generic principles and was of appropriate length, but which at the same time did not lose the opportunity to provide more practical examples to facilitate local implementation. It was decided that key reports would be referenced in the conventional way. However, a web-based reference source will be created to provide additional information on some of the aspects covered. The advantage of this approach is that it allows regular updates. Moreover, it provides a mechanism to add a 'tool kit' element to the report by citing practical examples of innovative practice to support local implementation. The many excellent documents that the Task Force took into account while carrying out its work are set out in [Appendix: further information](#) (p49).

Structure of the report

1.11 The primary focus of this report is acute medicine. However, the complexity of acute services and ongoing changes to health service configuration mean that it was neither possible nor desirable to consider the role of acute medicine in isolation. The Task Force recognised that the continued development of acute medicine is essential to deliver a high and consistent standard of acute medical care. This report identified a key role for acute medicine at the very heart of local emergency care networks, with a much stronger interface with primary care and community-based services and with ambulance services; much greater in-reach and outreach of specialist services and their multiprofessional teams; and a central role for acute medicine teams in coordinating and delivering acute medical care in hospitals.

1.12 The report is in five sections:

- ▶ section 1 deals with the vision and remit
- ▶ section 2 discusses aspects of access to acute medical care
- ▶ section 3 is about aspects of patient safety and clinical effectiveness

- ▶ section 4 discusses acute medical care within hospitals
- ▶ section 5 is about workforce development, education, and training and concludes with comments and recommendations on funding and on the importance of research and development in acute medical care.

Background

1.13 A number of reports directly related to the development of acute medicine as a specialty have been published, most recently by the RCP in 2004.⁶ For the purpose of this report the definition of acute medicine used in the RCP 2004 report has been updated to reflect our recommendation for an extended role for acute medicine in coordinating the care of patients who develop acute medical illness while in hospital.

Acute medicine is that part of general (internal) medicine concerned with the immediate and early specialist management of adult patients suffering from a wide range of medical conditions who present to, or from within, hospital requiring urgent or emergency care.

1.14 Acute medical services and the provision of acute medical care in our hospitals have evolved rapidly over the past decade. Acute medical emergencies are the most common reason for admission to an acute hospital and acute medicine is the fastest growing specialty in medicine.

1.15 There have been a number of recent drivers for change in the provision of acute medical services, the most important of which have been patient safety and the need to continue to improve the quality, efficiency and consistency of acute medical care; clinical governance; the need to train within the specialty; and professionalism.⁸

1.16 Other levers for change include:

- ▶ an increased number of elderly patients with complex needs, presenting to hospital and requiring urgent or emergency care
- ▶ acutely ill patients of all ages presenting to hospitals for out-of-hours care, exacerbated by recent changes in out-of-hours provision in primary care, which remains inadequate to service the needs of patients, 24 hours a day, 7 days a week (24/7)
- ▶ emergency access targets to improve patient flow and experience
- ▶ workforce reconfiguration as a result of implementation of the European Working Time Directive (EWTd) for clinical staff and the resulting reduction in working hours and changes in shift patterns
- ▶ job planning and the competing demands of elective work and unscheduled work and the need for a greater prominence of senior clinical decision makers across extended hours of work and out of hours
- ▶ changes in medical training with an increasing focus on more direct supervision, more formal appraisal and assessment of trainees

- ▶ a reduction in medical beds in acute hospitals and a drive to reduce acute hospital admissions and the length of inpatient stay
- ▶ reconfiguration of hospital services and a reduction in community hospital beds.

1.17 Alongside these changes there have been recent reports advocating major reconfiguration of acute medical services across the NHS which aim to provide greater choice for patients with respect to where and from whom they receive services – predicated on a philosophy of greater provision of clinical care closer to home and a reduction in traditional models of inpatient care.

1.18 The model set out in the government’s White Paper, *Our health, our care, our say: a new direction for community services*,⁹ has recommended shifting a significant amount of chronic disease management into the community and by inference a reduced dependence for chronic disease management on hospitals and secondary care. This implies that the balance of work within hospitals would shift more towards acute care and the management of more complex chronic diseases.

1.19 Pursuing this theme, the recent report, *Healthcare for London: a framework for action*,¹⁰ has suggested models for reconfiguration of services in London which have also recommended shifting towards ‘more healthcare at home’. This report describes models that would have a major impact on the design and configuration of acute medical services that could be applied nationally. These include the development of ‘polyclinics’, elective surgery centres, and urgent care centres. The report suggests that while most inpatient care would be provided by the traditional local hospital, some hospitals would be designated ‘specialist centres’ and others dealing with the most complex cases, ‘major acute hospitals’. Consistent with this theme the recent Department of Health report, *Mending hearts and brains*,¹¹ has recommended defined clinical pathways and specialist centres for the emergency care of acute myocardial infarction and stroke.

1.20 Within hospitals there has been recent focus on emergency medical care and acute medicine in three reports, from the Academy of Medical Royal Colleges,¹² from the National Institute for Health and Clinical Excellence report¹³ and the report of the National Confidential Enquiry into Patient Outcome and Death Emergency Admissions Study.¹⁴ These reports highlight the intense focus on improving the quality of acute medical care.

1.21 There are major considerations flowing from the proposals made. Firstly, the need to be certain that new systems of care are better and more cost effective and affordable than the systems they replace. Reconfigured services will need to be more effectively and proactively managed from a strategic perspective, with stronger clinical leadership from front-line clinicians, greater collaboration between strategists, commissioners and providers, and clearer lines of accountability and responsibility for acute service provision. This will necessitate the establishment of ‘unscheduled care boards’ to manage emergency networks within regions. This is particularly important for the development of well-coordinated and high quality acute services. Funding mechanisms should drive the strategy and must not distort clinical priorities.

1.22 Whatever models of service are ultimately adopted, the reconfigured services should provide more efficient patient access to acute care whenever they need it, whether that need develops within the community or from within hospitals. The response to patients’ needs requires more rapid and more flexible access – especially out of traditional office hours – to senior and competent clinical decision makers. Wider access to simple and complex diagnostics

and life-saving interventions, and a nationally standardised approach to the clinical assessment, documentation and management of acute medical illness are essential. All of which should be subject to audit and quality control.

1.23 However, there is little point in developing a wider range of acute services if patients and staff do not know how to access them. Emergency care networks must establish more effective navigation systems, that are themselves easy to access, and that more clearly signpost the most appropriate and direct routes of access to acute care, 24/7.

1.24 Clinical leadership is essential. If healthcare is to change, then healthcare professionals must not only change with it, but also embrace and lead the change to ensure the focus remains on patient safety and improving clinical outcomes. This will require major changes in workforce configuration, and more flexible working patterns and careers. Working time directives have provided a challenge to the continuity of care within a framework of 24/7 access to acute care.

Reading this report

A key part of the Task Force remit was to provide recommendations for the organisation and delivery of services for the acutely ill. Where recommendations are made these are identified clearly in the text in green. So as not to impede the flow of the report, in some places text is set out in green to give emphasis to a particular point – without the preceding words ‘we recommend’. Where this occurs, these points should also be regarded as Task Force recommendations.

[Executive summary and recommendations](#) (prelim pp x–xx) gathers together those recommendations clearly identified with the words ‘we recommend’.

2 Acute medical care

2.1 Acute medical services for patients requiring urgent or emergency assessment and treatment are varied in their extent and quality across the NHS, and need to be improved. Moreover, the range of services and access to services are often limited and poorly defined – both for patients and staff working within the health service.

2.2 Another major problem is that outside normal Monday to Friday ‘office hours’ (hereafter referred to as out of hours), patients access most of their acute medical care via hospitals. In some cases this is necessary because of the seriousness of their illness, but in most cases the care could be provided more conveniently closer to home.

2.3 Presently, out-of-hours GP- and community-based services are too limited, and most hospital outpatient services are not designed to provide urgent review and rarely operate out of hours. This has led many patients to access urgent care via accident and emergency (A&E) departments. Many of these patients do not need the services of a major acute hospital, which can be overwhelmed at times by acute attendances. But where else can they go? In some cases a dialogue with a professional to provide reassurance, or a simple face-to-face consultation – ‘see and treat’ – is all that is required. In other cases a guaranteed appointment for less urgent review for an appropriate level of care will suffice.

IMPROVING ACUTE MEDICAL CARE – KEY PRINCIPLES

- ▶ Patients with acute medical illness should get access as soon as is possible to a competent clinical decision maker at the front line of acute medical services.
- ▶ Specialist outreach teams from hospitals should play a greater role in delivering acute care for people with acute exacerbations of chronic illnesses, or requiring rehabilitation *in situ*, ie in nursing homes or community hospitals – avoiding default to acute hospital admission.
- ▶ Access to acute medical care must be extended out of hours across the full spectrum of acute care – this means not only complex acute care but also GP-led and other community-based urgent medical and social care to avoid acute hospitals becoming unnecessarily overwhelmed.
- ▶ Within regions, there must be a wider range and more innovative options for acute medical care, scaled to meet patients’ specific needs, fit for purpose and conveniently located.
- ▶ Acute medical care out of hours (both in hospital and the community) must be supported by better access to diagnostics to enable a competent clinical decision maker to complete an assessment and deliver appropriate treatment first time.
- ▶ Acute medical care must have guaranteed and clearly defined access to life-saving interventions, across networks.
- ▶ Acute medical care for the most seriously ill must be improved both pre-hospital and in acute hospitals and there should be safe and convenient access to critical care support when required.
- ▶ Emergency care networks should be established in regions to develop and coordinate the aforementioned acute services.

2.4 The Task Force identified a number of themes that are essential to improve the delivery of acute medical care. These ranged from an urgent need to develop a wider range of options for acute medical care in the community, that are more patient focussed and more flexible, through to the establishment of major acute hospitals housing specialist acute medical services.

Clinical decision makers

2.5 Two key requirements that underpin many of our recommendations are the need to provide earlier and extended access to competent clinical decision makers, supported by extended access to diagnostics which enable rapid and competent clinical assessment first time – avoiding the need for duplication and in many cases, avoiding the need for acute hospital admission.

We recommend that patients with acute medical illness should get access as soon as possible to a competent clinical decision maker at the front line of acute medical services.

A senior clinical decision maker is a medical practitioner who has the competencies and experience to make a prompt clinical diagnosis and decide the need for specific investigations and treatment, the mode of treatment, and the most appropriate setting for that treatment and ongoing care.

A competent clinical decision maker has undertaken a period of specific training to use the various tools of clinical assessment combined with appropriate use and interpretation of investigation. This facilitates the development of a rational differential diagnosis followed by prompt, safe and effective treatment of the patient. These skills are subject to assessment by more senior members of the team who have already developed these specific competencies.

Expanding the provision of diagnostic support

2.6 Acute medical care in the hospital and community setting is often hindered by inadequate access to diagnostics to support expedient clinical decision making – especially out of hours. The lack of direct access to, for example, laboratory and imaging services for pre-hospital and community-based care may lead to unnecessary hospital attendance and admission. Similarly, lack of adequate out-of-hours diagnostic support in hospital will prolong length of stay.

We recommend the need for an expanded provision of out-of-hours diagnostic facilities for community and hospital-based care. For community care these services should be available as a minimum for extended seven-day working. However, it is essential that this is aligned to competent clinical decision making providing a ‘one stop shop’ for certain clinical presentations.

2.7 While the aspiration to improve community access to diagnostics is important, there are significant training and governance issues regarding the use and interpretation of the information generated by such investigations, that should be factored into the development and assessment of the cost effectiveness of such services.

Improving access to urgent medical assessment and treatment

2.8 Many patients with an acute medical illness requiring urgent review default to an acute hospital attendance (usually an emergency department), or direct hospital admission because traditional GP and specialist medical outpatient clinics are not structured to provide a sufficiently flexible service or rapid response for urgent care. Local emergency care networks should develop more effective urgent medical assessment and treatment services at the interface between hospital and community. Examples are rapid access medical outpatient clinics, rapid access diagnostic services, and the development of medical ambulatory care services, all with clear referral protocols and supported by competent clinical decision makers. These referral pathways must be available to all competent health professionals responding to acute crises if they are to be used effectively.

Configuration of acute medical services at the community/hospital interface

Patients need to access acute medical care throughout the 24-hour period, not just within traditional office hours – acute illness does not take holidays and service redesign must be predicated on providing fast and efficient access to acute medical care 24/7.

2.9 One size will not fit all. The networks should develop a range of different levels of urgent and emergency care to provide more flexible options to access acute medical care, in more convenient locations, with extended opening times and more direct access to competent clinical decision makers – the right person, in the right setting, first time. This must be fast, safe and efficient high quality care appropriate to the patients' need. The suggested models diminish the traditional boundaries between community and hospital-based care and will provide greater integration of all acute services within the local network.

The spectrum of acute care

2.10 Within a region, emergency and urgent care will be required at different levels:

- ▶ major trauma and life-threatening illness
- ▶ dedicated acute service pathways for specific illnesses, eg myocardial infarction and stroke
- ▶ acute medical care
- ▶ acute exacerbations of long-term illnesses, the care of the elderly with acute illness and end-of-life care
- ▶ acute surgical services
- ▶ acute mental health services, including those dedicated to the special needs of older people
- ▶ acute paediatric services
- ▶ access to simple and/or sophisticated diagnostic support

- ▶ access to out-of-hours primary care and care for people with acute illness
- ▶ end-of-life care.

2.11 This list is not exhaustive but serves to underscore the complexity and variety of emergency care needs. The provision of a fast and efficient service to meet these needs will require redesign and better coordination between community care, social services, primary care, rehabilitation services, emergency response and specialist in-hospital services. It will also require a clear strategy for the coordination of services within local, regional and cross-regional networks.

Models of acute medical care provision

2.12 The Task Force considered a range of options for expanding the availability of acute medical care across the local emergency care network. The models are listed below and some aspects are discussed in more detail. Although this report focuses on acute medical care, the models are also applicable for access to other urgent care, ranging from minor injury to major trauma (major acute hospitals). Many of these services would be co-located to ensure integrated working of healthcare professionals and multidisciplinary teams and more flexible access to competent clinical decision makers 24/7. The models considered comprise:

- ▶ traditional GP surgery
- ▶ ‘urgent care centres’ – including urgent geriatric or day hospital assessment units
- ▶ ambulatory care services
- ▶ specialist outreach services from hospitals for acute deterioration of long-term illness and complex illness in the elderly
- ▶ intermediate care in hospitals
- ▶ community hospital beds
- ▶ local hospitals
- ▶ emergency departments
- ▶ critical care
- ▶ major acute hospitals.

2.13 Patients will develop acute medical illnesses of varying complexity and severity. Some are emergencies requiring life-saving interventions, others require acute hospital admission. However, many more require simple investigations and treatment that could be better provided by local GP services, walk-in centres, pharmacies or other settings closer to home. In some cases, all that is required is dialogue with an experienced healthcare professional to provide reassurance and advice.

2.14 Presently, acute medical care is often driven down one of two paths – either hospital or GP surgery. This is often defined more by the availability and accessibility of the service rather than the patients’ need. When the GP is not accessible, the patient goes to the hospital – usually to A&E.

2.15 Most routine acute medical care will still be provided by the traditional GP surgery. However, when this is inconvenient, or the patient perceives a more urgent need, especially out of hours, then a wider range of safe alternatives are needed – some hospital based, some community based.

Acute medical care in the community There has been recent emphasis on the potential for more acute medical care to be transferred from the hospital to the community. To deliver this it will be essential for a much larger number of GPs to commit to these new roles and develop competencies in acute medical care equivalent to those now required by the acute medicine curriculum. Any expansion of GPs with a special interest programmes in emergency and acute medical care would need close monitoring to ensure cost effectiveness and safe clinical governance.

Urgent care centres

2.16 Not all urgent care requires attendance at the emergency department (A&E) and some could in future be provided more conveniently by primary care centres and walk-in centres that are co-located with emergency departments in acute hospitals, or in convenient locations within the community. They would bridge the gap between the routine GP appointment and hospitals for some acute medical care. Much of this would be medical care that would normally have been provided in the GP surgery as a routine appointment, but which is perceived by the patient to be too urgent to wait.

2.17 These centres would provide multidisciplinary care that is GP-led, along with nurses, emergency care practitioners, mental health crisis teams, rehabilitation and social services and so on, according to local needs. Some could also include multidisciplinary teams offering specialist acute assessment of older people. The urgent care facilities would require access to routine diagnostics to support fast and efficient clinical decision making.

2.18 These facilities should operate 24/7 in acute hospitals (where they would ideally be co-located with emergency departments) and in the community where the operating times would be scaled to meet local demand. However, they should always offer services outside traditional GP surgery hours and at weekends and public holidays. A similar model has been proposed in the recent *Healthcare for London – a framework for action* report,¹⁰ which has described amalgamation of these services into ‘urgent care centres’. These centres would provide urgent care for self-presenting acute medical illness, or patients triaged to that level of care by a competent clinical decision maker.

2.19 Some patients require urgent medical assessment that currently results in hospital admission primarily to secure access to a senior clinical decision maker and to undertake more complex diagnostic procedures. Examples include: evaluation of potential deep venous thrombosis; chest pain; acute exacerbations of chronic respiratory disease; exclusion of pulmonary embolus in a clinically stable patient; and non-life threatening gastrointestinal haemorrhage. Many of these cases could be managed via an ambulatory care facility staffed by competent clinical decision makers and co-located within the emergency floor of acute hospitals. Some

centres have developed clinical decision units and closer collaboration with acute medicine and emergency medicine to be encouraged in such centres.

2.20 These ambulatory care services differ from the traditional specialist outpatient clinic in that they provide immediate access to urgent care that would usually require resources and expertise available in an acute hospital, but without the need for hospital admission to receive this care.

2.21 The Task Force recommends the following definition of ambulatory care:

Ambulatory care is clinical care which may include diagnosis, observation, treatment and rehabilitation, not provided within the traditional hospital bed base or within the traditional outpatient services, and that can be provided across the primary/secondary care interface.

In the context of acute medicine, it is care of a condition that is perceived either by the patient or by the referring practitioner as urgent, and that requires prompt clinical assessment, undertaken by a competent clinical decision maker. The healthcare setting may vary, but for optimal clinical care will often require prompt access to diagnostic support.

Ambulatory care must be high quality care, designed to ensure the best outcomes for patients. It is the responsibility of those delivering the care to ensure that resources are deployed in the most cost-effective manner.

2.22 Acute and emergency physicians, in collaboration with specialist teams, should play an important role in designing and delivering ambulatory care services. The key to the success of emergency and urgent ambulatory care is the availability of competent clinical decision makers with immediate access to diagnostic support to facilitate one-stop rapid diagnosis, treatment and/or reassurance.

2.23 The ambulatory care facility could also provide urgent review of patients discharged from acute medical units (AMUs) for patients who would otherwise be detained in hospital for ongoing review, thereby reducing length of stay – ie a rapid review service supporting safe and earlier discharge from the AMU.

We recommend that within regions there must be a wider range and more innovative options for acute medical care, scaled to meet patients' specific needs, fit for purpose and conveniently located.

We recommend that medical care out of hours (both in hospital and community) must be supported by better access to diagnostics to enable a competent clinical decision maker to complete an assessment and deliver appropriate treatment first time.

Acute deterioration in long-term illness

2.24 Current healthcare policy proposes to shift the management of long-term illness to the community to provide care 'closer to home'.⁹ While better management of these long-term conditions could reduce hospital admissions, it is important to recognise that long-term

conditions can deteriorate rapidly and community-based management may be inappropriate in such circumstances.

2.25 One of the challenges is to ensure accurate and efficient community-based triage of those patients who will benefit from specialist acute medical care. Consequently, management of long-term illness by primary and specialist care should include more explicit and effective acute care plans to avoid unscheduled hospital admissions – but also guarantee acute hospital admission when needed.

2.26 The Task Force was told that examples exist whereby specialist teams (doctors, specialist nursing teams and/or rehabilitation teams) from hospitals provide urgent assessment and treatment for patients under long-term shared care, in the community setting, avoiding admission to an acute hospital.

2.27 These services should be an integral part of the emergency care network and should operate within an agreed framework of acute care plans for long-term illness. These care plans should be drawn up by clinicians and other carers and agencies responsible for the delivery of acute care in the community. They should also be developed with patients and their families when appropriate. They should be available to all health and social care workers and ambulance services that may be called upon in a crisis.

2.28 There should be clear lines of clinical accountability and responsibility and the implementation of community care plans should be rigorously evaluated and monitored to ensure patient safety and satisfaction.

We recommend that defined pathways to facilitate rapid access to specialist care for people with acute deterioration of long-term illnesses should be developed. These pathways should also include mental health services and end-of-life care.

We recommend that there should be clear lines of clinical accountability and responsibility and that the implementation of community care plans should be rigorously evaluated and monitored to ensure patient safety and satisfaction.

Acute medical illnesses in nursing homes, residential homes and community hospitals

2.29 Patients in nursing homes, community hospitals, and residential homes are usually older with complex long-term illnesses requiring chronic care and/or rehabilitation. The recommendations regarding long-term illness (see below 2.28) apply. Too often, patients from these settings are admitted to acute hospitals with inter-current illness that could be assessed and better managed *in situ*, without the distress of transfer to an acute hospital.

2.30 Many of these patients would benefit from specialist outreach from the geriatric medicine specialist team that could identify more effective options for ongoing care, making more effective use of a range of intermediate care options, avoiding acute hospital admission, unless necessary.

We recommend the development of more multidisciplinary specialist outreach teams from acute hospitals to support community-based healthcare.

We recommend that explicit and effective acute care plans should be developed for patients in long-term care, in order to reduce unscheduled hospital admissions. Such plans should be clear

about levels of agreed intervention and should be discussed and agreed with patients and/or their representatives, especially regarding levels of intervention and resuscitation. Acute care plans must be accessible by ambulance services and other responders to acute crises in these settings.

End-of-life care

2.31 Few patients die suddenly and unexpectedly. For many, there is time to plan end-of-life care. Alas, it is tragic that all too frequently, patients with terminal illnesses, or older patients at the end of life are rushed into acute hospitals as ‘medical emergencies’, only to die soon after, alone and distressed, outside of the comfort of their own home setting.

2.32 The wishes of the patient regarding the intensity of intervention and site for end-of-life care should be clearly documented and respected. Consideration should be given to the establishment of a local ‘end-of-life register’ so that patients’ wishes are recorded and the agreed care plans are accessible to all responders to urgent calls for medical assistance.

2.33 Similarly, in the acute hospital setting, for patients with life-threatening acute illnesses, discussions and decisions about end-of-life care are essential and should be documented in the clinical management plan. Guidance and recommendations on the end-of-life care pathway, and how this should be formulated for individual patients, are being developed.

We recommend that end-of-life care plans should become an important part of clinical assessment and ongoing review of patients with terminal illness.

Emergency medical care

2.34 There is considerable potential to improve the emergency care of patients with life-threatening acute medical illness. It is not possible to provide the highest quality emergency care for all eventualities in every hospital. Therefore, it is essential that there are defined routes of access to this level of acute care in every locality.

2.35 Rapid access to emergency care will also require specialised and dedicated access routes and care pathways for specific life-threatening acute medical illnesses such as: acute myocardial infarction, acute stroke and life-threatening gastrointestinal haemorrhage. These would ideally be co-located within major acute hospitals to take advantage of emergency departments, acute medicine, critical care expertise, and 24/7 complex diagnostic support on these sites.

We recommend the development of major acute hospitals serving local regions, providing the most intensive level of emergency and complex acute medical care. These hospitals should have major emergency departments co-located with the acute medical unit and critical care units, ideally as part of an emergency floor.

The emergency care network

2.36 The Task Force advocates a much wider range of acute medical services, not all of which can or should be provided in a single centre. These services must be co-coordinated and optimised via the establishment of emergency care networks – these are vital to the reform of acute medical care and to get maximum value from local services.

2.37 Emergency care networks should be established in regions (eg within a strategic health authority) and should design, commission, and coordinate acute medical services. In large regions, subregional local networks may be necessary, each focussed around major acute hospitals. Specialist diagnostic, therapeutic and clinical services could be developed at a local or regional level depending on local need and the requirements for safe access. In some cases, very specialised services (tertiary) may also be delivered across regional networks at a supra-regional or national level.

2.38 Thus the acute medical services network should be localised when possible to ensure the most convenient access to community-based urgent medical care – close to home but consolidated in specialist acute centres when necessary, to deliver the highest level of emergency care for life-threatening acute medical illness and complex illnesses.

2.39 The network should aim to provide fast and efficient access to emergency and urgent care 24/7, mindful of the need to avoid duplication. Services in a specific setting should be coordinated, ensuring safe and rapid patient transit times from all localities, using agreed protocols.

2.40 The closest facility within a network may not always be the most appropriate for a patient's acute medical needs. However, the best facility must always be close enough to ensure safe travel times – the ambulance services must have clear guidance on transfer of acutely ill patients to the most appropriate facility;

2.41 Emergency care networks should not be all inclusive 'talking shops' – they must be managed at a regional level (strategic health authority) by a senior board, comprising the full range of healthcare providers and commissioners with strong clinical leadership. These boards must have real power to commission and configure the regional and local emergency services and should be fully accountable for the network. Guidance on emergency care networks has been provided by the Department of Health.^{15,16}

2.42 Safe and efficient working of emergency care networks will require clear routes of access for all services and clear remits and boundaries of services within a specific location that are familiar to patients and healthcare staff, and managed by pro-active navigation.

2.43 The emergency care network and all components of it should have standard operating procedures that are familiar to all staff and regularly reviewed and updated when necessary.

We recommend that emergency care networks should be established in regions to develop and coordinate acute services. We further recommend that emergency care networks should be managed by a senior board comprising providers and commissioners with strong clinical leadership. These boards must have real power to commission and configure local emergency services and should be fully accountable for the work of the network.

Navigating acute medical services: getting the patient to the right person, in the right place – first time

2.44 With the development of a wider range of options for urgent medical care, there will be a need for more explicit information about the remit and boundaries of each level of service and how to access the most appropriate service. This is important for patients, healthcare staff, and the agencies directing and transporting patients to services.

2.45 The navigation hub would have access to the current menu of services for the local network and would have a clear service map from which to direct patients to the most appropriate service. The hub operators should build a comprehensive portfolio of existing acute services within the local network and should identify areas of deficiency requiring service development.

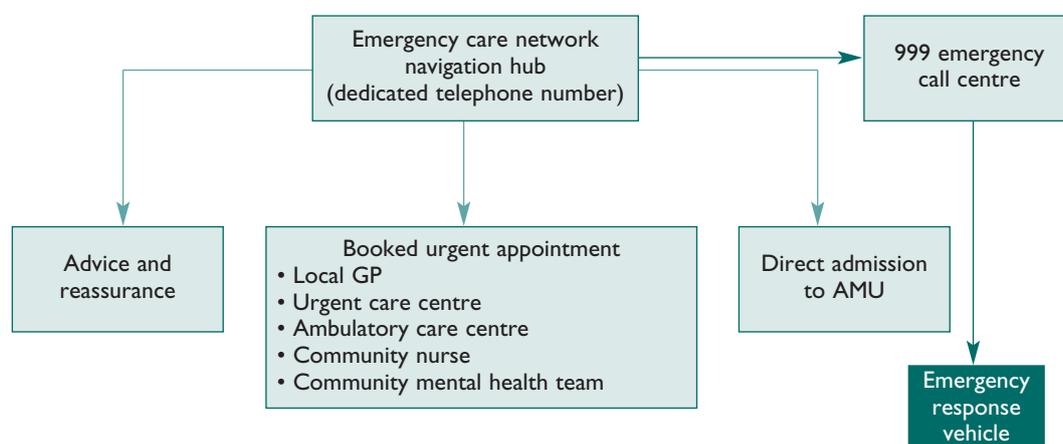


Fig 1 The navigation hub provides a single point of contact in a locality/region for patients and NHS staff to access urgent medical advice/care. The hub would be staffed by competent clinical decision makers who could direct patients to the most appropriate local service for their needs. In some cases, advice and reassurance will suffice. When face-to-face medical assessment and treatment is required this could be provided either by a guaranteed same/next day appointment with an appropriate local service or hospital-based rapid access clinic or ambulatory care centre, or direct admission to an AMU when necessary. Emergencies would be directed to the 999 call centre for emergency response.

The clinical discussion: there has been an erosion of clinical discussion opportunities between healthcare professionals at the community/specialist care interface. There is a real need for more effective dialogue between clinical decision makers to direct the patient to the most appropriate urgent care facility for their needs, reducing the default to hospital admission.

2.46 Although 999 calls would still be used for emergencies, the navigation hub would be a preferred point of contact for all other acute medical care to ensure that the patient is directed to the right place – first time. This would range from self-care advice, through to referral of the more acutely unwell patient.

2.47 A significant objective would be to direct patients away from an unnecessary acute hospital admission, for example in favour of attendance at an urgent care centre, an early outpatient or GP follow up or a dedicated specialist outreach service (nursing home for the elderly or for those with long-term illness, social care or rehabilitation teams, etc) where these options are available, appropriate and safe.

2.48 The ambulance services (see 2.50–7) can also play an important role in navigating patients through to the most appropriate local acute medical service to meet their needs and to avoid delays and duplication in assessment including direct transfer to the acute medical unit.

2.49 While navigators do not necessarily need a clinical background, it is essential that they have access to clinical advice via a competent clinical decision maker such as an experienced nurse. The performance of the navigation service and outcomes must be monitored and audited.

We recommend the development of a navigation hub for the emergency care network to direct patients requiring urgent medical care to the most appropriate service including direct transfer to the acute medical unit when appropriate.

We recommend that the local navigation hub should have a single, well-publicised telephone number for patients who need access to urgent medical care. This could be integrated with a more locally relevant NHS Direct service.

Healthcare systems have underestimated the ability of the public to access services appropriately when provided with sufficient information. Therefore, we recommend that there is a need for more extensive public information about the role, remit and boundaries of the various services within the emergency care network.

Pre-hospital care and ambulance services

2.50 The ambulance service will play a key role in underpinning the philosophy of this report: getting patients to the right person, in the right setting – first time. To achieve this, the ambulance service must be viewed as part of the assessment and treatment processes, and not merely as a transport service for the movement of acutely ill patients. There are over 20,000 ambulance staff in England and there is considerable potential to enhance and expand their roles in the initial assessment and treatment of acutely ill patients, and in the triage of patients to the most appropriate setting for their ongoing acute care. This will involve enhancing the skills of ambulance staff, and the development of clear referral pathways and protocols for immediate acute care.

2.51 The ambulance services and other community response teams must form an integral part of emergency care teams and have clearly defined roles within the emergency care network, together with greater dialogue with the hospital-based emergency care teams. This could be achieved by ensuring that ambulance services are co-located with major acute hospitals.

2.52 Integration is essential and ambulance services should play an important role in delivering pre-hospital assessment and initiating emergency resuscitation and treatment according to locally agreed protocols. The national policy for modernisation of ambulance services was published in 2005.¹⁷ Its recommendations are in line with many of the proposals in this report and are fully supported by the Task Force.

2.53 The quality of emergency call handling by the ambulance service needs to be enhanced to provide better clinical advice to callers, directing them when possible to a more appropriate setting for their acute care – ie via liaison with the navigation hub.

2.54 The ambulance service must also provide and coordinate a more diverse range of mobile healthcare options for patients who need urgent care – ie the provision of ambulance motorcycles and rapid response cars when they are more appropriate to improve the speed and efficiency of response.

2.55 To ensure patients with more serious illnesses receive the most effective initial assessment and treatment ‘at the scene’, the ambulance service needs to expand the number of emergency

care practitioners as competent clinical decision makers with enhanced competencies in clinical assessment, alongside their existing training in time-critical interventions such as resuscitation and life support.

2.56 Acute response ambulances must be equipped with modern telemetric technology to transfer vital clinical data to acute care centres to improve the quality of decision making and ensure triage to the most appropriate site for ongoing acute care.

2.57 For patients with specific life-threatening acute medical conditions, the Task Force supports recommendations in the report *Mending hearts and brains*,¹¹ which states that ambulance services transfer patients with acute myocardial infarction to specialist units which deliver primary coronary intervention 24/7. Similarly, patients with symptoms of acute stroke should be transferred to specialist units with facilities for acute stroke care, supported by imaging and thrombolysis when required.

Acute medical admission to an acute hospital – generic principles

2.58 The hospital admissions process for acute medical care should be streamlined to allow the most direct and efficient patient access to an AMU. Patients recognised by a referring agency in the community to have an acute medical illness requiring hospital-based treatment should have direct access to an AMU or alternative forms of urgent assessment when required. This streamlines the patient journey, gives rapid access to a senior medical opinion, reduces unnecessary delays, and supports the delivery of the emergency care access target. Hospital admission or presentation at emergency departments should not be seen as the default for all acute medical care.

2.59 The admissions process should start when possible in the community with protocols for referrals and points of access which are agreed with primary care, the ambulance service and the navigators. Self-referring patients with an acute medical illness (by whatever mode of transport they arrive) should have their first clinical assessment by a competent clinical decision maker to identify the most appropriate route for ongoing care.

Acute and local hospitals

2.60 Local hospitals should continue to provide most inpatient care when required. Some hospitals should be designated specialist centres, consolidating local services for the provision of complex specialist medical, surgical and rehabilitation services.

2.61 Some hospitals (other than those designated major acute hospitals) should continue to provide access for acute medical care, either via emergency departments for undifferentiated acute care, or direct admission to acute medical units or specialist centres. The configuration of these hospitals will depend on local needs, workforce considerations and travel times.

2.62 Local networks should develop major acute hospitals to care for those with life-threatening illness, either presenting as undifferentiated acute illness or requiring access via specific pathways for acute medical care, such as acute myocardial infarction or stroke. The ‘front door’ of major acute hospitals would ideally consist of an ‘emergency floor’ with properly equipped facilities staffed by a team of clinicians who are competent in managing patients suffering from:

- ▶ illness requiring immediate resuscitation
- ▶ acute medical problems

- ▶ acute surgical problems
- ▶ major trauma
- ▶ minor injuries.

2.63 The emergency floor must be well resourced and would encompass the emergency department, the AMU, critical care and specialised diagnostic and assessment areas, working in cooperation. Acute surgical units should also be co-located if possible. The key is to have the correct skill mix of clinicians to ensure that all clinical problems presenting acutely can be managed safely and effectively by a team with appropriate competencies.

2.64 The emergency floor must be designed to ensure appropriate streaming of patients to the correct part of the service, avoiding duplication of assessment and of documentation. The ideal configuration would be that of an emergency floor which would be a series of interlinked facilities where the skills of the emergency physicians, acute physicians and critical care would work closely together in the management of the early phases of acute illness.

2.65 There are excellent opportunities for future generations of trainees to undertake dual training programmes in these related disciplines that will facilitate even closer working between these key specialist disciplines. Obstacles to dual training in these clinical specialties must be overcome to facilitate this important development.

2.66 In addition to geographical co-location, there are a number of process benefits to closely sited emergency departments, acute medicine and critical care departments. These include greater cooperation of key emergency services, working across traditional professional boundaries. Expertise from different disciplines can be rapidly deployed to improve patient care and throughput. Moreover, this enhances the critical mass of senior and competent decision makers on the emergency floor for extended day working and ultimately 24/7 cover.

2.67 The emergency floor would be an ideal site for co-location of in-hospital urgent care centres which would allow the streaming of patients to the most appropriate level of clinical care for their needs. In addition, it would be important to co-locate other acute services such as acute mental health and the ambulance service.

2.68 The extent to which services can be co-located is dependent on which services are on site, available space, and other demands on services. As hospitals and regional services are reconfigured, it is important to be mindful of the need to preserve as much real estate as possible on the ground floor for emergency services. Less acute services, such as large out patient departments, could be more rationally sited on upper floors, or out with the main hospital building or on sites that do not receive emergency patients.

2.69 The emergency floor must be supported by the ready availability of both simple and complex diagnostic services 24/7.

2.70 There are a number of implications regarding the proposed remodelling of access to acute medical services.

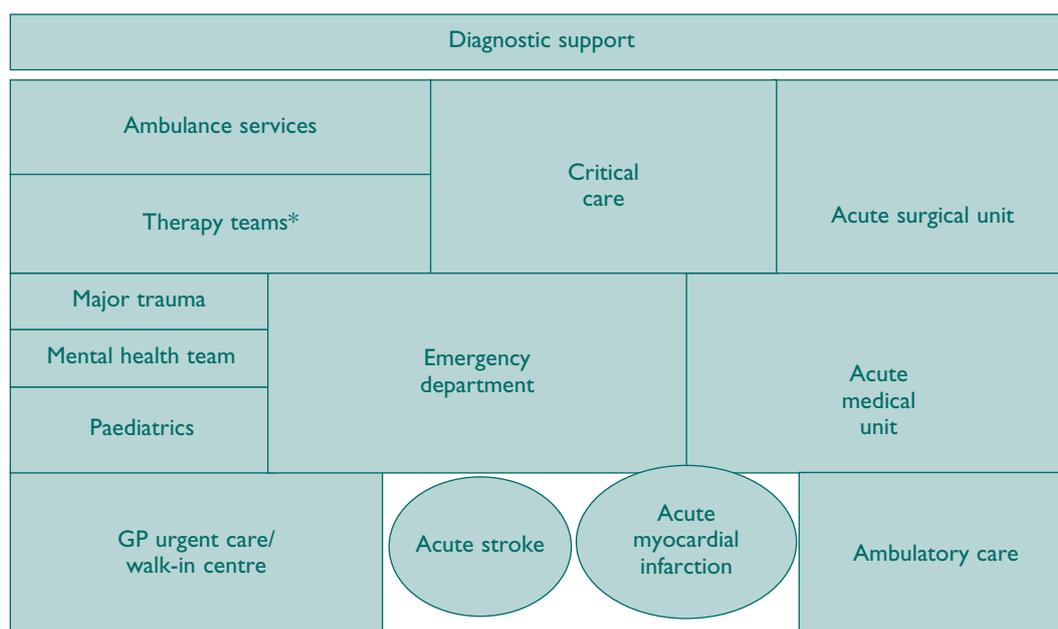


Fig 2 Emergency floor of large acute hospitals. This schematic illustrates some of the components required for an emergency floor in a major acute hospital. It would be scaled and configured to meet local needs. This model fosters closer working and more efficient clinical assessment and treatment by the right person, first time.

*Therapy teams include physiotherapy, occupational therapy, mental health and specialist multidisciplinary teams.

Emergency medicine and acute medicine

2.71 Emergency medicine (A&E) and acute medicine are complementary specialities with different skill sets and competencies that would benefit from closer interaction. There has been much debate about the role of the emergency department in reconfigured emergency care networks. Emergency departments have traditionally formed the main access route for emergency or urgent care – especially out of hours. The emergency department should form an important part of the emergency access route to an acute hospital within an emergency care network in both major acute hospitals and hospitals receiving undifferentiated acutely ill patients. However, the reform of services suggested here is predicated on expanding the range of acute services for urgent care, thus emergency departments should not be seen as the only access route for urgent care.

2.72 Patients with acute medical illnesses represent by far the largest proportion of patients admitted to the bed base of an acute hospital. Patients with acute medical problems fall into one of two groups: either clearly differentiated (GP or ambulance service) that could be streamed to the AMU, or undifferentiated cases which will be assessed in the emergency department.

We recommend that acute medicine services should be in close geographical proximity to the emergency department, to facilitate direct access to the AMU for differentiated acute medical problems from the community.

Acute medical care in hospitals without an emergency department

2.73 Some local hospitals within a local emergency care network do not have an emergency department. However, these hospitals will still need access to acute medical care, ideally coordinated via an AMU. For example, these hospitals could still deliver direct access to inpatient acute medical care for a local population according to agreed clinical pathways. Moreover, patients in these hospitals may develop a need for acute medical care if their clinical condition deteriorates in hospital. Such hospitals may or may not offer 24/7 acute medical admissions, depending on local need. Where such AMUs do exist they will need access to higher dependency care facilities (at least level 2 critical care) as part of a critical care network. This should be organised through agreed networks of care and protocols.

We recommend that all hospitals within an acute care network admitting patients with acute medical illnesses (even those without emergency departments) should establish AMUs as the focus for acute medical care.

Acute specialist medical services

2.74 In addition to acute medicine, some other specialist services would ideally be located at the front door, ie with direct routes of access. These could include services for the emergency care of patients with acute myocardial infarction and acute stroke, where thrombolysis and other interventions may be required. Each local emergency care network should define specific care pathways identifying direct routes of access to competent clinical decision makers supported by appropriate pre-hospital and in-hospital diagnostics for rapid evaluation and treatment of these conditions.

Acute general surgery

2.75 Major acute hospitals would provide acute surgical services. Access routes for emergency surgery should be on the same site and co-located with the major AMUs within a network, where possible. Surgical units need ready access to acute medical services for patients with medical comorbidities and for those who develop acute medical complications. Integrated acute medical and surgical units may provide an ideal solution by increasing access to prompt cross-specialty opinions.

2.76 Some regions, for a variety of reasons including patient safety and training, have now consolidated their general surgical services on a single site, which in some instances is on a different site from acute medicine. This development mandates that staff within AMUs develop the appropriate competencies to ensure a full evaluation and initial management plan for every patient, including those developing complications likely to require surgery.

When required, we recommend that acute medicine must have prompt access to senior competent surgical review of acutely ill patients. Clear protocols, lines of responsibility and transport arrangements must be identified within the local network for such eventualities. Future developments in acute surgical and acute medical care require careful planning with involvement of all relevant stakeholders, including ambulance services.

ACUTE MEDICINE AND ACUTE GENERAL SURGERY – CONFIGURATIONS

Model 1: AMU and acute surgical unit (ASU) co-located – larger units and major acute hospitals

Model 2: AMU/ASU integrated – large/medium/smaller units

Model 3: AMU with no on-site acute surgery – agreed protocols for surgical assessment and review

Watershed conditions

2.77 There are a number of clinical conditions that present as emergencies for which the distinction between medical and surgical clinical responsibility is less clear, so called watershed conditions. These include: head injury; the acute abdomen without features suggesting an immediate need for surgery; acute pancreatitis; gastrointestinal bleeding and fractured neck of femur in elderly patients with complex medical problems. The emergency department plays an important role in the initial assessment and treatment of these patients. Thereafter, the emergency care network needs clear policies and clinical pathways, with clearly defined clinical responsibility for the ongoing care of these conditions.

Critical care (high dependency and intensive care)

2.78 Critical care is essential⁴ to support acute medical admissions because medical patients numerically represent the most seriously ill subgroup of patients presenting to acute hospitals. Large acute hospitals must have access to level 3 critical care facilities and ideally, for future planning of large acute hospitals, these would be co-located within the emergency floor. It is essential that there is a close working relationship between acute medicine and critical care. All AMUs will require an augmented care area (level 1–2) and staff with competencies to deliver this level of care. As the work of acute hospitals evolves more towards the provision of acute medical care of increased complexity, there will need to be enhanced HDU capacity. In some hospitals, HDU could be embedded within the AMU.

2.79 Staff working in AMUs with HDU facilities must have the necessary critical care competencies relevant to their local working environment and policies

We recommend that AMUs develop an augmented care area (up to level 2 care) and staff with competencies to deliver this level of care. Safe transfer arrangements must be in place to ensure level 3 care when required.

We recommend that large acute hospitals dealing with complex acute medicine must have on-site access to level 3 critical care (ie intensive care units with full ventilatory support).

2.80 Transfer protocols should be developed within the emergency care network to ensure that critically ill patients with specialist needs are transferred safely and appropriately from smaller hospitals to larger critical care units. Staff in the smaller hospitals (ideally based on the AMU) will still need competencies in the assessment and stabilisation of critically ill patients prior to transfer to larger critical care units.

2.81 Remote monitoring systems linked to critical care centres within the emergency care network may be of help in delivering high quality critical care support in remote and smaller units.

Patient flow and planning the transfer of care (discharge planning) – generic requirements

2.82 Patient flows through the assessment, treatment and discharge processes must be proactively managed. Patients should be ‘pulled’ rather than ‘pushed’ through the system, fully supported by the inpatient specialty bed base. Effective and proactive bed management is essential to facilitate the acute admissions process and should be ‘needs based’.

2.83 Transfer of care planning should start at the point of entry to acute care and involve the appropriate components of the multiprofessional team at the earliest opportunity – this is especially important for older patients with more complex needs. Patients and their carers must be actively engaged in this process and it is essential that key information, such as that provided by ambulance services, which will have attended the patient in their home, is formally recorded.

2.84 An estimated date of transfer of care (discharge date – EDD) should become part of the routine admission process and be in place within 12 hours of admission to hospital. It is not always possible to estimate the length of stay for all patients at first assessment. Hence, second and subsequent phases of regular review and decision making are essential to evolve treatment plans and to maintain a continued emphasis on planning discharge or for the transfer of care. All transfers of care must be entirely justifiable on clinical grounds.

We recommend that a date for transfer of care including discharge from the acute hospital should become a routine part of the admission process, and be in place within 12 hours of admission.

2.85 The full range of transfer of care options and their boundaries must be clearly defined for clinical staff, carers and patients. This range of options should be updated regularly. Access to community-based continuing care following transfer of care from acute hospitals is essential and must be improved, especially out of hours and at weekends, and capacity in this sector must be expanded to reduce the length of stay in acute hospitals.

Leadership, organisation and management

2.86 The emergency care networks and its components, eg acute medicine, require strong clinical leadership and locally devolved decision-making powers. The importance of empowered leadership of the emergency care network has already been emphasised. Leaders and competent decision makers are integral to effective organisational structures and for the efficient management of acute clinical care at all levels.

Leadership should arise from within the service – not outside of it. Significant change and development of acute services is difficult to achieve if the leadership is divorced from the front line.

2.87 Within the AMU strong clinical leadership is essential.

We recommend that all AMUs should have nominated clinical and nursing leads for acute medicine. These leads should work on a regular basis within the unit. Services interfacing with the AMU, for example the emergency department, critical care, imaging and primary care, should also have a defined clinical lead. We further recommend that leaders of the interface services should meet on a regular basis to facilitate planning and development of the acute service.

2.88 The establishment of an **emergency or unscheduled care directorate** should be considered. This would bring together the emergency department, acute medicine and critical care under a single management structure in major acute hospitals to facilitate more effective integration of these key services.

2.89 Given the importance of cross-disciplinary working, it is important that leaders have skills in managing these interfaces, and not just those of their professional group. The management team should recognise and develop the relevant support services in collaboration with the medical and nursing leadership of acute care.

3 Patient safety and clinical effectiveness

3.1 A major driver for the development of the specialty of acute medicine was patient safety and improving the quality of acute clinical care. There are significant variations in clinical outcome across the range of providers of acute care. A number of factors are likely to contribute to this, which include: difficulties in accessing acute care out of hours; complex processes that increase the likelihood of error; poor and inconsistent documentation; and variations in training and competencies in acute care.

3.2 It is remarkable that many aspects of acute care have not been standardised for patients presenting with an acute medical illness.

We recommend that clinical assessment, clinical documentation and clinical management of common acute medical conditions should be standardised nationally, to reflect best practice. This would improve clinical practice, support clinical governance, and facilitate case review, the transferability of clinical information and clinical audit.

Standardising the assessment of illness severity

3.3 The quality of assessment of illness severity should be improved and standardised throughout the patient journey. Where face-to-face assessment of illness severity takes place, this should be consistent across the NHS. This would enhance good clinical practice as it would encourage the clinician to record standardised vital data, provide an important source of documentation, and provide a valuable baseline from which to evaluate the patient's clinical progress.

3.4 A number of basic assessment tools or 'early warning scores' are currently in use nationwide. There is no justification for the continued use of multiple different early warning scores to assess illness severity. The physiological assessment of all patients should be standardised across the NHS with the recording of a minimum clinical data set resulting in a NHS **early warning (NEW) score**. This will provide a standardised record of illness severity and urgency of need, from first assessment and throughout the patient journey.

We recommend that the physiological assessment of all patients should be standardised across the NHS with the recording of a minimum clinical data set result in an NHS early warning (NEW) score.

We recommend that a working group is commissioned to develop the NEW score and evaluate it. This work should take into account both the levels of training and the setting of the healthcare professionals making these assessments.

We recommend that the NEW score be used at all stages in the acute care pathway, including pre-hospital assessment, eg by the GP, ambulance service or other healthcare professionals seeking advice on acute medical care. The NEW score should also be used as part of inpatient assessment illness severity and as a trigger for appropriate prioritisation of patient review.

We recommend that all healthcare staff would be trained in the use of the NEW score and the level of response required at each level of NEW scoring.

Improving the standard of patient clinical records and documentation

3.5 Hospital patient records should be standardised for acute medical care. This has important implications for ensuring full documentation of clinical details, quality of care, safe transfer of care, audit and medico-legal reviews. Standardised and familiar documentation will also facilitate safer patient transfer between carers. There seems to be little, if any, justification for individual hospitals, or other healthcare providers, investing in the development of customised documentation. Downloadable nationally standardised documentation templates would provide familiarity and consistency across all acute healthcare providers.

Nationwide unitary documentation and standardised documentation for patient clerking, and for ongoing patient review records for acute care, is an essential part of safe and effective clinical care.

We recommend that documentation should be standardised across the NHS in three key areas:

- ▶ clerking forms for acute medical admissions to hospital
- ▶ inpatient basic observation charts eg for temperature, pulse rate, blood pressure, conscious level and urinalysis, which could be part of the NEW scoring
- ▶ inpatient drug and iv fluid prescription charts.

3.6 The Task Force is aware that an electronic patient record (EPR) is being developed but believes a pragmatic way forward would be to establish a multiprofessional working group with adequate representation from stakeholders to develop standardised documentation for many areas of acute medical care.

We recommend that roll-out of the EPR, when available, should be prioritised for acute care areas – this would help standardise the ongoing documentation by multiple practitioners and carers and also improve hand over and transfer of care documentation – all of which are important guarantors of patient safety.

Standardising clinical management protocols for common acute medical illnesses

3.7 There is considerable variation in the clinical management of many common acute medical conditions. Moreover, many individual hospitals spend considerable time generating local clinical management protocols.

We recommend standardising clinical management with the development of evidence-based national guidance for the clinical management of common acute medical illnesses. This would improve patient care and provide a more effective basis for training and audit.

3.8 There is already some standardisation of pre-hospital care via guidance from the Joint Royal Colleges Ambulance Liaison Committee. The royal colleges and specialist societies should take the lead in extending this to common acute medical illnesses within hospitals.

Monitoring clinical performance – clinical performance indicators

3.9 Monitoring clinical performance in acute care needs to be standardised to allow better and more objective assessment of the impact of future changes in clinical practice and for benchmarking clinical performance against national standards.

We recommend that an approved list of national clinical performance indicators (CPIs) should be developed for acute medical care. These should be used to provide a more standardised evaluation of clinical performance and outcomes for out-of-hospital and in-hospital acute medical care. These should assess at least three domains: mortality, some cause-specific outcomes and patient satisfaction and experience.

The importance of accurate clinical coding in acute medical care

3.10 Accurate coding of the clinical diagnosis for each patient is essential for clinical audit and to accurately inform the clinical performance indicators. Coding is often inadequate and in many cases is completed by clerical staff without clinical input. Emergency care networks should ensure that there are adequate local arrangements in place to provide accurate clinical coding. The clinical team caring for the patient should assume direct responsibility for the accurate coding of their patients to ensure the accuracy of the CPIs used for audit purposes.

We recommend that accurate clinical coding information should be recorded by a competent clinician on the clerking form.

Recording patient and carer experience

3.11 A recent Health Commission report¹⁸ commented on the advantages of capturing ‘the raw feelings of patients’ and the importance of responding to these efficiently and effectively to improve the delivery of acute care. The feelings of carers should also be captured and this patient and carer information should be used locally to improve services and address concerns before they develop into complaints – ultimately improving the experience and satisfaction of all patients and carers. This approach sends a clear message to patients and staff that their views are important in helping shape the service to meet their needs.

3.12 Some AMUs have retained the services of volunteers who have collected and collated such data in a less intimidating way. This principle should be extended to collect views about the whole episode of acute care, helping the emergency care network to identify ways of improving services throughout the pathway.

We recommend that networks should record data on patients’ experiences of their whole episode of acute care to help emergency care networks identify ways to improve this service.

Information technology

3.13 So much of acute care is dependent on 24/7 access to crucial clinical data and records that this can only be achieved efficiently by high quality IT support.

3.14 Quality assurance in acute medical care is also dependent on the capture of high quality data. The recommendations for improved and standardised documentation will be dependent on high quality data input that is instantly accessible to those responsible for the delivery of care

and for objective national monitoring of clinical performance and outcomes. Effective data capture requires adequate resourcing of IT facilities and training in all AMUs and commitment from all of those involved in acute medical care.

3.15 Information must be accessible across the emergency care network to facilitate the safe transfer of care and ensure rapid access to vital clinical data and diagnostic reports to avoid repetition of investigations.

We recommend that the provision of reliable, high quality IT support is prioritised in acute clinical areas to support efficient working of the emergency care network and its related parts.

4 Acute medical care within hospitals

4.1 When acute admission to hospital is required, there has been much debate about the ideal configuration of in-hospital services for patients with acute medical illness.

4.2 One option has been the direct admission to the ‘specialty bed base’ for acute medical care. This option would provide patients with direct access to the specialty relevant to their clinical condition, but assumes that the initial assessment has correctly identified the organ-based pathology relevant to their acute admission. Often patients present with complex multisystem problems.

4.3 There are also important patient safety considerations regarding this model of care. This model would result in acute admissions to many different wards in an acute hospital, often out of hours and at weekends. Mindful of medical and nursing staffing considerations, and the need for access to diagnostics, the Acute Medicine Task Force could not envisage how such a model could ensure 24/7 prompt, safe and effective senior review of all acute admissions to different wards of an acute hospital.

4.4 The Acute Medicine Task Force considered this model unsafe and impractical and did not believe it was an efficient model for acute medical care for the majority of patients requiring emergency inpatient care in acute hospitals.

4.5 The model of care recommended by the Task Force is the establishment of acute medical units (AMUs). These should be able to admit patients directly from the community and the AMU. The AMUs and their staff should operate 24/7 and be trained and focussed on the care of the acutely ill medical patient, within the first 24 to 72 hours of a patient’s admission to hospital. The length of stay for a patient on the AMU should be determined by the patient’s needs and the capacity of the rest of the hospital to provide an appropriate setting for an equivalent level of ongoing acute care, especially out of hours.

4.6 The majority of admissions to the AMU will have developed acute medical illnesses in the community. However, because the AMU will have concentrated expertise in the clinical management of the acutely ill patient, the AMU team, working in concert with critical care outreach teams, could also ‘reach out’ to provide clinical care for patients developing acute medical illnesses or complications while in hospital and should coordinate the ‘hospital at night’ programme in acute hospitals. This will be especially important out of hours and at weekends.

We recommend that the AMU should be the hub for all acute medical care within hospitals. This will involve close collaboration with critical care teams and should lead to the establishment of a single, multidisciplinary acute response team that provides 24/7 outreach care from the AMU to all areas of the hospital, for patients requiring urgent medical review. Because the clinical condition of patients in hospital can deteriorate unpredictably at any time, all hospitals will need an AMU and staff with competencies in acute medical care, irrespective of whether or not they have an emergency department.

The acute medical unit

The acute medical unit (AMU) is a dedicated facility within a hospital that acts as the focus for acute medical care for patients that have presented as medical emergencies to hospitals or who have developed an acute medical illness while in hospital.

4.7 The AMU is founded on the need to provide safe, efficient and expert acute medical care. The AMU should operate 24/7 and should be staffed by a multidisciplinary clinical team focussed on acute medical care with the objective of providing expert assessment and treatment of acute medical illnesses.

4.8 An adequately sized and staffed AMU should aim for a significant percentage (around 50%) of acute medical admissions to complete their care episode within the AMU and discharge without transfer into the specialty medical bed base within the acute hospital. Other patients will be streamed into the specialty bed base after their initial assessment and treatment on AMU.

4.9 The success of the AMU will be founded on proactive and dynamic management of the admissions process and patient flows. Its success is dependent on strong clinical leadership, continuity of care, expedient access to diagnostic services, well-organised specialist input and efficient interfaces with the admissions process, and critical care services and the discharge process.

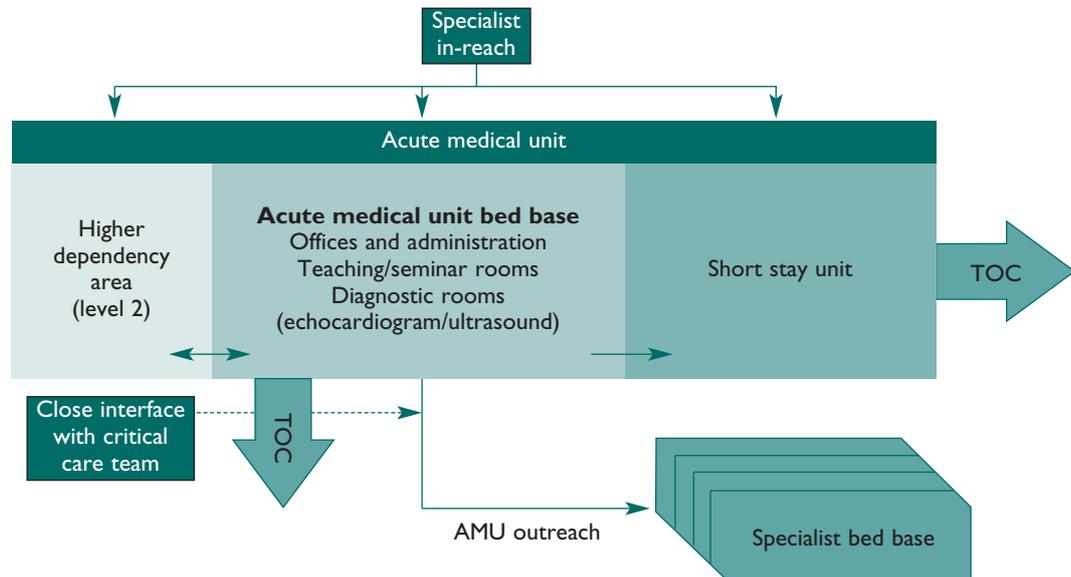


Fig 3 Acute medical unit: example configuration and interactions with the transfer of care (TOC) out of hospital for a majority of acute medical patients, either direct from the AMU or short stay unit. Those requiring longer hospital stays being transferred into specialist beds. Specialist in-reach supports the AMU and AMU outreach provides urgent and emergency acute care for the hospital, in collaboration with the critical care team.

AMU configuration

4.10 Generic design principles determining the configuration and function of the acute medical unit are considered under four headings: location, size, design and operational aspects.

Location

4.11 In larger acute hospitals, the AMU would ideally be located on the 'emergency floor', co-located with the emergency department, critical care facilities and emergency diagnostic facilities, especially imaging. In all instances, the AMU would ideally be located close to the 'front door' to allow direct patient access when appropriate to speed up assessments and reduce duplication of documentation.

Size

4.12 The AMU must be scaled to accommodate demand. As a guide, for efficient units, the minimum number of beds will be equivalent to the number of patients admitted per 24 hours, plus 10%. However, this estimate is necessarily simplistic and the number of beds required by an AMU in a specific locality will be dependent on a number of factors, including: access to a short stay facility, access to the specialist bed base and access to community beds and other facilities for patients requiring ongoing inpatient care. Consequently, the capacity of AMUs must be scalable to dynamically respond to changes in demand. Numbers will also vary if level 2 beds are an integral part of the unit.

4.13 AMUs must have the appropriate level of equipment to deliver timely and safe care.

All AMUs should have:

- ▶ dedicated monitors with a minimum specification to allow routine full non-invasive monitoring of ECG, blood pressure, oxygen saturations and temperature
- ▶ ready access to arterial blood gas analysis with a machine preferably situated within the AMU that conforms to Good Laboratory Practice* regulations. If this is not situated within the AMU, there must be agreed response times for results
- ▶ non-invasive respiratory support.

Most AMUs should have both continuous positive airways pressure and non-invasive/non-intubated ventilation facilities unless they are adequately covered by critical care or respiratory services.

In line with current recommendations that central line insertion should be ultrasound guided, suitable equipment should be available on the AMU, or readily accessible.

Larger units and those with high dependency units require the ability to invasively monitor arterial and central venous pressure.

*Medicines and Healthcare products Regulatory Agency

Design principles

WE RECOMMEND THE FOLLOWING GENERIC DESIGN REQUIREMENTS FOR ALL AMUs:

- ▶ IT access – ideally wireless
- ▶ monitored beds
- ▶ a higher dependency/advanced care bed base in larger units – this may include facilities for non-invasive/non-intubated ventilatory support (NIV) and continuous positive airways pressure (CPAP), depending on local configurations
- ▶ short stay beds
- ▶ isolation areas/private rooms
- ▶ a staff area and facilities for the coordination of the acute response team members and other staff responsible for acute medical care throughout the hospital out of hours – a base for coordinating care by out-of-hours teams
- ▶ facilities and space for physiotherapy and occupational therapy for older people
- ▶ safe areas for patients with acute mental health problems
- ▶ triage areas for AMUs with direct patient access
- ▶ relatives' waiting areas
- ▶ confidential interview room(s)
- ▶ administration and clerical space
- ▶ adequate and separate toilet and washing facilities for both males and females and patients and staff
- ▶ adequate office space for all staff
- ▶ dedicated allied health professional areas
- ▶ an equipment store
- ▶ ideally, an in house pharmacy and a drugstore as a minimum
- ▶ a treatment and/or procedure room
- ▶ a staff rest area, changing areas and locker rooms
- ▶ easy access to dedicated teaching space ideally embedded with the unit.

4.14 The AMU is not a traditional medical ward. It is a busy area operating 24/7 for the assessment and treatment of patients with acute medical illness, with a high turnover of patients.

We recommend that the AMU operates a number of streams for patients related to clinical need. These include the acutely unwell requiring close supervision and monitoring, short stay patients, older patients, complex needs patients and ambulatory care.

We recommend that visitor access to AMUs should be controlled because of the continuous ongoing admissions process and frequent review of acutely ill patients. The desirability of open visitor access must be balanced by the priorities of acute clinical care, patient comfort and dignity.

The following points should be read as recommendations:

4.15 Interface with critical care is especially important (see 2.78–2.81). All hospitals will require monitored beds for acutely ill patients and in larger hospitals the AMU should have embedded facilities for level 2 care.

4.16 Non-invasive/non-intubated ventilation (NIV) is being increasingly used for patients with acute deterioration of chronic respiratory disease. Although these facilities will often be incorporated within the specialist respiratory bed base – they may also be required in AMUs, depending on local configuration. Where the AMU has facilities for NIV, staff must be trained and competent in its use and there must be dedicated specialist respiratory team in-reach and support, and protocols for the safe transfer of such patients to the specialist respiratory bed base when appropriate.

4.17 For patients requiring specific specialist input, this should be routinely available and if required patients would transfer from the AMU to a specialist bed base for continuing care – as long as that environment provides a safe, appropriate and sufficient level of continuing acute clinical care to meet the patient’s needs.

4.18 There must be adequate side room accommodation proportionate to the size of the bed base. This side room accommodation will provide isolation and/or privacy, for patients at the end of life, patients with isolation for infection control purposes, confused patients or those with mental health problems requiring privacy. These rooms should be appropriately supervised at all times. In all instances side room accommodation on AMUs should be for short-term use as this environment is not designed for longer-term continuing care.

We recommend that the AMU should incorporate sufficient capacity for single sex bay accommodation whenever possible recognising that this is not always feasible in monitored environments.

We recommend that where the AMU receives direct admissions, it should have a fully monitored direct admission area with appropriate levels of medical and nursing staff support and include modern trolleys/chairs/and waiting areas.

We recommend that AMUs should have operational procedures for defining appropriate and safe mental health accommodation and behavioural problem areas. This is to cater for patients with mental illness who develop acute medical problems, or patients with acute medical illness who develop acute confusional states.

We recommend that the AMU should provide the base for ‘Hospital at Night’ teams and for ‘Hospital out of hours’ services and acute medical outreach. This will need administrative space and IT support. This focus is appropriate as the majority of patients managed by these teams have medical problems. For trainees taking part in these activities, it is important that they have ready access to the senior physicians working within the AMU for support and educational feedback.

We recommend that the AMU should also contain ready access to teaching and training facilities for staff and students. For larger units a seminar room for teaching and training should be embedded because it is less practical for staff to leave the AMU for training periods.

Operational principles

We recommend that transfer of care planning should begin at the time of the initial patient assessment and an accurate coding of the diagnosis and an estimation of anticipated length of stay should be recorded for all patients and reviewed regularly.

We recommend that length of stay for a patient on an AMU should be dictated by the clinical need of the patient and not by predefined arbitrary limits – this will involve typical lengths of

stay of between 24–72 hours, with an average length of stay in established AMUs of approximately 24–30 hours, allowing many patients to complete their episode of care with the same clinical team.

4.19 Some AMUs have incorporated ‘short stay units’ (SSUs) to provide continuing care for patients who can complete their inpatient care without the need for transfer to a specialist inpatient bed. This works best when the SSU bed base is embedded or co-located with the AMU and the clinical teams are integrated to ensure continuity of care. Where this is not possible due to space or geographical constraints the provision of short stay beds managed by the same team will be essential to maintain patient flow and continuity of care.

4.20 This level of integration of acute medical care can result in the discharge from hospital of up to 30–40% of acute medical admissions from an AMU, and up to 50% of all acute medical admissions in larger units or those incorporating a SSU, without need for further patient transfer to specialist inpatient beds. In this regard, the AMU should deliver efficient continuity of care and reduce patient movement and transfers of care within hospitals, all of which are important means of risk minimisation and guardians of patient safety. The aim should be to develop acute receiving areas and processes that can directly transfer at least 50% of acute admissions home, or back into the community, without further in-hospital transfer.

Patient flows – gearing up capacity to meet changes in demand

4.21 Simple linear equations to define bed needs for acute care are too simplistic because this is a dynamic process with ebbs and flows, some of which are predictable, some of which are not. Gearing is essential to provide a dynamic and flexible capacity. This principle needs ‘buy in’ from the entire hospital and local healthcare community as small shifts in demand in one area can have a major impact on capacity.

4.22 Predictable fluctuations in demand for urgent assessment of patients with acute medical illness, ie peak periods of demand, often do not match the traditional working day. The Task Force recognised that this can only be resolved by increased flexibility of working patterns of staff involved in acute medical care, especially senior clinical decision makers. This has significant manpower implications but is fundamental for the provision of safe and efficient acute clinical care, by ‘the right person, in the right place – first time’.

We recommend that the pace of life in the main hospital bed base beyond AMU must be geared to respond dynamically to changes in demand so as to increase capacity during busy periods. This gearing requires real time monitoring of demand and capacity, and robust escalation policies that are capable of responding quickly to early signals to distribute acute pressures more evenly from the front door to the entire bed base. This gearing must also involve community bed access beyond the acute hospital and must be operational 24/7.

4.23 There is often dissociation between the frequency of senior clinical review of patients in AMU and the frequency of such reviews on the bed base beyond the AMU. We recommend that modern acute hospitals will require daily clinical review of the entire bed base by a competent clinical decision maker to ensure efficient patient flows and to reduce length of stay. This is an essential component of gearing to meet fluctuations in demand.

Interface with other specialties and their bed bases

Acute medicine commitment from medical specialties

4.24 It is not anticipated, nor would it be desirable, for the new generation of specialist acute physicians in training to replace all of the acute medicine on-call commitments provided by other specialists.

We recommend that physicians from other medical specialties continue to commit to sessions in their contract dedicated to acute medicine on the AMU. This provides a healthy mix of disciplines working in the acute care environment and enables all participating medical specialists to retain competencies in acute clinical care.

Specialist in-reach

4.25 When the AMU clinical team requires a specialist opinion for a patient, this specialist ‘in-reach’ should be prompt and predictable – it is essential that all specialty teams proactively interface with the AMU clinical team.

We recommend clearly defined contact pathways for named senior clinical opinions (SpR or consultant) should be on a rota for all specialties likely to require regular interaction with the AMU. These include: geriatric medicine, gastroenterology, diabetes and endocrinology, dermatology, rheumatology, neurology, cardiology, respiratory medicine, infectious diseases and mental health teams.

4.26 In some cases this expertise will be provided across networks. AMUs must also have strong medical psychiatry liaison with agreed referral paths. It is also essential that psychiatric liaison includes services dedicated to older people – these services are currently poorly represented in acute services and this needs to be addressed.

4.27 Much greater priority should be given to supporting acute medical care within the contractual obligations of medical specialists. We recommend that specialty teams should develop rotas of clearly identified adequately experienced staff who can provide advice or attend and review patients expeditiously on the AMU, within a maximum of 4 hours of a request and ideally sooner. This is important for clinical governance, patient safety, education, and to facilitate efficient patient discharge.

Care of older people: special considerations for older patients admitted to hospital with acute medical illness

4.28 Older patients, by far, represent the largest number of patients admitted to hospital with acute medical illness. For these patients in particular, admission to an acute hospital can be a distressing experience. The Task Force considered various models of acute medical care for older patients, including the options of dedicated AMUs for the old and/or direct streaming of such patients to a specialist geriatric medicine bed base. The Task Force regarded these models as impractical and unworkable in most settings, mindful of the constraints of the clinical workforce needed to provide high quality and safe acute medical services 24/7 in such environments. Moreover, such models run the danger of a two-tier system of acute care for the young and the old that is inconsistent with the need to eliminate discrimination on the basis of age.

We recommend that AMUs tailor their operations to meet the needs and expectations of an ageing population with more complex illness. Operational policies should reflect this to ensure the dignity and the highest quality of care for frail, older and vulnerable patients with acute illness. This requires a multiprofessional approach, working in close liaison with the specialist teams.

We recommend that there should be no discrimination on the basis of patient age when decisions are made about access to acute medical services, and about the quality of service subsequently provided and received.

WE RECOMMEND SOME PRINCIPLES IN THE CARE OF THE OLDER PATIENT:

- ▶ Older patients usually present with complex medical problems and early engagement and ‘in-reach’ from specialist geriatric teams is essential – this refers not only to consultant in-reach, but also to other members of the specialist multidisciplinary team, for example specialist nurses, physiotherapy, occupational therapy, intermediate care and specialist discharge teams.
- ▶ Transfer of care arrangements are often complex and acute hospital discharge planning should begin early and must be proactively managed with involvement of the specialist multidisciplinary team (see above), the family and all other relevant agencies.
- ▶ Elderly patients requiring acute inpatient care should be transferred as soon as possible to an appropriate bed base that can provide the required level of care – this may involve the specialist geriatric bed base, another specialty relevant to their acute illness within an acute hospital, an intermediate care facility, a community hospital, a nursing or residential home or their own home – specialist outreach teams could provide continuing care to facilitate early repatriation.
- ▶ Older patient transfers must be minimised, especially at night, to reduce clinical risk and the risk of delirium.
- ▶ When care is transferred from the AMU there is an important role for continuing specialist ‘outreach’ from geriatric medicine to facilitate safe and early transfer of care from AMU and/or hospital.
- ▶ Because recovery from acute illness is often prolonged in the elderly, to facilitate transfer of care to an appropriate facility, the capacity in intermediate care and community hospitals must be expanded, especially out of hours, and access to these facilities must be better managed.

Access to diagnostics

We recommend that the AMU should have scheduled seven-day access to diagnostic and treatment procedures such as diagnostic GI endoscopy, echocardiography, diagnostic ultrasound, bronchoscopy and CT and MR imaging – with easy and convenient access for larger AMUs in large acute hospitals, and available to smaller AMUs via clearly defined pathways within the local emergency care networks.

We recommend that there should also be 24/7 urgent access to ‘life-saving’ interventions such as GI endoscopy within the emergency care network, ideally located on the same site as the AMU in large acute hospitals.

Patient transfers to the specialty bed base

We recommend that patients requiring continued specialist inpatient care should be streamed from the AMU to a hospital bed base appropriate to their clinical needs as defined by their diagnosis

and illness severity. When patients require inpatient care within the specialty bed base, there should be no barriers for patient transfer to that bed base. Patient transfers from the AMU should only occur if the receiving environment provides an appropriate, safe and sufficient level of continuing acute clinical care – this is an important consideration for the most acutely ill patients out of hours and at weekends.

Configuration of the specialty bed base beyond the AMU

We recommend that the acute hospital bed base beyond the AMU should reflect the patient need. The configuration of the hospital bed base with regard to specialty should reflect the acute care demand. The bed configuration of most hospitals needs to be reconfigured to match the acute patient flows and demand to ensure that there is the greatest opportunity to transfer patients to the most appropriate specialty destination for their ongoing clinical care.

AMU and medical outreach and the acute response team

4.29 When a patient's clinical condition deteriorates in hospital, various clinical teams have been configured to provide support. These usually include the on-call medical team (usually the medical specialist registrar), the critical care outreach team for critically ill patients, and the cardiac arrest team. This has been termed medical outreach – ie specialist teams reaching out to support acutely ill patients. This support may be patchy over the 24-hour period and is often poorly coordinated between the various clinical teams.

4.30 The development of AMUs will provide medical teams who are experienced and competent in the care of acutely ill patients. These teams will already have strong links with the critical care clinical teams.

We recommend that the AMU should be the hub for coordinating acute medical outreach care and many of the activities currently undertaken by the Hospital at Night team and out-of-hours medical cover arrangements for the hospital. This would provide a focus for coordinating acute medical outreach care and would provide continuity and review to ensure the patient is cared for in the most appropriate environment according to their dependency score.

We recommend that acute medical outreach should involve much greater integration between the existing on-call medical team and the critical care outreach team with competencies in emergency resuscitation, airway management and acute medical care. This could result in the development of a multidisciplinary acute response team (ART) that would replace the independent medical on-call and critical care outreach teams and would provide a single team to respond to urgent calls for support.

4.31 The ART could be called to respond to requests for support via a single dedicated telephone number in hospitals (distinct from that of the cardiac arrest call), manned by a competent clinical decision maker (not necessarily a doctor), who can decide on the level of response required according to the NEW score and clinical information required. Moreover, a specific NEW score would automatically trigger a call to the ART for advice and review, if required.

Acute medical unit staffing and operations – general principles

4.32 The AMU requires a skilled multidisciplinary clinical team with strong managerial, administrative and IT support. The AMU objective is to provide integrated care for people with acute medical illness in a single dedicated environment staffed by a multidisciplinary team competent in acute care. This team should deliver a consistent high quality service 24/7 which is dependent on flexible working, strong interfaces with other clinical teams involved in acute care, and guaranteed access to essential diagnostic services.

The medical team

4.33 Teamwork and continuity of care are essential in the AMU to deliver safe and effective clinical care. This requires clinical staff at all grades to work in blocks of time focussed on the AMU, without any other clinical responsibilities or distractions.

The acute physician: a physician who has been trained to work in an acute medical unit and provide a medical lead in that area. As such the acute physician will have competences in the management of the acutely sick medical patient but will also have leadership skills, strong practical skills and the ability to manage and improve patient pathways. In day-to-day practice the acute physician will combine these competences, skills and abilities to produce high quality care for all patients with acute medical problems including supporting professional training and developing novel patient pathways.

4.34 Acute medicine is the fastest growing specialty in medicine and a recommended model for the AMU consultant team will be a core team of specialist acute physicians complemented by other specialists with dedicated protected sessions on AMU.

4.35 The model of ‘physician of the day’ is strongly discouraged as this is not conducive to the ethos of teamwork, training and continuity of care.

We recommend that consultant work patterns should include protected session time for AMU, ideally in blocks of days. Seven-day blocks are considered too onerous and work less well. Precise work patterns should be developed to reflect local needs and all other clinical duties and responsibilities should be cancelled for clinical staff while working on AMU.

We recommend that junior medical staff should be allocated to the AMU in blocks, for example, two to four months at a time. This helps build teamwork and provides a concentrated period of time to develop competencies in acute care. The model of junior medical staff ‘dipping in and out’ of AMU for isolated short shifts of duty is strongly discouraged as being much less effective, less safe and an inadequate training experience. Acute physicians must be their mentors and be responsible for their training and appraisal during this attachment. Physicians must never work in isolation in acute medicine.

4.36 Primary care physicians should be encouraged to become an integral part of the AMU team. These should be experienced GPs who also have a base in primary care and continue to work in the out-of-hours services.

The nursing team

4.37 An experienced, dedicated nursing team with competencies in acute medical care is essential. The AMU requires a senior nurse as a leader/champion – effective leadership has been linked to fewer medication errors, lower staff absenteeism and staff turnover and higher patient satisfaction.^{19,20} In smaller units a senior nurse could have overarching responsibility for both the AMU and the emergency department. Some units will have a nurse practitioner, consultant nurse or matron in this role.

4.38 The number and grade of nursing staff within the AMU will depend on the size, case-mix and dependency of the unit. AMUs with embedded level 2 care facilities, a high patient throughput, and a high proportion of monitored bed areas will require a higher number with a more experienced skill mix. The nursing staff number and seniority should be balanced across the 24-hour period to reflect 24/7 working in the AMU.

We recommend that nurses based in AMUs should develop enhanced skills (ECG, venepuncture, cannulation, IV drugs, arterial blood gas analysis). Those working in higher dependency areas should develop and maintain critical care competencies. It is also important that nurses have had experience of nursing patients with severe physical disability, lack of which may compromise outcomes and delay transfer of care.

We recommend that nurses based in AMU should also be encouraged to develop specialist nursing skills by secondment or rotation. Larger AMUs should designate a lead nurse with clinical leadership and training responsibilities for specific specialist areas, such as critical care, NIV, asthma care and oxygen therapy, care of the elderly, mental health and so on. Likewise, nurses from specialties other than acute medicine should be seconded to, or rotate to, the AMU to acquire and maintain competencies in undifferentiated acute medical care.

Other acute medical unit staff

AMU STAFFING PRINCIPLES

- ▶ AMUs require administration and clerical cover 24/7 – this is essential for larger units.
- ▶ Formal support from a community psychiatric nursing team and established lines of communication are essential.
- ▶ The AMU should have dedicated access to physiotherapy, occupational therapy and social worker input – ideally they will be an integral part of the multidisciplinary team.
- ▶ Dedicated pharmacy support specifically and solely appointed to the AMU is important for patient safety and to expedite patient discharge.
- ▶ Dedicated portering staff are required.
- ▶ Dedicated cleaning staff are required to facilitate rapid turn-around of bed use.
- ▶ Larger units will require support for equipment inventory and maintenance.

Acute medical unit ward rounds, patient review and handover of care

4.39 We recommend that the clinical team on the AMU should be consultant led. This will typically require on average one consultant per 25 admissions per day or less. Senior review of patients must be available at all times and result in the early formulation of a clinical management plan which includes the estimated length of stay and confirms accurate diagnostic categories for coding purposes. This should occur immediately for the acutely unwell patient and rolling review is to be encouraged.

4.40 We recommend that there should be a twice-daily consultant-led ward round/review of all patients in the AMU, seven days a week, to support ongoing decision making and to review the management plans and results. Patients should be reviewed, whether they have been formally 'clerked' or not. Discharge planning should begin at the time of this initial review and necessary support teams should be engaged early. These rounds must include members of the nursing team to ensure proactive management and transfer of information.

4.41 Although some training and education will take place during these rounds, notably training by consultant review of clinical decisions by junior doctors, it is emphasised that these are business rounds that are not intended as formal teaching rounds. However, opportunities for 'on the job learning' and experiential learning must not be lost.

PATIENT ASSESSMENT HAS THREE COMPONENTS:

- ▶ immediate assessment and immediate treatment
- ▶ triage; development of a formal management plan with investigations
- ▶ formal review of patient progress, investigations and results, the management plan and discharge plans.

There should be timely 'rolling review' of admissions to AMU by the SpRs and regular review of existing patient management plans throughout this process. The frequency and urgency of review should be informed by the NEW score and clinical need, which should be regularly updated for each patient. Patients with a high NEW score on arrival should be reviewed immediately and subsequently according to their clinical need. All patients should be reviewed and have their management plan and review criteria formalised within 4 hours of arrival onto the AMU.

4.42 We recommend that the NEW score and plans for investigations and discharge or transfer plans for each patient should be clearly displayed within the AMU using a 'clinical management board' and should be reviewed and updated regularly and at the end of every ward round. There should be a sensible balance between the need to access such information for clinical decision making and patient confidentiality – concerns regarding the latter must not compromise patient safety.

4.43 We recommend that there must be time included in the shift patterns for junior medical staff to ensure there is a formal handover of care, akin to that adopted for many years by nursing teams. The clinical management board is an ideal focus and resource for the handover of patients.

Extended day working

4.44 One of the great challenges of reforming acute services will be implementing changes in working practices to meet the demands of 24/7 working. **We recommend new models of working that are predicated on ensuring adequate levels of competent clinical decision makers are present on the AMU and other front-line services 24/7.** This should be provided by SpRs working in shift patterns, supported by junior training grades on similar shift patterns to meet this requirement. Consultant work patterns must also be more flexible to meet demands for senior clinical decision making and leadership on the AMU across an extended working day, within the constraints of job planning. The decision-making role requires a shift to proactive from reactive. This mode of working, across seven days a week, with on-call consultant support out of hours, will have significant manpower and work-force implications.

5 Workforce planning, education, and training

5.1 The importance of the development of the workforce for acute medical units should not be underestimated. The delivery of high quality care is dependent on the presence of competent staff across the multidisciplinary team. We encourage the development of a supportive culture of education, training, self-improvement, excellence and teamwork in acute medicine founded on the principles at the core of this report, notably patient safety and quality clinical care. The recommendations in this section are driven by a need to provide excellent and safe care, underpinned by training and education.

The acute medical unit as a training environment

5.2 The AMU provides an outstanding environment for the training of doctors, nurses and members of the multidisciplinary team. It also provides an excellent training environment for undergraduate medical education.

5.3 The high intensity but supportive environment of a fully functioning AMU encourages the development of skills such as rapid clinical assessment, rational investigation, teamworking and prompt decision making. The latter should encompass the streaming of patients so that there is early management of the acutely unwell, recognition of the patient with complex needs and the promotion of appropriate ambulatory care.

5.4 From August 2007 all physicians will train in acute medicine, at least in their early physician specialist training. Although this promotes the AMU for postgraduate training we support the incorporation of undergraduate attachments to AMUs to take advantage of the training opportunities.

We recommend that exposure to the AMU should be part of the core undergraduate medical curriculum.

5.5 It is essential that there is a clinical education lead in the AMU to promote and coordinate education and training for all staff. There should also be a nurse education and training lead with dedicated time, whose role it is to support junior members of staff and to ensure that staff are kept up to date with evidence-based practice.

We recommend that medical and nursing education and training leads are identified to promote and coordinate education and training for medical and nursing AMU staff.

5.6 Training at all levels has to be adequately assessed to ensure the full range of acute care competencies are attained and maintained. This should be supported by regular appraisal of staff to promote skill acquisition, personal development and job satisfaction. As part of this assessment ST3 trainees must be signed off as competent to take a senior supervisory role prior to direct involvement in that role.

5.7 Recent financial pressures on training budgets are concerning and short sighted. It is clear that health organisations which promote training enjoy improved morale, better staff retention, better teamworking and ultimately better clinical outcomes for patients.^{19,20}

5.8 The volume, intensity and variety of experience that is available in an AMU will provide an outstanding training environment for all within the multidisciplinary AMU team. As these areas are consultant led there should be unrestricted access to more senior trainers. This exposure to a broad spectrum of specialties and specialists within the structured environment of the AMU will facilitate communication and the awareness of complementary skills within the multidisciplinary team. The trainees must be aware that one of the core skills is promoting and facilitating discharge and that the successful trainee in an AMU must develop the integrative skills necessary to incorporate evidence from a variety of sources to ensure the best possible management plan for any individual patient.

We have highlighted the importance of specialist in-reach for acute care. *We recommend that all medical specialties in acute hospitals or in emergency care networks servicing acute hospitals will need to acquire and maintain competencies in the assessment and clinical management of acute medical problems pertinent to their specialty. This important aspect of training needs to be incorporated into specialist training programmes.*

5.9 The emphasis on the acute care element of core skills for nursing has to be promoted but there must also be recognition of the benefit of increasing specialisation and multi-skilling of nursing staff within the AMU.

5.10 The training objectives for physiotherapists and occupational therapists have been defined by their professional organisations. We endorse these objectives and recommend that they should be adopted for all allied health professionals in AMUs.

We recommend that training objectives for physiotherapists and occupational therapists should be adopted for all allied health professionals in AMUs.

Flexibility and career opportunities

5.11 Acute medicine is a specialty exposed to unremitting pressure and the risk of 'burn out' is high. Professionals working in the AMU must be able to incorporate variety and flexibility into their career plans and adopt a portfolio career structure. This would allow some clinicians to take a full and active part in acute medicine in their early consultant careers and then move to other medical specialties. It should also allow the medical specialist to adopt the role of the acute physician later in their career.

5.12 In either direction, training opportunities must be available for individuals to adopt new roles and responsibilities and acquire new skills to maintain their enthusiasm and commitment to this demanding role. New training structures must be sufficiently flexible to allow life-long modular training. The assurance of competence and the provision of opportunities to maintain competence and develop new competencies remain as important throughout the career of physicians and other health professionals, as it does at present for individual trainees.

We recommend that flexible career options are encouraged and maintained for those practising acute medicine.

Structures important to promote recruitment and retention

5.13 The flexibility of working practice within an AMU combined with the potential for modular training, active patient interaction, consistent senior input, life-long learning and active teamwork are likely to make a supported AMU an attractive place to work. There must be evidence of reflective practice within the training environment that is supportive to promote a better understanding within the individual member and facilitate growth of the acute medicine team spirit.

5.14 **The availability of training for specific skills must be promoted.** This may vary simply between specific courses on the management of the acutely ill or to a longer period of modular training required for accreditation in practical skills eg echocardiography, ultrasonography or endoscopy. Courses for the management of the acutely ill should be targeted according to the skill set of the trainee but must focus on all areas within the curriculum.

5.15 Study leave to gain experience of acute medicine from courses or visiting other centres should be encouraged, but this entails the availability of an adequate budget. This must be recognised for all professions within the multidisciplinary team. A team philosophy must be emphasised with the training structures across all AMUs. Use of common documentation, unified use of a national early warning score system and regular team meetings to review the functioning of the AMU are mandatory.

5.16 **The service and training needs within the multidisciplinary team must be appropriately balanced and the former must not compromise the latter.** The clinical lead should ensure that the AMU environment is conducive for high quality training for all team members and that all job plans reflect the need for continuing professional development.

5.17 Career pathways and opportunities for progression must be made clear in acute medicine so that recruitment and retention may be optimised. The intensity of work, lack of private practice and potentially anti-social hours may make this career less attractive for some physicians. This adverse perception must be counterbalanced by the development of clear career pathways and incentives for potential acute physicians.

Job planning and workforce configuration

5.18 Appraisal for acute medicine specialists must reflect their activity in acute medicine continued professional development and the appraisal must be geared to ensure that the individual maintains competencies relevant to acute medicine.

We recommend that the typical programmed activities that are available within a job plan should be comparable across AMUs according to the commitment of the individual. This will facilitate job planning and is a piece of work that should be promoted within management. Within job planning there must be a reasonable balance of capacity and demand with regard to the activity of the AMU and the personnel available.

5.19 To avoid the concern of burn out, job planning must be realistic and should not simply confine the acute physician to the AMU clinical environment. The interactions between professionals and professions to promote new patient pathways and safer ways of working are a vital part of the acute physician role and must be protected. Similarly for those trained in

specific practical procedures or with educational qualifications, use of these skills should be encouraged and recognised within job plans.

We recommend that job planning recognises the work that flows from the clinical interface including the necessary administrative work and talking to carers and relatives.

5.20 It is suggested that there should be a minimum medical staffing level for 20 admissions consisting of: 1 SpR/ST3+, 1 FY2/ICMT or equivalent and 2 FY1. These doctors would be responsible for both ongoing care and assessment of new admissions. This requirement would be increased if the AMU takes direct medical admissions, is responsible for a large amount of ambulatory care or a HDU, has a large training programme, or is the prime lead for the acute response team (ART) and 'hospital during the day and night'.

5.21 Within larger AMUs there should be a dedicated management team to ensure that the quality targets are audited and achieved, that training is promoted and adequately resourced and that an ethos of teamwork is facilitated.

The concept of the acute physician working in isolation cannot be supported.

5.22 We support the recommendations from previous reports for at least three dedicated specialist acute physicians in most acute hospitals and eight in larger institutions. This core team should be augmented in all instances by scheduled contributions to acute medicine from physicians in other specialties.

Implications for job planning for specialties

5.23 There are a number of recommendations in this report that will have significant implications for job planning in acute hospitals.

IMPLICATIONS FOR JOB PLANNING INCLUDE:

- ▶ the shifting balance between acute and elective work in acute hospitals
- ▶ the move towards more flexible patterns/extended day/out-of-hours working for senior decision makers
- ▶ dedicated blocks of time for acute work on the AMU and cancellation of other commitments (dedicated refers to time allocated in job plans that is unrestricted by other commitments)
- ▶ rotas for dedicated specialist in-reach for the AMU
- ▶ rotas for dedicated acute specialist 'outreach' into the community for some specialists to support acute medical crises in the community, for example specialist geriatric medicine outreach services
- ▶ establishment of out-of-hours diagnostic and interventional support services, for example emergency endoscopy services across a network
- ▶ increasing demands for dedicated time to support more formalised training and assessment of junior medical staff
- ▶ dedicated time for CME and professional development to maintain competencies and acquire new competencies.

We recommend the development of nationally agreed allocations of programmed activities to these roles and model job plans to facilitate equitable job planning and appropriate resource (both staff and funding) allocation to prioritise and sustain the proposed reconfiguration and enhancement of acute medical services for patients.

Innovative roles

5.24 There should be development of new roles to take on some of the routine responsibilities of clinical staff, or to allow members of the existing team to take on additional responsibilities. Many innovative roles have been developed and are still under review with AMUs. These include:

- ▶ physicians assistants
- ▶ emergency care practitioners
- ▶ clinical aids
- ▶ phlebotomists.

5.25 The role of the physician assistant in acute care has been promoted and in the areas that this is active in it has generally been received positively by professions and patients alike.²¹ The precise role of some of these professions in acute care is still being clarified and there is a need for standardisation of nomenclature and job plans for each role. An important overarching principle for people working in support roles is that they should not work in isolation and must work as part of a multidisciplinary team with clear lines of responsibility and support.

We recommend that people working in support roles should not work in isolation, but must work as part of a multidisciplinary team with clear lines of responsibility and support.

5.26 The development of enhanced roles within the multidisciplinary team must be encouraged so that the profile of competences available within the AMU is maximised. The example of the nurse specialist functioning independently (but not in isolation) within the ‘minors’ stream in the emergency department is a prime example of the relevance of these enhanced roles.

5.27 We support further development of roles with allied health professionals taking prime responsibility for specific groups of patients whose major needs are best served by this group of professionals. This may be further enhanced by the use of occupational therapy assistants.

5.28 There is often no recognition of the transferable nature of skills that may have been developed in discrete departments or hospitals.

We recommend standardisation of training packages for transferable skills to ensure their wider and more consistent application. This will also decrease the need for local initiatives that may restrict the ability of the trainee to extend their role beyond a specific department or clinical discipline.

Opportunities for medical staff – dual training and dual roles

5.29 It has become apparent that members of the medical workforce other than physicians trained specifically in acute medicine may wish to take part in the acute medical take and play a role in an AMU. Similarly, physicians within the AMU have competencies that lend themselves to working in related acute areas of the hospital. This is especially pertinent with the development

of new training structures such as the acute care common stem programme for ST1 and ST2 doctors. This pattern of training should help foster better understanding and stronger links with key interface departments with the AMU, such as emergency medicine (A&E) and critical care.

5.30 Work is taking place within the Working Group on Acute General Medicine that has attempted to define pathways for experienced doctors from other clinical disciplines to work within the AMU. This is particularly applicable to specialists from emergency medicine, anaesthetics and critical care. This would ensure that doctors with appropriate competencies are given the opportunity to play a role in unscheduled acute medical care within the AMU.

We recommend that there should be opportunities for doctors who are skilled at acute and critical care medicine to combine these interests and train in both acute medicine and critical care medicine to CCT level. There should also be opportunities for primary care physicians to train in acute medicine and to work within the AMU.

We recommend that new training structures are sufficiently flexible to allow physicians to train in related areas of acute care to CCT level and thereby develop job plans that allow them to combine clinical roles beyond the AMU, eg AMU, ITU or emergency department responsibilities.

Funding

5.31 Financial viability of services is as important as the clinical viability – the absence of either could compromise the AMU. Clinicians as well as managers should, therefore, understand financial mechanisms including costings, income tariffs, patient coding and primary care trust (PCT) and GP commissioning intentions and processes. Clinicians who demonstrate a keen interest and use their leadership skills to influence processes can have a very significant beneficial impact on services provided and thus on patient care.

We recommend that clinical leaders develop an understanding of the funding mechanisms so as to allow them to effectively impact on service development and ultimately, patient care.

5.32 Funding mechanisms can be a powerful lever for change, but they can also distort clinical priorities and inhibit change. There are some perverse incentives within the existing payment by results framework that can drive patients through ineffective and inefficient care pathways that do not benefit the patient or the local health economy. An example of this is when acute hospitals are encouraged by PCTs to deploy expensive staff and resources to the front line to reduce their admissions (very appropriate for patient care). Yet there is no payment mechanism which encourages this and it has the additional consequence of reducing provider unit income. Another example is that by reducing patient length of stay to less than 48 hours, there is a consequent reduction in tariff income. There are other examples of when the true cost of complex investigations and interventions are not recovered, but their use in a patient's care has been appropriate. This can be a disincentive to develop services.

We recommend that payment systems and tariffs should be better aligned to best clinical practice so that they do not distort clinical priorities.

5.33 Service level agreements between provider units and GP/PCT commissioners using non-tariff pricing can enable innovative pathways of care to be created through shared financial risk and simultaneously achieve performance objectives for both primary and secondary care. To

take advantage of such processes clinicians and managers should share an understanding of the financial mechanisms and their implications.

5.34 Commissioning acute and/or urgent care provision should support the developments which recognise the type and level of healthcare provision required for the community. AMUs can create a range of assessment, diagnostic and referral options that underpin the clinical dialogue between GPs and specialists and empower clinical decision making at all levels. Developing a comprehensive financial and operating framework that supports direct access to high quality opinion, diagnostic and/or treatment options would enable clinical leadership throughout the care pathway in both secondary and primary care. Front-line staff and particularly clinical leaders, in both primary and secondary care, need to feel that they are able to promote patients' interests. A key to this is providing the autonomy to allow decisions to be taken locally. Commissioning on the basis of measurable outcomes would improve the patient experience and empower clinical leaders.

5.35 Workforce and service planning and priorities have been too focussed on scheduled care. **We recommend that funding mechanisms should be adjusted to incentivise the development of high quality emergency and acute medical care while at the same time not disenfranchising chronic disease management.**

5.36 The funding arrangements and tariffs for acute medical care must adequately reflect the case complexity, the need for a consistent presence of senior and competent clinical decision makers, and the timely availability of relevant diagnostic support, to provide safe and efficient care to acutely ill patients, 24/7. This is not a luxury, it is a necessity.

5.37 In addition, there is a need to code and remunerate care episodes that do not follow the traditional care pathways but still require specialist input, eg ambulatory care, specialist outreach and other new models of acute care provision. Avoiding hospital admission is not always the cheapest option, but when safe, for many patients, it represents a better option than hospital admission.

Research and development

5.38 Acute medical care should evolve within a vibrant environment of research and development. The opportunities for research and development in acute medical care are immense and under-exploited. Research encourages a culture of reflective practice, critical appraisal and review – all of which contribute to a high quality and safer clinical environment. Much of the clinical practice in acute care lacks a quality evidence base. This reflects in part: a lack of academic leadership in acute medicine, inadequate high quality data capture, and a lack of funding and research infrastructure.

5.39 The volume and variety of clinical activity in AMUs provides an outstanding foundation for high quality clinical research that could be rapidly translated into clinical practice. Moreover, the work of the acute medical team in blocks of time provides the kind of flexibility that should appeal to doctors, nurses and other healthcare professionals contemplating a clinical academic career, combining clinical practice and clinical research with a common purpose.

We recommend the establishment of a national clinical research network for acute medicine that will provide the infrastructure for high quality research programmes in acute medical care.

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Appendix: Further information

Useful material that can be read in conjunction with the report

The Society of Acute Medicine

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