Order No	Organisation	Docu ment	Section No	Comments	Response
1	5 Boroughs Partnership NHS Trust			This organisation has been approached but did not respond	n/a
2	Addenbrooke's NHS Trust			This organisation has been approached but did not respond	n/a
3	Aintree Hospitals NHS Trust			This organisation has been approached but did not	n/a
4	Airedale General Hospital - Acute Trust			This organisation has been approached but did not	n/a
5	Aksys Healthcare Ltd			This organisation has been approached but did not	n/a
6	Association for Clinical Biochemistry			This organisation has been approached but did not	n/a
7	Association for Psychoanalytic Psychotherapy in the NHS (APP)			This organisation has been approached but did not	n/a
8	Association of Anaesthetists of Great Britain and Ireland			This organisation has been approached but did not	n/a
9	Association of Clinical Biochemists, The			This organisation has been approached but did not	n/a
10	Association of Medical Microbiologists			This organisation has been approached but did not	n/a
11	Barking Havering & Redbridge Acute Trust			This organisation has been approached but did not	n/a
12	Barnet & Chase Farm Hospitals Trust			This organisation has been approached but did not	n/a
13	Barnsley Hospital NHS Foundation Trust			This organisation has been approached but did not	n/a
14	Barnsley PCT			This organisation has been approached but did not	n/a
15	Bedford Hospital NHS Trust			This organisation has been approached but did not	n/a
16	Bolton Council			This organisation has been approached but did not	n/a
17.0	Bolton Hospitals NHS Trust	GL	2.1.3 Rec 6	We feel that oxygen saturation, as a parameter, should not be included in the physiological track and trigger system. It is felt that the oxygen saturation parameter can often lead to false reassurances. Patients still may have tissue hypoxia in the presence of an acceptable oxygen saturation recording and may have inadequate ventilation, again with an acceptable oxygen saturation recording if the patient is on oxygen. Oxygen saturation is also dependent on an adequate peripheral perfusion and is therefore	We have revised the review of the evidence and evidence to recommendations section 1.1.5 to make the basis for inclusion of oxygen saturation and exclusion of urine output clear. In the evidence review we refer to the Cuthbertson 2007 paper and the Duckit 2007 (in press) which show the importance of O2 saturation, with a cut point of 95%, as an important early predictor of acute deterioration in both medical and surgical patients.
18	Bradford & Airedale PCT			considered much less reliable than the other physiological observations suggested for scoring systems This organisation has been approached but did not respond	n/a

19	Bradford Hospitals NHS Trust			This organisation has been approached but did not	n/a
20.0	Brighton & Sussex University Hospitals Trust Brighton & Sussex University Hospitals Trust	Gen GL	1.3.3 page 14	This consultation document has been circulated to lead clinicians and personnel for in BSUH for their comments. The document is very timely in its publication in supporting the ongoing work of the Critical Care Outreach and patient safety team in the care of the acutely ill hospital patient. Our main comments are outlined below Should clinical emergency be defined ? Patient not suitable for critical care following assessment – need to include review of management plan including resuscitation status – should arrow therefore go back up to monitoring plan	Thank you. The GDG considered whether it was possible to offer a definition of 'clinical emergency' and considered that it was not appropriate to offer a detailed list of conditions that would be included.
20.2	Brighton & Sussex University Hospitals Trust	GL	2.1.6.1	Otherwise care pathway looks clear Evidence for including oxygen saturation. Recommendation implies that this must be included – this would represent considerable change to our existing T & T MEWS score / and involved changing documentation / practice. Need to link with Connecting for Health – CRS our understanding is that all organisations will be using same documentation within next few years - could this be incorporated to development? Would be useful to include examples of T & T system that includes parameters recommended	We have revised the review of the evidence and evidence to recommendations section 1.1.5 to make the basis for inclusion of oxygen saturation and exclusion of urine output clear. In the evidence review we refer to the Cuthbertson 2007 paper and the Duckit 2007 (in press) which show the importance of O2 saturation, with a cut point of 95%, as an important early predictor of acute deterioration in both medical and surgical patients. It is intended that the NICE implementation tools will offer specific examples of TTS.
20.3	Brighton & Sussex University Hospitals Trust	GL	2.2.3.5	Again clinical emergency should be defined	The GDG did not consider it was possible to offer a detailed definition of types of clinical emergency, although cadiac arrest is now mentioned, as this group should be managed differently than the "high risk" around
20.4	Brighton & Sussex University Hospitals Trust	GL	2.3.3.1	This has always been the aim for ICU discharges (our aim is to transfer patients before 1700 when parent medical teams are unavailable) however there are occasions when due to capacity/ demand issues within the organisation this occurs	We have reworded this recommendation (1.3.2.14) to ensure that it refers to fact decision to transfer has been made and that night transfer "should be avoided whenever possible, and should be documented as an adverse incident if it occurs"
20.5	Brighton & Sussex University Hospitals Trust	GL	2.3.4.1	Need to be clear that critical care discharging medical team do not have ongoing clinical responsibility for patient although CCOT may continue monitoring of patient.	This is addressed by revised recommendation (1.3.2.15)
20.6	Brighton & Sussex University Hospitals Trust	GL	2.3.4.2	This could be a breach of patient confidentiality	Noted. We would ask the PPIP to consider whether these issues require it to revise the general section of principles of care (1.2) section.
21.0	British Association of Art Therapists	Gen		This consultation document has been circulated to lead clinicians and personnel for in BSUH for their comments.	Thank you.

22.0	British Association of Critical Care Nurses	Gen		The document is very timely in its publication in supporting the ongoing work of the Critical Care Outreach and patient safety team in the care of the acutely ill hospital patient. Our main comments are outlined below Congratulations to the GL team on producing a comprehensive guideline that resonates with current hospital patient's needs. The guideline provides an invaluable learning resource and the	Thank you.
22.1	British Association of Critical Care Nurses	GL	1.4.3	Do the guidelines also apply to obstetric patients? If so the early warning scores used for general ward patients may have to be adapted.	We can confirm that the view of the GDG is that the guidelines are for all adult patients in acute hospital settings, which includes obstetric patients. In our review of TT systems we found no systems developed specifically for obstetric patients.
22.2	British Association of Critical Care Nurses	GL	2.1.4.1	Some concern has been raised that minimum 12 hourly observations might be regarded as a normal baseline. This may allow for observations to be done during the day but not at night.	Stakeholder comments were evenly spread between those supporting 12 hourly monitoring and those favouring more frequent monitoring. The recommendation 1.3.2.3 has been re-worded to state "physiological observations should be monitored at least every 12 hours". The recommendation also notes that on occasion it will not be necessary to use TT systems to monitor certain groups of patients (e.g., those in receipt of palliative care). It should be emphasised that at this point the patients being monitored have not been defined as "acutely ill"
22.3	British Association of Critical Care Nurses	GL	2.1.5.4	Both section (ii) and section (iii) appear to read the	Noted.
22.4	British Association of Critical Care Nurses	GL	2.2.3.10	The findings of the Hillman et al (2005) study should be viewed with some caution as the study had insufficient power.	We are clear in the evidence review and evidence table about the limitations of the Hilman paper.
23	British Association of Stroke Physicians (BASP)			This organisation has been approached but did not	n/a
24	British Dietetic Association			respond This organisation responded and said that it has no	n/a
25	British Geriatrics Society			comments to make. This organisation has been approached but did not	n/a
26.0	British Heart Foundation	Gen		The BHF welcomes the opportunity to respond to this draft guidance. We note that the guidance is in part driven by the recognition that patients who become acutely unwell on general hospital wards receive sub optimal care. The National Confidential Inquiry into Patient Outcome and Death (NCEPOD 2005) identified a number of problems	Thank you.
				 Delayed recognition of deterioration in the patients condition Delayed institution of appropriate therapy Late referral for more intensive care Poor communication between acute medical staff and critical care staff 	

			The BHF recognises these problems as real issues in the management of acute patients in hospitals. It therefore seems appropriate that guidance is instituted.	
			The 17 recommendations clearly reflect what seems to us to be a mixture of good basic clinical care and common sense.	
26.1	British Heart Foundation	Gen	There is the recognition in the report that not all patients who become acutely ill and require critical care will survive, therefore perhaps some reference needs to be made to the possibility that this is an issue which both staff and patients will need to address. We recognise that this may be beyond the scope of this guidance but reference perhaps should be made to other sources of guidance on the principles and practice of providing good quality nalliative and supportive care	Thank you. We have addressed this important point in revised recommendation 1.3.2.3
26.2	British Heart Foundation	Gen	 Handover of acutely ill patients from the general acute wards to critical care teams is inevitable from time to time. It is important to stress that handover and movement of patients from ward to ward should be minimised and only undertaken when the clinical condition necessitates such a handover. The reasons for this are that: a. Handovers are associated in breaks in the continuity of care and in particular the relationship that builds up between patient clinician and carer. b. Frequent moves of the patient can cause confusion particularly in frail elderly patients and c. There is clearly a risk of spreading hospital acquired infection 	Thank you.
26.3	British Heart Foundation	Gen	In order to address the issues raised in the national confidential inquiry the key will be how this is implemented in the real world of acute hospital medicine with all the pressures from staff training and education, staffing levels on the wards, bed pressures and high occupancy rates in hospitals. We would therefore support NICE in its commissioned work from the Clinical Accountability Service Planning and Evaluation Research Unit and Health Quality Service to develop audit criteria as part of the implementation strategy. This would usefully inform the audit cycle in the average district general hospital. However workforce development training and NHS capacity issues are also important areas to address.	Thank you.

26.4	British Heart Foundation	GL	Rec 1	All adult patients should have appropriate physical observations but no mention is made, over and above the need to make the observations, record and act upon these by staff trained to do so, for the need to quality assure the equipment that is used to monitor patients. This is an important issue to improve the quality and assure the quality of bedside physiological testing.	Noted. This is outside the remit of this work.
27	British National Formulary (BNF)			I his organisation has been approached but did not respond	n/a
28.0	British Psychological Society, The	Gen		We welcome the attention paid to psychological aspects of care, especially to communication issues, to the transition from ICU to general medical ward settings and to the needs and potential psychological distress of family members/carers. A more comprehensive coverage of these issues would have been achieved through involvement of a clinical health psychologist in the working party.	Thank you. We would stress that we consider that the GDG was appropriately constituted for its core task. Rehabilitation was outside the scope of this guidance.
28.1	British Psychological Society, The	GL	2.3	We welcome the specific consideration of psychological adjustment and morbidity in these guidelines. In particular, we welcome the consideration of qualitative data on patient experiences and preferences alongside quantitative outcome data.	Thank you.
28.2	British Psychological Society, The	GL	2.3.4.1 2.3.4.2 2.3.4.3	We strongly support the recommendation (2.3.4.1) that the hand-over of care include structured feedback on the particular psychological and emotional needs of the patient, the recommendation (2.3.4.2) regarding the involvement of patients in the decision-making, with the support of individualised information, and the recommendation for specific training of staff in this area (2.3.4.2). Clinical experience suggests that it is difficult for staff working towards the priorities of an acute medical environment to attend to complex, confusing and distressing emotional experiences of patients, particularly those with complex needs (Bennun, 1999, <i>J Family Therapy</i> , 21, 96-112). We would argue for the provision of dedicated psychological input for that function over and above specific training for all staff. In addition, we would suggest that the emotional needs of staff working in critical care services are carefully considered. We see this as an important component of maintaining a high quality clinical service, and we would urge inclusion of such	Thank you. The need to support critical care staff is outside the scope of this guidance.
				considerations in the guidelines. Dedicated psychological input for staff training could also include the functions of staff support and consultation.	

28.3	British Psychological Society, The	GL	2.3.4.5	We welcome and value the inclusion of qualitative evidence of reported patient experiences in shaping these recommendations.	Thank you. We set out clearly the specific clinical question this review addressed and it focused on the needs of patients on general wards FOLLOWING transfer from CCAs not on their care in CCAs
				We would also suggest that further evidence, both qualitative and quantitative, regarding the emotional experiences of patients in ICU is sought and analysed. For instance, the guidelines do not review the extensive literature on post-traumatic stress symptoms in ICU patients, (e.g. Richter et al, 2006, <i>Psychosomatics</i> , 47(3), 223-30; Cuthbertson et al, 2004, <i>Intensive Care Medicine</i> , 30, 450-5; Bennun, 2001, <i>Brit. J. Medical Psychology</i> , 74, 369-377; Scragg et al, 2001, <i>Anaesthesia</i> , 55, 9-14; Campbell, 1995, <i>Intensive and Critical Care Nursing</i> , 11, 60-5) and consequently cannot make more specific recommendations about the processes of care within ICU that would be appropriate for patients with such symptoms. This would be in keeping with the guidelines' attention to biological symptoms through the 'track and trigger' mechanism proposed.	
28.4	British Psychological Society, The	GL	2.4	Research Recommendations:	Noted, thank you.
				Research into the effects of educational, critical care outreach or psychological interventions should include not only quality of life and patient satisfaction measures but also the views of family/carers and, where feasible, measurement of psychological distress and patterns of change in this over time. The impact of interventions may vary over the time course of the care process with regard to these different outcomes. Because there seems to be only limited data concerning the time period after the transition to general wards, this stage in treatment/care should also be investigated, as should post hospital discharge psychological and economic outcomes.	
				We would suggest that these issues are relevant to research and [subsequent] evidence based guidelines concerning interventions for patients clinically deteriorating prior to potential admission to critical care settings or for those making the transition to general ward settings after a period of	
29	British Society of Interventional Radiology			This organisation has been approached but did not	n/a
30	Buckinghamshire Chilterns University College			This organisation has been approached but did not	n/a
31.0	CASPE Research		1.3.1 Rec 1	Bullet point 3 mentions a 'clear monitoring plan', but does not specify whether this plan can be verbal,	The recommendation has been revised to include "written"

				written or other. To be fully amenable to audit this plan would have to be written or documented in the patient health record	
31.1	CASPE Research		1.3.1 Rec 11	This recommendation suggests that the graded response strategy should be <i>agreed and delivered</i> locally. To be fully amenable to audit it may be useful to add 'documented' into this paragraph	This will be addressed by the accompanying audit criteria
31.2	CASPE Research		1.3.3	The schematic found in this section provides a very useful overview of the recommendations, and hence could provide a useful reference in terms of audit. As the audit criteria are linked to the key priorities for implementation, it may be useful to provide a reference to the aforesaid diagram in the key priorities section.	Noted, thank you.
32.0	Chartered Society of Physiotherapy (CSP)	GL	2.1.3.6 para 2	The CSP welcomes such specificity with regard to physiological measurement parameters. This will be of help to physiotherapists working within the multidisciplinary team to use a guideline applicable to all healthcare staff in order to improve patient care	Thank you.
32.1	Chartered Society of Physiotherapy (CSP)	GL	2.3.4.1	We welcome the fact that physical and rehabilitation needs are identified as important at the acute/critical stage or care.	Thank you.
32.2	Chartered Society of Physiotherapy (CSP)	GL	2.3.4.5 para 3	The fact that patients have reported that nurses may have unrealistic expectations of a patient's physical ability highlights the need for adequate numbers of physiotherapists to be available. Physiotherapists are the key professionals with expertise in the holistic assessment of physical movement, functioning and ability and identifying appropriate rehabilitation. Patients themselves have clearly identified a need for a greater diversity of professionals with appropriate skills to care for them.	Noted
32.3	Chartered Society of Physiotherapy (CSP)	GL	2.4	Given the comment in section 2.3.2.1 above should there not be research recommendation that states "what is an effective intervention to improve health outcomes for patients discharged from critical care areas."	This has been addressed with the research recommendation regarding the clinical and cost effectiveness of CCOS compared with usual care or educational outreach in improving health outcomes for patients who clinically deteriorate in general hospital ward settings.
32.4	Chartered Society of Physiotherapy (CSP)	Gen		The CSP welcomes this guideline as it will be useful to respiratory care-, critical care- and medical- & surgical - physiotherapists working in a variety of acute care settings including medical assessment units, high dependency and intensive care areas and general wards.	Thank you.
33	Chelsea & Westminster Acute Trust			This organisation has been approached but did not respond	n/a
34	Chephalon Ltd			This organisation has been approached but did not respond	n/a

35	City Hospitals Sunderland NHS Trust			This organisation has been approached but did not	n/a
36	Clatterbridge Centre for Oncology NHS Trust			This organisation has been approached but did not	n/a
37	Clinical Practice Research Unit			This organisation has been approached but did not respond	n/a
38	College of Emergency Medicine	Gen		The use of physicologic measures and triggers systems for the detection of ill patients is logical and supported by the literature and is practiced variably by different hospitals.	We reviewed the evidence on use of TTS in the ED and the view of the GDG was that it was appropriate to restrict TTS use to this subset of ED patients. It is not appropriate to submit all 'walking wounded' and minor illness attendees to routine physiological monitoring.
				My only comment from the Emergency Medicine perspective is that your document recommends the starting monitoring within the Emergency Department after the decision to admit the patient has been made. It would be a golden opportunity to insist that all opportunity to insist that all patients coming to the Emergency by ambulance for example have their physiological observations made on arrival and that a trigger system be in place. Indeed a number of departments have this as standard practice using MEWS.	
				There is some evidence (Nurs Stand. 2002 May 8- 14;16(34):33-7. Physiological observations of patients admitted from A&E. Alcock K, Clancy M, Crouch R.) of the poor recording of physiological observations within Emergency Departments and a document such as yours could be a means to set a standard. It would make sense that the same logic that indicates that monitoring is of use for in patients is extended to Emergency Department patients on their arrival.	
39	Commission for Social Care Inspection			This organisation has been approached but did not respond	n/a
40	Connecting for Health			This organisation has been approached but did not respond	n/a
41	ConvaTec			This organisation has been approached but did not respond	n/a
42	Cornwall & Isles of Scilly PCT			This organisation has been approached but did not respond	n/a
43.0	Department of Health	GL	1.4.1 First para: Definition of Levels of Care - Level 3	In our view, the definition as given for level 3 care in the penultimate paragraph is incorrect. The wording in the Guidelines reflect the original definitions given on 2000 but these have subsequently been amended. Would you please consider amending the definition to read:-	This has been addressed in the revised version.
				 Level 3 - patients needing monitoring and support for two or more organ systems <u>one</u> of which may be basic <u>or</u> advanced respiratory 	

support.

44	Doncaster & Bassetlaw Hospitals NHS Foundation Trust	Gen		This is the current Intensive Care Society authenticated version of the definition of Level 3 care. The ICS wording for the other levels are as set out in the Guidelines. Very well written document on the whole – I am sure	Thank you.
44.1	Doncaster & Bassetlaw Hospitals NHS Foundation Trust	GL	1.3.1	will be welcomed by clinical professionals Where there is mention of 'core competencies' for acute illness – clarification is required. Does this refer to a specific set of core competencies? – il so this should be made clear. If not it would be helpful for this to be articulated clearly and a comment made that local documentation of such competencies should take place.	A group of healthcare professionals, supported by the English Department of Health, are currently addressing core competencies for the acutely ill patient using the completed work from the ACUTE and Foundation Programme initiatives as a starting point. It is anticipated that this work will identify which competencies should be held by which staff. The final document will be ready for release as part of the set of implementation tools" in the Autumn
44.2	Doncaster & Bassetlaw Hospitals NHS Foundation Trust	GL	1.3.1	Where there is mention of 'critical care competencies' this should be clarified as per comments in the box above regarding acute illness.	Noted, we will include a link to the Department of Health website that defines critical care competencies.
44.3	Doncaster & Bassetlaw Hospitals NHS Foundation Trust	GL	1.3.1	Whilst I understand the position taken here in not advocating a particular service model of how responses to 'at risk' patients should be managed, some clarification is required. Recommendation 11 states that in the 'high' level response there should be 'an immediate response'. It does not state that a team should attend the patient. It could therefore be interpreted that an immediate response be over the telephone or that a patient is transferred to the team with the critical care skills. In Trusts where some hospital sites do not have professionals on site with critical care skills – could the immediate response be to initiate a transfer to another site where they are present? I do not think this would be satisfactory – and would probably put the patient at significant risk – if the professionals on site do not have critical care skills at bedside they will not have the skills to transfer such a patient. To avoid the scenario where patients are transferred to the team rather than the team coming to the patient in urgent need I think this phould be divided in the proceeded to be the scenario where patients are transferred to the team rather than the	This recommendation has been re-worded to reduce ambiguity.
45	Dudley Group of Hospitals NHS Trust			This organisation has been approached but did not respond	n/a
46	East and North Herts. NHS Trust			This organisation has been approached but did not respond	n/a
47.0	East Kent Hospitals NHS Trust	Gen		Much to welcome in the document and it gives useful and sensible guidance. Particularly useful is recommendation regarding observations and the need for robust education and training. Would suggest that where there is suboptimal ward staffing the management of sick patients is made much	Thank you.

more challenging.

47.1	East Kent Hospitals NHS Trust	GL	2.1.6.5	Surprised that urine measurement not included as a core parameter as it would seem highly likely that any patient demonstrating physiological abnormalities would have a catheter insitu or at the very least good fluid balance management. It is our experience that the development of pre renal failure is a significant risk in this group of patients. Also surprised MAP is not included as this is a welcome addition to the management of poorly	We have revised the review of the evidence and evidence to recommendations section 1.1.5 to make the basis for exclusion of urine output clear.
47.2	East Kent Hospitals NHS Trust	GL	2.2.3.1	patients especially those with sepsis. Strongly agree that staff working with acutely ill patients should have necessary competencies for caring for this group of patients. Must acknowledge that the reduction in acute hospitals beds has led to more sick patients being nursed within ward areas. The impact of this is that ward based teams both nursing and medicine requires further critical care training.	Thank you.
47.3	East Kent Hospitals NHS Trust	GL	2.2.3.8	Disappointed that no firm recommendations made for service delivery re response strategy. Appreciate lack of evidence for individual response services at present but evidence would suggest that a robust Trust response is required i.e. teaching, follow-up, response strategy; rehabilitation of critically ill patients is a package of care that would surely be best delivered by a team approach.	We provide a clear review and summary of the available evidence relating to the effectiveness and cost-effectiveness of response strategies (including CCOS). In the view of the GDG the evidence available leads to the conclusion that no specific service configuration can be recommended as a preferred response strategy for individuals identified as having a deteriorating clinical condition. It is outside the scope of this work to deal with rehabilitation post CCA discharge
47.4	East Kent Hospitals NHS Trust	GL	2.3.4	Regarding the needs of discharged ITU patients would like to see strategies for improved communication links between all members of the MDT who are involved with acutely ill patients. Poor communication appears to be the main trigger in many cases for poor care.	Noted. We would consider the guideline recommendations take account of this.
48	General Chiropractic Council			This organisation has been approached but did not respond	n/a
49	Gloucestershire Acute Trust			This organisation has been approached but did not respond	n/a
50	Good Hope Hospitals NHS Trust			This organisation has been approached but did not respond	n/a
51.0	Greater Manchester Critical Care Network	GL	1.2	The guidance is generally well accepted by colleagues within the Network as a pragmatic view on the best practices available to all medical practitioners on the recognition and response to patients with developing acute illness. The relevance of excellent communication between healthcare professionals cannot be over stated and indeed is seen within the Network as the area where care	Thank you.

will/does fail.

51.1	Greater Manchester Critical Care Network	GL	1.3.3	The Care pathway makes very clear the process for recognition and response and is welcomed within the ensultation	Thank you.
51.2	Greater Manchester Critical Care Network	GL	2.1.1	The Consultation. The Network supports the recommendation for the use of physiological "Track and Trigger" warning systems and the evidence used to support the recommendations.	Thank you.
51.3	Greater Manchester Critical Care Network	GL	2.1.3	It is recognised that the consultation is essentially for the measurement of non invasive physiological parameters, but we would welcome the inclusion of specific markers for patients with possible Severe Sepsis/ Septic shock eg the measurement and recording of Serum lactate.	Recommendation 6 (1.3.2.6) does mention the role of specific markers in specific clinical circumstances
51.4	Greater Manchester Critical Care Network	GL	2.1.3.2	There is a view that oxygen saturation, as a parameter, should not be included in the physiological track and trigger system. It is felt that the oxygen saturation parameter can often lead to false reassurances Patients still may have tissue hypoxia in the presence of an acceptable oxygen saturation recording and may have inadequate ventilation, again with an acceptable oxygen saturation recording if the patient is on oxygen. Oxygen saturation is also dependent on an adequate peripheral perfusion and is therefore considered much less reliable than the other physiological observations suggested for scoring systems	In the review of TTS we do address the question of what TTS should be used, including what physiological observations should be recorded. The GDG used the information in this review, including the evidence tables in the appendix, to make recommendations on what they considered to be minimum physiological observations that should be undertaken. We have revised the review of the evidence and evidence to recommendations section 1.1.5 to make the basis for inclusion of oxygen saturation and exclusion of urine output clear. In the evidence review we refer to the Cuthbertson 2007 paper and the Duckit 2007 (in press) which show the importance of O2 saturation, with a cut point of 95%, as an important early predictor of acute deterioration in both medical and surgical patients.
51.5	Greater Manchester Critical Care Network	GL	2.1.4.1	The use of track and trigger is well supported by the Network. Some concern exists on the minimum monitoring frequency of 12 hour and there is a belief that this should be at 8 hours.	Stakeholder comments were evenly spread between those supporting 12 hourly monitoring and those favouring more frequent monitoring. The recommendation 1.3.2.3 has been re-worded to state "physiological observations should be monitored at least every 12 hours". The recommendation also notes that on occasion it will not be necessary to use TT systems to monitor certain groups of patients (e.g., those in receipt of palliative care). It should be emphasised that at this point the patients being monitored have not been defined as "acutely ill".
51.6	Greater Manchester Critical Care Network	GL	2.1.5.4	The Network hospitals generally use a multi- parameter TT system and feel that this option is the best option for use in the acute hospital setting.	It is set out clearly in the evidence statements and evidence to recommendations section why a multiple/aggregate TTS should be recommended as opposed to a single parameter system (1.1.4). As noted, SPS - do not allow a patient's progress to be tracked - do not allow a graded response strategy. In addition, we received a range of SH comments on whether a single or multiple/aggregate weighting TTS should be recommended and the large majority were in

favour of multiple/aggregate WS.

51.7	Greater Manchester Critical Care Network	GL	2.1.6	Both recommendations are supported by the	Thank you.
51.8	Greater Manchester Critical Care Network	GL	2.2.3.1	The recommendation should apply to <u>all</u> staff who works in a hospital setting. The wording implies the competencies are only necessary for staff who works with acutely ill patients. Additionally, Education and training should be mandated to staff and not optional	We agree and have revised the recommendation accordingly
51.9	Greater Manchester Critical Care Network	GL	2.2.3.2	The recommendation must be expanded to be clear that the Nurse and other healthcare professional's clinical concern is as relevant a paramount as the TT score.	As worded the emphasis is that both are relevant.
51.10	Greater Manchester Critical Care Network	GL	2.2.3.4	The principle of graded response is commended. However when "High" is reached, the patient is not likely to be "at risk of acute illness" but in acute illness! The principle surely is to prevent an emergency call to the critical care team where the patient will in all likelihood be in a clinical crisis. The Network would welcome further comment/ redrafting to reduce the need for this kind of immediate response and it may be better to include this level in 2.2.3.5	Noted.
51.11	Greater Manchester Critical Care Network	GL	2.3.3.1	The principle is very much supported although may	Thank you.
51.12	Greater Manchester Critical Care Network	GL	2.3.4.1	The principles of correct discharge planning and continuity of care are commended. However, it is deemed that it will be very difficult for critical care units to have a "shared" care approach post discharge unless a formal outreach/follow up service is available that does not effect the operational running of the unit(manpower driven issues and clinical accountability)	We have changed from discharge to transfer.
				The word 'discharge' has undesirable connotations: it may often be assumed to mean the 'discharging of responsibility' (c.f. 'discharge from hospital', 'discharge from follow-up', etc. etc.). It is considered that 'transfer to a ward' is an improvement on this. However, ideally it should be re-conceptualised as a 'stepping down' of care from a higher level of care to a lower one. Where this 'step-down' involves a change in medical team and/or physical location, then the provisions for handover and planning in recommendation 17 should apply. Also recommendation 17 should include 'relatives' needs' besides psychological needs etc.	
52	Guys and St Thomas NHS Trust			This organisation has been approached but did not respond	n/a

53	Hampshire PCT			This organisation has been approached but did not	n/a
54	Health and Safety Executive			This organisation has been approached but did not	n/a
55	Health Commission Wales			This organisation has been approached but did not	n/a
56	Healthcare Commission			This organisation has been approached but did not	n/a
57	Heart of England Acute Trust			This organisation has been approached but did not	n/a
58	Heatherwood and Wexham Park Hospitals Trust	GL	2.1.3	This list does not include urinary output. On the other hand oxygen saturation is added. There might be evidence that such a list is better. Opinions might differ.	In the review of TTS we do address the question of what TTS should be used, including what physiological observations should be recorded. The GDG used the information in this review, including the evidence tables in the appendix, to make recommendations on what they considered to be minimum physiological observations that should be undertaken. We have revised the review of the evidence and evidence to recommendations section 1.1.5 to make the basis for inclusion of oxygen saturation and exclusion of urine output clear. In the evidence review we refer to the Cuthbertson 2007 paper and the Duckit 2007 (in press) which show the importance of O2 saturation, with a cut point of 95%, as an important early predictor of acute deterioration in both medical and surgical patients.
58.1	Heatherwood and Wexham Park Hospitals Trust	GL	2.1.6	Good idea to call these additional as they are not readily accessible	Thank you.
58.2	Heatherwood and Wexham Park Hospitals Trust	GL	2.2.3	'clinical emergency' <u>This should best be</u> referenced. Who will identify etc.	The GDG did not consider it was possible to offer a detailed definition of types of clinical emergency, although cadiac arrest is now mentioned, as this group should be managed differently than the "high risk" group.
58.3	Heatherwood and Wexham Park Hospitals Trust	GL	2.1.5.4	Sensitivity reduces and specificity increases as the number of abnormal variables increase. Is this correct? Is sensitivity indeed lower in multiple variable systems? How about Negative predictive value?	This is correct.
58.4	Heatherwood and Wexham Park Hospitals Trust		Table 1	Current evidence suggested that the system has low sensitivity, low PPV but high specificity. This could potentially cause increased triggers that are not related to an adverse event.	This is incorrect. A low sensitivity and high specificity means that when the system is triggered it is likely to be related to abnormal physiology.
59.0	Herts & Beds Critical Care Network	GL	Rec 1	Does it make sense? Would lower Sensibility not mean higher neg Predictive value The importance of adequate documentation is highlighted which is crucial in setting management plan for patients. Staff setting the "right" monitoring plan is dependent on their own ability to identify those patients whom are at risk and clarify what	Noted. We have addressed this by changing the recommendation to require a "clear written monitoring plan"

59.1	Herts & Beds Critical Care Network	GL	Rec 3	measures are then required to ensure that these patients are adequately assessed and monitored. Medics and nursing staff do not routinely receive this type of training as is not provided by Trusts, and although our critical care network provides and promotes these skills/education are not resourced to impact this deficit at the level required. Across the network we have observed adequate documentation of physiological observations, however with no actions initiated as staff did not have the necessary competencies to identify and diagnose the critical condition of the patient. Until these skills are evident in ward nurses and medics at the extent required, surly within Acute trusts it is prudent to access and utilise these staff which already have these skills in ensuring the safety of this group of patients who are so clearly at risk. <i>"Physiological Track and Trigger systems should be used to monitor all adult patients"</i> It is known that deterioration of physiological parameters identify patients at risk of clinical deterioration. The purpose of such a system is to reliably identify those at risk so that a response strategy may be initiated. The system is useless unless there is a specific person or team to be notified of the deterioration. We have strong evidence that response on a local ward basis does not work – even though the deterioration may be detected. Often no action is initiated or it is ineffective.	We agree. Recommendation 1.3.2.10 outlines the response strategy.
59.2	Herts & Beds Critical Care Network	GL	Rec 11	Appropriate structure must be in place to support this. This recommendation describes a graded-response strategy (3 grades of low – medium – high). The high response requires an <i>"emergency call to a team with critical care competencies and diagnostic skills"</i> . There should be an <i>"immediate response"</i> . The ward nursing and medical teams do not have these skills. The response required will only be guaranteed by a dedicated team whom have the skills and are able also to maintain this competence, to ensure the safe retrieval and/or start of the necessary therapies.	Noted.
59.3	Herts & Beds Critical Care Network	GL	Rec 15	"No specific service configuration can be recommended as a preferred response strategy for individuals identified as having a deteriorating clinical condition" – i.e. we have to tailor our system to our own patient mix/skill mix situation. It is clear that this framework leaves the door wide open for patients to fall through the net as are not supported	We provide a clear review and summary of the available evidence relating to the effectiveness and cost-effectiveness of response strategies (including CCOS). In the view of the GDG the evidence available leads to the conclusion that no specific service configuration can be recommended as a preferred response strategy for individuals identified as having a

				by the staffing structures currently in place in wards. Until acute trusts have the skill mix to offer this level of care patient safety will continue to be an issue. Not to mention the costs, financial and otherwise of cardiac arrest responses, avoidable patient deterioration and admission to ICU's and ultimately death of patients.	deteriorating clinical condition.
59.4	Herts & Beds Critical Care Network	GL	Rec 16	Although this is a reasonable recommendation to promote the safety of patients being discharged from critical care areas; as is widely understood the reasons why this type of discharge contains inherent dangers. Until the wider issue of inadequate critical care capacity is address, over health economies, it will feature as an event on some patient's pathways, as critical care teams manage all available resources to care for patients within the whole of a Trust. As commissioning pressures grow, to impact and reduce the transfer of the critically ill out to other hospitals, patients who are "wardable" will evidently be moved to accommodate new admissions who may also be too unstable to transfer out.	We have reworded this recommendation (1.3.2.14) to ensure that it refers to fact decision to transfer has been made and that night transfer "should be avoided whenever possible, and should be documented as an adverse incident if it occurs"
59.5	Herts & Beds Critical Care Network	GL	Rec 17	Excellent recommendation to highlight to receiving specialist teams on the wards main issues and therapies that need to be maintained to prevent readmission to ICU/patient deteriorations. This type of working would be further supported by the recommendations to include statement of the TOR and work streams for CCDG's meeting within Trust's and the necessary but unattainable attendance of medical representation from important specialities like medicine and surgery.	Thank you.
59.6	Herts & Beds Critical Care Network	GL	Rec 19	"Staff working with acutely ill patients on general wards should be provided with education and training to recognise and understand the physical, psychological and emotional needs of patients on discharge from critical care areas". An outreach/PAR team is a vital link in ensuring safe, high quality transfers out from any Critical Care area. Most Trusts are not able to provide adequate training of ward staff to achieve these ends necessary. The PAR team would vastly improve transfers and educate ward staff by working with them. Instigating these teams now would support the long term education of ward staff to ensure that staff will have the skills and knowledge to care for the acutely ill.	We provide a clear review and summary of the available evidence relating to the effectiveness and cost-effectiveness of response strategies (including CCOS). In the view of the GDG the evidence available leads to the conclusion that no specific service configuration can be recommended as a preferred response strategy for individuals being transferred from CCAs to ward level care.
60	Home Office			This organisation has been approached but did not respond	n/a

61	Huntleigh Healthcare			This organisation has been approached but did not respond	n/a
62.0	ICUsteps	GL	1.3.2	Recommendation 3: We understand that 12 hourly is an absolute minimum for observations but are concerned some trusts may interpret the guideline as a green light to reduce the frequency of obs to this level	Noted. This issue is outside the scope of the guideline.
62.1	ICUsteps	GL	1.3.2	Recommendation 8: Should be offered is not strong enough. We understand this cannot be mandatory, this at least 'MUST be offered'	We have reworded to "should be provided", which is consistent with NICE style guidance.
62.2	ICUsteps	GL	1.3.2	Recommendation10. Does the phrase 'informed by patient case mix' mean that in busier hospitals patients will have to be more sick to trigger? This would be unacceptable.	We have reworded this recommendation to make it clear that the threshold set at local level should optimise sensitivity and specificity.
62.3	ICUsteps	GL	1.3.2	Recommendation 16. When patients are discharged between 22:00 and 7:00 is this logged and reported and are additional steps taken to ensure the patient receives the necessary additional attention on the ward?	We have reworded this recommendation to make it clear that such an event should be logged as an adverse incident.
62.4	ICUsteps	GL	1.3.2	Recommendation 17: What procedures are going to be implemented to ensure that the agreed treatment plan is acted upon and followed through?	This will be taken up by those implementing the guideline, including the NICE implementation team.
62.5	ICUsteps	GL	1.3.2	Recommendation 17. If possible the patient should be Involved in the handover process to give confidence that they are being transferred to the ward in a controlled manner from one team to another and be reassured that the receiving team has been fully briefed on their treatment history and ongoing requirements.	This is covered in this and the accompanying recommendation.
62.6	ICUsteps	GL	1.3.3	It is not appropriate for the monitoring level of a patient just returned to the ward from a critical care area to be the same as that of a patient showing no physiological abnormalities. Patients returning to the ward from critical care should be, by default, monitored more frequently until the staff can be confident that their condition is improving at which time the monitoring frequency could be reduced	This is made clear in the care pathway
63	Institute of biomedical Science			This organisation has been approached but did not	n/a
64	Intensive Care National Audit & Research Centre (ICNARC)			This organisation has been approached but did not	n/a
65	James Whale Fund for Kidney Cancer			This organisation has been approached but did not	n/a
66	Kent & Sussex Hospital			This organisation has been approached but did not	n/a
67.0	Kent & Medway Critical Care Network	GL	2.1.3.2/3 Rec 2 & 3	The recommendations around physiological surveillance are welcome. Concerns have been expressed around specifying a minimum 12 hourly standard for all patients in acute settings – this is thought to be too sensitive. The evidence regarding frequency of observation and	Noted. We have revised recommendation 3 (1.3.2.3) to make it clear when TT systems may not be necessary.

also the sensitivity of vital signs is equivocal.

While observations can benefit patients, patients also need rest, and over-observation can both be detrimental to this aspect of care, and consume nurses' time. There is a particular concern about the suggestion of 12hrly observations being the minimum frequency. Rituals of observation times may need to change and some patients in acute hospitals still do not need observations that frequently.

Consideration needs to be made with regard to the balance of facilitating sleep and monitoring vital signs. It is a belief of some of those commenting that generally the most important task of night nursing is to facilitate patients' sleep. The whole set of issues surrounding sensory balance, stress responses etc that if upset can cause not only psychological distress, but all the detrimental effects of psychosis and stress responses. Many studies have shown that both short and long-term survival is markedly reduced following delirium etc.

There is the question of what to observe. The documents has a suggested list which, although by-and-large reasonable, has a few aspects which could be problematic. In particular, thinking especially of patients in shock, measuring the systolic blood pressure will not always indicate problems. If patients have very wide pulse pressures, severe shock might merely reduce their systolic BP to "normal" parameters. MAP needs to be included, but a less ideal compromise could be diastolic BP. MAP is easily

recorded from electronic vital sign devices. Temperature - core or oral equivalent should be stated.

The importance of accurate fluid balance recordings and in particular urine output as overall assessment of acutely unwell patients was thought to be an important parameter not cited for a chosen scoring system. There are pros and cons whether to measure as ml/kg or by absolute volumes. The former individualises to the patient, but the latter is easier for staff, and so more likely to be monitored

accurately (or just monitored, period).

Lactate measurements - a welcome suggestion. It is very worrying however that some ABG analysers do not measure this.

It was not seen in the document, but it is a rumour that it is likely potentially very large regions will have to share one track and trigger system. This may result in at best that a system will not be best suited to individual needs of individual hospitals, and at worst a suboptimal system will be imposed by whichever group manages the best PR job, or shouts the loudest.

67.1 Kent & Medway Critical Care Network

2.2.3 Rec 8

GL

There is a general feeling that the main factor responsible for suboptimal care is that there are insufficient staff, and especially insufficient qualified staff, who are constantly exposed to excessive workloads, and who as a consequence are too often demotivated or/and burnt-out

It was disappointing that there was very little analysis on the staffing levels on the wards with qualified nurses and its effects on outcome. Raffertys et al (2007) study in the credible International Journal of Nursing Studies found that if wards were appropriately staffed patients deterioration will be detected early and death may be avoided. This is common sense but is backed up by research This was a UK study where a lot of previous research was US. The meta analysis by Numata et (2006) contained a number of US/Aussie studies and its focus was looking directly at critical care settings and not on wards. It would be good if NICE could be more specific in its recommendations state explicitly that staffing levels need to be appropriate and perhaps recommend a credible staffing skill mix model to determine the minimal number of qualified nurses for the particular ward.

The document refers to education as important but this needs to be more specific. For example, preregistration nurses need to have educational programmes with learning outcomes that address recognising sick patients, managing unwell patients on the ward and relating altered physiology to observations. This was recommended by the DH in the nursing contribution to Comprehensive Critical Care but there are still lots of Universities that have not adequately addressed this. Pre-reg nurses who have HDU education have greater confidence with We welcome this point would recognise that staffing levels are a key variable. However, it is outside the scope of this guideline to review the evidence and make recommendations on ward staffing levels.

				managing sick patients. What about post registration education? ALERT courses (or equivalent) and ward based high dependency courses they all need to be precisely mentioned as in today's current NHS deficits, these courses are being scrapped or not given priority and the document needs to have more specifics regarding what education for both pre & post reg. Generally there is much to welcome in this document, and it gives much useful and sensible guidance. There is a strong welcome identifying need for education.	
67.2	Kent & Medway Critical Care Network	GL	2.3.3	No discharge of patients between 22.00 and 07.00. Ideally, this is wise, but in the real world of lack of beds, including in ICUs, discharges between these times are sometimes necessary. If this is prevented, and bed capacity is not increased, the inevitable result will be people who need ICU dying because a wardable patient is not allowed to be discharged from ICU. Sadly there may be a perverse incentive for wards to refuse a transfer on grounds of time by delaying the process.	We have reworded this recommendation (1.3.2.14) to ensure that it refers to fact decision to transfer has been made and that night transfer "should be avoided whenever possible, and should be documented as an adverse incident if it occurs"
				The document does not take into account the role of outreach for these patients, where services are also out of hours. Neither does it take into account the positive impact Hospital at Night has had on patient safety. However, in general, the consensus is that this is a good recommendation, albeit requiring a flexible approach to ensure it really benefits patients.	
67.3	Kent & Medway Critical Care Network	Gen		Some people commenting were disappointed with this "fast track" guidance, expecting more meat behind it. It was not felt to be particularly dynamic with some of the recommendations.	Noted.
				This provides a good meta- analysis of outreach, track & trigger systems etc. and shows us again that outreach evidence is equivocal in the research (even though people feel it makes a big difference).	
				The fact that the NICE technical guidance uses RCTs as the gold standard for evaluating evidence can limit valuable evidence generated by different, yet perhaps more appropriate methodologies as being less valuable. The real problem here is that many methodologies accepted for this guidance and in the main so far used as evidence, do not truly	

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			occur in the clinical setting and affect decision- making, and subsequent outcomes for patients.	
			There are concerns about the wording that there is no evidence that Critical Care Outreach is cost-effective. Of course, in absolute terms this is true, but as this document will be read by administrators seeking to trim hospital services further, this wording is begging to be misinterpreted as "Critical Care Outreach is not cost- effective" and so should be scrapped. There was a disappointment that there were no real statements of analysis that outreach is difficult to measure and that outreach teams enhance care via other methods even if its not necessarily related to patient survival.	
			Recruiting outreach teams from ICU or A&E teams makes ideal recruiting grounds, but depending how this is interpreted. We know of some excellent Outreach staff whose clinical backgrounds are from other areas. Some Trusts include physios on Outreach - would this exclude them?	
			It was also felt that there needs to be more acknowledgement that more patients will be managed in the community so the patient acuity will increase again on the wards and this needs to be addressed with staffing and education to reflect this.	
Lancashire Teaching Hospitals Acute Trust	Gen		Document very repetitive	The final version will be the subject of professional editing. There will be a Quick Reference Guide.
Lancashire Teaching Hospitals Acute Trust	GL	2.1.3 Rec 2 or 7	Should a reference be made to monitoring a pain score as well as the other vital signs parameters?	The GDG agrees and this has been added to recommendation 6 (1.3.2.6)
Lancashire Teaching Hospitals Acute Trust	GL	2.1.6 Rec 2 or 7	Should a reference be made to monitoring a pain score as well as the other vital signs parameters?	Pain score has been added to recommendation 6 (1.3.2.6)
Lancashire Teaching Hospitals Acute Trust	GL	2.1.7 Rec 7	There is no mention of fluid balance monitoring (input as well as output - fluid loss other that just urine output should always be monitored in a patient at risk of deterioration)	We have revised the review of the evidence and evidence to recommendations section 1.1.5 to make the basis for inclusion of oxygen saturation and exclusion of urine output clear. We refer to the Cuthbertson 2007 paper which shows the importance of O2 saturation as an important early predictor of need for ITU admission in HDU surgical patients. Fluid

reflect the dynamic and complex processes that

balance is not a TTS parameter.

68.4	Lancashire Teaching Hospitals Acute Trust	GL	1.3.3	Page 14 - care pathway flow diagram - If patient not a candidate for Critical Care then what? Perhaps an arm to include other route of care - ccu/ DNAR/ end of life pathway/ re-refer if no improvement after completion of management plan - needs to be Time Driven	This has been addressed both in the care pathway and the revision to recommendation 1.3.2.3
68.5	Lancashire Teaching Hospitals Acute Trust	GL	2.2.3 Rec 11	The document is specific with regard to mentioning that vital signs should be carried out 12 hrly (recommendation 3) and the document is specific that a patient identified at risk should get a 'response' depending upon level of risk but at no stage does the document stipulate that the response should always include a thorough assessment of the patient (using ABCDE approach for example). The	The recommendations as worded do not preclude an assessment of the patient as is appropriate to the specific clinical circumstance. The important point is that the nurse in charge will use her/his clinical judgement and decide upon what assessment is appropriate.
68.6	Lancashire Teaching Hospitals Acute Trust	Gen		recommended response to a patient at low risk of deterioration or with a low trigger is simply to increase frequency of observations. Ideally an ABCDE assessment should be carried out to determine the cause of the trigger or risk and action should be taken accordingly. It should be strongly recommended that any response or call for more senior review or management plan is time driven. Calling for senior help is great - but falls down a bit if they don't come to the bedside for 5 or 6 hours or more! This is possibly less of a problem in Trusts with a robust	We would anticipate that local protocols developed from this guidance would address this issue.
69	Leeds Teaching Hospitals NHS Trust			Critical Care Outreach service. Any action plan associated with a track and trigger tool should be time driven. This organisation has been approached but did not	n/a
70	Leukaemia CARE			respond This organisation has been approached but did not	n/a
71	Liverpool John Moores University			respond This organisation has been approached but did not	n/a
72	Liverpool Women's NHS Trust			respond This organisation has been approached but did not	n/a
73	London Clinic, The			This organisation has been approached but did not	n/a
74	London Development Centre for Mental Health			This organisation has been approached but did not	n/a
75	London Network of Nurses & Midwives Critical Care Group			This organisation has been approached but did not	n/a
76	Lundbeck Ltd			This organisation has been approached but did not	n/a
77.0	Luton and Dunstable Hospital NHS Trust	GL	Rec 14	In our hospital, the ITU consultant is always involved in the decision to admit ANY patient to ITU. Out of hours, the surgical and medical consultants are often unaware that a patient is even being	Noted.
77.1	Luton and Dunstable Hospital NHS Trust	GL	Rec 16	It is totally impractical to say that there should be no discharges from ITU between 22.00 and 07.00.	Noted. We have reworded this recommendation (1.3.2.14) to ensure that it refers to fact decision to

				While we all recognise that this would be a statement of the ideal, but living in the real world such a statement raises unrealistic expectations on the part of the patients, and adds further restriction to the clinicians decision-making options when faced with a difficult situation because of limited resources. Such a statement may be feasible to operate in the USA, where critical care bed provision far exceeds that in the UK, but here, such guidance would be seen by many as unwelcome. There needs to be recognition in this recommendation that final decisions need to be made at a local level in the light of prevailing conditions.	transfer has been made and that night transfer "should be avoided whenever possible, and should be documented as an adverse incident if it occurs"
77.2	Luton and Dunstable Hospital NHS Trust	GL	Rec 18	On ITU we are often faced with relatives who demand a particular course of action or treatment for their relative. This recommendation suggests they have a legal right to be involved in medical decision- making. This recommendation needs further clarification. My belief is that they have the right to be informed of decisions, but for adult patients, relatives do not have the legal right to be part of the decision-making process with the exception of organ donation after death, when the body legally becomes their property. The recommendation, as it is currently written, suggests that patients relatives have the right to be actively involved in decisions about care of their relatives. When agreement can be reached, this is fine, but in cases of dispute, I believe we need clearer guidance about what decisions we MUST have relatives agreement for, and what decisions it is desirable, but not essential for. Consider the situation of a brain-dead patient, where relatives demand ventilation is continued, but medically it cannot be in the patients best interests.	Noted. We would ask the PPIP to consider whether these issues require it to revise the general section of principles of care (1.2) section.
77.3	Luton and Dunstable Hospital NHS Trust	Gen		A very long document for a Short Guideline. Need a crisp summary for dissemination. I believe most	There will be a Quick Reference Guide.
77.4	Luton and Dunstable Hospital NHS Trust	GL 2	2.1.3	Recommendation that staff have training in physiological recording and act upon them is right. Need to offer training courses, protected time and funding has to be guaranteed. This document should insist that trusts	It is outside the remit of this work to do this.
				Offer this, funding for training was lost last year and no one is assured off funding for this year. It must be compulsory that trusts offer appropriate courses, fund them, allow staff off of wards and duties and replace them if necessary. If this is not made compulsory it will not go ahead.	

77.5	Luton and Dunstable Hospital NHS Trust	GL	2.1.4	Except patients in end of life situations who do not need any observations so there is no minimum frequency for them, will need to add this in or staff may feel compelled to do obs on the dying patient 12 hourly	We have revised recommendation 3 (1.3.2.3) to address this point
77.6	Luton and Dunstable Hospital NHS Trust	GL	2.2.3	'education and training should be offered' using the word offered may indicate there is a choice, surely we need this training to be made compulsory.	That is not possible, but we have strengthened recommendation to state "should be provided" as opposed to "offered"
77.7	Luton and Dunstable Hospital NHS Trust	GL	2.2.3 Rec 11	Graded responses are good but leaves too much for individual trusts to decide who is going to be the respondent. Had hoped that this document might be more prescriptive about the best model of CCOS. So many variations nationally on the models of CCOS it is disappointing not to have the ideal CCOS outlined as a gold standard to aim for. I am not sure who is going to provide the high level response. Trusts need to audit their response rate and be charged with meeting the immediate target and improving if it is a delayed response.	We provide a clear review and summary of the available evidence relating to the effectiveness and cost-effectiveness of response strategies (including CCOS). In the view of the GDG the evidence available leads to the conclusion that no specific service configuration can be recommended as a preferred response strategy for individuals identified as having a deteriorating clinical condition.
77.8	Luton and Dunstable Hospital NHS Trust	GL	2.2.3 Rec 13	Should specify that these are delivered in a timely manner or put a time factor in, eg. High and medium group should receive Within 30 mins.	It is not possible to specify a specific response time. This should be set at local level when the guideline is implemented.
77.9	Luton and Dunstable Hospital NHS Trust	GL	2.3.3 Rec 16	This is agreed as best practice and is in many operational policies and yet does not occur. Because trust bed management is fraught trying to meet emergency care targets and surgical targets often the CC transfer is the last to be offered a bed. Maybe a discharge from CC should be given a target to ensure the bed is found before the late cut off time	We have reworded this recommendation (1.3.2.14) to ensure that it refers to fact decision to transfer has been made and that night transfer "should be avoided whenever possible, and should be documented as an adverse incident if it occurs"
77.10	Luton and Dunstable Hospital NHS Trust	GL	2.3.4 Rec 17	'Ensure the receiving ward with support from CC can deliver the plan' as a patient is discharged from CC there is another waiting for the bed CC staff should be able to support wards however often find themselves committed to another patient as soon as 1 is discharged. This is why CCOS are needed through the 24 hours period to ensure the CC support is available. Ward staffing also needs to be correct and the competencies of the ward staff must be maintained. Should you be recommending that post CC patients are discharged to the same areas rather than scattered wherever the bed may be. If a ward does not take a post CC patient for some months their competencies will not be up to date. Need to make recommendations to address this issue. Any trust without an CCOS will not be able to support the wards unless establishments are	Noted.

increased to allow them to do this.

the detail of that escalation to express their consent

77.11	Luton and Dunstable Hospital NHS Trust	GL	1.3.3	Great Pathway. Some staff may find it difficult to determine the difference between low and medium	Use of a TTS is recommended
78	Manchester Children's Hospital Trust			This organisation has been approached but did not respond	n/a
79.0	Manchester Royal Infirmary	GL	2.2.3	I am looking forward to the competencies paper and think that will strengthen this document. It will assist in defining the practitioners required for caring for this patient group; although the implications both personnel and training, could be interesting.	Thank you.
79.1	Manchester Royal Infirmary	GL	2.3.4	The formal handover of care to the wards is perhaps a little vague should it not include; moving and handling concerns including, waterlow scores, type of beds, transferring methods etc. Also tissue viability issues should be addressed. I see these could be within "physical needs" but with such a broad catch all, these areas perhaps would be missed.	It is covered within physical needs. These could be developed in local protocols derived from this national guidance.
79.2	Manchester Royal Infirmary	Gen		The document is interesting and useful. It will help guide forward our service and standardize the outreach services that have been developing in varying ways within different trusts. There are challenges to overcome but these are what we enjoy! I hope there is more development within the post critical care, follow up aspect of this patient	Thank you.
80	Meat & Livestock Commission			This organisation has been approached but did not respond	n/a
81	Medicines and Healthcare Products Regulatory Agency (MHRA)			This organisation has been approached but did not respond	n/a
82	Medway NHS Trust			This organisation has been approached but did not respond	n/a
83	Mental Health Act Commission			This organisation has been approached but did not respond	n/a
84	Mid Staffordshire General Hospitals NHS Trust			This organisation has been approached but did not respond	n/a
85.0	National Outreach Forum	GL	General and 1.2	As well as mentioning the Mental Capacity Act should there be some reference to the end of life work (<u>www.endoflifecare.nhs.uk</u>) as part of the patient centred care section. This forms the platform for opportunities to be involved in decisions about care.	Noted. We would ask the PPIP to consider whether these issues require it to revise the general section of principles of care (1.2) section. The issue of not escalating monitoring/treatment has been addressed both in the care pathway and the revision to recommendation 1.3.2.3
				There are certain specific points of progression through the patient's pathway which lead to a significant escalation in invasive intervention(s), with accompanying morbidity and mortality risk. The patient in question together with their family and carers should where practicable, be made aware of	

or otherwise.

				DNAR status should be established early on in the process of track and trigger with threshold response, in order to avoid inappropriate escalation in invasive interventions.	
85.1	National Outreach Forum	GL	1.3.1	Second bullet point "staff specifically trained" I assume that this recommendation is not meant to exclude health care assistants. Their positive contribution and capability in relation to completing and responding to physiological observations has been well demonstrated in several hospitals. Clearly whilst appropriate education and training are mandatory, HCA's represent a human resource to be developed rather than bypassed.	It is anticipated that this work will identify which competencies should be held by which staff. The final document will be ready for release as part of the set of implementation tools" in the Autumn.
85.2	National Outreach Forum	GL	1.3.2	Recommendation 3 – first bullet point "the minimum monitoring frequency" Acute medical and surgical wards often have terminally ill patients receiving "tender loving care" and "comfort measures". A specific escape clause may be required as part of the routine policy and procedure for physiological monitoring and response, in order to preserve dignity and respect for this particular group of patients and clarify without ambiguity the position for first line medical and nursing staff.	This has been addressed both in the care pathway and the revision to recommendation 1.3.2.3
85.3	National Outreach Forum	GL	1.3.2 Rec 8	"appropriate to the level of care they are providing" I presume that the level of care is referring to levels of care as defined in Comprehensive Critical Care i.e. 0, 1, 2, 3. In other words we don't expect critical care nursing competencies from general ward nurses in terms of monitoring, measurement, interpretation and prompt response. We do however, expect a clear understanding of the significance of basic physiological observations and of the theory and practice of track and trigger application with appropriate response	That is correct.
85.4	National Outreach Forum	GL	1.3.2 Rec 11	Second bullet point "specialist trainee in an acute medical or surgical speciality" How exactly does this individual differ from a member of the "team with primary responsibility for the patient?" I've never come across this particular designation of trainee before. This individual must not be mistakenly interpreted as the "duty critical care trainee". Whilst such critical care doctors are appropriate referral points for patients in the high response group they would be inappropriately swamped with work if all those in the medium response group were also referred to them.	This recommendation has been re-worded to reduce ambiguity.

85.5	National Outreach Forum	GL	1.3.2 Rec 9 Page 11	There are a number of specific conditions known to carry a particular risk of acute deterioration (e.g. acute pancreatitis). Initial presentation with largely normal physiological signs may be misleading. I presume such conditions would contribute to the "clinical concern" group. There may be a place for specifically delineating such specific conditions, especially if we don't include urine flow as part of the basic track and triager observations.	This was discussed by the GDG and it was considered it was not appropriate to specify specific conditions at risk of clinical deterioration.
85.6	National Outreach Forum	GL	1.3.2 Rec 12 page 11	Whilst the "clinical emergency" comment seems an intuitively appropriate descriptive it is not accompanied by any definition as such.	The GDG did not consider it was possible to offer a detailed definition of types of clinical emergency, although cadiac arrest is now mentioned, as this group should be managed differently than the "high risk"
				It is vital to clarify that track and trigger with graded response, according to the degree of physiological disorder or clinical concern, is not meant to replace the established cardiac arrest team in circumstances of sudden cardio-respiratory collapse.	group.
85.7	National Outreach Forum	GL	1.3.3	 Care Pathway – 1. 2nd box where observations are recorded should mention end of life decision in monitoring plan 2. "High" should also include the primary responders so that they remain with the "high" response team to learn further patient management skills 	This has been addressed in revised recommendation 3 (1.3.2.3)
85.8	National Outreach Forum	GL	1.4.1	Mentions DOH level of care that is based in individuals needs regardless of location and mentions costs related further on in the document. However these costs are not addressed in the CCMDS unless the 1996 definitions of HDU are met. It seems inappropriate that resources in terms of staff are increased yet there is no revenue to fund this activity	Noted.
85.9	National Outreach Forum	GL	General and 2.1.3.1	 Not all adult patients should have physiological observations performed. Should there be some reference to this exception early in the guidelines? This could then be applied to the whole document i.e. those on LCP care of the dying pathway – they will be managed through symptom control and stopping observations. A clear monitoring plan – the guideline should establish who is responsible for forming this plan – should it be the Nurse in Charge of the Ward/Matron in consultation with the patient's physician/surgeon? If responsibility is not stated then it will be the responsibility of no-one. Recommendation 8 – the terminology used in the competency document supporting the Clinical Guideline should be the same i.e. instead of "monitoring, measurement, interpretation and prompt response" the terms recording, recognition 	1. We have reworded the recommendation to take account of those in receipt of palliative care (1.3.2.3) 2. Local protocol should specify this, not the guideline. 3. Noted.

and response should be used.

85.10	National Outreach Forum	GL	2.1.3 Rec 1 point 2	Need to elaborate on what is meant by specifically trained staff. Some HCWs undertake observations but their training is not standardised locally or nationally. Key competencies and assessments must be developed and made explicit. There should be a national minimum standard for training and assessment of staff recording observations which include communication.	Noted. This is outside the remit of this work.
85.11	National Outreach Forum	GL	2.1.3 Rec 1 point 3	Clear monitoring plan – who should devise the clear monitoring plan – need explicit guidance. A lot of registered nurses feel it is not their responsibility but they should drive/lead the development of this plan and negotiate with medical teams.	Noted. This is outside the remit of this work.
85.12	National Outreach Forum	GL	2.1.3.2 Rec 2	 Routine monitoring Reference should be made to oxygen saturations + or - % oxygen delivered. Sometimes the patient is not triggering because saturations are 98% but they are on an Fi02 >.6 which would mean that they were triggering a need for level 2 care based on CCMDS criteria. Heart rate – terminology encourages staff to record the heart rate using electronic means. We would suggest "pulse" as this would encourage the manual assessment for the pulse in terms of rate, volume and regularity. 	The GDG discussed this issue considered that the term "oxygen saturation" and "heart rate" was drawn from the reviewed studies and should be retained. It is interesting to know that oxygen saturation, with a cut point of 96%, is an early predictor of acute deterioration independent of inspired oxygen concentration. This statement is backed by evidence from Cuthbertson et al 2007 and Duckitt 2007 (in press) which are included in the evidence review and evidence tables for this work.
85.13	National Outreach Forum	GL	2.1.3.2	Need to perhaps mention that these are the MINIMUM standard and that where patients have pain or any PCA/epidural in progress there is an expectation that this will be monitored accurately as well. There are a large number of patients who require critical care because their pain management has been inadequate and they succumb to pneumonia	This has been amended, thank you.
85.14	National Outreach Forum	GL	2.1.4.1 Rec 3	"track and trigger used to monitor all adult patients including patient in the emergency department for whom a clinical decision to admit has been made." Shouldn't they be used to monitor everybody – if a decision not to admit has been made but the patient was triggering, the doctor should then have to provide a reason for not admitting. This may also stop inappropriate decisions not to admit patients.	We reviewed the evidence on use of TTS in the ED and the view of the Emergency Medicine Specialist on the GDG and it was considered that it was appropriate to restrict TTS use to this subset of ED patients. It is not appropriate to submit all 'walking wounded' and minor illness attendees to routine physiological monitoring.
85.15	National Outreach Forum	GL	2.1.4.1 Rec 3	The minimum requirement of physiological observations being performed every 12 hours for all patients in acute hospital settings. How will this sit with patients who are not on the Liverpool Care Pathway but are not for active intervention as a result of a cancer diagnosis where this level of observation is neither necessary nor of value to the	We have revised recommendation 3 (1.3.2.3) to address this point

				patient? This needs to be clarified within the document otherwise it can be interpreted that the guidance is advocating such intervention for all patients regardless of underlying issues if they are being cared for in an acute setting. The practice of performing physiological observations once every 24 hours is the current practice for this patient group. The question of the observations being discontinued when a patient is formally on the Liverpool Care Pathway needs to be acknowledged within the body of the text within recommendation 3, as many patients in this category are being cared for in acute hospital settings. Lack of clarity around this issue will potentially cause conflict for patients/relatives and staff if different guidance gives conflicting advice.	
85.16	National Outreach Forum	GL	2.1.4.1 Rec 3	Do we really mean all in patients – the maternity unit are insistent on promoting the well woman approach and do not want to medicalise maternity care. Obviously circumstances will dictate the need for observation recordings but perhaps there should be some potential exclusions highlighted.	We note that there was no consensus from SH comments about whether maternity patients should be included or excluded. The view of the GDG is that they should be included in the guideline and fall within the definition of "adult patients in acute hospital settings"
85.17	National Outreach Forum	GL	2.1.6.1 Rec 6	Scoring systems using temperature are too sensitive. If the pyrexia is such that the patient is tachycardic they will trigger on the heart rate. The same is true if the patient is hypothermic and bradycardic. Thus heart rate and blood pressure provide both sensitivity and specificity. The oxygen saturation parameter can lead to false reassurances – patients still may have tissue hypoxia in the presence of an acceptable oxygen saturation recording and may have inadequate ventilation with an acceptable oxygen saturation if the patient is on oxygen. Oxygen saturation should not be included in the physiological track and trigger system.	We have revised the review of the evidence and evidence to recommendations section 1.1.5 to make the basis for inclusion of oxygen saturation and exclusion of urine output clear. In the evidence review we refer to the Cuthbertson 2007 paper and the Duckit 2007 (in press) which show the importance of O2 saturation, with a cut point of 95%, as an important early predictor of acute deterioration in both medical and surgical patients.
85.18	National Outreach Forum	GL	2.1.6.2 Rec 7	Examples should be given of such conditions e.g. suspected sepsis.	The GDG considered it was not appropriate to give a list of specific clinical circumstances.
85.19	National Outreach Forum	GL	2.1.6.2 Rec 7	Strict fluid balance monitoring should be mandated for all acutely unwell patients who are at risk – this is not explicit in the recommendation for hourly urine output. The rationale for non inclusion in an aggregated points scoring system is clear but it seems to be an optional extra rather than a recommendation.	We have revised the review of the evidence and evidence to recommendations section 1.1.5 to make the basis for inclusion of oxygen saturation and exclusion of urine output clear. We refer to the Cuthbertson 2007 paper which shows the importance of O2 saturation as an important early predictor of need for ITU admission in HDU surgical patients. Fluid balance is not a TTS parameter.
85.20	National Outreach Forum	GL	2.2.3.1 Rec 8	Explicit national standard competencies should be developed for all grades of multi professional team who are involved in the recording and interpretation of observations and the necessary skills/knowledge	A group of healthcare professionals, supported by the English Department of Health, are currently addressing core competencies for the acutely ill patient using the completed work from the ACUTE and Foundation

				to manage acutely unwell patients. FY1 and FY2 competencies are a good example of this that can be replicated for other staff groups.	Programme initiatives as a starting point. It is anticipated that this work will identify which competencies should be held by which staff. The final document will be ready for release as part of the set of implementation tools" in the Autumn. Implementation of training programmes to deliver the workforce's competencies are out with the scope of this document.
85.21	National Outreach Forum	GL	2.2.3.4 Rec 11	"High" response – medical practitioner with a minimum of intermediate-level competencies. Can a supply of these practitioners be guaranteed outside the ITU? Those with the ITU are required in the ITU and cannot be responsible for the whole hospital.	This has been revised. It now reads: "The team should include a medical practitioner skilled in the assessment of the critically ill patient and who possesses advanced airways management and resuscitation skills."
85.22	National Outreach Forum	GL	2.2.3.4 Rec 11	The expectation that all hospitals will be able to provide immediate access to critical care trained medical practitioners is unrealistic within current staffing levels, medical rotas and resources.	This has been revised to allow a definition. It now reads: "The team should include a medical practitioner skilled in the assessment of the critically ill patient and who possesses advanced airways management and resuscitation skills."
85.23	National Outreach Forum	GL	2.2.3.4 Rec 11	3 rd bullet point – "this team should include a medical practitioner with a minimum of intermediate level competencies in critical care." It is less guarantee able out of office hours. With the current pace of change in critical care staffing and with junior doctors hours constraints we now find ourselves supervising resident F1's or F2's whilst on call at consultant level with increasing frequency. These and many other junior trainees in critical care will not have intermediate level competencies. This particular recommendation will potentially hasten the pace of change toward consultants in critical care being resident on-call with the reduction of elective service provision which naturally follows.	This has been revised to allow a definition. It now reads: "The team should include a medical practitioner skilled in the assessment of the critically ill patient and who possesses advanced airways management and resuscitation skills."
85.24	National Outreach Forum	GL	2.2.3.5 Rec 12	Many stand alone HDUs do not have access to critical care trained medics and patients are managed by their parent teams – this must be addressed otherwise the workload for dedicated critical care medics will spiral out of control.	Noted. This has been revised to allow a definition. It now reads: "The team should include a medical practitioner skilled in the assessment of the critically ill patient and who possesses advanced airways management and resuscitation skills."
				Current resident medical staff cover (anaesthetists covering critical care) can not be guaranteed to have the 'minimum of intermediate level competencies in critical care'. Coupled with the pressures of modernising medical careers (in our trust this has resulted in the loss of 10 anaesthetic SHO posts) means it is highly improbable that an immediate response from an appropriately trained medic will be deliverable.	
				The proposed graded response strategy completely bypasses parent teams in the delivery of care to their sickest patients – this dis-empowers, de-skills	

				and detracts from care. If a surgical patient has a problem then surely a surgeon should be involved in the escalation/management of care. This approach will enable some parent teams to abdicate responsibility for sick patients and will fragment care. In the interests of averting admissions, the agenda for managing acutely ill patients must be to equip parent teams to care for their own, with the support of critical care where required	
85.25	National Outreach Forum	GL	2.2.3.6 Rec 13	Evaluation is also vital and should be indicated in the bullet point list. This is omitted frequently – action is taken but nobody returns to check if the treatment has worked.	This is covered by the revised wording of 1.3.2.12
85.26	National Outreach Forum	GL	2.2.3.7 Rec 14	"The decision to admit to ITU should be made by the Consultant caring for the patient on the ward and the ITU Consultant" If the ward consultant is away or there is difficulty in contacting him/her urgently should there be provision for the registrar to make a decision with the ITU consultant? As a recommendation it's a statement of best practice but there may be a need to elaborate on the recommendation to provide clarity about who the joint decision-making process may default to	This would have to be decided on a case by case basis and does not need to be explicit in this guidance.
85.27	National Outreach Forum	GL	2.3.3.1 Rec 16	 There are concerns about discharging a patient any time after 9pm and 10pm as a recommended standard is too late. Staff numbers are significantly reduced in ward areas on the night shift and it would seem more sensible and safer to receive an ITU patient back on the ward as early as possible on the night shift (which may be as early as 8pm in some trusts) to allow assessment and a plan of care to be initiated with the support of as many other staff as possible. The Hospital at Night service by default should be informed of all patients being discharged from ITU between the hours of 22.00 and 07.00. 	We have reworded this recommendation (1.3.2.14) to ensure that it refers to fact decision to transfer has been made and that night transfer "should be avoided whenever possible, and should be documented as an adverse incident if it occurs"
85.28	National Outreach Forum	GL	2.3.3.1 Rec 16	The current bed pressures mean that on rare occasion's patients have to be transferred out of the unit at night but only to make way for another sick patient. Bed escalation procedures do not always view CC as a priority. Perhaps such discharges should be reported as a critical incident.	We have reworded this recommendation (1.3.2.14) to ensure that it refers to fact decision to transfer has been made and that night transfer "should be avoided whenever possible, and should be documented as an adverse incident if it occurs"
85.29	National Outreach Forum	GL	2.3.3.1 Rec 16	There should be a rider within this recommendation to ensure that if patient discharge is needed between 22.00 and 08.00 consistent with service need that is permissible in the presence of a dedicated competent member of staff/team to	We have reworded this recommendation (1.3.2.14) to ensure that it refers to fact decision to transfer has been made and that night transfer "should be avoided whenever possible, and should be documented as an adverse incident if it occurs"

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85.30

ensure that care and safety are maintained. Perhaps there should be a requirement that this is a named individual GL 2.3.4.1 Need to be explicit about who is responsible for this Agree. This is addressed by revised recommendation Rec 17 - recommending the team provide handover will (1.3.2.15)

85.31	National Outreach Forum	GL	Page 16	invariably mean nursing staff as they escort them from the unit to the ward. This often means the ward medical team receive no handover at all. Serious adverse events including UNEXPECTED	We agree. This will be changed.
			top line	cardiac arrest and death is to be minimised.	
85.32	National Outreach Forum	Gen		No reference has been made to effective methods of communication once it has been recognised the patient requires intervention. As most adverse events are associated with ineffective communication it would be appropriate for the guideline to address this issue and provide examples of Acutely ill patients in hospital good practice e.g. Situation, Background, Assessment, Recommendation (SBAR approach).	This was considered to be outside the scope of this work. It is likely to be addressed by other complementary initiatives (e.g. NPSA work in this area).
85.33	National Outreach Forum	Gen		Document is too long	There will be a Quick Reference Guide.
85.34	National Outreach Forum	Gen		Does all adult patients include maternity? Patients in A&E often score high until treatment has begun and there are not enough personnel to see all these.	We note that there was no consensus from SH comments about whether maternity patients should be included or excluded. The view of the GDG is that they should be included in the guideline and fall within the definition of "adult patients in acute hospital settings"
85.35	National Outreach Forum	Gen		Where is the role of the HAI's in this? Training	Noted
85.36	National Outreach Forum	Gen		Which MEWS chart was used? References would be useful.	This will be addressed by the accompanying implementation tools
85.37	National Outreach Forum	Gen		There is no funding to have an SpR on ITU at all times therefore no intermediate level competencies are available.	Noted. "intermediate competencies" will be clarified in the final document by referring to doctors with advanced airway skills and ability to assess critically ill patients.
85.38	National Outreach Forum	Gen		The HCA's do the observations (training stopped last year as there are no funds) so this would mean that RGNs do all the observations with a staffing ratio 50:50 HCA:RGN this would be impossible, although there is agreement in principle with this, HCA should not do observations.	Noted.
85.39	National Outreach Forum	Gen		Overall the draft guideline is a good piece of work bringing together disparate strands of evidence relating to an area of clinical practice noted for profound heterogeneity across different institutions.	Thank you.
85.40	National Outreach Forum	Gen		Whilst oxygen saturation is important to monitor it is extraneous to a track and trigger system because it depends on the patient's pathology i.e. COPD, along with knowledge of the inspired oxygen which adds	In the review of TTS we do address the question of what TTS should be used, including what physiological observations should be recorded. The GDG used the information in this review, including the evidence tables

			complexity to the scoring system and accuracy thereof. It also relies on the clinical knowledge of whoever is recording the observations which is often the health care assistants. There is also an issue with user confidence in the accuracy of the equipment.	in the appendix, to make recommendations on what they considered to be minimum physiological observations that should be undertaken. We have revised the review of the evidence and evidence to recommendations section 1.1.5 to make the basis for inclusion of oxygen saturation and exclusion of urine output clear. In the evidence review we refer to the Cuthbertson 2007 paper and the Duckit 2007 (in press) which show the importance of O2 saturation, with a cut point of 95%, as an important early predictor of acute deterioration in both medical and surgical patients.
85.41	National Outreach Forum	Gen	Overall, a very thorough piece of work – within the limitations of NICE methodology and the specific scope of this project. These limitations may preclude the guideline fully addressing some of my comments, but nonetheless I think these points are	Thank you.
85.42	National Outreach Forum	Gen	significant and should be acknowledged. The particular nursing contribution to the care of acute and critical illness includes nurses' participation in most if not all of the processes described in the guideline; but there is more to it than that, e.g. nurses' anticipation and proactive management of complications and other risks (see Ball C, McElligot M. "exploratory study of the factors that affect and comprise the nursing contribution to the recovery of critically ill patients. Intensive Crit Care Nurs. 2003 Aug;19(4):226-38).	Noted.
85.43	National Outreach Forum	Gen	Inadequate staffing – due to insufficient numbers, knowledge/skills, or empowerment – reduce these positive effects. Indeed, there is evidence that lower staffing levels affect mortality (e.g. Rafferty AM et al. Outcomes of variation in hospital nurse staffing. Int J Nurs Stud. 2007 Feb;44(2):175-82). There is great emphasis on the importance of education in the guideline (e.g. Recommendation 8, Recommendation 19); and there is no doubt that some acute hospital staff have large gaps in their knowledge of relevant theory and practical procedures (e.g. Smith GB. Poplett N. Knowledge of	Noted. The NICE implementation tool will cost out implementation of the guidance.
			Aspects of acute care in trainee doctors. Postgrad Med J. 2002 Jun;78(920):335-8). However, the education/training and regular supervision of learners in practice that would be required to get a critical mass of staff up to standard is a huge project and very difficult to achieve without significant resources. I cannot see organisations diverting resources into education and proper assessment of clinical competence unless these are given very high priority or perhaps even made	

				mandatory by some means or other (e.g. incentives/sanctions).	
85.44	National Outreach Forum	GL	2.21	Note also that it may be that we aim to train too many people in some skills. It may be better to have a core group of staff with certain key skills that they use regularly and so can be expert in - as long as there are always enough of these people to have the skill available when it is needed. Outreach services are (should be) engaged in early identification of the at-risk, rapid referral to expert help for early treatment, timely transfer to critical care when needed, safe discharge from critical illness, sharing critical care skills, coordinating collaborative, continuous care, auditing, improving standards of critical care. Although many hospitals have some kind of outreach service, most only work in office hours and employ, on average 2.2 WTE middle-grade nurses. Not surprisingly, it	Noted, thank you.
				can be difficult for such services to demonstrate or even measure service outcomes.	
				Nonetheless, general support of beleaguered ward staff is another key and invaluable role (e.g. Richardson A et al. Ward nurses' evaluation of critical care outreach. Nurs Crit Care. 2004 Jan- Feb;9(1):28-33).	
85.45	National Outreach Forum	GL	3.3.13	Audit: The guidance will be very much strengthened by the addition of S.M.A.R.T. audit criteria (specific, measurable, etc) for each component of the care pathway.	Implementation tools will be developed by NICE, including audit criteria, slide sets, and a costing framework.
86.0	National Patient Safety Agency	GL	1.3.2 rec 1	We think it would be helpful to recommend that baseline observations should influence future parameters for 'normality' in individual patients. This allows for more accurate undertaking of deterioration in an individual patient and less risk of false 'triggering'.	It is considered that the revised recommendations 1 (1.3.2.1) and 3 (1.3.2.3) address this issue.
86.1	National Patient Safety Agency	GL	1.3.2 rec 1	Will there be any reference to the role of the healthcare support worker in the undertaking of observations and their level of understanding of the clinical relevance?	The focus in this guideline is on individuals needing competencies to undertake tasks. Thus 1.3.2.1 clearly states that those who record physiological observations (e.g., HSWs) should "have been trained to undertake these procedures".
86.2	National Patient Safety Agency	GL	1.3.2 rec 3, 4, 5 and 6	Recommendation 3 to use track and trigger systems begs the question if not which one, then how will trusts decide? This is highlighted in the ICNARC systematic review (and these guidelines) which shows that development and validation is variable and that trusts often adapt these locally (with risks of reducing their performance and applicability). Will the guidelines at least suggest options that could be	The GDG did not feel able to recommend any one specific TT system, except that the one chosen should be multiple parameter or aggregate weighted so as to allow a graded response. It is proposed that the implementation tools launched with this guideline will have examples of TTS that may be used. The performance of the various TT systems is reviewed in the guideline. The rationale for not including urine

				used that meet the recommendations 4, 5 and 6, preferably with some comment on their performance? Some of those reviewed and tabulated include urine output which the guidelines suggest is not needed except for selected patients (see p 34). Should the guidance warn against local adaptation where that might change the properties of the trigger tool?	output as a physiological parameter is set out in the evidence to recommendations section in 1.1.5. We have re-worded recommendation 9 (1.3.2.9) to ensure that sensitivity and specificity of TTS is optimised at local level.
86.3	National Patient Safety Agency	GL	1.3.2 rec 3	Physiological observations every 12 hours for <i>all</i> patients seems excessive. Daily observations are probably sufficient for certain low dependency groups e.g. some elderly care patients. Whilst the guidelines should recommend that 12 hourly observations is standard for the majority of patients, should it not allow scope for clinical teams to tailor this based on the individual patient's needs?	Stakeholder comments were evenly spread between those supporting 12 hourly monitoring and those favouring more frequent monitoring. The recommendation 1.3.2.3 has been re-worded to state "physiological observations should be monitored at least every 12 hours". The recommendation also notes that on occasion it will not be necessary to use TT systems to monitor certain groups of patients (e.g., those in receipt of palliative care).
86.4	National Patient Safety Agency	GL	1.3.2 rec 6	Whilst we understand that measuring urine output is not appropriate or possible for all patients, would it be useful to recommend that it is recorded when/ if the patient passes urine?	We have revised the review of the evidence and evidence to recommendations section 1.1.5 to make the basis for inclusion of oxygen saturation and exclusion of urine output clear. We refer to the Cuthbertson 2007 paper which shows the importance of O2 saturation as an important early predictor of need for ITU admission in HDU surgical patients.
86.5	National Patient Safety Agency	GL	1.3.2 rec 7	We think that this recommendation should include fluid intake as well as urine output.	We have revised the review of the evidence and evidence to recommendations section 1.1.5 to make the basis for inclusion of oxygen saturation and exclusion of urine output clear. We refer to the Cuthbertson 2007 paper which shows the importance of O2 saturation as an important early predictor of need for ITU admission in HDU surgical patients. Fluid intake is not a TTS parameter.
86.6	National Patient Safety Agency	GL	1.3.2 rec 8	Will there be reference to effectiveness of types or availability of training to support recommendations 8 and 19?	We will flag this up as an area the NICE implementation team may wish to cover.
86.7	National Patient Safety Agency	GL	1.3.2 Rec 10	In recommendation 10, how should a local level threshold be set such that it has the right profile of performance? Is there any advice that could be	We agree. We have revised this recommendation to add "the threshold should be reviewed regularly to optimise sensitivity and specificity".
86.8	National Patient Safety Agency	GL	1.3.2 Rec 11	Will there be advice on models of delivery of competencies for medium and high level responses in recommendation 11? How will these high, medium and low levels be determined and defined locally?	A group of healthcare professionals, supported by the English Department of Health, are currently addressing core competencies for the acutely ill patient using the completed work from the ACUTE and Foundation Programme initiatives as a starting point. It is anticipated that this work will identify which competencies should be held by which staff. The final document will be ready for release as part of the set of implementation tools" in the Autumn

86.9	National Patient Safety Agency	GL	2.1.2	The evidence review for outreach/response teams draws heavily on the published ICNARC/Sheffield systematic review. I am aware of another (as yet unpublished) North American systematic review that has taken a different approach and in particular divided studies into those targeted at higher risk populations (eg post ICU discharge) and those targeted at more general ward populations and found a larger effect size for the former but evidence of effectiveness for both. Is it worth looking at the literature in this way?	Noted. We specifically looked at the available evidence with respect to 1) the "general population" (all hospital inpatients and those in the emergency department). This is set out in 2.2.3 - Does a specific response strategy – provision of a critical care outreach service – improve outcomes for patients identified as having a deteriorating clinical condition?; 2) high risk groups (the subset of inpatients who were discharged from CCAs). This is set out in 2.3.5 - What interventions can be delivered to patients on general wards following discharge from critical care areas to improve health outcomes?
86.10	National Patient Safety Agency	GL	2.2.3.11	On p 51 you state that "no studies were identified as being of sufficient quality to be included as the basis for clinical recommendations on the use of ward level interventions as a response strategy". This could be more clearly worded and seems to undermine your recommendations	Thank you, we have changed the wording.
86.11	National Patient Safety Agency	GL	3.3.11	As requested by the guideline group, can the NPSA suggest the following wording for para 3.3.11:	Thank you
				"The National Patient Safety Agency has analysed reported data on incidents and other data sources which further support the need for guidance and changes in practice. It has facilitated an ongoing multi-disciplinary and multi-agency working group. This work seeks to bring together and offer mutual support across the several strands of work related to improvements in addressing deterioration of the acutely ill patient. Further exploration of contributory and causal factors on the failure to detect or act upon deteriorating patients will support the implementation of these guidelines."	
86.12	National Patient Safety Agency	GL	3.2.2	There are several errors on this page regarding dates e.g. December 2007	Noted
87.0	National Public Health Service - Wales	Gen		We welcome development of this clinical guideline as a valuable tool to assist in raising standards of care in the acute sector and in clarifying the existing evidence base in relation to CCOS. The latter is particularly important since new service development has been promoted well ahead of the acquisition and documentation of relevant beneficial interventional research outcomes (p44)	Thank you.
87.1	National Public Health Service - Wales	Gen		Care level and area of provision. The general language of the document does not support the accepted premise of providing acute care based on level of need rather than location, but rather continues to refer to geographical handover of patients eg from CC ward to general ward areas,	Where possible we have revised the wording to take account of this.

				rather than level 3 to level 1. HDU or other intermediary levels, for example respiratory weaning areas, specialist post op. areas are rarely mentioned. Ideally patients should flow upwards/downwards through increasing/decreasing intensity of monitoring as supported in the recommendations relating to adoption of track and trigger systems. Making subtle changes of phraseology throughout the document could encourage genuine, wider practical acceptance of the concept of 'critical care without walls' at service level, and promote effective implementation of the	
87.2	National Public Health Service - Wales	GL	1.2	We fully endorse all statements in relation to patient- centred care, and the way that the importance of communication in handover of acutely ill patients is stressed - particularly of those with existing disadvantage through sensory or learning disability. However we feel these should be bounded for practical reasons of implementation – for example by using a term such as <i>wherever possible</i> . There is a danger that the opportunity costs of embedding such aspirational communication requirements in a guideline, may ultimately detract from timely clinical intervention which should remain the priority focus.	Thank you.
87.3	National Public Health Service - Wales	GL	1.4.1	We support the background statements described at section 1.4.1 but would suggest that demand for level 3 care has also risen (paragraph 2) as a consequence of other demands	Noted
87.4	National Public Health Service - Wales	GL	1.4.3	?Typographical error (end para 1): available from	This has been addressed in the revised version.
87.5	National Public Health Service - Wales	GL	2.1.3.1 Rec 1 & 2.3.4 Rec 17	Evaluation of risk scoring tools. We support this pragmatic recommendation and note its relevance to effective patient handover (rec 17 also rec 18, 19). However for implementability (1.4.4), the recommendation may benefit from greater clarity over responsibility for continuation of the monitoring plan, and over ascribing the patient's diagnosis and comorbidities – some of which may change throughout the hospital stay and between levels of care. At a practical level there is potential for outdated written paperwork and lack of ownership to detract from, rather than enhance, patients' health	Thank you. We agree this needs to be taken up by those implementing the guideline at local level
87.6	National Public Health Service - Wales	GL	2.1.4 Rec 3	We accept and support the guidance on both 12 hourly minimum monitoring and increased frequency of monitoring when abnormal physiology is detected.	Thank you.
87.7	National Public Health Service - Wales	GL	2.1.3 2.1.6 Rec 2, Rec 6 & Rec 7	The evidence documented seems to answer the question what physiological observations have we found in studies to date? – rather than the research question posed, which is what observations should be undertaken? In particular it is not clear from the	In the review of TTS we do address the question of what TTS should be used, including what physiological observations should be recorded. The GDG used the information in this review, including the evidence tables in the appendix, to make recommendations on what
87.8

87.9

recommendations section 1.1.5 to make the basis for inclusion of oxygen saturation and exclusion of urine output clear. In the evidence review we refer to the Cuthbertson 2007 paper and the Duckit 2007 (in press) which show the importance of O2 saturation, with a cut point of 95%, as an important early predictor of acute deterioration in both medical and surgical patients. Thank you, this is a clear review of the limitations of the National Public Health Service - Wales GI The evidence provided in relation to the use of risk scoring tools, and their clinical utility, shows wide reviewed studies. In both the presented evidence variation in sensitivity, specificity, inter and intra-rater review, evidence statements and evidence to reliability amongst other variables. recommendations section the limitations of the The following statement was made within the reviewed studies are made clear. We take account of systematic review quoted in the guideline (Gao, the quality of the evidence in its assigned grade and 2007). "None of the TTs achieved the requirements agree with Gao's observation on the available studies not meeting a level 1 decision rule. The GDG of a level 1 clinical decision rule – a rule that has been validated for use in a wide variety of settings considered it was possible to recommend with confidence that it can change clinical behaviour MP/aggregate TTS. As noted, single PS - do not allow and improve patient outcomes. In particular, the a patient's progress to be tracked - do not allow a 2.1.4 -PART calling criteria were found to be poor graded response strategy. In addition, we received a predictors of mortality or admission to critical care range of SH comments on whether a single or 2.1.5.6 and are likely to result in inappropriate activation of multiple/aggregate weighting TTS should be Rec 4, the CCOS". recommended and the majority were in favour of Rec 5. recommending the use of multiple/aggregate WS. Given these discrepancies the recommendations drawn regarding TTs seem somewhat overgeneralised, in particular Recommendation 4, which calls for the use of multi-parameter TTs, such as PART. Even where recognised tracking systems are currently being used by skilled and interested individuals there is evidence of poor inter-rater reliability. This level of reliability may decrease further on increasingly wider roll out of TTs and CCOS which this guidance is likely to promote. This raises concerns regarding the implications of promoting tools which are not yet clearly defined. National Public Health Service - Wales GI 2.1.4.3 We find the reporting of DNAR orders as an This has been addressed in the revised version. outcome measure within evidence statement II a difficult concept. Although used by Gao (2007) within a composite outcome assessment, its reporting in most TT studies is as a subjective pre test descriptor for exclusion of those acute patients who have no possibility of benefiting from treatment and whose deaths, if included in data, would adversely bias the evidence supporting CCOS intervention Interpretation of evidence regarding EWS: Whilst 87.10 National Public Health Service - Wales Gen Noted. acknowledging clinical concern was used as a 'trigger' in some strategies (2.2.3.13), the guideline does not highlight the fact that in some studies these

rather than Rec 7.

evidence what grounds there were for inclusion of

routine oxygen saturation measurement in Rec 6

non-physiological triggers formed a very significant

they considered to be minimum physiological

observations that should be undertaken. We have

revised the review of the evidence and evidence to

				proportion of sentinel events (eg Bellomo, 2004). This may have the effect of contributing towards positive interpretation of EWS systems when arriving at consensus statements.	
87.11	National Public Health Service - Wales	GL	2.2.1 & 2.2.2	We are in full agreement with the description of the complexities of adequately evaluating response strategies in relation to improved clinical outcomes.	Noted.
87.12	National Public Health Service - Wales	GL	Recs 8 – 15 (general)	Whilst we support these recommendations generally we note that they are largely derived from consensus rather than quality evidence.	Thank you.
87.13	National Public Health Service - Wales	GL	2.2.3.3 Rec 10	This is a pragmatic recommendation given that the problems noted above (Rec 4, Rec 5) prevent universal recommendation of any one specific TT system. However it may hinder potentially valuable future formal evaluations of TTS effectiveness in predicting and improving clinical intervention and outcome through lack of comparability if local units all adopt differing, unproven systems.	This is a valid point. We do recommend the need for further rigorous research in this area.
87.14	National Public Health Service - Wales	GL	2.2.3.4 Rec 11 & 1.3.3 Flow chart	Given the known problems of Hospital at Night teams (http://www.mmc.nhs.uk/pages/news/article?471E4E 7A-2A95-492A-B110-F4226F6007D5), including unreliable handover and variable professional skills, we wonder whether such existing teams could always provide the care outlined within the medium care pathway mechanism. In general we support the clarity and practicality of this differential response strategy.	Noted.
87.15	National Public Health Service - Wales	GL	2.2.3.8 Rec 14	This recommendation is particularly welcomed to ensure appropriate and fully informed use of level 2 & 3 beds.	Thank you
87.16	National Public Health Service - Wales	GL	2.2.3.11	Interpretation of cluster RCTs: We agree that only two trials (the MERIT study 2005; Priestley, 2004) provide any quality evidence for the basis for evaluation of effect of CCOS. We are concerned that some areas of lower quality within these studies have not been highlighted more clearly to provide greater balance within the evidence statements at 2.2.3.11. In the Priestley study these particularly include: - failure to report NFR orders; - failure to report overall hospital mortality - baseline age/sex differences despite randomisation and the - potential unmeasured effect of simply having increased nursing staff on the wards (the practical 'hands on' help p 50) in a shortage supply environment ie an increased workforce. This latter paper effectively contains the only UK based quality evidence of positive outcome from CCOS intervention accepted by the guideline team, and its shortcomings are therefore extremely	Thank you. The review and evidence tables have been revised to highlight more clearly these points.

87.17	National Public Health Service - Wales

87.18 National Public Health Service - Wales

- 87.19 National Public Health Service Wales
- 87.20 National Public Health Service Wales

National Public Health Service - Wales

87.21

important.

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GL	2.3.1-	The introduction and overview statement in relation to late discharge from the CC area are supported	Thank you.
GL	Recs 16 17 18 & 19	All fully supported.	Thank you.
GL	3.2.3.5.4 5.	?Typo: There appears to be no link to the reported health economics paper at 3.2.3.5	Thank you. This has now been corrected.
GL	2.4 Chapter 2.2	Research Recommendations: Other variables which will impinge on clinical outcomes and cost- effectiveness and which need recognition within new research are: - precise composition of CCOS teams (see 2.2.3.10, p 49 para 2) - measurement of response time - measurement of lead time - fluctuating pressures on CC/HDU beds (eg early discharge, intra- and inter-unit variation) Many of these are interdependent on the size and availability of an expert workforce. Many of the existing UK trials have taken place at the same time as significantly increased investment within CC which may have had a direct effect <i>per se</i> and which is not mentioned within the report	Noted, thank you.
Gen		Interpretation and Balance of Conclusions 1. In general these recommendations provide a sensible and formalised re-emphasis of what has traditionally been viewed as high quality acute clinical care, including regular monitoring of basic physiology, appropriate levels of training for care provided and care planning. In particular there is a welcome emphasis on handover, continuity of care and communication.	Thank you. We note your helpful comments regarding the evidence base. We consider we have addressed these points in the relevant evidence to recommendations sections of the guideline.
		2. There is some concern over the positive emphasis on use of TTs. By virtue of their publication within NICE guidance, recommendations may themselves be seen as evidence. The collation and interpretation of trial results from the Appendix seems robust. However when taken together with the consensus interpretation we feel the net effect is to suggest a more authoritative and positive guideline recommendation in relation to TTs than the quantity and quality of evidence currently available provides. From the scoping document the research questions suggest that one of the roles of NICE was to assess, from the evidence, whether TTs and CCOSs were beneficial, whereas the outcome evidence statements and recommendations appear to be that they exist - and are therefore accepted. We feel the level of 'uncertainty' in the evidence	

				could be better highlighted in the overview statements, not least because the evidence base may grow significantly in the future, in either direction, and clinicians could be asked to implement opposing service configurations.	
87.22	National Public Health Service - Wales	GL	2.2.3.1	Economics 1. We agree fully with the statement on p 53 that 'the weight of evidence is at best equivocal with respect to the effectiveness of outreach services on patient outcomes'and that 'it is not possible to state that outreach services are a cost effective option compared with care in its absence'. However there are currently costs tied up in outreach services (hinted at in the last paragraph of p52) which we feel could be more adequately described, even if outside a formal economic evaluation, particularly given that most other statements within the guideline are also based on consensus opinion rather than quality evidence. The economic aspects are potentially more important because there is not a clear evidence base. Current expenditure clearly represents existing opportunity costs for other potential improvements in acute care addressed through alternative interventions. As in the general comments above, the guidance tends towards acceptance of continued investment in an unproven service without a more balanced recognition of potential disinvestment and reinvestment in alternative service provision eg reversion to higher standards of basic training. From our own public health perspective it may be preferable to commission increased community intervention in order to diminish CC entry rather than ineffective unproven 'unstream' interventions	Thank you.
88	National Treatment Agency for Substance Misuse			This organisation has been approached but did not	n/a
89	NCCHTA			This organisation has been approached but did not	n/a
90.0	Newcastle Upon Tyne Hospitals NHS Foundation Trust	GL	1.2	respond Good communication with a patient is not "essential". We frequently deliver high quality care to patients who are obtunded or unconscious. Good communication may be highly desirable but the use of the word essential is inappropriate	Noted. We would ask the PPIP to consider whether these issues require it to revise the general section of principles of care (1.2) section.
90.1	Newcastle Upon Tyne Hospitals NHS Foundation Trust	GL	1.2	Carers and relatives should also be given the info and support they need is an ambiguous statement with open-ended resource considerations.	Noted. We would ask the PPIP to consider whether these issues require it to revise the general section of principles of care (1.2) section.
90.2	Newcastle Upon Tyne Hospitals NHS Foundation Trust	GL	2.1.4	Use of Track and Trigger systems in all acute settings is essential for future development and care of patients	Thank you

90.3	Newcastle Upon Tyne Hospitals NHS Foundation Trust	GL	2.1.3.1	The vast majority of observations are carried out by HCA's who will not necessarily had much training and will certainly not be able to act on what they find.	We emphasise the need for training in recommendation 1 (1.3.2.1)
90.4	Newcastle Upon Tyne Hospitals NHS Foundation Trust	GL	2.2.3	Like the idea of the graded response strategy to	Thank you.
90.5	Newcastle Upon Tyne Hospitals NHS Foundation Trust	GL	2.3.3.1	ensure appropriate involvement at required level This will inevitably impact upon "incoming patients" who will have their critical care admission delayed. These patients may be managed in inappropriate areas or require transfer to another facility, with additional inherent risk. No analysis of this effect has been included in the quoted papers. If bed numbers remain static this is a significant concern.	Noted. We have reworded this recommendation (1.3.2.14) to ensure that it refers to fact decision to transfer has been made and that night transfer "should be avoided whenever possible, and should be documented as an adverse incident if it occurs"
				The major risk may relate to premature discharge as opposed to chronological timing and this may not be valid for elective cases, transfers from level 2 areas etc.	
90.6	Newcastle Upon Tyne Hospitals NHS Foundation Trust	GL	2.3.3	This is a good aspiration, but "Should" is too didactic to use in this sentence. Perhaps adding "if possible" would reflect the reality of late discharges, which frequently are a measure of factors outside critical care control.	We agree. We have reworded this recommendation (1.3.2.14) to ensure that it refers to fact decision to transfer has been made and that night transfer "should be avoided whenever possible, and should be documented as an adverse incident if it occurs"
				We don't routinely discharge patients to wards out of hours if possible but in exceptional circumstances may have to still consider doing so due to bed pressures	
				Installing a policy of no late discharges is more likely to block critical care beds and prevent appropriate admissions than to provide the impetus to alter ward management procedures.	
90.7	Newcastle Upon Tyne Hospitals NHS Foundation Trust	GL	2.3.4.6	This could have huge economic impact. How long should the shared care approach be maintained? This will require a lot of medical/ nursing review time and resources.	"Shared care" is considered to extend only to the process of transferring care to the parent team and that this process needs to be detailed and inclusive of the clinical areas which would need to be addressed to minimize readmission to critical care and maximize a
				This recommendation is a Pandoras box- what are the limits of shared care in terms of time (how long do Critical care team share care with ward team?); Involvement (what procedures/decisions on the ward should be made by critical care team and which by home team?); overall responsibility (should the critical care team be involved in training and certifying all ward staff in their ability to manage critically ill patients and deliver the agreed plan?)	patient's likelihood of survival. In any case, there are no data upon which an economic evaluation could be undertaken. Ideally there should be a comparison between alternative interventions or strategies in terms of both their costs and benefits. This was not possible. The GDG made a set of broad consensus recommendations based on what they considered appropriate practice. In terms of the details of implementation (which is what your comment is

90.8	Newcastle Upon Tyne Hospitals NHS Foundation Trust	GL	2.3.4.7	The resource implications of this recommendation should be clarified and discussed in more detail before publication. If the wards cannot deliver the agreed care plan the patients must stay on critical careon the one hand this is a recipe for blocking all ICU beds, on the other it may improve ward care in the long term, but I doubt it. It will simply be used to castigate intensivists when the complaints about ward care are received.	alluding to), these should be developed locally, although this guideline will be supported by a set of implementation materials and a costing template. Noted.
90.9	Newcastle Upon Tyne Hospitals NHS Foundation Trust	Gen		Again, the resource implications of this recommendation are significant- Critical Care teams are highly likely to have an ever increasing burden of education if they are expected to deliver education, training and validation to ward staff. This may ultimately be beneficial to Critical Care, but I doubt it. Thank you. A helpful document overall which provides general guidance. It omits some specific issues and does not consider the knock on effects of some of the recommendations. These are presumably patient- driven from survey results and hence important, but impossible to quantify scientifically and more importantly, assess the economic aspects for a system which is struggling as it is.	Noted.
90.10	Newcastle Upon Tyne Hospitals NHS Foundation Trust	Gen		ICNARC didn't seem to be able to evaluate the use of TTs and /or MEWS due to the large variety being used so can we make national recommendations.	The systematic review on TT systems from ICNARC (Gao et al.) did manage to evaluate different TT systems and concluded that although current TT systems lack sensitivity, they should be used as an adjunct to clinical judgement. In the guideline it is emphasised that the response strategy for patients identified as being at risk of clinical deterioration should be triggered either by physiological TT score or clinical concern.
91	NHS Health and Social Care Information Centre			This organisation has been approached but did not respond	n/a
92	NHS Plus			This organisation has been approached but did not respond	n/a
93	NHS Quality Improvement Scotland			This organisation has been approached but did not respond	n/a
94	Norfolk and Norwich University Hospital NHS Trust			This organisation has been approached but did not respond	n/a
95	North East & Cumbria Critical Care Network			This organisation has been approached but did not respond	n/a
96	North Middlesex University Hospital NHS Trust			This organisation has been approached but did not respond	n/a
97	North Tees and Hartlepool Acute Trust			This organisation has been approached but did not respond	n/a

98	North Trent Critical Care Network			This organisation has been approached but did not respond	n/a
99.0	North West London Critical Care Network	Gen		Thank you for providing us with the opportunity to comment on the draft guideline, the development of which we have awaited with great interest.	Thank you.
99.1	North West London Critical Care Network	Gen		The feedback we have received indicates that there has been some local frustration with both the presentation and the detail of the guideline issued for consultation. The layout and size of the document proved difficult,. It was confusing in places and was not conducive to joint discussion given the volume of text and the lack of individual paragraph numbering. The words "sections" and "chapters" appear to be used interchangeably. The description "woolly" has been aired several times.	The final version will be the subject of professional editing. There will be a Quick Reference Guide.
99.2	North West London Critical Care Network	Gen		Overall, whilst generally welcoming the recommendations and key priority areas as far they go we make the following observations:	Thank you
99.3	North West London Critical Care Network	Gen		Some organisations have reported that benchmarking against the recommendations will prove tricky given the lack of precision and the likelihood of variable interpretation.	Noted
99.4	North West London Critical Care Network	GL	2.2.3 Rec 14	The final decision to admit a patient to critical care should rest with the critical care consultant and this should be clearly stated	This would have to be decided on a case by case basis and does not need to be explicit in this guidance.
99.5	North West London Critical Care Network	GL	2.3.3 Rec 16	A discharge from critical care between the hours of 22.00 and 07.00 should be reported as a critical incident.	We have reworded this recommendation (1.3.2.14) to ensure that it refers to fact decision to transfer has been made and that night transfer "should be avoided whenever possible, and should be documented as an adverse incident if it occurs"
99.6	North West London Critical Care Network	GL	2.3.4 Rec 17	The formal structured handover of care should include the discharged patient being seen and reviewed by the receiving team Dr within a defined period of time. This may be defined locally but there must be a time by which a patient is seen after discharge from ICU.	Recommendations on specific timing should be set within a local protocol and are outside the scope of this national guidance.
99.7	North West London Critical Care Network	GL	1.3.3 Care pathway	We appreciate that the flow chart is not meant to capture everything but given that you flag patient centred care in 1.2, the first page of the document, and refer to informed decisions by patients and the code of practice for the MCA, we feel strongly that patient consent to treatment should be included in between "assess for critical care by critical care clinicians" and the box on " agree to admit to critical care"	This has been addressed both in the care pathway and the revision to recommendation 1.3.2.3
100.0	North West Midlands Critical Care Network	GL	2.1.3.2 Rec 2	Level of consciousness recorded and measured using a recognised tool for example Glasgow Comma Score	This was discussed by the GDG and it was considered it was not appropriate to specify a specific scoring tool to monitor the level of consciousness of adult patients in acute hospital settings. It should be emphasised that the guideline does not preclude the use of such scoring

tools in defined groups of patients at risk of neurological deterioration.

100.1	North West Midlands Critical Care Network	GL	2.2.3.4 Rec 11	The response strategy medium should be medium plus low and high should be high plus medium plus low else potentially the frequency of observations would not be increased or not all appropriate personnel summoned	Noted. This was discussed by the GDG and the existing wording was considered appropriate.
100.2	North West Midlands Critical Care Network	GL	2.3.3.1 Rec 16	Where possible patients no discharges between 22.00 to 07.00, if absolutely necessary it should be accompanied by an adverse incident report.	We agree. We have reworded this recommendation (1.3.2.14) to ensure that it refers to fact decision to transfer has been made and that night transfer "should be avoided whenever possible, and should be documented as an adverse incident if it occurs"
100.3	North West Midlands Critical Care Network	Gen		Concern that there is only two nurses and no allied health professional or health care scientist within the group thus it could be perceived as very medical bias	It was considered that a GDG that was appropriately constituted for the task. The GDG chair ensured that all GDG members contributed fully.
100.4	North West Midlands Critical Care Network	Gen		Thank you for all the hard work that has gone into drawing up these guidelines which the essence of them are welcome in our eyes into acute care to hopefully ensure that those patients that need care are recognised and treated by competent professionals	Thank you
101	North West Wales NHS Trust			This organisation has been approached but did not respond	n/a
102	Northumbria Acute Trust			This organisation has been approached but did not respond	n/a
103.0	Nottingham City Hospital	Gen		The relationship with critical care and the wards is not explored in detail. Team competencies do not feature in this report. Cultures are extremely important but do not feature. Whilst I fully understand the scope of this report, recommendations need to bear in mind these important points.	This is outside scope of this work. The implementation tools to be developed by NICE will support this.
103.1	Nottingham City Hospital	GL	1.3.1 Rec 1	Agree this is a key priority. After patient's diagnosis, comorbidities and treatment plan should include patient's wishes if known or compliance with plan.	Noted.
103.2	Nottingham City Hospital	GL	Rec 3	Is the understanding that every set of observations on the ward should have a T&T score? I agree that they should in emergency settings and also for 24 hours post discharge from a critical care setting.	As set out in the revised recommendation 3 (1.3.2.3) this should be the case, except where the clinician responsible for the patient has decided that there should not be escalation of treatment (e.g., in receipt of palliative care)
103.3	Nottingham City Hospital	GL	Rec 8	Agree, but education and training is NOT the only way. Leadership, role modelling is also important. Cultures and systems often prevent the adoption of 'good practice' in clinical settings. Anecdotal evidence from one Trust has demonstrated leadership was key to the implementation of standards taught in the classroom.	Noted.

103.4	Nottingham City Hospital	GL	Rec 16	Reword 'should not be discharged' to 'avoid discharges at night'. There are occasions when this is unavoidable and would result in transfers of sick patients other wise which results in higher mortality and distress for relatives. There needs to include something on delayed discharges to the ward due to a lack of beds which has a significant impact on timely transfers of patients to the ward. I have commented further on this under the relevant section.	Thank you. We agree and have amended this to say "should be avoided whenever possible"
103.5	Nottingham City Hospital	GL	Rec 17	This is ambiguous, for example clinicians may interpret this as the ICU clinician should have an input into ward care. Can it be clear that the message here is to ensure that prior to discharge the ward is able to deliver the agreed plan of care (which takes into account staffing, skills etc)	We have reworded this recommendation (1.3.2.14) to ensure that it refers to fact decision to transfer has been made and that night transfer "should be avoided whenever possible, and should be documented as an adverse incident if it occurs"
103.6	Nottingham City Hospital	GL	1.3.2 Rec 2	Inclusion of oxygen saturation. Whilst this may be useful for some I do not agree this should be included as part of a scoring tool. We know from our local audits that nurses will use this instead of the respiratory rate; we prefer the respiratory rate as a highly predictive and sensitive indicator of critical illness. The pulse oximeter has too many flaws, can be unreliable and varies from patient to patient.	We have revised the review of the evidence and evidence to recommendations section 1.1.5 to make the basis for inclusion of oxygen saturation and exclusion of urine output clear. In the evidence review we refer to the Cuthbertson 2007 paper and the Duckit 2007 (in press) which show the importance of O2 saturation, with a cut point of 95%, as an important early predictor of acute deterioration in both medical and surgical patients.
103.7	Nottingham City Hospital	GL	Rec 6	Parameters should include urine output. This is taught on ALERT, AIMS, IMPACT etc as an important parameter even in the absence of catherterisation. It is possible, as we do, to calculate urine output without a catherter.	The reason why urine output is not included in recommendation 2 (1.3.2.2) is set out in the evidence to recommendation section 1.1.5. This recommendation has been re-worded to emphasise there are a set of minimum physiological observations and recommendation 6 (1.3.2.6) includes urine output.
				There needs to be more emphasis on monitoring of fluid balance which is generally very poor in hospital settings. Variations in blood pressure do not take into account the ability to make and pass urine. Our experience has shown this to be vital in prevention of serious complications.	
103.8	Nottingham City Hospital	GL	2.1	There is variation in the scoring of blood pressure. With some T&T tools using a set parameter such as 'below a $100 = 1$, $90 = 2$ etc whilst others use a variation from known systolic blood pressure (or expected blood pressure). The latter provides a more sensitive and early identification of impending illness. Particularly important if urine output is not measured.	BP is a core parameter. We have revised the review of the evidence and evidence to recommendations section 1.1.5 to make the basis for inclusion of oxygen saturation and exclusion of urine output clear. We refer to the Cuthbertson 2007 paper which shows the importance of O2 saturation as an important early predictor of need for ITU admission in HDU surgical patients.
103.9	Nottingham City Hospital	GL	2.1	The ACADEMIA study (Kause et al 2004) used MET criteria for this audit we have replicated this using MEWS criteria and got very different results. Audits like these should be recommended and acted upon	Noted, thank you.

and results interpreted in context.

103.10	Nottingham City Hospital	GL	2.1.6.2	I do not agree that hourly urine output may be required in specific circumstances. This needs to be broken down to measurement of urine output and hourly urine output. Estimated or calculated output is important if catheterisation cannot be performed (in the case of patients with haematological conditions etc)	Noted.
103.11	Nottingham City Hospital	GL	2.2.3.1	How are competencies to be demonstrated? In the classroom or in the clinical area? These are important issues, ones we have tried to address before with 'Comprehensive Critical Care'. What are the partnerships with IHE in providing this education/training, whose responsibility is it? Who will pay for it?	A group of healthcare professionals, supported by the English Department of Health, are currently addressing core competencies for the acutely ill patient using the completed work from the ACUTE and Foundation Programme initiatives as a starting point. It is anticipated that this work will identify which competencies should be held by which staff. The final document will be ready for release as part of the set of implementation tools" in the Autumn. Implementation of training programmes to deliver the workforce's competencies are out with the scope of this document.
103.12	Nottingham City Hospital	GL	2.2.3.8	Whilst I accept there is poor evidence for 'outreach' this should not preclude a recommendation for this service. We are in real danger that cash struck Trusts will interpret this 'poor evidence' as a reason to get rid of the existing teams or reduce them. The view of those who work closely with the wards and outreach is that these teams are making a difference, it is just that the right questions are not being asked and as such evidence will always be lacking. There is NO evidence that these teams are making things worse either. They are not deskilling staff rather they are upskilling staff etc. There needs to be good leadership and direction at this level. The difficulty has been that teams have been set up in a variety of ways and configurations and as such they are difficult to research and evaluate.	We provide a clear review and summary of the available evidence relating to the effectiveness and cost-effectiveness of response strategies (including CCOS). In the view of the GDG the evidence available leads to the conclusion that no specific service configuration can be recommended as a preferred response strategy for individuals identified as having a deteriorating clinical condition.
103.13	Nottingham City Hospital	GL	2.3.3.1	Timing of discharge and outcome, there is no mention of studies comparing patient outcome with the number of nurses on a ward or the ratio of registered and non-registered nurses, which are known to affect outcome and patient experience. It may not necessarily be the time but rather that at night the number of nurses decrease etc. If they remained constant outcome may be different. In my experience re-admission to ICU can also be as a result of a shortage of staff or skills of staff (including junior doctors)	We welcome this point would recognise that staffing levels are a key variable. However, it is outside the scope of this guideline to review the evidence and make recommendations on ward staffing levels.
103.14	Nottingham City Hospital	GL	2.3.4.3	Staff in critical care also need to understand what 'ward care' is like. We now take nurses in critical care straight from registration. Rotations through critical care is one way forward.	Noted.

104	Nutricia Ltd (UK)			This organisation has been approached but did not	n/a
105	Nutrition Society			This organisation has been approached but did not respond	n/a
106.0	Obstetric Anaesthetists Association	Gen		Can we petition for a few words to highlight the fact that pregnant and postnatal women die from missed sepsis/occult haemorrhage? These women can deteriorate quickly especially with sepsis, and a senior obstetrician should be aware of these women if in hospital.	Mention of specific groups is outside the scope of this work. We note that there was no consensus from SH comments about whether maternity patients should be included or excluded. The view of the GDG is that they should be included in the guideline and fall within the definition of "adult patients in acute hospital settings"
106.1	Obstetric Anaesthetists Association	Gen		It should also be noted that physiological parameters in pregnant patients are different; we presume the answer is to use an appropriate scoring system modified to this particular group of patients.	The guidelines are for all adult patients in acute hospital settings. In our review of TT systems we found no specific TT systems that were evaluated or validated for obstetric patients. Thus further research is needed in this area to validate existing TTS on this group of patients.
107	OCD-Today			This organisation has been approached but did not	n/a
108	Outreach Nurses in Kent (ONIK)			This organisation has been approached but did not	n/a
109	Oxford Radcliffe Hospitals NHS Trust			This organisation has been approached but did not	n/a
110	Pancreatic Cancer UK			This organisation has been approached but did not respond	n/a
111.0	Pennine Acute Hospitals NHS Trust	GL	2.1.3 Rec.1 Point 2	Need to elaborate on what is meant by specifically trained staff. Some HCSWs undertake observations but their training to do this is not standardised locally or nationally. Key competencies and assessments must be developed and made explicit. There should be a national minimum standard for training and assessment of staff recording observations which should include communication	Noted. This is outside the remit of this work.
111.1	Pennine Acute Hospitals NHS Trust	GL	2.1.3 Rec. 1 Point 3	Clear monitoring plan – who should devise the clear monitoring plan- need explicit guidance. A lot of registered nurses feel it is not their responsibility but they should drive/lead the development of this plan and neootiate with medical teams.	Noted. This is outside the remit of this work.
111.2	Pennine Acute Hospitals NHS Trust	GL	2.1.3.2 Rec 2	Need to perhaps mention that these are the MINIMUM standard and that where patients have pain or any PCA/epidural in progress, there is an expectation that this will be monitored accurately as well. There are a large number of patients who require critical care because their pain management has been inadequate and they succumb to pneumonia.	This has been done.
111.3	Pennine Acute Hospitals NHS Trust	GL	2.1.4 Rec 3	Do we really mean all in patients – the maternity unit are insistent on promoting the well woman approach and do not want to medicalise maternity care. Obviously circumstances will dictate the need for	We note that there was no consensus from SH comments about whether maternity patients should be included or excluded. The view of the GDG is that they should be included in the guideline and fall within the

111.4	Pennine Acute Hospitals NHS Trust	GL	2.1.6.2 Rec 7	observation recordings but perhaps there should be some potential exclusions highlighted. Strict fluid balance monitoring should be mandated for all acutely unwell patients who are at risk – this is not explicit in the recommendation for hourly urine output. The rationale for non inclusion in an aggregated points scoring system is clear but it seems to be an optional extra rather than a recommendation.	definition of "adult patients in acute hospital settings" We have revised the review of the evidence and evidence to recommendations section 1.1.5 to make the basis for inclusion of oxygen saturation and exclusion of urine output clear. We refer to the Cuthbertson 2007 paper which shows the importance of O2 saturation as an important early predictor of need for ITU admission in HDU surgical patients. Fluid balance is not a TTS parameter.
111.5	Pennine Acute Hospitals NHS Trust	GL	2.2.3.1 Rec 8	Explicit national standard competencies should be developed for all grades of the multi professional team who are involved in the recording and interpretation of observations, and the necessary skills/knowledge to deal the management of acutely unwell patients. FY1 and FY2 competencies are a good example of this that can be replicated for other staff groups.	A group of healthcare professionals, supported by the English Department of Health, are currently addressing core competencies for the acutely ill patient using the completed work from the ACUTE and Foundation Programme initiatives as a starting point. It is anticipated that this work will identify which competencies should be held by which staff. The final document will be ready for release as part of the set of implementation tools" in the Autumn. Implementation of training programmes to deliver the workforce's competencies are out with the scope of this document.
111.6	Pennine Acute Hospitals NHS Trust	GL	2.2.3.4 Rec 11 and 2.2.3.5 Rec 12	The expectation that all hospitals will be able to provide immediate access to critical care trained medical practitioners is unrealistic within current staffing levels, medical rotas and resources. Many stand alone HDUs do not have access to critical care trained medics and patients are managed by their parent teams – this must be addressed otherwise the workload for dedicated critical care medics will spiral out of control. Current resident medical staff cover (anaesthetists covering critical care) can not be guaranteed to have the 'minimum of intermediate level competencies in critical care'. Coupled with the pressures of modernising medical careers (in our trust this has resulted in the loss of 10 anaesthetic SHO posts) means it is highly improbable that an immediate response from an appropriately trained medic will be deliverable. The proposed graded response strategy completely bypasses parent teams in the delivery of care to their sickest patients – this dis-empowers, de-skills and detracts from care. If a surgical patient has a problem then surely a surgeon should be involved in the escalation/management of care. This approach will enable some parent teams to abdicate responsibility for sick patients and will fragment care. In the interests of averting	Recommendation 1.3.2.10 has been revised to ensure an implementable definition of critical care competencies. It now reads: "The team should include a medical practitioner skilled in the assessment of the critically ill patient and who possesses advanced airways management and resuscitation skills. "

				admissions, the agenda for managing acutely ill patients must be to equip parent teams to care for their own, with the support of critical care where required	
111.7	Pennine Acute Hospitals NHS Trust	GL	2.3.3.1. Rec 16	The current bed pressures mean that on rare occasions patients have to be transferred out of the unit at night but only to make way for another sick patient. Bed escalation procedures do not always view CC as a priority. Perhaps such discharges	We agree. We have reworded this recommendation (1.3.2.14) to ensure that it refers to fact decision to transfer has been made and that night transrer "should be avoided whenever possible, and should be documented as an adverse incident if it occurs"
112	PERIGON Healthcare Ltd			This organisation has been approached but did not	n/a
113	Personal Social Services Research Unit - Manchester (PSSRU)			This organisation has been approached but did not	n/a
114	Pfizer Limited			This organisation has been approached but did not	n/a
115	Queens Hospital NHS Trust (Burton upon Trent)			This organisation has been approached but did not	n/a
116	Regional Public Health Group - London			This organisation has been approached but did not	n/a
117.0	Resuscitation Council (UK)	Gen		This is a useful document which defines the care that an acutely ill patient should expect to receive in the NHS.	We are clear that this guideline does not cover cardiac arrest. See revised recommendation 1.3.2.11
				The severity of illness in the acutely ill patient can range from signs of early physiological deterioration at one end of the spectrum to patients sustaining a cardiac arrest at the other end.	
				The guideline states that it covers all acutely ill adult patients in hospital, including patients in the Emergency Department and those in transition. Whilst it provides detailed recommendations relating to the care of the patient before cardiac arrest, no recommendations are provided for treating the patient in cardiac arrest.	
				In 2005, national standards for the clinical care of patients in cardiac arrest were produced by the Royal College of Physicians, Royal College of Anaesthetist, Intensive Care Society (UK) and Resuscitation Council UK (Reference: Gabbott D, Smith G, Mitchell S, Colquhoun M, Nolan JP, Soar J, Pitcher D, Perkins G, Phillips B, King B, Spearpoint K. Cardiopulmonary resuscitation standards for clinical practice and training in the UK. Resuscitation 2005;64: 13–19).	
				In would be clearer if the document stated that it does not address specifically the care for patients that sustain a cardiac arrest but instead referred readers to the joint Royal Colleges / ICS / RC(UK)	

				statement	
118	Rotherham Acute Trust			This organisation has been approached but did not	n/a
119	Royal Berkshire NHS Foundation Trust			This organisation has been approached but did not	n/a
120	Royal Brompton and Harefield NHS Trust			This organisation has been approached but did not	n/a
121.0	Royal College of Nursing	Gen		The RCN welcomes the development of this guidance and the opportunity to review the draft.	Thank you.
121.1	Royal College of Nursing	Gen		We found the document too repetitive in some parts.	The final version will be the subject of professional editing. There will be a Quick Reference Guide
121.2	Royal College of Nursing	Gen		Whilst it was important to have all the research findings, it made the document difficult to read in some parts.	The final version will be the subject of professional editing. There will be a Quick Reference Guide
121.3	Royal College of Nursing	GL	2. 1.3 Rec 2	Should a reference be made to monitoring a pains score as well as the other vital signs parameters?	This has been addressed in revised recommendation 6 (1.3.2.6)
121.4	Royal College of Nursing	GL	2.1.6 Rec 7	There is no mention of fluid balance monitoring (input as well as output - fluid loss other that just urine output should always be monitored in a patient at risk of deterioration).	Noted. A recommendation on this specific issues were discussed within the GDG and were not considered to need specific recommendations.
121.5	Royal College of Nursing	GL	2.2.3 Rec 11	The document is specific with regard to mentioning that vital signs should be carried out 12 hourly (recommendation 3) and the document is specific that a patient identified at risk should get a 'response' depending upon level of risk but at no stage does the document stipulate that the response should ALWAYS include a thorough assessment of the patient (using ABCDE approach for example). The recommended response to a patient at low risk of deterioration or with a low trigger is simply to increase frequency of observations. We do not think that this is enough. An ABCDE assessment should be carried out to determine the cause of the trigger or risk and action should be taken accordingly - needs recommendation to be time driven.	The recommendations as worded do not preclude an assessment of the patient as is appropriate to the specific clinical circumstance. The important point is that the nurse in charge will use her/his clinical judgement and decide upon what assessment is appropriate.
121.6	Royal College of Nursing	GL	1.3.3 Page 14	Care pathway flow diagram - If patient not a candidate for Critical Care then what? Perhaps an arm to include other route of care – CCU / DNAR/ end of life pathway/ re-refer if no improvement after completion of management plan - needs to be Time Driven.	This has been addressed both in the care pathway and the revision to recommendation 1.3.2.3
121.7	Royal College of Nursing	GL	2.1.3.2	Physiological observations: the statement seems to imply that <u>all</u> patients need to have oxygen saturation levels taken. Assessing the level of consciousness - this is usually a registered nurse's	The GDG consider that the measurement of oxygen saturation is appropriate.

121.8	Royal College of Nursing	GL	2.2.3.1	job, not an HCAs and has implications on who does clinical observations Consider adding a time interval to the development of the monitoring plan.	This was considered by the GDG and it was not felt appropriate to add timing.
				We would strongly recommend that any response or call for more senior review or management plan is time driven. Calling for senior help is great - but falls down a bit if they do not come to the bedside for 5 or 6 hours or more! Any action plan associated with a track and trigger tool should be time driven.	
121.9	Royal College of Nursing	GL	2.1.5	Agree with the multi-parameter /aggregated weighting system given the strength of the evidence	Thank you.
121.10	Royal College of Nursing	GL	2.2.3.1	"Necessary competencies" - are there going to be national competencies drawn up?	A group of healthcare professionals, supported by the English Department of Health, are currently addressing core competencies for the acutely ill patient using the completed work from the ACUTE and Foundation Programme initiatives as a starting point. It is anticipated that this work will identify which competencies should be held by which staff. The final document will be ready for release as part of the set of implementation tools" in the Autumn. Implementation of training programmes to deliver the workforce's competencies are out with the scope of this document.
121.11	Royal College of Nursing	GL	2.2.3.3	'track and trigger' system thresholds should be set at "local" level - is this by hospital or by ward?	These thresholds should be set out at Trust level by Critical Care Delivery Groups.
121.12	Royal College of Nursing	GL	2.2.3.3	There is variation nationally on triggers tools - there are over twenty-five different track and trigger tools in use at the moment. This has the potential to create confusion and may be detrimental to patient safety. Would it be realistic to set a set a minimum threshold for the trigger?	The GDG did not consider the available evidence did not allow this step to be taken. Indeed, the Gao (2007) review emphasised that implementability may be more easily obtained if hospitals use a TTS appropriate to their particular circumstances. It is set out clearly in the evidence statements and evidence to recommendations section why a multiple/aggregate TTS should be recommended as opposed to a single parameter system (1.1.4). As noted, SPS - do not allow a patient's progress to be tracked - do not allow a graded response strategy. In addition, we received a range of SH comments on whether a single or multiple/aggregate weighting TTS should be recommended and the large majority were in favour of multiple/aggregate WS.
121.13	Royal College of Nursing	GL	2.2.3.6	Again consider the imposition of a maximum time period within which the management plan is formulated.	It is not possible to specify a specific response time. These thresholds should be set out at Trust level by Critical Care Delivery Groups
121.14	Royal College of Nursing	GL	2.2.3.7	Suggest that nurse in charge of the ward be included in the decision-making given his/her knowledge of the skills of the nurses working in that ward at that time.	This is not precluded by the recommendation.

121.15	Royal College of Nursing	GL	2.3	Should read: Patients should NOT be discharged from critical care between these hours: 20.00 and 07.00; Not between 22.00 and 07.00 as suggested in the draft.	This was a typing error that has been changed, thank you.
121.16	Royal College of Nursing	GL	2.3.3.1	If discharges from critical care to the ward between at the stipulated times are to be stopped then additional beds may be required in critical care to ensure patient safety and care is maintained.	We have reworded this recommendation (1.3.2.14) to ensure that it refers to fact decision to transfer has been made and that night transfer "should be avoided whenever possible, and should be documented as an adverse incident if it occurs"
121.17	Royal College of Nursing	GL	3.1.4	This statement is confusing given the information in section 2.3.2 about transfer from critical care. The term discharge needs to be clarified or defined.	We are consistent in the guideline that the decision to transfer/discharge from CCA is not covered in this guidance
121.18	Royal College of Nursing	GL	3.3.12	It is regrettable that pilot and implementation strategies are not in the scope of the guideline.	Implementation tools will be developed by NICE, including audit criteria, slide sets, and a costing framework.
121.19	Royal College of Nursing	Gen		We found the recommendations of the document to be sound. But wondered whether trusts will be able to fully fund them in order to address the needs of the patients whom the guideline is aimed at	This will be addressed by the accompanying implementation tools
121.20	Royal College of Nursing	Gen		Disappointed that there was not real statement of analysis that outreach is difficult to measure and that out reach teams enhance care via other methods	We consider that we have fully discussed the issues relating to evaluating outreach.
121.21	Royal College of Nursing	Gen		The document refers in many sections that education is important but did not suggest specific education. Pre-and post registration training is important in the management of critically ill patients. It would be good to state specific education or recommended training that are crucial for healthcare professionals, particularly in today's climate where NHS deficits have resulted to some trusts not giving	This is outside the scope of this work.
121.22	Royal College of Nursing	Gen		It is disappointing that there appears to be very little analysis on the staffing levels on the wards with qualified nurses and its effects on outcome. Rafferty's et al (2007) study, International Journal of Nursing Studies found that if wards were appropriately staffed patients deterioration will be detected early and death may be avoided.	We welcome this point would recognise that staffing levels are a key variable. However, it is outside the scope of this guideline to review the evidence and make recommendations on ward staffing levels.
				The metaanalysis by Numata et (2006) contained a number of US/Australian studies and the focus was looking directly at critical care settings and not on wards.	

It would be good to have guidance on appropriate staffing levels and perhaps a recommended credible staffing skill mix model to determine the minimal number of qualified nurses/healthcare professional

for a particular ward.

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121.23	Royal College of Nursing	Gen		We consider that there needs to be more acknowledgement with Our Health, Our Say document that more patients will be managed in the community so the patient acuity will increase again on the wards and this needs to be addressed with staffing and education to reflect this	Noted.
122.0	Royal College of Pathologists	GL	Rec 7	Stating and education to reflect this. While designed to use physiological measures of deterioration, there is a brief and unsubstantiated, by their methodology, list of biochemical tests. Is there evidence that monitoring these and other biochemical parameters may provide a more sensitive or specific indicator of deterioration in advance of or as an adjunct to the physiological triggers?	The scope of this work is clear that the evidence to be reviewed is generic TTS to be used in adult patients in hospital. Specific biochemical tests are outside the remit of this work.
				We should expect some evidenced guidance on when within the pathways, the additional biochemical tests should be triggered, which ones they should be and the impact these have on the admission/discharge policies.	
				If the document seeks to describe the overall patient pathway and the shape of services for the acutely ill, then it succeeds. As a practical guideline, it falls short.	
				The document stresses that physiological abnormalities are a marker for clinical deterioration but stresses the measurement of:	
				 Heart rate Respiratory rate Blood pressure Level of consciousness Oxygen saturation Temperature 	
				A 'word search' using 'pathology'. 'biochemistry' and 'investigation' reveals very little. Biochemical analysis is only mentioned twice, and then only as 'examples' – lactate, blood glucose, base deficit and arterial pH. Clearly many other analytes are measured and whilst we may feel that only this restricted tariff is needed, what we see in practice is very different and there needs to be a way of	
123.0	Royal College of Physicians of Edinburgh	Gen		The College considers this to be generally well written and accessible, although there is some repetition which adds to its length which, if addressed, may encourage use. The College's	The final version will be the subject of professional editing. There will be a Quick Reference Guide

further comments are restricted to the recommendations sections of the guideline.

123.1	Royal College of Physicians of Edinburgh	GL	1.3	It is not clear why the recommendations are presented as 2 lists, and the College suggests a single list with the priority recommendations colour coded in some way.	We have presented the recommendations as two lists as the first is a list of key priorities for implementation and the second is a full list of the recommendations for this guideline.
123.2	Royal College of Physicians of Edinburgh	GL	2.1.3	It may be helpful to expand the final bullet point under recommendation 1 to include that agreed <u>minimum</u> physiological observations should be included. This would avoid any conflict with the implied minimum data set advised in recommendation 2. Recommendations 18 and 19 should sit closer to recommendations 2 and 6 and reclassify recommendations 2 as one of the priority recommendations. Also, recommendation 12 should be placed closer to recommendations 2 and 6.	We have amended this to state 'minimum' set of physiological observations. The NICE editorial team will consider whether the additional editing comments should be addressed.
123.3	Royal College of Physicians of Edinburgh	GL	2.1.5	It would be helpful for the guideline to be clearly in favour of either multi parameter or aggregate scores, because allowing choice would encourage the continuance of disparate systems. The opportunities to alert staff to critical patients using colour codes is discussed in some publications, but does not feature in the evidence sections for aggregate scores.	Unfortunately the available evidence did not allow the GDG to make a specific recommendation for one TTS.
123.4	Royal College of Physicians of Edinburgh	GL	2.1 4	It may be helpful to remind the reader that track and trigger systems are only intended for acutely ill patient, and not for other patients located on the same site eg long stay care of the elderly.	This has been addressed both in the care pathway and the revision to recommendation 1.3.2.3
123.5	Royal College of Physicians of Edinburgh	GL	2.2.3	The medium grade response recommendation advising simultaneous calls to the primary medical team and to others with core competencies for acute disease, whilst recognising the variability of local solutions, should also recognise that the core competencies may reside within the primary medical team ie management of severe COPD on a respiratory ward.	This is not precluded by the wording of the recommendation
123.6	Royal College of Physicians of Edinburgh		2.3.3	The precise timings included within this recommendation are worrying and fail to recognise that staff availability may fluctuate during other periods, for example, over weekends. If timings are to be specific, they should be much more stringent eg transfers after 16.00 hours at the latest. Patient safety considerations should reflect the actual availability of staff, rather than expected availability	We have reworded this recommendation (1.3.2.14) to ensure that it refers to fact decision to transfer has been made and that night transfer "should be avoided whenever possible, and should be documented as an adverse incident if it occurs"

according to time of day.

124.0	Royal College of Physicians of London	Gen		The College welcomes these draft guidelines but wishes to raise a few points of detail.	Thank you. The GDG consider that the guidance goes into the correct level of detail.
				The recommendations are very straightforward and, from an Acute Medicine perspective and intensive care perspective, these recommendations throughout the whole document are already generally accepted.	
				It is certainly accepted that MEWS scores are better than just measuring blood pressure and heart rate on their own. It is also generally clinically accepted from the Society of Acute Medicine and that for Critical Care that there should be an outreach team who should liaise with the management team to look after patients at Level 2 in order that they can be moved into Level 3 intensive care.	
				On page 14 there is a care pathway, which is a standard which we hope could be adopted in every hospital. From a detail point of view there is no indication who is to respond to the trigger threshold and clinical concern for either high, medium or low intensity. We think this is very important.	
				In conclusion, this document draws together the data on basic management and liaison between level 2 and level 3 acute care of the critically ill patient. It would have been better to have a bit more on the role of the Acute Medical Unit, the MAU and admission services. Also on the role of the HDU in acute hospitals for the management of "surgical sick patients" by medical HDU teams. I feel that there could have been much more clinical content, such as in the task force document which tells you "How to do it".	
124.1	Royal College of Physicians of London	GL	1.2	We support the ethos of patient-centred care set out in this section. The penultimate paragraph states: Carers and relatives should have the opportunity to be involved in decisions about the patient's care and treatment, unless the patient specifically excludes them.	Noted. We would ask the PPIP to consider whether these issues require it to revise the general section of principles of care (1.2) section.
				For patients who have capacity, the default position should be one of patient confidentiality. Hence this statement should be rephrased to replace the conditional clause, 'unless' with, 'if the patient wishes'. The wishes of older people in hospital	

				regarding who confidential medical information should be disclosed to and who should be involved in clinical decisions are often ignored (Tiernan J, Starr JM. Sharing the confidential information of cognitively intact older patients: what do patients think? An exploratory study. Age and Ageing (in press)).	
124.2	Royal College of Physicians of London	GL	1.3	The recommendations to 'track and trigger' physiological measurements are sensible. However the consultation fails to take into account patients where such monitoring is 'not possible' as Bell et al (2006) put it in one of the papers that influence the report (Bell MB, Konrad D, Granath F et al. (2006) Prevalence and sensitivity of MET-criteria in a Scandinavian University Hospital. Resuscitation 70 (1): 66-73.). Bell et al's data, for example, suggest that around 10% of patients will not be able to be examined, and this is likely to reflect their mental rather than physical state. Delirium is a common acute presentation to hospital in older people and carries a high mortality and morbidity risk. Such patients may tolerate extensive physiological monitoring poorly (e.g. hourly urine output in recommendation 7). The recommendations should extend to such patients otherwise they are likely to be disadvantaged by pathway implementation. Assessment of patients with delirium requires expertise, and the inability to perform some of the physiological measurements should be a trigger in itself for early specialist assessment.	Noted. The specific review of the evidence relating to delirium and its management is outside the scope of this guidance.
124.3	Royal College of Physicians of London	GL	2	The review relates to the systematic review published by Gao et al (Gao H, McDonnell A, Harrison DA et al. (2007) Systematic review and evaluation of physiological track and trigger warning systems for identifying at risk patients on the ward. Intensive Care Medicine 33 (4): 667-679) that states: 'The evaluation found that sensitivities and positive predictive values were unacceptably	Noted, thank you.
				Low, although specificities and negative predictive values were generally acceptable'.	
				The Guideline Development Group noted the lack of good quality evidence on the effectiveness of specific interventions in the immediate post discharge phase on general wards to improve health outcomes for the specific subgroup of patients who	

				have been discharged from critical care areas'.	
				We are keen that the final guideline acknowledges the poor evidence-base for any recommendations. We support the recommendations for further research.	
124.4	Royal College of Physicians of London	GL	3	The consultation states that (3.1.3.),	Noted. The scope was written to specifically cover
				"This guideline provides guidance on:	disease-specific/neurological scoring tools. The specific review of the evidence relating to delirium and
				 a) Identification of patients who are at risk of clinical deterioration or whose clinical condition is deteriorating. This will include assessment of: scoring tools that record physiological parameters and neurological state The level of monitoring needed and the recording and interpretation of the data obtained. b) Response strategies to manage patients who are at risk of clinical deteriorating, including: the timing of response and patient management" 	its management is outside the scope of this guidance.
				Of concern is that the only indicator of 'neurological state' considered by the review was level of consciousness. Fluctuating level of consciousness is control to the diagnosis of delivium (see response to	
				1.3 above) and brief assessment of cognitive state (e.g. clock-drawing) could be considered to strengthen (assessment of neurological state). This	
				oversight may relate to the 'Key Clinical Questions',	
				parameters. Delirium is very common in critically ill	
				Thomason JW. Jackson JC. Shintani AK. Ely EW.	
				critically ill patients. Journal of the American	
				Geriatrics Society. 54(3):479-84, 2006), even in patients aged under 65 years, and the hypoactive	
				type is easily missed. Delirium is an independent	
				Speroff T. Gordon SM. Harrell FE Jr. Inouye SK.	
				Bernard GR. Dittus RS. Delirium as a predictor of mortality in mechanically ventilated patients in the	
				intensive care unit. JAMA. 291(14):1753-62, 2004).	
125	Royal Hospitals			This organisation has been approached but did not respond	n/a
126	Royal Shrewsbury Hospital NHS Trust			This organisation has been approached but did not	n/a

				respond	
127	Royal United Hospital Bath NHS Trust			This organisation has been approached but did not respond	n/a
128.0	Royal Wolverhampton NHS	GL	2.1.4	Recommendation 3 suggests minimum 12 Hourly observations. There is no evidence for this time scale. A lot of deterioration can occur in 11 hours. If a patient is acutely ill surely minimum frequency should be 4 hourly, in consideration of the NPSA findings.	Stakeholder comments were evenly spread between those supporting 12 hourly monitoring and those favouring more frequent monitoring. The recommendation 1.3.2.3 has been re-worded to state "physiological observations should be monitored at least every 12 hours". The recommendation also notes that on occasion it will not be necessary to use TT systems to monitor certain groups of patients (e.g., those in receipt of palliative care). It should be emphasised that at this point the patients being monitored have not been defined as "acutely ill".
128.1	Royal Wolverhampton NHS	GL	2.1.6	From recommendation 6, it is not clear to us whether saturation should be part of aggregate score OR just part of observations. Saturations are not an entirely reliable indicator of condition, particularly if a patient is shut down peripherally. They are difficult to score without consideration of FiO2. "Inspired O2 level needed to maintain SaO2 over 90" is perhaps more useful.	We have revised the review of the evidence and evidence to recommendations section 1.1.5 to make the basis for inclusion of oxygen saturation and exclusion of urine output clear. In the evidence review we refer to the Cuthbertson 2007 paper and the Duckit 2007 (in press) which show the importance of O2 saturation, with a cut point of 95%, as an important early predictor of acute deterioration in both medical and surgical patients.
128.2	Royal Wolverhampton NHS	GL	2.2.3	Recommendation 8 suggests staff should have necessary competencies. No suggestion as to minimum competencies. E.g. NVQ (for HCA's who carry out observations). We think all staff performing observations need competencies to demonstrate that they are able to report problems appropriately.	The GDG discussed this and considered that competencies should be matched to level of care being provided, hence use of "necessary". A group of healthcare professionals, supported by the English Department of Health, are currently addressing core competencies for the acutely ill patient using the completed work from the ACUTE and Foundation Programme initiatives as a starting point. It is anticipated that this work will identify which competencies should be held by which staff. The final document will be ready for release as part of the set of implementation tools" in the Autumn. Implementation of training programmes to deliver the workforce's competencies are out with the scope of this document.
128.3	Royal Wolverhampton NHS	GL	2.3.3	"should not be discharged from critical care areas to the general ward between 22.00 and 07.00" is too strong because this can be unavoidable in Emergency situations when Triage principles may have to apply. Available evidence is biased because the "almost certain to survive" are more likely to be discharged earlier in the day. Night time discharge may also be safer in the presence of 24 hour Outreach. Surgest "should only rarely need to be"	We have reworded this recommendation (1.3.2.14) to ensure that it refers to fact decision to transfer has been made and that night transfer "should be avoided whenever possible, and should be documented as an adverse incident if it occurs"
128.4	Royal Wolverhampton NHS	GL	2.3.4	Recommendation 17. Structured handover. Looking at planning for physical and psychological	Noted.

			needs not always appropriate for short stay patients. Agree this needs to be addressed for longer stay CCU patients	
128.5	Royal Wolverhampton NHS	Gen	Overall the recommendations are easy to follow. We are disappointed that the document falls short of mandating critical care outreach services. We have 24 hour outreach that realistically took 3 years to establish. During this time our hospital environment changed continually making measurements of improvement almost impossible.	We provide a clear review and summary of the available evidence relating to the effectiveness and cost-effectiveness of response strategies (including CCOS). In the view of the GDG the evidence available leads to the conclusion that no specific service configuration can be recommended as a preferred response strategy for individuals identified as having a deteriorating clinical condition.
129.0	SACAR	Gen	The words antibiotic and infection are scarcely featured in these documents. However, there is ample evidence that early empirical treatment with agents that (on retrospective analysis) prove to be active against the pathogens present in infection is associated with reduced mortality (see e.g. analyses by Kollef (Kollef et al. Crit Care Med 2000; 28: 3456- 3464) for multivariate analysis showing that inadequate treatment of infection above anything else was associated with increased mortality.) The slide below shows therapy (appropriate and inappropriate) and associated increase in mortality:	This is outside the scope of this work.
			In a world of increasing multiresistance there is logic to starting off with very broad empirical antibiotics in severely ill patients with infection then stepping down (to narrow spectrum agents) once the pathogens are identified by the microbiology laboratory. One of the difficulties is how to enforce this step down. A paper by Soo-Hoo (Chest 2005, 128, 2778) showed that step down was only done in half the patients where it is possible. This is one of the challenges that the NICE should be addressing.	
129.1	SACAR	Gen	The thrust of this document is around recognition rather than treatment of acutely ill adult patients. It does not therefore have any direct implications for antimicrobial prescribing or antimicrobial resistance as per the remit of SACAR.	This is outside the scope of this work.
129.2	SACAR	Gen	The overall theme of the Guideline is important, contains a lot of common sense, overlaps with initiatives already taking place in most hospitals and is linked to a strong evidence base linking severity	Thank you.
129.3	SACAR	Gen	scoring with adverse outcomes This guideline provides a useful framework for the management of the acutely ill adult in hospital. It reinforces much of current medical practice whilst highlighting specific issues on severity assessment,	Thank you.

				patient monitoring and safe transfer of patients between units. There remain many gaps in the evidence that supports some components of the recommendations. These are made clear in the body of the document although the summary recommendations appear more authoritative than the evidence perhaps allows.	
129.4	SACAR	GL	1.4.4	The general statement that professionals apply their general medical knowledge and clinical judgement is supported but in many ways the guideline is rather prescriptive. Do the authors wish this to be viewed as a "standard of care" or as a "guideline"	This document is worded appropriately as a clinical guideline
129.5	SACAR	GL	2.1.3.1.	Provision should be specifically made for patients to be opted out since a significant number of adults admitted to hospital have irreversible conditions and are expected to die. In these situations regular monitoring is not appropriate.	We have revised recommendation 3 (1.3.2.3) to address this point
129.6	SACAR	GL	2.1.2	The emphasis on "Track and Trigger" systems draws heavily on the review by Gao et al, 2007. The robustness of the recommendations does need to be viewed in the light of specialist bed availability (HDU and ICU) since the UK is disadvantaged compared to other countries with regard to numbers available. This inevitably frequently affects the timing of admission and discharge from such units.	Issues of generalisability have been considered by the GDG.
129.7	SACAR	GL	2.1.4.	No mention is made of disease specific scores. There is clear evidence (in for example community- acquired pneumonia) that disease specific scores have better operating characteristics with respect to important outcome measures than generic systems and are to be preferred at the time of admission	Review of disease specific scores is outside the scope of this work.
129.8	SACAR	GL	2.1.4	This recommendation relating to physiological monitoring in the 12 hours is likely to fall below current standards of practice for the acutely ill.	Stakeholder comments were evenly spread between those supporting 12 hourly monitoring and those favouring more frequent monitoring. The recommendation 1.3.2.3 has been re-worded to state "physiological observations should be monitored at least every 12 hours". Ill patients will trigger an increased frequency of observations. The recommendation also notes that on occasion it will not be necessary to use TT systems to monitor certain groups of patients (e.g., those in receipt of palliative care). It should be emphasised that at this point the patients being monitored have not been defined as "acutely ill".
129.9	SACAR	GL	2.1.55	The stated lack of robust health economic assessment of likely impact of such scoring systems is a major weakness and although highlighted, does undermine the strength of these recommendations. This also applies to CCOS as detailed in 2.2.2	Noted.

129.10	SACAR	GL	2.3.2	The weak evidence relating to step down care, particularly in the UK healthcare setting is a serious weakness of the recommendations	Noted.
129.11	SACAR	GL	2.3.3.1	The recommendation that ICU discharge should not occur between 22.00 and 07.00 is laudable but is probably unworkable in the current working environment without an expansion of ICU beds.	We have reworded this recommendation (1.3.2.14) to ensure that it refers to fact decision to transfer has been made and that night transfer "should be avoided whenever possible, and should be documented as an adverse incident if it occurs"
129.12	SACAR	GL	Rec14	Suggest expanding to include "Consultant or senior specialist trainee" to make it consistent with current practice and to avoid unnecessary delay in obtaining consultant input	The GDG were strongly of the opinion that it should be a consultant level decision. This is in accordance with the NCEPOD report on care for this group of patients.
129.13	SACAR	GL	Rec16	In many ways this is too prescriptive. Suggest qualifying by stating no transfers should occur between 22.00 – 7.00 where staffing levels or appropriate expertise is lacking. As stated, there is a danger that this would encourage litigation and as debated later in the document, lacks robust	We have reworded this recommendation (1.3.2.14) to ensure that it refers to fact decision to transfer has been made and that night transfer "should be avoided whenever possible, and should be documented as an adverse incident if it occurs"
129.14	SACAR	GL	2.4	The flagging of research recommendations is welcomed but again raises questions concerning the strength of several of the recommendations made in this document	Thank you.
130	Sanofi-Aventis			This organisation has been approached but did not	n/a
131	Scottish Intercollegiate Guidelines Network (SIGN)			This organisation has been approached but did not respond	n/a
132	Sheffield PCT			This organisation has been approached but did not respond	n/a
133.0	Sheffield Teaching Hospitals NHS Foundation Trust	Gen		The existing training combined with the Sheffield Hospitals Early Warning Score (SHEWS) will help the Trust to enforce all of the recommendations. However, it is important to stress that effective leadership at ward level is required in order to ensure consistent application of these recommendations	Thank you.
134.0	Shrewsbury & Telford Hospital NHS Trust	GL	2.2.3.7	The consultant caring for the patient on the ward is often unaware of what critical care can offer and can sometimes be unrealistic about the chances of recovery. Out of hours, the consultant covering the ward may not even know of the patient and there is a pressure on someone who is in bed at home to simply request that a patient be admitted as a 'self- protection' strategy and to 'give the patient the benefit of the doubt'. As most DGHs have non- intensivists on the critical care on-call rota, these people may themselves feel pressurised to admit in these circumstances, even if they have their own reservations. This is not the best way to ensure best use of a limited resource and I believe that whether	Noted. We would emphasise that the multidisciplinary GDG, which included a DGH Medicine for the Elderly Consultant, supported the wording of this recommendation (1.3.2.13)

				or not to admit should be purely the decision of the critical care consultant or the consultant who is covering critical care out of hours. Clearly, a request for assessment in relation to critical care admission would be entirely reasonable but there should not be undue pressure for admission	
134.1	Shrewsbury & Telford Hospital NHS Trust	GL	2.3.3.1	This recommendation cannot be in dispute but is incredibly hard to implement in practice because of severe pressure on ward beds, both from emergency admissions and elective surgical admissions. Because of the target culture, bed managers tend to prioritise transfer from ITU very low down and the only way that this recommendation will become possible is if it is associated with a performance target i.e. all patients should be discharged from critical care within 24 hours (or 12 hours, 6 hrs, etc) of medical discharge within the hours of 07 00 to 22 00	We have reworded this recommendation (1.3.2.14) to ensure that it refers to fact decision to transfer has been made and that night transfer "should be avoided whenever possible, and should be documented as an adverse incident if it occurs"
134.2	Shrewsbury & Telford Hospital NHS Trust	GL	2.1.6.1	Oxygen saturation should be measured in conjunction with inspired oxygen concentration otherwise it is relatively meaningless.	Noted.
134.3	Shrewsbury & Telford Hospital NHS Trust	GL	2.2.3.1	No disagreement with the recommendation however we have delivered the ALERT course to all our trained nurses and we still have problems with monitoring, largely because of the severe shortage of nurses on wards and partly because observations are frequently delegated to HCAs who will religiously do the obs. But will not necessarily pick up on their relevance. Time for training of the small number of nurses on wards is very limited, even if this is training delivered ion-the-ioh by outfraget staff.	Noted.
135	Social Care Institute for Excellence (SCIE)			This organisation has been approached but did not	n/a
136.0	Society and College of Radiographers	Gen		There are some recommendations regarding transfer of patients to and from critical care to wards and when to do it etc.	Noted.
				However there are times when they patients to be transferred out of critical care for diagnostic imaging, and from a 'safe' environment to an 'unsafe' environment. This paper is very evidence based, and I am not sure there has been a great deal of research on patients visiting radiology; however patients can be difficult to stabilise during and after moving from wards. Often very little thought has been put into disconnecting pumps etc. prior to MR and CT scans - there is only so much you can fit in a scanner gantry! It may be helpful for the document to mention theses types of issues/ problems when scheduling and managing patients that need to be moved temporarily from CCU to diagnostic	

and wires in corridors outside scanners which would have been done more appropriately and more safely in the unit prior to moving them. 137.0 Society of British Neurological Surgeons Gen As long as the Glasgow Coma Scale remains the This was discussed by the GDG and it was considered important trigger in Cranial Neurosurgery patients (I it was not appropriate to specify a specific scoring tool don't think it does in this document), we as to monitor the level of consciousness of adult patients neurosurgeons would presumably all be happy. Any in acute hospital settings. It should be emphasised that the auideline does not preclude the use of such scoring other consciousness scale should be condemned tools in defined groups of patients at risk of neurological deterioration. We recognise that the GCS should continue to play its role in monitoring neurological status whenever appropriate. 138 Society of Vascular Nurses This organisation has been approached but did not n/a respond 139 South Manchester University Hospitals NHS Trust This organisation has been approached but did not n/a respond 140.0 South Tees Hospitals NHS Trust Gen Welcome the guideline for recognition and response This will be addressed by the accompanying for acute ill patients in hospital. Implementation of implementation tools some of the recommendations, especially the response criteria, will be difficult and expensive 140.1 South Tees Hospitals NHS Trust Gen Very useful document and fairly sensible Thank you. South Tees Hospitals NHS Trust GL 2.2.3 We would like staff working with acutely ill patients It is not possible to use the word 'must' (see NICE style 140.2 Rec 8 as a "must have" rather than "should have" the guide) but we have revised the recommendation and necessary competencies, and therefore education strengthened the need to provide, as opposed to offer, and training for them has to be offered on a more education. mandatory bases South Tees Hospitals NHS Trust GI 2238 Although appreciate that NICE has not got enough We provide a clear review and summary of the 140.3 evidence to recommend Critical Care Outreach. available evidence relating to the effectiveness and most of the recommendations suggested are being cost-effectiveness of response strategies (including CCOS). In the view of the GDG the evidence available carried out by critical care outreach. MET teams are quite different from UK critical care outreach teams. leads to the conclusion that no specific service and NICE although it can recommend the configuration can be recommended as a preferred configuration of the service to provide the care for response strategy for individuals identified as having a these patients, may have recognised that there deteriorating clinical condition. should be a "service" maybe tailored to local needs of the individual hospital. This organisation has been approached but did not 141 South West London & St George's Mental Health Trust n/a respond 142.0 Southend Hospitals NHS Trust GI 2.1.5.1 Seems rather strong given the lack of solid evidence It is set out clearly in the evidence statements and Rec 4, 5 of superiority of either a multi parameter system or evidence to recommendations section why a an aggregate weighted scoring system over a single & 9 multiple/aggregate TTS should be recommended as parameter early warning system. Whilst it is true that opposed to a single parameter system (1.1.4). As most Hospitals in the UK have opted for either of the noted, SPS - do not allow a patient's progress to be former, we represent one of the Hospitals and tracked - do not allow a graded response strategy. In Outreach Services in the UK that are using a single addition, we received a range of SH comments on parameter system throughout the hospital, linked whether a single or multiple/aggregate weighting TTS into open access to an Outreach Service led by should be recommended and the large majority were in

departments. Much time is wasted untangling cables

senior Critical Care Nurses and backed up by Senior favour of multiple/aggregate WS. Critical Care medical staff.

The principle reason for choosing a single parameter system was simplicity. Ongoing audit within our hospital demonstrates significant issues both getting basic observations performed and then subsequently acted upon when trigger parameters are met. This fundamental failing would be further complicated by introducing a multi parameter or aggregate weighted scoring system at this stage. There are also issues surrounding the nursing resource required to fully implement either of the more complex systems, and also their reproducibility, unless the facility to do this electronically is available.

Audit of patients at our institution who have sustained cardiac arrest demonstrates several important issues:

- The incidence of cardiac arrest calls from acute wards at our hospital is falling since the introduction of an outreach service and single parameter early warning system.
- 2. In this group of patients, however, the early warning system is often not followed or acted upon as it should be, nor is observation recording as good as it should be.
- 3. We have compared, retrospectively, the performance of our single parameter system against one of the typical aggregate weighted scoring systems (The MEWS system). This appears to demonstrate that the single parameter system triggers earlier and more often in this group of patients than the MEWS system would actually suggesting superior sensitivity of the single parameter system.

All three pieces of work have been submitted as abstracts for forthcoming Critical Care meetings, but obviously we would be happy to discuss our findings.

142.1	Southend Hospitals NHS Trust	GL	Rec 4 & 3	We feel it important that at the current time and with the current evidence base it is too early to make such a rigorous recommendation as recommendation number 4. We feel it important that there needs to be some latitude for those of us who are developing and working on the simper of the systems available to continue to do so, to help develop the evidence base, which is currently lacking, and hope this will be given due consideration. We acknowledge recommendation 4 is not currently listed as one of the key priorities for implementation, and fully support the broader recommendation 3 concerning track and trigger	It is set out clearly in the evidence statements and evidence to recommendations section why a multiple/aggregate TTS should be recommended as opposed to a single parameter system (1.1.4). As noted, SPS - do not allow a patient's progress to be tracked - do not allow a graded response strategy. In addition, we received a range of SH comments on whether a single or multiple/aggregate weighting TTS should be recommended and the large majority were in favour of multiple/aggregate WS.
143	Southport & Ormskirk Hospital NHS Trust			systems. This organisation has been approached but did not respond	n/a
144	St Helens & Knowsley NHS Trust			This organisation has been approached but did not respond	n/a
145	Surrey & Sussex NHS Trust			This organisation has been approached but did not respond	n/a
146.0	Sussex Critical Care Network	Gen		Sussex Critical Care Network on the whole welcomes this document and the information and backing it gives to the development of outreach services and improving the care of the acutely ill patient in hospital. However we did feel the document was a little hard to navigate at times and could be repetitive.	The final version will be the subject of professional editing. There will be a Quick Reference Guide
146.1	Sussex Critical Care Network	Gen		Could have been useful to outline the proposed role of the Acute Care Physician	This is outside the scope of this guidance
146.2	Sussex Critical Care Network	GL	2.1.3.1 Rec 1	It would be useful to clarify that the first set of observations should be performed by a trained nurse or a closely supervised health care worker and that the monitoring plan should be decided by a doctor or nurse with skills in recognition and management of acutely ill patient	This is outside the remit of this guidance. We clearly note that staff should have been trained to undertake these procedures and understand their clinical relevance.
146.3	Sussex Critical Care Network	GL	2.1.3.1 Rec 1	Pain assessment, urinary output and bowel habit should also be part of the initial medical assessment. (Pain could be assessed by a suitably qualified nurse)	We have revised this recommendation to make clear that the recommended physiological measurements are a minimum
146.4	Sussex Critical Care Network	GL	2.1.3.2 Rec 2	There is only limited evidence of benefit of routine inclusion of saturation monitoring as part of observations (50% studies) Would be better to encourage robust manual observations / clinical assessment.	In the review of TTS we do address the question of what TTS should be used, including what physiological observations should be recorded. The GDG used the information in this review, including the evidence tables in the appendix, to make recommendations on what they considered to be minimum physiological observations that should be undertaken. We have revised the review of the evidence and evidence to recommendations section 1.1.5 to make the basis for

inclusion of oxygen saturation and exclusion of urine

output clear. In the evidence review we refer to the Cuthbertson 2007 paper and the Duckit 2007 (in press) which show the importance of O2 saturation, with a cut point of 95%, as an important early predictor of acute deterioration in both medical and surgical patients.

146.5	Sussex Critical Care Network	GL	2.1.3.2	Currently not all wards would have access to sufficient saturation monitors for their "routine" use. Cost of provision and maintenance (thereby accuracy) could be an issue.	Noted.
146.6	Sussex Critical Care Network	GL	2.1.4.1 Rec 3	We welcome the inclusion of a minimum monitoring frequency of every 12 hours for patients in acute care as evidence of good practice.	Thank you.
146.7	Sussex Critical Care Network	GL	2.1.5.1 Rec 4	Although we agree this is a good point and the gold standard practice, compliance would be hard to achieve in trusts without outreach or similar educational support.	Noted.
146.8	Sussex Critical Care Network	GL	2.1.6.1 Rec 6	It would be helpful to have some examples of a standardised scoring system. Most trusts don't use oxygen saturation as a trigger. It was felt that oxygen saturation alone is not a useful parameter, it needs to be married up with oxygen delivery levels, however, this would be hard to develop a scoring system around so any suggestions would be helpful.	It is intended that the NICE implementation tools will offer specific examples of TTS
146.9	Sussex Critical Care Network	GL	2.1.6.1	Are there any plans to link these scoring systems into the Information for Health IT systems in the future?	We are unaware if this is planned. We would expect the guideline to be brought to the attention of Information for Health IT systems.
146.10	Sussex Critical Care Network	GL	2.1.6.1	The MEWS system does not include saturations but does include urine output. Changing all our charts would be a real problem and not convinced that NICE have really provided any evidence for their preference.	We have revised the review of the evidence and evidence to recommendations section 1.1.5 to make the basis for inclusion of oxygen saturation and exclusion of urine output clear. In the evidence review we refer to the Cuthbertson 2007 paper and the Duckit 2007 (in press) which show the importance of O2 saturation, with a cut point of 95%, as an important early predictor of acute deterioration in both medical and surgical patients.
146.11	Sussex Critical Care Network	GL	2.1.6.2 Rec 7	Pain assessment in surgical and cardiac patient should be mandatory.	Noted.
146.12	Sussex Critical Care Network	GL	2.2.3.4 Rec 8	Greater clarity is required regarding what constitutes "core competencies" for acute illness and how they would be assessed	This is defined in the cross-referenced document on competencies being drawn up by the Department of Health.
146.13	Sussex Critical Care Network	GL	2.2.3.3 Rec 10	Thresholds for track and trigger system should be set at a patient level instead of at a local level. This should be decided at the initial assessment and reviewed by senior medical staff when needed.	Trusts must select thresholds to identify patients with low, medium or high risk of clinical deterioration. This is necessary to have a graded response strategy in place.

These thresholds should be reviewed regularly to

					ensure optimal sensitivity and specificity is obtained for the tool. With respect to individual patients there will be patients who would activate a medium or high category response because of their underlying medical condition e.g. patients with major gastrointestinal haemorrhage or post myocardial infarction irrespective of TT score.
146.14	Sussex Critical Care Network	GL	2.2.3.4 Rec 11	Greater clarity is required regarding what constitutes "intermediate level competencies in critical care" and how they will be assessed.	This has been revised to allow a definition. It now reads: "The team should include a medical practitioner skilled in the assessment of the critically ill patient and who possesses advanced airways management and resuscitation skills."
146.15	Sussex Critical Care Network	GL	2.2.3.4	This level of competency may not be available 24 hours in every hospital.	Noted.
146.16	Sussex Critical Care Network	GL	2.2.3.5 Rec 12	"Clinical emergency" must be defined.	The GDG did not consider it was possible to offer a detailed definition of types of clinical emergency, although cadiac arrest is now mentioned, as this group should be managed differently than the "high risk" group.
146.17	Sussex Critical Care Network	GL	2.2.3.6 Rec 13	Formulation of the management plan should also include resuscitation and escalation of care plans, made in discussion with consultant on call or the consultant of the parent team.	This is covered by "initiate appropriate interventions"
146.18	Sussex Critical Care Network	GL	2.2.3.7 Rec 14	The decision to admit [or not] should involve both consultant in care of the patient (or on call consultant.) and critical care consultant	Agree.
146.19	Sussex Critical Care Network	GL	2.2.3.7	Who takes the final decision if both consultants are in disagreement?	This would have to be decided on a case by case basis and does not need to be explicit in this guidance.
146.20	Sussex Critical Care Network	GL	2.2.3.8 Roo 15	We could not really see the point recommendation 15. It is not actually a recommendation and seems a	We agree and has been re-positioned in the text.
146.21	Sussex Critical Care Network	GL	2.3.3.1 Rec 16	Acknowledging that no unit would discharge people at night in preference, we would rather see this re- worded to say "After the decision to discharge has been made, patients should be discharged from critical care areas to the general ward no later than 7 pm and not before 7am. All discharges out of these hours should be audited to establish the cause and outcome	We have reworded this recommendation (1.3.2.14) to ensure that it refers to fact decision to transfer has been made and that night transfer "should be avoided whenever possible, and should be documented as an adverse incident if it occurs"
146.22	Sussex Critical Care Network	GL	2.3.3.1	We are never going to eliminate the out of hours discharge to the wards. What could be useful would be for NICE to set a benchmark (eg out of hours discharges to be no more than 5% or 10% of total)?	We have reworded this recommendation (1.3.2.14) to ensure that it refers to fact decision to transfer has been made and that night transfer "should be avoided whenever possible, and should be documented as an adverse incident if it occurs"

146.23	Sussex Critical Care Network	GL	2.3.4.1 Rec 17	Post discharge to the ward, all patients should be followed up by outreach or a night nursing team (with appropriate critical care training, skills and knowledge) within four hours of discharge from critical care	Recommendations on specific timing should be set within a local protocol and are outside the scope of this national guidance.
146.24	Sussex Critical Care Network	GL	2.3.4.1	It should be made clear that it is the handover of all care to ward team and patient is no longer the primary responsibility of the critical care team.	This is addressed by revised recommendation (1.3.2.15)
146.25	Sussex Critical Care Network	GL	2.3.4.1	In hospitals with Outreach Teams, it is they who provide the ward support and the recommendation should acknowledge this as a quality marker	We provide a clear review and summary of the available evidence relating to the effectiveness and cost-effectiveness of response strategies (including CCOS). In the view of the GDG the evidence available leads to the conclusion that no specific service configuration can be recommended as a preferred response strategy for individuals being transferred from CCAs to ward level care.
146.26	Sussex Critical Care Network	GL	2.3.4.1	On discharge from critical care, treatment summary and plan should be sent to the GPs in an effort to try and prevent futile re-admission in the future	Noted.
146.27	Sussex Critical Care Network	GL	2.3.4.2 Rec 18	We felt this could include a more powerful statement for the need for follow up as it is well supported and evidenced in the main document.	Noted. We would ask the PPIP to consider whether these issues require it to revise the general section of principles of care (1.2) section.
147.0	Tees Valley and South Durham Critical Care Network	GL	2.1.4.1	This may contravene patients' confidentiality. We appreciate the complexities of the differing methods of track and trigger, but gold standard recommendation to minimise variations nationally would have been useful	Unfortunately the available evidence did not allow the GDG to make a specific recommendation for one TTS.
147.1	Tees Valley and South Durham Critical Care Network	GL	2.2.3.1	Would have liked to have seen more explicit recommendations about training requirements such as specific courses being mandatory i.e. ALERT/ILS etc	Noted, this is outside the remit of this work. A group of healthcare professionals, supported by the English Department of Health, are currently addressing core competencies for the acutely ill patient using the completed work from the ACUTE and Foundation Programme initiatives as a starting point. It is anticipated that this work will identify which competencies should be held by which staff. The final document will be ready for release as part of the set of implementation tools" in the Autumn, which will identify training materials which will deliver the educational content to accompany the competencies.
147.2	Tees Valley and South Durham Critical Care Network	GL	2.2.3.4	Recommendation 11 is fully supported for inclusion but may be difficult to achieve in smaller hospitals	Noted. A group of healthcare professionals, supported by the English Department of Health, are currently addressing core competencies for the acutely ill patient using the completed work from the ACUTE and Foundation Programme initiatives as a starting point. It is anticipated that this work will identify which competencies should be held by which staff. The final document will be ready for release as part of the set of implementation tools" in the Autumn.

147.3	Tees Valley and South Durham Critical Care Network	GL	2.2.3.8	Recommendation 15 is clear that no specific service configuration can be recommended as a preferred strategy but, although there are doubts in the literature around the value of outreach, more direction would have been very beneficial in this regard	We provide a clear review and summary of the available evidence relating to the effectiveness and cost-effectiveness of response strategies (including CCOS). In the view of the GDG the evidence available leads to the conclusion that no specific service configuration can be recommended as a preferred response strategy for individuals identified as having a deteriorating clinical condition.
147.4	Tees Valley and South Durham Critical Care Network	GL	2.3.3.1	Recommendation 16 could be supported by advice on the number of level 2 and 3 beds required and levels of occupancy etc to enable the reduction of out of hours discharges	This would be a service delivery level recommendation and is outside of the scope of this work.
147.5	Tees Valley and South Durham Critical Care Network	Gen		Agreed National competencies in the appendices for specialist centres i.e. tertiary neuro/renal, would have structured out the approach even further and define standards to be achieved universally	This is outside the scope of this guidance
147.6	Tees Valley and South Durham Critical Care Network	Gen		There is no mention of midwifery in the inclusion or exclusion – can this be clarified and, if excluded, what guidance will be available for midwifery	We note that there was no consensus from SH comments about whether maternity patients should be included or excluded. The view of the GDG is that they should be included in the guideline and fall within the definition of "adult patients in acute hospital settings"
147.7	Tees Valley and South Durham Critical Care Network	Gen		The document is welcomed by the members of the Critical Care Network	Thank you
148	Tees, Esk & Wear Valleys NHS Trust			This organisation has been approached but did not respond	n/a
149	The British Dietetic Association			This organisation has been approached but did not respond	n/a
150	The British Renal Society			This organisation has been approached but did not respond	n/a
151	The Royal Society of Medicine			This organisation has been approached but did not	n/a
152	Translucency Limited			This organisation has been approached but did not	n/a
153	UK Clinical Pharmacy Association			This organisation has been approached but did not	n/a
154	UK Coalition of People Living with HIV & AIDS			This organisation has been approached but did not	n/a
155	UK Psychiatric Pharmacy Group (UKPPG)			This organisation has been approached but did not respond	n/a
156.0	United Lincolnshire Hospitals NHS Trust	GL	2.1.6	This section refers to other monitoring i.e. urine output and then proceeds to mention biochemical tests such as lactate monitoring.	Noted. Recommendations on these specific issues were discussed within the GDG and were not considered to need specific recommendations.
				However, it is important to mention other more basic	

However, it is important to mention other more basic factors of fluid balance – loss from wound drains, loss via nasogastric tubes, loss via stomas (some patients have high output stomas and can lose 2- 3 litres in a 24 hour period) 157

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fluid intake as to whether losses are being adequately replaced. It may be worth mentioning the value of measuring the capillary refill time measured centrally and peripherally. University College London Hospitals (UCLH) Acute Trust This organisation has been approached but did not n/a respond University Hospital Aintree This organisation has been approached but did not n/a respond University Hospital Birmingham NHS Trust Gen Overall we think it is a good document and thus Thank you. have very little comments Suggest bullet point 3 should state 'a clear University Hospital Birmingham NHS Trust GL 1.3.1 We have amended to include the phrase "clear written Rec 1 monitoring and action plan that specifies... and that monitoring plan". this should appear first on list. University Hospital Birmingham NHS Trust GL 1.3.2 Suggest bullet point 3 should state 'a clear Noted. monitoring and action plan that specifies... and that this should appear first on list. This organisation has been approached but did not University Hospital of North Staffordshire Acute Trust n/a respond University Hospitals Coventry & Warwickshire NHS Trust GL 2.1.6 Recommendation 6. We have revised the review of the evidence and Whilst oxygen saturation is an important evidence to recommendations section 1.1.5 to make the basis for inclusion of oxygen saturation and physiological measurement (and is included in recommendation 2) it adds significant complexity to exclusion of urine output clear. In the evidence review a MEWS scoring system. It requires the observer to we refer to the Cuthbertson 2007 paper and the Duckit take note of the inspired oxygen. (unless the scoring 2007 (in press) which show the importance of O2 system is standardised on room air) and patients saturation, with a cut point of 95%, as an important with chronic chest problems / emphysema often early predictor of acute deterioration in both medical normally function with reduced oxygen saturations and surgical patients. leading to increased triggers of the MEWS response. Oxygen saturation is however a useful part of the trigger response to an elevated MEWS score and as such is included in UHCW track and trigger protocol University Hospitals of Leicester GL EWS We do not think the inclusion of oxygen saturations We have revised the review of the evidence and is useful. This can be misleading due to a number of evidence to recommendations section 1.1.5 to make clinical and non clinical reasons. Also saturations in the basis for inclusion of oxygen saturation and isolation is of little value what is important is there exclusion of urine output clear. In the evidence review we refer to the Cuthbertson 2007 paper and the Duckit relation to the amount of oxygen the patient is receiving and there has been no mention of that 2007 (in press) which show the importance of O2 saturation, with a cut point of 95%, as an important early predictor of acute deterioration in both medical and surgical patients. University Hospitals of Leicester Gen Unless the issue of training nurses to possess the This will be addressed by the accompanying skills required to care for the acutely ill patient is implementation tools given more emphasis this is not likely to happen in view of Trusts financial position. We have already

seen all training stopped in the last six months. It

Consideration also needs to be given to the patient's

			would be interesting to see where Trusts are in relation to the recommendation from Comprehensive Critical care (DOH 2000) I would envisage we are far short of the 50%required	
162.2	University Hospitals of Leicester	Gen	The issue of providing 24hr/7 day a week outreach needs to be given more emphasis especially in light of the increasing changing acuity of the in house hospital population. Unless this happens again with the financial position this is unlikely to happen. Whilst the document talks of little evidence to support outreach as yet the indicators chose to measure effectiveness has been ITU admissions or readmissions. There has been no work carried out on care delivered or instigated by outreach on the wards which has resulted in stabilisation of patients and prevention of determination or instigation of DNAR ORDERS.	Noted.
163	University of Central England		This organisation has been approached but did not respond	n/a
164	University of North Durham		This organisation has been approached but did not respond	n/a
165	University of North Tees and Hartlepool NHS Trust		This organisation has been approached but did not respond	n/a
166	Urgent Care Board		This organisation has been approached but did not respond	n/a
167	Walsall Hospitals NHS Trust		This organisation has been approached but did not respond	n/a
168	Walton Centre for Neurology and Neurosurgery NHS Trust		This organisation has been approached but did not	n/a
169	Welsh Assembly Government		This organisation responded and said that it has no	n/a
170	Welsh Scientific Advisory Committee (WSAC)		This organisation has been approached but did not	n/a
171	Western Cheshire Primary Care Trust		This organisation has been approached but did not	n/a
172	Wirral Hospital Acute Trust		This organisation has been approached but did not	n/a
173	Worcestershire Acute Hospitals NHS Trust		This organisation has been approached but did not respond	n/a
174	York NHS Trust		This organisation has been approached but did not respond	n/a
175.0	Southmead Hospital	Gen	This is a general comment, not a specific one. Throughout this guideline, the word 'parameter' or 'mulitparameter' is used when the correct word is 'variable'. I accept that parameter is often used to	The term 'parameter' is 'multiple parameter syst would not be appropriat

The term 'parameter' is in widespread use in relation to 'multiple parameter systems'. To change to 'variable' would not be appropriate.

In the guideline, there is description of

mean variable, but it is incorrect and confusing. Parameter is also (misused) by some to mean 'cutoff': they speak (incorrectly) of setting the upper and lower parameters when they mean limits.

GL

2.2.3.4.

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level"

176.0 Individual Respondent (1)

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measurements, with their means and standard deviations. These are the proper parameters (although technically the parameters are the mean and standard deviation of the population, rather than of samples).

The only action needed is to do a global replace, and simply replace all parameters with variables.

For further information on the topic, any book of English style will do. We discuss more detail on pages 79-80 of the 3rd edition of our book (Goodman NW, Edwards MB, Medical writing: a prescription for clarity. CUP: Cambridge, 2006). The level of competencies identified in this recommendation needs clarification. Does it mean completion of Intermediate Level training according to the requirements of the Intercollegiate Board or does it only require the attainment of the competencies. If it is the former, then very few intensive care units will comply as it will require SpRs who have completed Step 1 training to be managing the unit. If it refers to the latter then further clarification is needed as to whether the "medical practitioner" should have completed the competencies, or could still be in the process of acquiring them. There is a difference as, at any one time, most of the SpRs managing critically ill patients on an ICU will be in the process of gaining competencies but won't yet have completed them. Also, the recommendation that the response should be immediate suggests that the ICU team should be self sufficient in providing this level of competence and not reliant on advice/availability from someone outside the team. In many hospitals, this is not the case and often, SpRs find themselves covering the labour wards as well as the intensive care unit and an on-call consultant at home can hardly attend immediately.

sub-optimal care in secondary healthcare settings.

This has been revised to allow a definition. It now reads: "The team should include a medical practitioner skilled in the assessment of the critically ill patient and who possesses advanced airways management and resuscitation skills."

Individual Respondent (1) GL 2.3.3.1 The recommendation that patients should not be We have reworded this recommendation (1.3.2.14) to ensure that it refers to fact decision to transfer has Rec 16 discharged from critical care areas between 22.00 and 07.00 will be difficult to achieve as long as ICU been made and that night transfrer "should be avoided discharges are competing against target-driven A&E whenever possible, and should be documented as an waiting times and elective surgical admissions. adverse incident if it occurs" A well presented, thoroughly prepared document Individual Respondent (2) Gen Thank you. that highlights and explores a key issue in the delivery of acute care services in the NHS. It builds on existing and on-going work around acuity and
				All key stakeholders have been engaged in preparing this document and its contents are welcomed. As the document is extensive at 94 pages, our feedback is confined to comment on the recommendations.	
177.1	Individual Respondent (2)	GL	Rec 1	We agree with all that is proposed in the document, especially the escalation concept. We therefore limit our responses to points requiring further discussion/clarification. The importance of both physiological and psychological baselines should be acknowledged.	It is considered that the revised recommendations 1 (1.3.2.1) and 3 (1.3.2.3) address this issue. There is to
177.2	Individual Respondent (2)	GL	Rec 2	There should be an agreed <i>written</i> treatment plan. Inclusion of weight and fluid balance (as appropriate) recording should be considered. Is this opportunity to consider highlighting the importance of other physiological factors that can impact on acutely ill patients in hospital e.g. nutritional scoring?	be a specific written management plan. This is not precluded by the wording of recommendation 6 (1.3.2.6)
177.3	Individual Respondent (2)	GL	Rec 3	This needs more sophistication to capture processes used in theatre, emergency departments and critical care facilities. Often track and trigger are used on initial assessment /discharge only. The minimum frequency should be 6 hourly on admission, stepping down to 12 hourly once stable.	Stakeholder comments were evenly spread between those supporting 12 hourly monitoring and those favouring more frequent monitoring. The recommendation 1.3.2.3 has been re-worded to state "physiological observations should be monitored at least every 12 hours". The recommendation also notes that on occasion it will not be necessary to use TT systems to monitor certain groups of patients (e.g., those in receipt of palliative care).
177.4	Individual Respondent (2)	GL	Rec 5	This should prompt request for review or escalation.	Noted.
177.5	Individual Respondent (2)	GL	Rec 11	The word graded escalation policy could be used here with effect. The distinction of roles, function and responsibilities between medium and high levels are not clear. There needs to be much greater consideration of this	This was discussed by the GDG and the word 'response' was considered appropriate.
177.6	Individual Respondent (2)	GL	Rec 13	Should not all groups have this?	Noted.
177.7	Individual Respondent (2)	GL	Rec 14	The practicalities of this needs attending to, both operationally and economically. Whilst achievable during daylight hours, performance of this standard at night may not be so easily achieved. It may also require a substantial culture change amongst healthcare staff.	Noted.
177.8	Individual Respondent (2)	GL	Rec 15	This is not a helpful recommendation. In light of on- going empirical work in this area, we appreciate the reluctance to specify service configuration, but core functions for teams supporting medium score groups could be inserted and examples, e.g. critical care outreach, HaNT rapid response teams could be	We provide a clear review and summary of the available evidence relating to the effectiveness and cost-effectiveness of response strategies (including CCOS). In the view of the GDG the evidence available leads to the conclusion that no specific service configuration can be recommended as a preferred

used as guiding principles.

response strategy for individuals identified as having a deteriorating clinical condition.

177.9	Individual Respondent (2)	GL	Rec 16 p7	Discharge from where? This needs greater clarity including the recommendation of effective patient flow/bed managment policies and site co-ordination processes. It also raises issues regarding appropriate use of beds and commissioning of services. These wider areas are not highlighted anywhere in the document.	We have reworded this recommendation (1.3.2.14) to ensure that it refers to fact decision to transfer has been made and that night transfer "should be avoided whenever possible, and should be documented as an adverse incident if it occurs"
177.10	Individual Respondent (2)	GL	Rec 19	Could this be guided through core competencies and educational programmes for staff at all levels to ensure fitness for practice? Educational commissioning and work with in-house and external educational providers (University/Deaneries) is important to influence programme content. Again, wider implications need highlighting.	A group of healthcare professionals, supported by the English Department of Health, are currently addressing core competencies for the acutely ill patient using the completed work from the ACUTE and Foundation Programme initiatives as a starting point. It is anticipated that this work will identify which competencies should be held by which staff. The final document will be ready for release as part of the set of implementation tools" in the Autumn.
177.11	Individual Respondent (2)	Gen		Whilst the document is focussed on local clinical problem solving, the wider issues of clinical leadership at all levels; organisational audit and monitoring; performance management; governance and risk; and commissioning of services is not attended to. It would be useful to build in recommendations pertaining to these areas to ensure that impact of this document is maximised whole system and across organisations, and that the impact of the total health economy on acuity care is recognised.	Thank you.
				Clearly, the authority given with the document to impact on care delivery will be key to measure its success.	
				Thank you for opportunity to comment.	
178.0	Intensive Care Society	GL	1.2	5 th Paragraph. This is open ended and it could be very meaningful or utterly useless. It therefore needs to be more specific to avoid confusion and doubt. The Code of Practice accompanying the implementation of the MCA should include specific and appropriate guidance for staff treating patients who are sedated and not able to speak for themselves. NICE should reinforce this matter	Noted. We would ask the PPIP to consider whether these issues require it to revise the general section of principles of care (1.2) section.
178.1	Intensive Care Society	GL	2.1.3 Rec 1	Who decides what is "appropriate". The Guidelines should be more explicit.	Noted. This has been reworded.
178.2	Intensive Care Society	GL	2.1.3 Rec 2	Of the 6 physiological observations, 5 will be monitored against accepted norms but the level of	This was discussed by the GDG and it was considered it was not appropriate to specify a specific scoring tool

				consciousness observation is not specified. For the avoidance of doubt should a recognised tool such as the Glasgow Coma score be identified as the recommended means of measurement?	to monitor the level of consciousness of adult patients in acute hospital settings. It should be emphasised that the guideline does not preclude the use of such scoring tools in defined groups of patients at risk of neurological deterioration.
178.3	Intensive Care Society	GL	2.1.4 Rec 3	The statement of frequency of observations is too vague. 12 hours is too long. The monitoring frequency must be assessed according to the individual patient's requirements. The guidelines should specify a frequency of say 1 hour unless specifically changed by a consultant or assessment protocols are drawn up by individual hospitals	Stakeholder comments were evenly spread between those supporting 12 hourly monitoring and those favouring more frequent monitoring. The recommendation 1.3.2.3 has been re-worded to state "physiological observations should be monitored at least every 12 hours". The recommendation also notes that on occasion it will not be necessary to use TT systems to monitor certain groups of patients (e.g., those in receipt of palliative care).
178.4	Intensive Care Society	GL	2.2.3 Rec 8	Staff having undertaken training should be certified as such and be subject to regular certifiable undates	This is outside our remit.
178.5	Intensive Care Society	GL	2.2.3 Rec 10	There is a risk that the thresholds being set at local levels "informed by patient case mix" could be interpreted as meaning that in the busier hospitals patients will have to be sicker to trigger the system. More clarity is peeded	We agree. We have revised this recommendation to add "the threshold should be reviewed regularly to optimise sensitivity and specificity".
178.6	Intensive Care Society	GL	Rec 11	The response graded "low" could be characterised as at least an increase from Level 0 care to Level 1 care with a commensurate increase in frequency and level of observation. The other responses ("medium" and "high") may trigger Level 1-3 care as appropriate, following assessment. In addition it should be more explicit that communication of a "low" grade response may involve wider communication than the nurse in charge. The composition of the response team is not clearly defined and as worded may make it impractical to implement across smaller DGHs. Perhaps a better definition might be a medical practitioner who is skilled in the assessment of the critically ill patient and who possesses advanced airway management and resuscitation skills	This was discussed by the GDG. While it was felt to be an interesting and laudable idea, it was found to be too difficult to action within this guideline and care pathway. The wording of 'intermediate care competencies' has been changed in line with this suggestion.
178.7	Intensive Care Society	GL	Rec 14	There is an assumption in the wording of this recommendation that there is "a critical care consultant" who oversees all Level 2/3 patients. This is not the position in all hospitals. There are still many hospitals where the HDU is separate from ICU and is run by individual consultants without an impartial gatekeeper. In spite of additional funding which has created more Level 2 beds there remains a shortage. An interpretation of this recommendation is that it Is proposing a particular service configuration and should therefore be qualified or made explicit.	It is correct that a substantial number of ICU/HDSU services are now under the direct managerial and clinical responsibility of consultants trained in Intensive Care Medicine, but there are still some HDUs which stand alone and are managed by physicians or surgeons. Due to a lack of evidence, the GDG felt it was not possible to recommend a particular service configuration.

178.8 Intensive Care Society

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Intensive Care Society

Intensive Care Society

GL 2.3.3

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The word "discharge" has finality to it and can be Rec 16 upsetting to patients leaving intensive care and also to their relatives. A more appropriate verb is "transfer" but in reality the patient is going through a transition from intensive care to a phased reduction in care and as such the best description would be "stepping down". Where there is a change of consultant when a patient steps down from intensive care then the provisions for handover and further treatment planning as described in recommendation 17 should apply. A further problem arising from step down is the capability of the receiving ward to care for the patient. Due to pressures on intensive care units throughout the country patients will be moved to the first general ward which can take them. This then highlights the problems facing any hospital in having, under this Guideline, to train staff to treat these very sick patients. By designating a small number of wards to receive step down patients the hospital's obligation to train large numbers of staff is eased and the focus can then be on training a smaller number who will extend their skills by more frequent exposure to these ill patients. This also gives the opportunity of making this training mandatory. The recognition and initiation of early basic treatment and intervention should be made part of the core competencies of any doctor graduating from a UK medical school and there is an opportunity here to influence, for the better, medical education

> It is recommended that a monitoring and audit review is carried out whenever a patient is transferred to a general ward between 22.00 and 07.00 hours and that the patient's progress should be closely monitored.

Rec 17 It is strongly recommended that hospitals are required to audit regularly that the treatment, monitoring and investigation plan has been rigorously followed and any deviation justified by peer review.

> This is a useful document which moves this debate forward and should improve the treatment and lives of those who are acutely ill in hospital.

There are however one or two observations of a general nature which it is thought will be helpful

First, although money was allocated to intensive care which allowed for a necessary increase in Level 2 beds there remains a constant difficulty in that most intensive care units are running at full or almost We have reworded this recommendation (1.3.2.14) to ensure that it refers to fact decision to transfer has been made and that night transfer "should be avoided whenever possible, and should be documented as an adverse incident if it occurs"

Agree. There will be accompanying audit criteria.

Thank you. The guidance does review evidence on readmissions when appropriate. The guidance does present a summary of the available evidence relating to electronic recording/monitoring of physiological observations and makes a research recommendation in this area.

full capacity all the time. By introducing the necessary changes identified in the Guidelines there is a probability that as acutely ill patients are more accurately identified this will increase the pressure on already hard pressed intensive care units. It might be worth flagging this up as a consequence of practising better medicine and as acute hospitals will be treating more acutely ill patients it does seem to be a realistic probability.

Second, there is not any reference to readmissions as being adverse events and the reasons for them. There is a considerable literature on readmissions which the draft does not mention although these are not high grade RCTs. Perhaps the Guideline should suggest a level of readmission which is unacceptable. Linked to this is the issue of post critical care deaths. Again there is significant literature and these are a marker of failed processes and should be monitored as part of the quality of care assessment.

Third, although the draft points out that there is no robust economic evidence to show that electronic devices which calculate and chart aggregate scores should be introduced, there is evidence that they are guicker and more accurate than the human record keeping. These two criteria alone should be an argument for serious consideration of their introduction. Not only are they guicker and more accurate, they reduce the stress on already hard pressed staff and this must a benefit of great magnitude. Not everything involved in patient care can be reduced to pure and hard scientific fact and quality issues are of direct relevance. Anything which reduces the workload on the staff thus allowing them to improve their care of patients, reduces risk and speeds up vital data collection must be worth considering There appears to be a typographical error in section 1.4.1 Recognition and response to acute illness in adults in hospital. The second sentence reads "Critical care in the NHS is provided within the continuum of primary, secondary and tertiary care......" This isn't true because critical care is not provided in primary care. Possibly the sentence should read "Clinical care in the NHS is provided within the continuum of primary, secondary and tertiary ... " In the flow chart on page 14 an explicit explanation should be given as to why a patient is not suitable

for intensive care.

We have amended

This has been addressed both in the care pathway and the revision to recommendation 1.3.2.3

178.11 Intensive Care Society

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178.12 Intensive Care Society

179.0	Whipps Cross University NHS Hospital NHS Trust	GL	2.2.3 Rec 11	 Agree with the concept of a graded response but do not support the idea of dual call-out e.g. feel all responses should go via the Primary team and only after assessment should other personnel become involved. (A serial response rather than a parallel response.) For low risk category interventions should also include notification/review by primary team within a designated time-frame. In addition, all levels of response should initiate the same steps i.e. initiation of appropriate intervention etc, assessment of response and formulation of management plan etc, otherwise simply reads as if the "low" patient has more observations and a nurse in charge (who may be very junior) is informed. Medium and high category assessment should be by minimum of SPHO level (or equivalent) 	Noted. This was discussed by the GDG and the existing wording was considered appropriate.
179.1	Whipps Cross University NHS Hospital NHS Trust	GL	2.2.3 Rec 15	Support the position of not recommending specific service provision given the lack of suitable evidence base	Thank you.
179.2	Whipps Cross University NHS Hospital NHS Trust	GL	2.3.3 Rec 16	No discharges from critical care 2200 – 0700: Agree that this is desirable and systems should be implemented to support this, but must be accepted that at times patients may have to be transferred during the night to avoid a non-clinical transfer. If this happens, patient should be reviewed on ward as soon as possible after transfer but within e.g.	We have reworded this recommendation (1.3.2.14) to ensure that it refers to fact decision to transfer has been made and that night transfer "should be avoided whenever possible, and should be documented as an adverse incident if it occurs"
179.3	Whipps Cross University NHS Hospital NHS Trust	GL	2.3.4 Rec 17	Would prefer it to include guidance on the review of patients once left the ITU e.g. all patients transferred from ITU should be reviewed by doctor within x amount of time and this should reflect clinical status at time of discharge e.g. could range from 1 – max.	Recommendations on specific timing should be set within a local protocol and are outside the scope of this national guidance.
179.4	Whipps Cross University NHS Hospital NHS Trust	GL	2.3.4 Rec 18	Confidentiality only allows discussion with family/carers if patient agrees. If unable to consent then of course common sense can prevail to allay family anxiety	Noted.
179.5	Whipps Cross University NHS Hospital NHS Trust	GL	2.3.4 Rec 19	Should also include the critical care staff who should be provided with education and training etc to improve understanding of the boundaries of Level 0/1 care and be able to adapt required interventions/clinical needs of patient as appropriate to a general word focility.	This recommendation should stand as the existing wording is covered with the guideline scope.
180.0	Birmingham and Black Country Critical Care Network	Gen		The Guideline Development Group was composed of three types of members: relevant healthcare professionals, patient representatives and NICE	Noted. We consider we recruited an appropriate mix of health care professionals. It should be noted that rehabilitation was outside of the scope of this work.

				technical staff"the group consisted of 2 nurses, 1 patient, 1 carer, 10 doctors with 2 others co-opted onto the group – a statistician and another doctor! No sign of a HCS or AHP anywhere	
180.1	Birmingham and Black Country Critical Care Network	Gen		There is no mention anywhere when "a wide range of activities undertaken by Critical Care Outreach Services" includes "delivery of rehabilitation programmes (in patient and out patient)/or after a period of critical illness" which are provide by this aroun of clinical staff	This is incorrect. It is mentioned in section 1.2.1
181.0	The Mid Trent Critical Care Network	GL	1.3.1 Rec 8	Planning and delivery of training should be delivered Trust wide by joint critical care and ward teams. Training should be evaluated frequently to ensure that it remains appropriate to case mix and the needs of patients/staff. If staff are unable to access training due to resource issues then a critical care service to support ward staff should be established and maintained, for example, critical care outreach. At present Trusts may not have the resources to be in a position where all ward staff are able to access training in critical care. This might introduce inequity within Trusts where only a limited number of staff are able to access training. There is an issue about staff experience as well as competencies and in ensuring that staff retain their competencies if they are not exposed to situations where they will use new skills frequently.	This is outside our remit.
181.1	The Mid Trent Critical Care Network	GL	Rec 14	Include A clear written plan of care should be agreed and documented	Care once admission has been agreed is outside the scope of this guidance
181.2	The Mid Trent Critical Care Network	GL	Rec 16	Sometimes patient discharges from critical care are required out of hours to create a bed for a higher priority emergency. Perhaps the wording should be except in an emergency situation and following agreement between critical care consultant and ward consultant. (For example A patient may have been waiting for a ward bed to become available during the day and may already be a level 1 patient, an emergency may present out of hours and therefore the level 1 patient will need to be discharged).	We have reworded this recommendation (1.3.2.14) to ensure that it refers to fact decision to transfer has been made and that night transfer "should be avoided whenever possible, and should be documented as an adverse incident if it occurs"
181.3	The Mid Trent Critical Care Network	GL	Rec 17	Also include social needs as appropriate. Needs to be more clarity in wording for the handover of care and transfer of responsibility between teams	Noted. The GDG considered that the revised wording of 1.3.2.15 addressed SH concerns.
181.4	The Mid Trent Critical Care Network	GL	1.3.2 Rec 2	differently by both sides. Urine output and fluid balance monitoring ought to be included here rather than as a separate	The reason why urine output is not included in recommendation 2 (1.3.2.2) is set out in the evidence

			and 6	recommendation.	to recommendation section 1.1.5. This recommendation has been re-worded to emphasise there are a set of minimum physiological observations and recommendation 6 (1.3.2.6) includes urine output.
181.5	The Mid Trent Critical Care Network	GL	Rec 10	By setting the track and trigger system locally this would enable the above to be included. 'Clinical	TTS use the term 'clinical concern'. It is not possible to be more specific.
181.6	The Mid Trent Critical Care Network	GL	Rec 14	If however after discussion the teams cannot agree, there needs to be an indication of who makes the final decision for admission to critical care in line with agreed operational policies for admission/transfer.	We agree, but this can be decided on a case by case basis and does not need to be explicit in this guidance.
181.7	The Mid Trent Critical Care Network	GL	2.2.3.12	Reasons for any refusal/transfer should be clearly documented and discussed with the patient/relatives and carers. This seems to have been missed. The statement that 'it is not possible to state that outreach services are a cost effective option compared with in its absence' may put established critical care outreach services at risk.	We provide a clear review and summary of the available evidence relating to the effectiveness and cost-effectiveness of response strategies (including CCOS). In the view of the GDG the evidence available leads to the conclusion that no specific service
				This section does not provide a detailed argument that outreach services are not cost effective either and it might be helpful to reword this section.	configuration can be recommended as a preferred response strategy for individuals identified as having a deteriorating clinical condition.
				Unless a robust training programme is in place within Trusts to ensure that all ward staff have the necessary skills to care for these patients, then a level of support from critical care staff will be required. Current reality in Trusts might suggest that no matter how skilled ward staff are they still require support from staff that manage critical care emergencies regularly.	
181.8	The Mid Trent Critical Care Network	GL	1.3.3 Flow chart	Care pathway – define "CCA". People might not understand this to mean Critical Care Area – it might mean different things to different people.	Noted
181.9	The Mid Trent Critical Care Network	Gen		The document refers to "guidelines", the appendices refers to "guidance" and then talks about "guidelines". We were of the understanding that this will be offered as "guidance". If you understand there to be a difference between the two, can you please clarify whether you are presenting this document as "guidance" or as a "guideline".	This is a NICE clinical guideline and the terminology has been made consistent.
				This is a useful and concise document that is easy to read and understand and should lead to significant improvements in services/care if implemented correctly.	
				There is mention in section 1.2 that 'carers and relatives should also be given the information and support they need' but there is no further mention of	

this in the recommendations.

			Culture and clinical leadership is not discussed and these are essential for the successful implementation of the document.
181.10	The Mid Trent Critical Care Network	Gen	It might be helpful if there is a recommendation that implementation of this document should be monitored by Trust delivery/advisory groups to ensure spread and sustainability. Format: It is useful to have all the recommendations. Noted
101110			together and to have the key priorities for implementation at the front of the document. However in the main body it would be useful to more clearly identify the recommendations, say for example in a text box.
182.0	Individual Respondent (3)	Gen	Whilst this guideline has clear recommendations for implementation of track and trigger and response systems the complexity of factors that surround management of critically ill patients including resource management, inter-professional communication, ongoing emotional support, education, clinical assessment and decision-making skills (Cox et al 2006)seem to not have been addressed within this document
182.1	Individual Respondent (3)	GL 1.3.	Boundaries between untrained and trained nurse roles seem to be blurring (Thornley 2000) regarding clinical observation as many of the routine clinical observations previously carried out by trained nurses may be carried out by other health care workers (Pearcy 2000, Thornley 2000, Hogan and Playle 2000). Within this guideline you have made reference to ward staff – who is involved in this process and their parameters needs to be more clearly defined This guideline fails to address the role untrained staff will have in this process. For information we are undertaking a study which will examine the trajectory of care which spans the nursing auxillary to trained nurse perspective in order to investigate how these key roles interact with regard to recognition of acutely ill patients within the hospital setting. We can be contacted for further information regarding this .
183.0	Individual Respondent (4)	GL 1.3.	The resource implications could be considerable. The level of evidence to support the recommendations should be documented in this section as well as the individual sections. This will allow all stakeholders to weigh the evidence for each recommendation. It may be that the evidence is weak and the recommendation does not merit diversion of resources from important health care interventions with a better evidence-base

183.1	Individual Respondent (4)	GL	2.x.x	Unlike the NICE Nutrition guideline which I have been consulting to assist my daily practice, meta- analysis of available evidence is not presented in this guideline. Where there are sufficient studies this would be very informative and improve the guideline utility.	As we have noted in the review, the evidence presented does not lend itself to be quantitative synthesis.
184.0	Individual Respondent (5)	GL	1.2	guideline's utility. 'Carers & relatives should have the opportunity to be involved in decisions about patient's care & treatment unless the patient specifically excludes them.' Often patients are not in a fit state to hold this kind of discussion when critically ill so will rarely exclude friends and relatives from decisions. To discuss the medical care of a patient with a carer or relative involves a breach of confidentiality . In practice we often do hold discussions but do not generally involve them in treatment decisions. There has to be the application of common sense as to what information we might withhold. Do we tell the carer/relative if a patient is HIV or has a condition as a consequence of drug abuse or criminal activity. I feel, therefore, the statement should be less emphatic and should include an opt out for medical and nursing staff. It should also state, 'involved in discussions,' and omit the word decisions. E.g. 'Carers and relatives should have the opportunity to involved in discussions about the patient's care and treatment, when felt to be appropriate by the medical team. unless the patient specifically excludes them.'	Noted. We would ask the PPIP to consider whether these issues require it to revise the general section of principles of care (1.2) section.
185.0	Individual Respondent (6)	Gen		The document is fairly comprehensive, however I note that no AHP's were directly involved. It seems to be trend that AHP's are usually omitted from the core decision -making processes. Physiotherapists working within Level 2 and 3 care work very closely with these patients, especially in physical and respiratory care. As we are mobile and smaller teams who often cover both Level 3 and level 2 areas daily, we get to know patients well in both areas which can aid the transition from Level 3 to level 2. We, as respiratory physiotherapists in this area lead on tracheostomy care and rehabilitation programmes and in some trusts may be core in identifying and initiating elements of care for deteriorating patients. Patients report weakness and physical debilitation as primary points of distress after discharge from level2/3 areas. We as a profession are instrumental in their rehabilitation and ultimate hospital discharge. I strongly feel that inclusion of AHP's should be mandatory for development of guidelines such as this one, and not just left to the doctors and nurses.	Noted. We consider we recruited an appropriate mix of health care professionals. It should be noted that rehabilitation was outside of the scope of this work.