SIGN Delirium Consultation

COMMENTS RECEIVED FROM EXTERNAL REFEREES AND OTHERS

All reviewers submitted declarations of interests which were viewed prior to the addressing of comments.

Invited reviewers			**Type of response and declared interests**
CC	Dr Claire Copeland	Consultant Physician, Forth Valley Royal Hospital, Larbert	*Individual response.* Nothing declared.
CH	Dr Conrad Harvey	GP with a special interest in Intermediate Care, Ayrshire Central Hospital, Irvine	*Individual response.* Nothing declared.
DG	Dr Duncan Gray	Associate Specialist in Geriatrics, Raigmore Hospital, Inverness	*Individual response*. Nothing declared.
HS	Mrs Helen Skinner	Alzheimer Scotland Dementia Nurse Consultant, NHS Fife, Kirkcaldy	*Individual response.* Nothing declared.
JA	Dr Jonathan Antrobus	Consultant Anaesthetist, NHS Borders, Melrose	*Individual response.* Nothing declared.
JB	Dr Janet Bennison	Consultant Geriatrician, Borders General Hospital, Melrose	*Individual response.* Nothing declared.
LI	Ms Lyn Irvine	Nurse Consultant – Alzheimer Scotland in NHS Grampian, Aberdeen	*Individual response.* Nothing declared.
NA	Dr Nikhil Agrawal	General Practitioner, Southside Road Surgery, Inverness	*Individual response.* Nothing declared.
PS	Dr Pushkar Shah	Consultant Neurologist, Institute of Neurosciences, Queen Elizabeth University Hospital, Glasgow	*Individual response.* Nothing declared.
SR	Dr Saif Razvi	Consultant Neurologist and Lead Clinician, Queen Elizabeth University Hospital, Glasgow	*Individual response.* Nothing declared.
SS	Mrs Sandra Shields	Alzheimer Scotland Dementia Nurse Consultant, NHSGGC, Glasgow	*Individual response*. Nothing declared.
SM	Mr Scott Murray	Older Adults Liaison Psychiatry Nurse Specialist, Borders General Hospital, Melrose	*Individual response.* Nothing declared.
SMc	Dr Simon McAree	Consultant Anaesthesia and Intensive Care, Borders General Hospital, Melrose	*Individual response.* Nothing declared.

TQ	Dr Terence Quinn	Senior Lecturer and Honorary Consultant Physician, University of Glasgow/NHS Great Glasgow and Clyde, Glasgow	*Individual response.* *Non-financial interests which may be significant to, or relevant to, or bear upon the work of SIGN:* I am coordinating editor of Cochrane Dementia Group and part of the NIHR Complex Review Support Unit
Open consultation			**Type of response and declared interests**
BGS		Joanna Gough commenting on behalf of British Geriatrics Society (Scotland)	*Group response.* *Nature and purpose of your group or organisation:* Providing support to medical professionals in the field of geriatrics. *How might the statements and recommendations in the draft SIGN guideline impact on your organisation's functions/status/productivity?* Draft recommendations in this SIGN guideline will have no discernible impact on the function or productivity of our organisation.
HM	Dr Hazel Miller	Consultant Geriatrician, Glasgow Royal Infirmary, Glasgow	*Individual response.* Nothing declared.
HOOPPS		Dr Donna Gilroy commenting on behalf of Heads of Older People's Psychology Services (HOOPPS) NHS Scotland Health Boards	*Group response.* *Nature and purpose of your group or organisation:* NHS Providers of specialist clinical psychology services for older people across Scotland. *How might the statements and recommendations in the draft SIGN guideline impact on your organisation's functions/status/productivity?* Nothing declared.
JS	Dr Joanne Simpson	Consultant Physician, Royal Infirmary of Edinburgh, Edinburgh	*Individual response.* Nothing declared.
ME	Miss	Quality Improvement Advisor,	*Individual response.*

	Marianne Elliott	Royal Alexandra Hospital, Paisley	Nothing declared.
NHSGGC		Margaret McGuire commenting on behalf of NHSGGC	*Group response.* *Nature and purpose of your group or organisation.* NHS Healthcare provider. *How might the statements and recommendations in the draft SIGN guideline impact on your organisation's functions/status/productivity?* Patient care within NHSGGC may be strengthened following the publication of this guideline.
NL	Dr Nicola Lewthwaite	GP/GP clinical lead for primary care evaluation service/GP Fellow with special interest in frailty, NHS Fife, Dunfermline	*Individual response.* Nothing declared.
NMAHP		Patricia Howie commenting on behalf of NMAHP, NHS Education for Scotland	*Group response.* *Nature and purpose of your group or organisation:* NHSScotland's education and training body ensuring that patients and their families get the best healthcare possible from well trained and educated staff. *How might the statements and recommendations in the draft SIGN guideline impact on your organisation's functions/status/productivity?* Impact on the requirements for education and training across NHS Scotland
RCPE		Lindsay Paterson commenting on behalf of Royal College of Physicians of Edinburgh, Edinburgh	*Group response.* *Nature and purpose of your group or organisation:* Medical Royal College. *How might the statements and recommendations in the*

			draft SIGN guideline impact on your organisation's functions/status/productivity? Draft recommendations in this SIGN guideline will have no discernible impact on the function or productivity of our organisation
RS	Dr Richard Stevenson	Emergency Medicine Consultant, Glasgow Royal Infirmary, Glasgow	*Individual response.* Nothing declared.
SMC		Christine Hepburn commenting on behalf of Scottish Medicines Consortium	*Group response.* *Nature and purpose of your group or organisation:* HTA *How might the statements and recommendations in the draft SIGN guideline impact on your organisation's functions/status/productivity?* SIGN recommendations and SMC advice need to be aligned.
VL	Dr Veronica Leach	Consultant Clinical Neurophysiologist, Queen Elizabeth University Hospital, Glasgow	*Individual response.* Nothing declared.
VM	Mrs Victoria Macrae	Delirium Nurse, Ayrshire & Arran NHS Trust, Kilmarnock	*Individual response* Nothing to declare
Group members			
MW	Dr Maria Wybrew	General Practitioner, Princes Street Surgery, Thurso	*Individual response.* *Remuneration from self employment* – GP principal *Remuneration as a partner* – GP partner

Section	Comments received		Development group response
General			
	BGS	They welcomed the development of the guideline and found the draft clear and easy to read. It is a very multidisciplinary guideline and builds on the huge enthusiasm for improving patient care in delirium that we have seen in Scotland. The materials offer some clear guidance for clinicians, have a very laudable emphasis on the experience of the patient and their carer and cover many aspects of the patient journey. The guideline is a major step forwards and will provide a clear focus to drive continued improvements in delirium care.	Thank you
		There were some comments and suggestions on how the guideline could be refined further:	
		The guideline is vague about who are the "at risk" population who should be assessed: this should be specified more clearly.	It is not possible to be prescriptive about exactly who is "at risk" as each individual is different and clinical judgement is required. A list of predisposing factors which increase the risk of delirium has been added to paragraph 3 of section 1.1
		It could be clearer which of the recommendations are good practice points (where there isn't robust evidence to support them), and which are evidence based recommendations.	SIGN methodology is based on the principles of the internationally validated guideline grading system, GRADE. Recommendations are worded as 'should be' if there is robust evidence of benefit, and 'should be considered' if the evidence is weaker. Recommendations, based on evidence, are marked 'R' and good practice points are noted with a ✓. The robustness of the evidence is coded with numbers 1-4 and ++, + or -. The methodology is described in the frontispiece. For this guideline, while there was a paucity of evidence it was felt it was better to make a recommendation based on the evidence available, where the recommendation was likely to have high benefit and little negative impact, rather than make no recommendation at all. This
		Scotland has contributed a very large amount to the delirium research field but it is important that a guideline produced by SIGN is clearly able to demonstrate to the international community that it is free from any bias towards Scottish research or Scottish researchers.	
		The guideline should be completely transparent about sources of advice / guidance particularly where any members of the guideline group have a specific interest in or ownership of any of the tools recommended.	

			sometimes includes expert opinion from other sources, such as the NICE guideline, and this is noted in the evidence statement preceding the recommendation. While the guideline may be used internationally it is primarily written for implementation in Scotland. When producing recommendations, SIGN methodology ensures that the research being considered as evidence is applicable to the Scotland setting, in terms of implementation, resources, cultural similarities and acceptability to patients. It is therefore appropriate to make recommendations based on Scottish research where it is of similar quality to other research. All guideline group members declared any competing interests throughout the guideline's development. Only one member had a significant conflict – Alasdair MacLullich is the author of the 4AT tool. This was managed in accordance with the SIGN policy on competing interests and he took no part in the discussions for that key question. The group were aware of his declared interest. Equally the group felt that they should not be deterred from recommending a tool or practices which have been developed and tested in the guideline's target population, purely because of any potential external perception of bias. Detail of the conflict of interest and how it was managed has been added to section 1.3.1
	NHSGGC	**Positive Response** Most clinicians identify this guideline as a very welcome document which will be a great tool to drive forwards improvement. The draft is clear and easy to read. It is a very multidisciplinary guideline and builds on the huge enthusiasm for improving patient care in delirium that we have seen in Scotland. The	See comments under BGS p.6/7

		materials offer some clear guidance for clinicians, have a very laudable emphasis on the experience of the patient and their carer and cover many aspects of the patient journey. The guideline is a major step forwards and will provide a clear focus to drive continued improvements in delirium care across the country. It supports the Delirium strategy and guidance within NHSGGC. **Possible additions and / or improvements** Clarity of strong recommendations / considered recommendations and good practice points should be addressed. An opportunity to give expert opinion in care should be addressed with additional good practice points.	
		Scotland's commitment and contribution to delirium research and 4AT has been impressive, although, however aspirational it may be to have one diagnostic tool in use across Scotland it is important for the credibility of the guideline that the recommendation is free from unconscious bias. It may warrant a rewording of the recommendation e.g. "A screening tool such as the 4AT" and the National attention to using one tool should be taken through other routes.	See comments under BGS, p.6/7. One of the objectives of SIGN is to reduce variation in practice, so it is appropriate to recommend one tool. The guideline development group felt it was appropriate to recommend a tool which performs well and has been developed and tested in Scotland.
		More attention to identify who the "at risk " population, who should be assessed in the guideline, are and this should be specified.	See response to BGS p.6/7
		Preoperative assessment and education of patients may require a good practice point to support implementation.	A GPP has been added in 4.2 regarding explaining risks beforehand.
		The recognition of the important role of education and participation in care for people with delirium requires a much stronger focus and the important role the Community teams, including GP's and ambulance staff,	The guideline group agrees that these are important areas but did not find sufficient evidence to support further detail.

		have in identifying, reducing the risk and managing also requires strengthening as good practice points.	
	CC	Minor point in the peer review 12.4.2 - spelling error with my name - it's Dr Claire Copeland Otherwise a very comprehensive, well researched guideline. Well done!	Spelling error amended to 'Claire'. Thank you
	CH	I think this is an excellent piece of work by the authors. In aspiring for it to have the greatest impact, I have tried to highlight some areas where specific guidance would be greatly appreciated by both Acute and General Practice-based clinicians when aspiring to assist patients with delirium. There seems to be a general consensus that the 4AT and TIME bundle resources are useful; however subsequent management of patients following these initial assessment can be variable, particularly when approaching and following discharge. Also some thought should be given to the national strategy not to admit patients to hospital where possible, and where alternatives to "default hospital admission" for delirium are being attempted (through intensive support from Intermediate Care services -such as Hospital At Home in NHS Lanarkshire and Fife, emergency packages of care and temporary Step Up admissions to Nursing Home). Keeping a patient safe in familiar surroundings often minimises the potential distress of a delirium presentation, compared to a confused person finding themselves suddenly in an unfamiliar strange hospital environment. Increasingly, trying not to admit the frail elderly to hospitals whenever possible, from either their own homes or nursing homes, is the approach being attempted nationally. So acknowledging this direction of travel, and the potential benefits of avoiding a hospital admission wherever clinically safe to do so, is useful to make the document contemporaneous. NHS	Thank you At the moment there is insufficient evidence to recommend the Hospital at home initiative. This may be an area to consider when the guideline is next updated. The text of section 1.2.1 has been updated to reflect that, while the evidence identified was hospital-based, but could be adapted to community settings. A sentence emphasising the need for person-centred care has been added.

		Lanarkshire's Hospital At Home service has been collating outcomes for the past few years to demonstrate the benefits from avoiding elderly patients from being admitted to hospital, even with delirium. I would suggest that the authors contact Dr Graham Ellis, who oversaw the NHS Lanarkshire Hospital At Home project, and who currently works at NHS Health Care Improvement Scotland as National Clinical Lead for Older People, to reference his findings when managing delirium in the community, outside hospitals, as an Acute-funded outreach service. Delirium will increasingly become an issue with our ageing population, so highlighting the options and alternatives to often counter-productive hospital admission may be helpful to give this guideline particular contemporaneous relevance.	We contacted Graham Ellis. There is one RCT ongoing but no published data available.
	DG	There seems to be a specific focus on ICU situations in this guideline, which, given that the vast majority of delirium takes place in general wards, and has huge consequences for occupied bed days in those wards, seems incongruous to me. Thanks for the opportunity to feedback.	This was unintended. It is just that ICU is an area where more research has been conducted.
	HM	Is a very welcome document which will be a great tool to drive forwards improvement. The draft is clear and easy to read. I think it needs to be a little clearer which are good practice points where there isn't evidence to support and where there is an evidence based recommendation	Thank you See response to BGS, p.6
	HOOPPS	It is understandable that the focus within this document is on identifying and managing delirium, mainly from a medical perspective. From a psychological perspective, it was positive to see in the 'nonpharmacological risk reduction' section there is reference to 'reducing psychological stress through communication and managing the environment...' and	Thank you for the comments. No action required.

		that these risk reduction strategies should be targeted at higher risk patients e.g. older people or those with cognitive impairment. It was also positive to see reference to delirium being associated with an increased rate of cognitive decline post-delirium, and that appropriate cognitive assessment should be considered following delirium. Furthermore, the handy 'checklist' section suggests information which should be provided to patients should ease distress. This includes ideas such as: creating a calming environment; helping to orientate patients with a nearby calendar and clock; information for carers regarding what to expect/ ideas on how to communicate with their friend/relative when coping with delirium. The section which provides links to leaflets for patients and carers is also an important and practical part of the document and should help to prevent or reduce unnecessary distress if these leaflets are provided to families, carers and patients at the appropriate time.	
	HS	Clear and explicit – no comment	No action required
	JB	Easy to read layout and good line of flow through the different topics. Recommendations clearly presented with level of evidence easily identified.	Thank you. No action required.
	JA	The authors are to be congratulated for this guideline. It is well written, clear and concise and contains practical information which will be of significant help to clinicians caring for patients at risk of delirium.	Thank you. No action required.
	LI	The tick system and recommendations I find quite difficult to follow.	See response to BGS, p.6
	MW	I think this is a very readable guideline which strikes an appropriate balance between evidence and practical guidance.	Thank you. No action required.
	NA	Good and easy to read.	Thank you. No action required.
	PS	While the guideline's remit is wide-ranging from community service to hospital-based service, the overall guidance on investigations and management seems to be more	It is likely that a non-responsive patient has another morbidity which would need further specialist investigation. It would

		relevant to community-based service. The complexities of causes of delirium may be different in a patient with moderate dementia in a nursing home, as opposed to someone with multiple chronic diseases, receiving treatment in hospital. Further clarity on escalation for non-responsive patients would be key to make this widely useful.	be on an individual situation. It is not possible for the guideline to describe every scenario. Clinical judgement is required as to when to escalate.
	RCPE	The Royal College of Physicians of Edinburgh ("the College") is an independent clinical standard setting body and professional membership organisation, which aims to improve and maintain the quality of patient care. Founded in 1681, we support and educate doctors in the hospital sector throughout Scotland and the world with over 12,000 Fellows and Members in 91 countries, covering 30 medical specialties. The College is pleased to respond to this call for views from SIGN on the draft guideline on risk reduction and management of delirium. The College is generally supportive of this draft guideline. College Fellows who have reviewed the draft consider it to be a very practical and easy to read document which would be beneficial to health professionals in their daily work. The draft guideline covers a condition which is often poorly recognised and managed, and therefore the College welcomes this document and the likely positive impact it will have on patient care.	No action required.
	SS	Much welcomed guideline, Congratulations to all involved.	Thank you. No action required.
	SMc	Read well apart from annex 4. The multi-factorial aspects and the lack of magic bullets make the subject difficult to deliver but the guideline is well structured and informative. I did enjoy reading it. What I am going to with the medicines review when I do them needs more precision but maybe the information is not available.	The quality of the image in annex 4 will be improved in the published guideline. Unfortunately the information is not available to make this more precise. Assessment and clinical judgement is required for each individual patient.
	SMC	I have reviewed the draft guideline and have no comments.	Thank you. No action required.
	TQ	I enjoyed reading this guideline and it represents a major step in the right	More detailed comments are addressed in each section.

		direction for delirium care. I have outlined some concerns below, in brief – I think the strength of evidence has been over estimated in many of the recommendations; the guideline needs to make explicit reference to the conflicts of interest of the co-chairs; the synthesis of evidence around test accuracy and multicomponent interventions could have been more sophisticated.	
Section 1			
1.1	CC	Clearly articulated	No action required
	CH	Para 1, line 2 Two spaces between "is" & "triggered". Para 2 line 3 "in some people it can last weeks or months". Beyond highlighting the importance of diagnosing and appropriately managing acute delirium, one challenge for this SIGN document (discussed later in respect of "8 Follow up") may be to usefully guide clinicians in respect of "slowly-resolving delirium"; particularly in the context of pre-existing (and potentially previously undiagnosed) cognitive impairment. NHS Lanarkshire's Care of the Elderly Delirium leaflet MLT.DELCAR.74961.L (pub May 2013) highlights "Recovery times vary for each person from several days to weeks and sometimes longer. The recovery often lags behind the recovery from the underlying illness. People with dementia sometimes take a longer time to recover from delirium. Unfortunately some people can be left with memory problems that were not present before the delirium started." The longer that a patient is given a presumptive working diagnosis of slowly-resolving delirium, the more there may be the potential delay in identifying a persisting chronic cognitive impairment, more akin to a hitherto-undiagnosed dementia? Para 4 line 2. With the improved recognition of delirium in the frail elderly population through recent diligent awareness programmes like	Spacing amended. The guideline group agree that there is often undiagnosed cognitive impairment in patients with delirium. The diagnosis of delirium depends on a demonstration of acute onset. In persistent delirium, determining if there is also a pre-existing dementia which has not been diagnosed requires careful assessment of estimated pre-delirium cognition and function. A detailed discussion of this is beyond the scope of the guideline. However, the issue has been addressed briefly in Section 8. Definitions from ICD-10 and DSM 5 are in Section 1.2.3

		THINK DELIRIUM (HIS, NHS Scotland); although hypoactive delirium may still be underdiagnosed, I have observed the phenomena of the presumption of a diagnosis of delirium, in Acute patients from both Acute Medical and Liaison Mental Health staff, in patients presenting with confusion, where no formal prior diagnosis of dementia has been made. So, in improving awareness of delirium, it is important for this SIGN document to stress the potential for presumptive misdiagnosis of delirium, merely where a patient is not thus far known to Mental Health Services. In creating a climate where awareness of the differential diagnosis of delirium (particularly importantly, hypoactive delirium) is enhanced, empowering staff to be confident of the distinctions between undiagnosed dementia and slowly-resolving delirium is key. I would say this is one of the most important factors in The Need For A Guideline. Having witnessed a patient with a 18 month corroborated history of chronic cognitive impairment, be diagnosed as having seemingly indefinite "slowly resolving delirium" by an experienced mental health clinician, it would be very useful to define diagnostic parameters for such a mental health diagnosis as ICD-10 did historically. As Diwell et al note: "Many operational definitions exist for delirium, including formal classifications in the Diagnostic and Statistical Manual of Mental Disorders (DSM) and algorithms such as the Confusion Assessment Method (CAM). Intermediate states, subsyndromal delirium (SSD), can be defined where individuals have symptoms of delirium but insufficient to meet the criteria for full syndromal delirium (FSD)" *https://doi.org/10.1186/s12877-018-0719-1* The importance of getting the diagnosis right is indicated from the association between mortality and delirium: "Emergency admission of an older patient presenting with FSD	

		or SSD is a strong potential indicator of risk of death. Clinically it is important to be aware that each key symptom of FSD is strongly related to death, and participants presenting with just one symptom still carry an increased risk – highlighting the necessity of recognising each symptom separately. Better awareness of the mortality risk associated with delirium would strengthen arguments for early intervention, better treatment and quality of care, considering care plans and encouragement of discussion of prognosis with the patient and/or carer." *https://bmcgeriatr.biomedcentral.com/articles/10.1186/s12877-018-0719-1*	
	DG	Delirium is initially described as being a "severe acute deterioration", then 1.2.3 the ICD 10 description is "mild to very severe". The description should be one or the other, it can't be both. This follows on to the use of the term 'drugs'-when it should be 'medication', as the guidance is not about the use of illicit substances, ie drugs, or alcohol. It is ambiguous to use 'drugs'. line 16: Scottish standards for hip fracture care report 2018 uses delirium rates of 35-65% in hip fracture patients, it is important to not understate the issue in this particular group of patients. There is not a need to use American statistics when we have our own.	We acknowledge that delirium has a range of severities, and to avoid confusion we have removed the word 'severe' from the first sentence in Section 1. Agree. Changed to medication. The 35-65% figure in the hip fracture report is not referenced, and the audit figures are not publicly available. This figure is cited elsewhere from Beers et al Merck Manual of Geriatrics. Prevalence figures from a UK-based study have been added.
	HM	Agreed.	No action required
	HOOPPS	This section is clear and comprehensive.	No action required
	HS	No comment.	No action required
	JB	Clear and useful.	No action required
	MW	Delirium is common, The available evidence needed to be reviewed and rationalised.	No action required
	NA	Agree no change	No action required
	RS	Ok	No action required
	SR	Is there any data on the delay to diagnosis of delirium?	We are not aware of robust data addressing this issue.
	SS	This section could highlight the responsibility of all care settings. It	Section 1.2.1 has been modified to discuss the paucity of evidence

		would be good to recognise that delirium detection can be started at home by community practitioners including GP and ambulance staff. Having the diagnosis before arrival at ED may help with initiating TIME.	in community settings, but that the recommendations could apply in a variety of settings.
	SM	Could add, from clinical experience, how carers need support and guidance on HOW to communicate with the delirious person as they fear saying the wrong thing.	This is an important issue but unfortunately there is no evidence in support of a particular approach. Please see Section 6 for our recommendations on communication.
	TQ	No comments	No action required
	VM	Some of the statistics given were for US. Wondered why the figures weren't from Scotland and/or UK.	Figures from a UK-based study have been added.
1.1.1	CC	Important to have this stated at the start of the guideline	No action required
	CH	I might go further and assert that, without speaking to relatives about any history of prior cognitive impairment or decline, that it is very challenging to be confident if a patient is presenting with acute delirium, or, potentially, delirium superimposed on a background of chronic cognitive impairment. Unless a patient has a previous ACE-III for reference, or has been formally assessed by Mental Health staff, an Occupational Therapist, or their GP for memory, behaviour or cognition problems; there is often a presumption of delirium in a confused patient presenting Acutely with slightly raised infective or inflammatory markers. Whereas (perhaps in Section 9 Provision of Information) emphasizing the value of liaising with relatives and carers for background histories is useful to stress.	We agree that this is often a challenge. We have stated that the diagnosis has to be made by suitably qualified clinician.
	HM	Carers have a role in risk reduction and detection of delirium as well as caring for people after diagnosis.	Please see Section 9.
	HS	As this comes under the section for need for a guideline, I wasn't exactly certain/clear that the text in this section related to the need for the guideline. I feel the patient carer perspective for the need for the guideline should be made more explicit.	These were issues highlighted in the patient search and patient issues survey conducted at the beginning of the guideline. It is hoped that implementation of the guideline will encourage more communication with patients and carers. The prevalence and underdiagnosis of the guideline are the main reasons why the

			guideline is needed.
	LI	An opportunity for reference to the Welcoming Ward approach and family members, visitors and carers being part of the care team during a hospital admission and during a period of delirium. Also a key point to make reference to the recent changes to carer legislation and the legality for carers to be involved in discharge, again very important for the person who has experienced an episode of delirium and still may have residual symptoms of this.	We agree that this a valuable approach. However, there are many such approaches and the guideline cannot document all of them. We recommend that such initiatives should be considered in local implementation. See Section 9. We agree that this is an important point. The involvement of carers in discharge is highlighted in Section 9.
	MW	This is very important as subtle changes are most likely to be recognised by close family members.	No action required
	NA	Agree no change.	No action required
	NMAHP	Welcome strong emphasis on involvement of the person and their family.	No action required
	RS	Ok	No action required
	SS	This section could be stronger in relation to PH message, there are missed opportunities to ensure those at risk of delirium have enough information to keep well when unwell e.g flu vac campaign. Relatives need more information to help support identification, management and risk reduction before and during admission and after discharge.	We do acknowledge that this an unaddressed area. We do recommend better communication with patients and carers. A broader public health information campaign is outwith the remit of the guideline.
	TQ	For some aspects eg the approach to information sharing, I would have liked the patient, carer, lay public perspective to be more visible.	This is addressed in Section 9. There will also be a patient version of the guideline which will include direct quotes from patients/carers.
	VM	No comment	No action required
1.2	CH	Fine	No action required
	HOOPPS	This section raises that the guideline recommendations are based on current evidence for best practice in all settings however this is incongruent with the content of subsequent sections which do not include specific reference to home, care home/long term care, hospice/end of life. This section states the guideline makes	Section 1.2.1 has been amended to highlight this issue and further advice for settings outwith the acute care has been added to section 3.

		recommendations for all of these settings but the content is predominantly focused on acute settings in inpatient and emergency care. We consider this remit leads the reader to expect these settings to be referenced, Either the recommendation includes these specifically in their remit or the guideline's remit needs to be revised to state that this guideline mainly covers inpatient/acute care.	
	JB	Relevant to clinical practice.	No action required
	MW	To provide a comprehensive, user friendly guideline	No action required
	NA	Agree no change	No action required
	RS	Ok	No action required
	TQ	No comments	No action required
	VM	No comment	No action required
1.2.1	CC	Perhaps an explanation why the guidelines doesn't cover paeds, alcohol and drugs. Also needs more clearly stated and earlier in the document.	In the interests of brevity, we have not included such a statement but make it clear what the remit of this guideline is. These areas would be topics for separate guidelines.
	CH	Fine	No action required
	HM	Perhaps exclude delirium SOLELY secondary to alcohol as it is a contributory factor in many cases. Could reference relevant guidelines.	The text has been amended to include 'solely'. This would require appraisal and review of other guidelines which is outside the scope of this topic.
	HOOPPS	As 1.2	See above.
	HS	Clear and explicit – no comment	No action required
	LI	Refers to the diagnosis, management and follow up. Would be useful to also include key details on assessment as the assessment process is different to the diagnosis.	We have modified the text to clarify it is detection and assessment. Assessment is covered in Section 3.
	MW	Clear evidence based guidance on all aspects of delirium	No action required
	NA	Agree no change	No action required
	RS	Ok	No action required
	TQ	No comments	No action required
	VM	No comment	No action required
1.2.2	CC	No comment	No action required
	CH	Should polypharmacy be also included as a 'comorbidity'?	Polypharmacy is a contributory factor rather than a comorbidity. It is addressed in Section 5.1, medication review.

	HS	No comment	No action required
	LI	Include – previous episodes of delirium	This isn't a comorbidity, but a risk factor. It has been added to a list of risk factors in Section 1.1.
	MW	Raise awareness of co morbidities	No action required.
	NA	Agree no change	No action required
	RS	Ok	No action required
	SR	Neurodegenerative illness	This is covered with the existing list.
	SS	Does critical illness cover previous delirium? often not routinely asked about in practice again could it be a good practice point	This is important but the list refers to comorbidities rather than risk factors. It has been added to risk factors in Section 1.1.
	TQ	Although conditions of interest are listed, there was little in the guidance specific to these conditions. Considerations differ in these groups and the generic recommendations may not be fully appropriate. The lack of detail is not solely due to lack of data - I know that specific studies with a stroke delirium focus are available.	The guidelines considered that the recommendations are intended to be generalisable; there is insufficient evidence currently to focus on the specific conditions.
	VM	Should the term dementia be used here as it describes a group of symptoms rather than a disease?	The guideline group consider that dementia is reasonable as a term since the section is discussing say comorbidities rather than diseases.
1.2.3	CH	Para2 Line 7. The Cole paper from 2010 is cited here in respect of "can persist for months". This is where clarity would be useful for a GP readership. 12 months? 18 months? 24 months? If delirium is not a chronic enduring condition, there should be some consensus as to when a patient's presentation is not a slowly resolving delirium, but chronic cognitive impairment.	It is not possible to quantify. This is clinical judgement based on an individual's history. The sentence is to raise awareness that delirium may not resolve in days.
	HS	Clear and explicit – no comment	No action required
	MW	Clear and well referenced	No action required
	NA	Agree no change	No action required
	RS	Ok	No action required
	SM	I do worry that the notion of most deliriums being short lived is (whilst technically true of the widest population) misleading in a hospital or care home setting. In these areas the population of frail older adults is very high and within this cohort,	The evidence currently supports the 20% figure for longer duration, but we do appreciate that the proportion of persistent delirium may be higher in some groups and settings. The DSM 5 definition has been

		delirium lasts longer and has significantly worse outcomes to both the person and their carers and also the service, in terms of resources and financial burden.	added and notes that delirium can be acute or persistent.
	TQ	I would also include the DSM 5 definition, as this is the framework that most contemporary research will use. It is also the definition alluded to in the text.	DSM 5 has been added.
	VM	Great to veer away from using the term 'confusional state' etc	No action required.
1.2.4	CH	A GP audience in particular would benefit from characteristics of Likely Delirium of Likely Dementia, particularly in situations where frail elderly people have been living alone without carers or relatives witnessing any changes in their presentation for subsequent reference. As we face an increasingly elderly and isolated frail population, providing clear guidance in this area is key to benefit the target audience.	Section 1.2.1 has been rewritten to emphasize that, while the evidence identified was hospital-based it is hoped that the recommendations are generalisable to other settings.
	HOOPPS	We consider that this guideline will be most applicable to healthcare professionals working in acute care settings. Target users such as primary care, community, care home etc staff are likely to find this guideline of less utility.	We have stated that most evidence relates to acute care. We have modified section 1.2.1.
	HS	Clear and explicit – no comment	No action required
	MW	All clinicians in both primary and secondary care settings	No action required.
	NA	Agree no change	No action required
	NMAHP	While the guidance is expected to be of interest to all care settings the main focus of specific interventions, care and treatment focus on hospital care. It would have been helpful to have advice relating to other settings such as, care homes and specialist dementia care services particularly in relation to the best screening tool to use in these settings	Section 1.2.1 has been modified to make this clearer.
	RS	Ok	No action required
	TQ	For our Cochrane suite of reviews on delirium, our experience and feedback from consumers was that combining all settings in one review was unhelpful; for our updates we are offering advice for specific	A guideline is a different product from a Cochrane review. For this first SIGN guideline on delirium it was felt that no setting should be excluded. It is unfortunate that there is little evidence outside the

		settings (critical care, non-critical care hospital, other) as stand alone documents	hospital setting.
	VM	No comment	No action required
1.3	CH	Fine	No action required
	HS	Clear and explicit – no comment	No action required
	MW	To improve outcomes in patients with/ at risk of delirium	No action required
	NA	Agree no change	No action required
	RS	Ok	No action required
	TQ	No comments	No action required
	VM	No comment	No action required
1.3.1	CH	Fine	No action required
	MW	None apparent	No action required
	NA	Agree no change	No action required
	RS	Ok	No action required
	TQ	An important issue that threatens the credibility of the guidance is around disclosure of conflict of interest. The co-chair of the guideline committee created and holds the intellectual property for the assessment tool that is recommended in the guideline 4-AT. Although I don't necessarily disagree with the guidance to use 4AT, many in the delirium community will disagree. To avoid any future difficulties there needs to be absolute transparency in the guidance. This section should detail the issues and if the co-chair exempted himself from any discussions around the assessment tool. Many of the guideline group were involved in the creation of the 'TIME' bundle – so again the same issues apply.	*See response to BGS on pages 6/7*
	VM	No comment	No action required
1.3.2	JB	Under section 'the GMC recommends' – 3rd bullet point doesn't make sense	'the effects of the medicine' has been deleted.
	MW	Clear advice given	No action required
	NA	Agree no change	No action required
	RS	Ok	No action required
	TQ	No comments	No action required
	VM	No comment	No action required
1.3.3	HS	No comment	No action required

	NA	Agree no change	No action required
	RS	Ok	No action required
	TQ	No comments	No action required
	VM	No comment	No action required
Section 2			
2.1	CH	Should it be emphasized that a 4AT score of 4 or above is significant here? Also obtaining a corroborative history from sources such as NHS Scotland's electronic Key Information Summary, a main carer or relative is useful in establishing hitherto undiagnosed chronic cognitive presentations. Staff may feel rushed for time in emergency and acute hospital settings, but in this presentation, diligently sourcing a history (particularly if unobtainable from the patient themselves) is key.	The tool has scoring built into the form. As may be subject to changes outwith SIGN's control, it is better for the reader to go direct to the 4AT literature. This is standard practice, rather than a key recommendation.
	DG	"The 4AT .....identifying patients at higher risk of delirium" , this should be detecting delirium, not identifying those at higher risk. See 4AT website; "The 4AT is a rapid clinical instrument for delirium detection."	Changed to 'identifying patients with probable delirium'.
	HM	I wonder if the evidence is strong enough to specify the 4AT as opposed to other tools, or whether the wording "A validated tool such as the 4AT" should be used. If the guideline is to be evidence based decisions should be made on the evidence and not on the desired outcome of a standardised tool and standardised response. Some areas may find other tools more suited. The evidence base is still changing fairly quickly and new information may become available. We want to be clear we cannot be perceived internationally of having unconscious bias given the very important research work into delirium detection that has come from Scotland. I also wonder if the language should be "identifying patients at higher risk of HAVING delirium" as we are talking about screening tools not a tool to put people into different risk categories for development.	On balance it was felt that the 4AT was best in terms of sensitivity, specificity and ease of use. The wording has been changed to 'patients with probable delirium'.
	HOOPPS	The recommendation specifically states that 4AT should be used in emergency and acute hospital	A recommendation on other settings has been added to section 3.1

		settings. What is the recommendation for other settings stated to be covered by this guideline's remit (patient at home, care home?) - does this still apply?	
	HS	As the guideline covers home, long-term care, hospice as well as hospital settings - should a recommendation be made as to what tool should be used in these settings for identifying patients/people at higher risk of delirium. At the moment the recommendation to use the 4AT is for emergency and acute hospital setting (no mention of other settings eg hospital at home, community hospital settings longterm care, hospice etc)	A recommendation has been added to section 3.1.
	JB	Clear and supported by relevant evidence	No action required
	LI	Reference to this being part of an overall assessment	The focus of section 2.1 is the key recommendations. Further detail is discussed in section 3.1.
	MW	Well reference section with good table outlining options	No action required
	NA	Agree no change	No action required
	RS	Ok	No action required
	SS	R descriptor at key to evidence is difficult to follow in recommendation, should be used, should be considered and should follow as an example. I wonder if this could be clearer at point of recommendations. Table 1 suggests that 4AT can be used in multiple settings and I wonder if this could be extended at this recommendation for pre hospital care as a good practice point?. Can I clarify that the guidance is saying 4AT needs to be the tool of choice despite the table suggesting others can be used. I would be concerned that where there is good practice with another tool it is disrupted because of the guideline. Although 4AT is the tool I use and want to be used! If "emergency" could be clarified to mean ED and or emergency situation. Can emergency department be written in full?	This is standard SIGN methodology and is explained in the boilerplate at the front of the guideline. This has been added to section 3.1. The 4AT is recommended based on the sensitivity, specificity and ease of use of the tool. The wording of the recommendation has been changed to 'emergency department'.
	SM	Recommend that, given the high incidence of delirium in older adults	While it is noted in the evidence statement that the studies were in

		in hospital, all patients over the age of 65 are screened on admission using the 4AT, as a baseline for future comparison. The 4AT score should be clearly indicated.	patients over 65, this is too prescriptive as it can be context-specific.
	TQ	Issues around interpretation, evidence synthesis and conflict of interest - see detailed comments in other sections	Addressed in the comments in other sections.
	VM	Does 'emergency' stand for the Emergency department? No mention of using in the community or mental health setting Who should be making the 'diagnosis'	This has been changed. A new recommendation has been added to section 3.1. Further detail on diagnosis is included in section 3.1
2.2	CH	Would reference to Annex3 and the TIME bundle be worthwhile mentioning here? *http://www.healthcareimprovementscotland.org/his/idoc.ashx?docid=5d44ee77-2227-42c4-887a-9fe42588c739&version=-1* I would also advocate the medication review including enquiring about OTC/non-prescribed medicines; having had a patient who was not prescribed anything contentious on their repeat drugs list, but who, it was revealed, had been independently sourcing codeine via their supermarket.	These issues are covered in section 5.1
	HM	The bullet points talk about delirium risk reduction and does not mention meds review. The second recommendation is for "all patients with delirium should have a medication review" - should this be added as a bullet point to be clear that it is about trying to prevent delirium. Should the full recommendation then come under 2.3	Wording has been changed to 'at risk of'.
	HS	I would recommend adding in a bullet point for factors like resolving reversible sensory impairment, promoting good sleep patterns. And also avoiding unnecessary movement of patients between wards or even within a single ward setting (for non clinical need)	This has been added. Limiting ward moves has been added to section 4 as a good practice point.
	JB	Clear and supported by relevant evidence	No action required
	LI	Include - reference to the *Getting To Know Me document, What MAtters*	These have been added to Section 9.

		To Me, also familiar items if in a hospital setting and involvement of family members and carers as part of the team delivering care, and support if they wish to do so. Stimulating therapeutic activities, environmental changes such as orientation boards, the use of colour contrast and access to IT and media, so newspapers, TV, radio, music etc	No evidence was identified on all these specific interventions, but could be considered as techniques for orientation.
	MW	Clear advice. Importance of good nursing care stressed.	No action required
	NA	Agree no change	No action required
	RS	Ok	No action required
	SS	If medication review is under risk reduction then it seems wrong to say it for people with delirium. Did medication review for risk reduction have any evidence? could it be a good practice point?	The recommendation has been changed to 'at risk of delirium'.
	SM	Recommendation should include a) ensuring good "sleep hygiene". b) ensuring patients have glasses and working hearing aids, where used.	This has been added.
	TQ	Issues around grading of the evidence - see detailed comments in other sections. Throughout the guideline there seems to be inconsistency in the categorisation of evidence. The text on non-pharmacological treatment recognises that there is no supporting robust evidence and so the recommendation label should be 'good practice'. To suggest otherwise will have potentially unhelpful indirect consequences. For example, future research is needed to assess the effectiveness of interventions described in the guidance. This research will not happen if national guidelines declare that the case is already made for using these interventions. There is a disconnect between the components of evidence based care in recommendation 2.2 and the non-pharmacological treatment suggested in 2.3. This deserves some comment in the text. Us there really such a difference between prevention and treatment that interventions would work for one and	See response in other sections. SIGN methodology is that it is a recommendation rather than a GPP because it is based on published consensus/expert opinion. This is detailed in section 5.2. While there is a lack of research into which aspects of a multicomponent package of care are most effective, a lot of what is recommended is good fundamental care, so the guideline development group felt confident to make the recommendation. Further detail is provided in sections 5 and 7, with reference also to the pathways in Annexes 3 and 4.

		not the other?	
	VM	All patients with delirium should have a medication review conducted by an experienced health care professional- Perhaps should say 'suspected delirium ' ? time frame for that review	This has been changed to 'at risk of'. It is not possible to provide a time frame, as it is context specific.
2.3	CC	Communicate the diagnosis to patients and carers, and provide ongoing engagement and support. Perhaps change to: 'Communicate the diagnosis (verbal and written) to patients and carers as soon as is possible, and provide ongoing engagement and support.	The group think it is sufficient to state that it should be communicated. Whether it needs to be provided in writing depends on the individual situation.
	CH	Following management of the acute phase and underlying trigger, if identified, has there been any work to guide recovery. I note that there was a "Study protocol for the recreational stimulation for elders as a vehicle to resolve delirium superimposed on dementia (Reserve For DSD) trial *(Kolanowski, Ann ; Trials, 2011, Vol.12(1), p.119)* https://trialsjournal.biomedcentral.com/articles/10.1186/1745-6215-12-119 but couldn't source their eventual outcomes.	No evidence was identified in this area.
	DG	"drug intoxication", should be "drug intoxication, medication excess or withdrawal". It is easy to miss patients delirious with codeine/dihydrocodeine, or withdrawing from SSRIs/benzos/parkinsons medication etc. Line 5 'drug' seems a bit incongruous-see previous comments. This list should include urinary retention and constipation to specifically highlight these important issues early on in the guideline	'Withdrawal' has been added. This has been changed to 'medications'. It was preferred not to give specific examples because it is not possible to include a comprehensive list.
	HOOPPS	We welcome the inclusion of the recommendation on use of detection, assessment and treatment of distress.	No action required.
	HS	Clear and explicit – no comment	No action required
	JB	Clear and supported by relevant evidence	No action required
	LI	As above	No action required

	MW	Well referenced. Clear advice.	No action required
	NA	Agree no change	No action required
	RS	Ok	No action required
	SS	I would like to see a mention to reduce risk of stress that leads to distress. If that was possible.	This is covered in the fourth bullet point.
	TQ	We are updating the delirium review portfolio in Cochrane Dementia and I can share (in confidence) some completed but not yet published reviews if this would be of interest.	Thank you. The published reviews were captured in the update search results. One on antipsychotics has been added to the evidence statement and the other (anticholinesterase inhibitors) did not change the advice already available.
	VM	Staff, patient and carer education as a non pharmacological treatment?	The guideline group has looked again at the evidence for education. An additional statement and good practice point has been added to section 4. There was no robust evidence to provide definitive advice around staff education. It is agreed that this is important and implementation of the guideline should raise awareness and educate staff on delirium.
Section 3			
3.1	CC	In all cases, a positive assessment should be followed by additional assessment and diagnosis against DSM-5 criteria by a suitably trained clinician: Needs a reference or appendix for the DSM-5 Does there also need to be a mention of the preferred tool in stroke here? It's a commonly asked question	DSM-5 and reference added to section 1.2.3. It is not possible to make recommendations in all settings. We have recommended a tool in the 4AT that is validated across numerous settings, including stroke.
	CH	I would particularly stress here that hypoactive delirium is most commonly missed. Hyperactive delirium invariably usually gets noticed! Para 7 final line: "it is best to assume it is delirium unless there is indication from the patient's notes or from family members that the mental state is clearly in keeping with the baseline" could be problematic and lead to an unintentional habitual tendency by staff to presume and potentially over-diagnose delirium (as the most convenient and least time-consuming default option),	Agree that it is often missed, but even hyperactive delirium is frequently undiagnosed or misdiagnosed as dementia so we have left it as it is. Wording changed from indication to clarification.

		without the adjusted caveat that "it is best to assume it is delirium, until diligent clarification has been sought both from the patient's notes and from family members regarding the patient's baseline mental state". This may sound somewhat pedantic, but the words "unless there is indication" are quite passive rather than proactive! Having worked in a region where delirium awareness has been extensively promoted in partnership with the 4AT and TIME bundles, it has been witnessed that some mental health professionals have diagnosed delirium, without seeking past psychiatric histories from sources other than mental health records, thereby missing pre-existing diagnoses of dementia made by GPs and held within GP notes, and neglecting to take histories from relatives/main carers clearly pointing to longstanding progressive cognitive decline in the patient. Obviously a patient can have delirium AND dementia; with acute confusion characterised by rapid onset of fluctuating confusion superimposed upon a history of chronic cognitive impairment; but, given the pressures on all staff, there is always the temptation to cut corners. So, if this SIGN guideline is to be promoted at a national level, most diligent and best working practice should be clearly described?	
	DG	R Recommendation, the use of 4AT for identifying patients at 'higher risk' as opposed to detecting delirium.	Changed to ‘patients with probable delirium’.
	HM	The guideline doesn't state who the tools should be used on. All people over 65 attending hospital? What about people with dementia attending hospital, people going to ITU or people with hip fracture? If there is uncertainty then that should be discussed and some guidance given as otherwise it will be difficult for the guidelines to be operationalized. I think we need to be clear that most (all?) of the tools are for screening and not diagnosis. I understand the	No clear evidence was identified to guide this, but a sentence has been added to say that the studies were hospital based but this would not preclude their use in other patients, and a conditional recommendation has been added. It is stated that this is for identifying patients at risk of

		idea of identifying people who are at higher risk for having delirium and giving them the same management. However, if a delirium label is attached it may stop the search for other cause of altered mental state. I have seen people admitted with low GCS after a fall given a delirium label and therefore brain imaging that would show a bleed not carried out. Perhaps modification of the sentence at the start of paragraph 3. "In all cases it should be recognised that a positive that these assessments are not diagnostic and all individuals with positive screen more require additional assessment and diagnosis against DSM-5 criteria". Table – I'm unsure why SQiD not suitable for detecting DsD? Last paragraph - Where delirium is detected the diagnosis of delirium should be clearly documented (AND CONVEYED TO THE PATIENT AND RELATIVES - should this be added)	delirium. A good practice point has been added to say that formal diagnosis is required. The group do not think that it is specific enough to differentiate delirium from behavioural and psychological symptoms of dementia. An additional good practice point on informing the patient/carers has been added.
	HOOPPS	In paragraph 2, there is reference to the lack of requirement for training and applicability of 4AT in various clinical settings. Our combined clinical practice within community settings, including care homes, when detection of delirium in individuals presenting with distress behaviour is important is that the ability of non registered health and social care staff for example working in care homes, do require orientation to this tool and implement its use. Again the recommendation sets out that 4AT should be used for those in emergency and acute hospital settings. The recommendation does not state what screening tool is recommended for the other care settings the initial remit states the guideline covers.	We did not find evidence for tools in other settings. We have added a statement in 3.1 to say this and that the lack of studies does not preclude their use in other settings, and added a conditional recommendation.
	HS	As the guideline covers home, long-term care, hospice as well as hospital settings - should a recommendation be made as to what tool should be used in these settings for identifying patients/people at higher risk of delirium. At the moment the	We did not find evidence for tools in other settings. We have added a statement in 3.1 to say this and that the lack of studies does not preclude their use in other settings, and added a conditional recommendation.

		recommendation to use the 4AT is for emergency and acute hospital setting and the CAM ICU or ICDSC for ICU settings - no mention of other settings eg hospital at home settings, community hospital setting, long term care settings etc. Should mention be made to the fact that detection and diagnosis of delirium is a multi-disciplinary decision (if it is....??)	
	JB	Adults with incapacity act documentation only relevant to Scotland - perhaps include others from UK?	The guideline has been produced primarily for implementation in Scotland, hence the reference to Scottish legislation only. It has been made clearer that this is Scottish legislation and is an example of relevant documentation.
	JA	The 4AT appears to be well validated and evidenced, quick and easy to use and the authors have clearly explained the rationale in choosing 4AT as assessment tool of choice. I am a little concerned however that the 4AT is the only tool that is recommended to be used for emergency or acute settings. This implies that all the other tools available should not be used, and I am not sure that the weight of evidence supports this. For example Hendry et al [17] support using "a highly sensitive brief delirium screening tool such as AMT4, MOTYB or 4AT". Is the intent of the authors that the 4AT should be the only screening tool in use? To my mind this should only be done if it is clear that 4AT is superior to all other screening tools - can you be certain the evidence supports this? In table 1, 4AT is referenced with [24] *van Velthuijsen et al*. However this appears to be incorrectly referenced as this paper does not assess or recommend 4AT	Hendry et al 2016 stated: “The 4AT was found to be the most feasible tool with the highest patient completion rate”, and “the 4AT was found to have a slightly lower sensitivity, but higher specificity than these more simplified screening tools”. AMT4 and MOTYB are sensitive but are not specific enough to be recommended. On balance the group decided that 4AT should be recommended based on its sensitivity, specificity, ease of use and validation within a Scottish population. Thank you for spotting this error! It has been amended to reference 21
	MW	Range of tools discussed	No action required
	NL	Should include expert opinion for which tools to be used outwith acute setting	A sentence has been added re lack of studies and use in other settings and a conditional recommendation added.
	NA	Agree no change	No action required
	PS	Brain and other diagnostic imaging are easily accessible and in hospital settings done quite routinely. There	The guideline group disagrees that imaging is required at the stage of identifying patients at

		is an increasing expectation from the public to use modern diagnostic tests to support clinical diagnoses. There may be a lack of evidence to base upon a guideline, though pragmatism should then prevail, otherwise there is a danger of guideline becoming irrelevant.	high risk of delirium.
	RS	Ok	No action required
	SS	Again specify ED if possible plus identify previous delirium as before. The guidance of who is at risk and who should be screened should be re identified here	The guideline now explains there was no evidence to guide which groups should be screened but evidence of tool validity came from studies in ICU and in people aged 65 or over in various hospital settings. We now include a new sentence clarifying delirium detection should ideally be undertaken at the earliest opportunity.
	SM	It is worthy of note that the 4AT should not be indicated as the sole tool to detect cognitive impairment as it is possible to 'pass' the 4AT, whilst still scoring for cognitive impairment (failing the 4 AMT component). Users should be warned not to rely (as has been seen in many cases) as an indicator that the person does not have an underlying cognitive impairment. Regarding AWAI Section 47- I would stress that consideration MUST be given not 'should' as is stated here. The Short IQCODE may also be useful particularly following hip surgery, where dementia is suspected - *https://www.google.com/url?sa=t&source=web&rct=j&url=http://scholar.google.co.uk/scholar_url%3Furl%3Dhttps://www.researchgate.net/profile/Gauthier_Bouche/publication/55657737_Usefulness_of_the_Short_IQCODE_for_Predicting_Postoperative_Delirium_in_Elderly_Patients_Undergoing_Hip_and_Knee_Replacement_Surgery/links/55e946c808aeb651626477ca.pdf%26hl%3Den%26sa%3DX%26scisig%3DAAGBfm3j4ywFVS53cuMNiAiqvq82hvX7pQ%26nossl%3D1%26oi%3Dscholarr&ved=0ahUKEwjS5aPGuOfbAhXF26QKHSvlDzMQgAMIIygA&usg=AOvVaw17GNAWLIz7tl3TmNEVCD-y*	We agree that the 4AT is not diagnostic. Its use is intended as an adjunct to clinical practice and not as a substitute for a full cognitive assessment and diagnosis when one is needed. Nevertheless, a score of 4 or more on the 4AT shows good sensitivity and specificity in numerous studies. Agree. 'Should' has been changed to 'Must' This was not included as it is not possible to cover every tool available and the focus was on detection of delirium.

	TQ	This section contains a number of statements that make intuitive sense but lack any evidence base. I don't necessarily disagree with the statements made but the lack of robust supporting evidence needs to be acknowledged. For instance there is no high quality evidence that detection of delirium in medical wards improves outcomes (or even changes pathways of care). The guideline group have missed an opportunity to offer a quantitative synthesis of the evidence. There are fairly simple meta-analytical techniques that would allow for summary data on the test accuracy metrics of interest for all the screening tools. This approach was used by NICE in their recent guidance on dementia. Without this approach, the data presented appear rather 'cherry picked'. The fact that 4AT is widely used is not, in my opinion, a strong reason to favour the test. There are lots of tests that are widely used and not fit for purpose. We can do better than make a national recommendation based on convenience. Table 1 Some of the data seem fairly subjective and should be justified. For example, many of the assessments could be used (and are used) for assessing delirium in the context of dementia, yet only three are categorised as such in the table. The study quality should be appropriate for test accuracy and not borrowed from the criteria used to assess trials. If high quality is awarded to robust meta-analyses then the grading is incorrect for certain scales.	The research question started from the premise that identifying patients with delirium allows for better care and support for their needs. All the statements made in this section are supported by references and evidence levels reflecting the quality appraisal of the cited studies. There is not the resource to conduct a meta-analysis, however the results reflect a systematic review of the literature using accepted methodological standards, as set out in the SIGN 50 manual. When formulating recommendations, there are a number of factors taken into consideration as well as the evidence as part of the considered judgement process, for example, the applicability of the evidence to the Scottish setting, and practical considerations such as ease of use and acceptability to patients. Given that the 4AT has been validated in the target population it is appropriate to recommend it. Some of the data is subjective but is a steer, from the studies, on what is useful for particular patients. The quality rating has been removed from the table.
	VM	Well researched	No action required
3.2	CH	Fine	No action required
	HS	Clear and explicit – no comment	No action required
	MW	Clear advice on what to do and more importantly what not to do	No action required
	NA	Agree no change	No action required
	RS	Ok	No action required

	TQ	In the section on investigations, the evidence around EEG, CSF analysis is so weak I would have graded these recommendations as 'best practice'	For EEG the robustness of the evidence is noted as level 3, and is reflected in the wording of the recommendation 'should be considered'. There is no recommendation for CSF, it is a good practice point.
	VM	No comment	No action required
3.2.1	CH	Fine	No action required
	HM	Is another aim of brain imaging to identify SOL I wonder if the discussion around CT in anticoagulation therapy should be toned down as this would be an increase of scanning in what we do now and I understand the evidence is not so strong - perhaps "anticoagulation therapy where there is clinical concern"	'structural abnormality such as tumour' has been added to the first sentence in sect 3.2.1 This was considered carefully and it was decided that the risk of missing something is greater than the risk of increased scanning. The recommendation is that scanning should be considered, rather than that everyone should be scanned.
	HS	Clear and explicit – no comment	No action required
	JA	I am sure that it is clear that when a patient suffers a reduced level of consciousness that brain imaging is indicated. The body text describes two papers indicating brain imaging is warranted following a reduction in conscious level (GCS<9). Only one of the two papers referenced mentions GCS, and then only in the discussion not in the methods or results, suggesting that the 'reduced level of consciousness' group had been defined as either "GCS <9 or the patient having unresponsive episodes". I am aware that you do not recommend a GCS cut off for CT scan, however you should consider that the reader may take away from the body text that a reduction in conscious level is signified only by a GCS <9 when clearly this is not the case	Agree. It is poorly defined in the literature. GCS removed.
	MW	Clear advice	No action required
	NA	Agree no change	No action required
	PS	The guideline only discusses the utility of a CT scan of the brain. It would be preferable to use the term "imaging as appropriate or adequate brain imaging". For example, one may not be able to make a diagnosis of the syndrome of PRES without MRI scan. While such cases make up a small proportion of delirium	No evidence was identified for MRI. The recommendation reflects the evidence. In the GPP 'scanning' has been changed to 'imaging' to encompass MRI.

		cases, they are increasing, with more and more conditions now amenable to complex treatments including biological treatments. Also there is the emergence of antibody associated encephalopathies that can present as delirium, and a CT scan would not add much but MRI scan would be very useful.	
	RS	Ok	No action required
	SR	The aim of brain imaging is to identify or rule out a range of structural processes in the brain including ischaemic or haemorrhagic stroke, sub-dural or extra-dural haematomas or collections, or a significant tumour such as in the pituitary region. In addition, in new onset delirium, especially in the context of a fever and witnessed or suspected seizure activity, brain imaging may identify changes reflective of viral encephalitis.	'Structural abnormalities' added to the first sentence. A sentence on managing encephalitis has been added to the third paragraph of section 3.2
	TQ	No comment	No action required
	VM	No comment	No action required
3.2.2	CH	Fine	No action required
	HS	Clear and explicit – no comment	No action required
	NA	Agree no change	No action required
	PS	The literature review as per this draft clearly notes that EEG is underutilized, but the guideline does not reflect this. In patients where there is no improvement despite treating the apparent cause, or no clear cause has been found, non-convulsive status is always a differential diagnosis and patients should, therefore, have EEG to assess this.	No evidence was identified to support this and a recommendation would be unrealistic in terms of service delivery.
	RS	Ok	No action required
	SR	EEG is currently under-utilised in the assessment of delirium, especially in the elderly. EEG is also currently under-utilised in the intensive care unit. Individuals above the age of 85 have the highest prevalence of focal epilepsy. Approximately 30% of seizures in the elderly may present as status epilepticus, of which 25-50% will be non-convulsive status epilepticus. Multiple papers emphasise the	This is adequately covered in the recommendation.

		importance of EEG in the assessment of Delirium. *De Novo epileptic confusion in the elderly: A 1-year prospective study. O. Veran, P. Kahane, P. Thomas, S. Hamelin, C. Sabourdy, L. Vercueil. Epilepsia 2010, 51(6):1030-1035. In this study - of 44 patients aged 60 and above with delirium (non-infective), 7/44 (15.9%) had non-convulsive status epilepticus.* *Prevalence of non-convulsive seizure and other electroencephalographic abnormalities in ED patients with altered mental status. S Zehtabchi, SGA Baki, et al, American J of Emergency Medicine 2013, 31: 1578-82.* Individuals with a current or prior history of epilepsy presenting with delirium must be offered a EEG in order to ensure that they are not in non-convulsive status epilepticus. Individuals on medications such as Tramadol, opiates (often the case in post operative patients, post-trauma patients), beta-blockers, hypoglaemic agents and benzodiazepines may have a higher risk of non-convulsive status epilepticus presenting as delirium. Clinical signs on examination that may help identify or raise suspicion of non convulsive status epilepticus include subtle eyelid twitching, subtle peri-oral twitching, subtle movements of extremities, nystagmus, hippus (repeated dilatation and constriction of pupils). EEG IN THE INTENSIVE CARE UNIT. The duration of EEG to identify non-convulsive seizures or non-convulsive status epilepticus should be 24 hours, as two-thirds of nonconvulsive seizures will be missed on a standard 30 minute EEG. The duration of EEG in "comatose" patients should be 48 hours to detect non-convulsive seizures or non-convulsive status epilepticus as a contributory or causative factor. *References:* *Digital video-*	The Veran paper has been added to the evidence statement. The focus of the other papers is epilepsy rather than delirium. A stronger recommendation to use EEG more widely would have significant resource implications, as highlighted by other peer reviewers.

		electroencephalographic monitoring in the neurological-neurosurgical intensive care unit: clinical features and outcome. Archives of Neurology. 2004, 61 (7):1090-1094. *Detection of Electrographic seizures with continuous EEG monitoring in critically ill patients. J Claassen, SA Mayer et al. Neurology 2004, 62 (10):1743-1748.* *Urgent Continuous EEG monitoring leads to changes in treatment in half the cases. LJ Hirsch, Epilepsy Currents. 2010, 10(4): 82-85.*	
	SMc	Not a practical solution currently as not a widely available investigation. Large numbers of patients with delirium could swamp resources. Agree needs further RCTs.	The recommendation is 'should be considered' rather than expecting everyone to have EEG.
	TQ	No comment	No action required
	VL	The main use of EEG in delirium is to look for NCSE or rare specific patterns eg sCJD. In general the EEG in delirium from other causes lacks any specificity. Published evidence on the use of EEG is very variable in quality and without an expert knowledge of this area it is difficult to identify what is relevant in clinical practice. Reference 44 relates to a research technique often used by neuropsychologists - quantitative EEG(qEEG) and evoked potentials – not routinely available in clinical practice and compares it to standard recordings in clinical practice - so I think this has been misinterpreted and may not be useful to include. Ref 45. This reference appears to propose that using 2 channel recordings can identify delirium - this is a clinical diagnosis. The main reason for doing a recording of cortical rhythms in the context of change in GCS/cognition is to confirm or exclude NCSE. Sleep, drugs etc will all influence recordings and these minimal recordings can miss NCSE so could falsely reassure - we would advise against using this technique. *A useful paper in terms of use of*	Reference 44 has been removed. This has been removed.

		EEG in delirium is:- *Non-convulsive status epilepticus: usefulness of clinical features in selecting patients for urgent EEG* *A M Husain, G J Horn, M P Jacobson J Neurol Neurosurg Psychiatry 2003;74:189–191.* This paper would complement the correct recommendation that EEG is used to confirm or exclude NCSE where there is a reasonable clinical suspicion and other causes of delirium have been excluded. Happy to comment further if need be.	This paper is outside the date range.
	VM	No comment	No action required
3.2.3	CH	Fine	No action required
	HM	Perhaps a reword of the good practice point to mention it should only be considered if other features point towards a meningioencephalopathic syndrome?	A sentence has been added to section 3.2 to say that if there is a suspicion of meningitis it should be managed appropriately.
	HS	Clear and explicit – no comment	No action required
	NA	Agree no change	No action required
	PS	Lumbar puncture is done quite commonly in acute medical and quite routinely in Neurological practice. Serious adverse events with lumbar puncture are rare and the paper quoted in the draft supports this. It is a useful and safe test when done in a hospital and specialty setting. Rather than stating this should not be done routinely, it may be better to state when one might consider it or refer to someone who can consider it. This situation again may be where there is no improvement despite treatment of apparent cause or no improvement and no cause found on basic investigations and interventions.	There was no evidence identified to guide when it should be considered.
	RS	Ok	No action required
	SR	Individuals presenting with de novo delirium in particular from the community, after consideration of common causes of delirium, should be evaluated for possible infective or non-infective encephalitis. If a Lumbar Puncture is considered, besides assessment for a possible viral encephalitis one must consider auto-immune encephalitis, an increasingly recognised disorder. In	A sentence has been added to section 3.2 re managing other conditions appropriately.

		these circumstances, discussion with the regional neurology service may be helpful.	
	TQ	No comment	No action required
	VM	No comment	No action required
3.3	CH	This is a key area, particularly in respect of issues pertaining to incapacity and potentially activation of POA/Welfare/Financial Guardian powers. When does a slow-resolving delirium become a diagnosis of chronic cognitive impairment? If the authors can expand a little here it would be of great assistance to GPs being asked to make capacity determinations in the community following an admission with "delirium", where the patient has ongoing cognitive impairment. The Addenbrooke's ACE-III is used routinely as a tool by both CPNs and Occupational Therapists in the NHS to measure comparative changes in cognitive functioning, so some discussion of evidence of its potential use and role in differentiating changes in severity, response to treatment, and modification of diagnoses of slow-resolving delirium to chronic cognitive impairment, by the authors of this SIGN guideline would be most helpful to frontline staff. *https://academic.oup.com/occmed/article/65/5/418/1425990*	It is not possible to define when slow-resolving delirium becomes chronic cognitive impairment. This needs to be considered on a case-by-case basis. POA is outside the remit of the guideline. ACE is a tool for dementia, and the guideline development group do not consider it to be appropriate for delirium.
	HS	Should the last section be a good practice point?	No. There is no evidence to support recommending a particular tool. The section has been substantially rewritten.
	JA	I am sympathetic that the evidence base for this is small, however monitoring for delirium is such a big issue for ward based clinicians and nurses. There is considerable discrepancy in detail in the section on tools for detection (3.1) and monitoring (3.3). Can you offer us any expert consensus on whether or not at-risk patient groups should be monitored for delirium? If so how often, and by what method?	This section has been substantially rewritten and the discrepancies removed. It does not contain the detail that is requested by the commentator but hopefully it is clear enough that we don't have the evidence.

	MW	Monitoring for deterioration/development of delirium outlined	No action required
	ME	I am aware there is insufficient evidence to be able to recommend a particular tool for monitoring. However, as a matter of good practice in Greater Glasgow and Clyde we currently:- • Complete the 4AT on admission and each transition of care for at risk patients. • If 4AT + the nurses tend to complete the 4AT daily and this shows sequentially whether the delirium is resolving or increasing in severity. • They also complete daily TIME bundle as the multiple aetiology of delirium needs to be considered. My question to the SIGN Development Group is, in the absence of validated monitoring tools for patients with delirium is the above approach reasonable? Is it possible for the monitoring section to note good practice?	No action needed. In the absence of any evidence we cannot make any recommendations or GPPs. We suggest some tools for monitoring for those areas that think this is appropriate.
	NA	Agree no change	No action required
	RS	Ok	No action required
	SS	This section feels unfinished. Without a good practice statement it will leave many professionals unsure how to plan care.	See comments above
	TQ	No comment	No action required
	VM	No comment	No action required
Section 4			
General	BGS	In terms of non-pharmacological risk reduction and treatment it is important that carers are enabled to participate in the care of the person with delirium and it would be useful if this could be mentioned	This is discussed in section 9. Reference to section 9 has been added to section 4.
4.1	HOOPPS	When multi-component packages in relation to non pharmacological reduction or treatment for delirium are mentioned, it would be helpful to explicitly state that these should be "person centred". Development of person centred interventions can be facilitated via forms such as "getting to know me"	We agree that person-centredness is a key principle and have stressed this in section 1.2.1 We have included this in Section 9.1. There are numerous training packages or colleagues who can assist with advice. This is an

		https://www.alzscot.org/assets/0002/7225/Getting_to_know_me_form_-_editable.pdf This document has been developed by Alzheimer Scotland's network of Dementia Nurse Consultants and the Scottish Government. It aims to give hospital staff a better understanding of patients with dementia who are admitted either for planned treatment, such as an operation, or in an emergency. Examples of good practice of multicomponent packages (that are biopsychosocially informed) can be seen via NES Psychological Interventions in Response to Stress and Distress in Dementia. Whilst it is acknowledged that Delirium is not always in a Dementia context, work undertaken by Psychology and AHP colleagues could serve as a useful area to signpost colleagues too. For more information please see: *http://www.nes.scot.nhs.uk/education-and-training/by-discipline/psychology/multiprofessionalpsychology/psychology-and-psychological-interventions-in-dementia.aspx* It may also be helpful to state that colleagues can seek guidance from AHP or Clinical Psychologists who are likely to hold expertise in the knowledge of non pharmacological intervention planning and use.	issue for local implementation rather than something which can be comprehensively covered in the guideline.
	HS	Clear and explicit – no comment	No action required
	MW	Importance of non pharmacological interventions explained	No action required
	NL	Comment should be made from the expert panel regarding which cases are and are not safe to be managed in the community	This requires clinical judgement on a case by case basis.
	RS	Ok	No action required
	SS	At targeting modifiable triggers Would it be possible to add including a trusted family, friend or carer to support the reduction of psychological stress and link with earlier comments please?	A GPP has been added.
	TQ	No further comment	No action required
	VM	No comment	No action required

4.2	HM	Educating carers can help reduce delirium, education to them and promoting their involvement could be mentioned as a good practice point and therefore given more emphasis. Hopefully we already provide oxygen, but promoting access to families/carers is something we could change across the system.	A GPP has been added. 'if appropriate' has been added to the oxygen advice.
	HS	Rather than saying 'good basic care' could 'good fundamental care' be used? Basic de-values the worth of such important care Add bullet points for resolving reversible sensory impairment and promoting good sleep patterns. And also avoiding unnecessary movement of patients between wards or even within a single ward setting (for non clinical need) Should a recommendation/good practice point be made in relation to using a validated pain assessment tool for a patient with a cognitive impairment, dementia or delirium?	Changed from basic to fundamental. A GPP has been added. Pain tools are included in Annex 2
	MW	Monitoring and approach to patients explained	No action required
	NA	Agree no change	No action required
	RS	Ok	No action required
	SS	Terminology of good basic care undermines the importance of this care, I wonder if essential care or fundamental care could be used instead?	Changed from basic to fundamental.
	TQ	I agree that the evidence around multicomponent intervention is compelling, but I would be more circumspect about making recommendations around the individual components. The components of the interventions varied substantially in the available trials and there is the possibility that some aspects are useful and others have no effect or are even harmful. Again there are potential analytical techniques that could start to tease out the relative contribution of individual components but papers applying this method to delirium are not available (Cochrane are working on this).	In the absence of evidence for individual components the recommendations are based on expert advice which is established and should provide good fundamental care.

	VM	Feel that 'minimising transfer of patients ' should perhaps be in the recommendations for inpatient care.	A GPP re minimising ward moves has been added.
4.2.1	HS	Clear and explicit – no comment	No action required
	MW	Clear advice	No action required
	NA	Agree no change	No action required
	RS	Ok	No action required
	TQ	No comment	No action required
	VM	No comment	No action required
4.3	HS	Clear and explicit – no comment	No action required
	NA	Agree no change	No action required
	RS	Ok	No action required
	SMc	I have had a patient eat their ear plugs	The evidence statement notes that suitability for earplugs should be considered on an individual basis.
	TQ	No comment	No action required
	VM	No comment	No action required
Section 5			
5.1	DG	Medicines Optimisation The combined prescribing of medications along with procedures, particularly joint replacements, leads to hyponatraemia and then delirium. Highlighting that diuretics, PPIs and antidepressants lead to hyponatraemia in this group of patients would be useful.	This is one specific scenario. It is not possible to cover everything, so the guideline group would prefer to keep to general principles.
	HM	All patients (?change with to “at risk of”) delirium should have a medication review – again how do we define this group?	This has been changed to ‘at risk of’. Predisposing factors have been added to section 1.1
	HS	Clear and explicit – no comment	No action required
	JB	Agree protocol for commonly used medication is useful in predictable settings e.g. hip fracture. Is there any recommendation from the group as to which medications are better to use to reduce risk of delirium in these situations (e.g analgesia). Not aware of specific evidence.	New text has been added to address specific medications. Evidence is sparse so the advice is to take a holistic approach and be sparing with titration.
	JA	"Changes in how the body handles and is affected by medication" is confusing. Do you mean "changing pharmacokinetics and pharmacodynamics over time"?	The group felt this was explicit as it is and preferred to use plain English.
	MW	Importance stressed – this has wide implications for both primary and	No action required.

		secondary care	
	NA	Agree no change	No action required.
	RS	Ok	No action required.
	SS	I wonder if use of aperients requires a mention here as a good practice point? Again under risk reduction but identifies people with delirium in the recommendation and not those at risk of delirium	Laxatives have been added in the new text. The wording has been changed to 'at risk'.
	SMc	Following on from the recommendation first line treatments which minimize the risk of causing delirium. But what are they? Which opioid is best? which anti emetic is best?	The information on opiates has been expanded. Anticholinergics are discussed which covers many anti-emetics. There is little evidence so it is not possible to comment on which is best.
	TQ	No comment	No action required.
	VM	Again perhaps all patients suspected of having a delirium have a medication review and if so a time frame from admission	The recommendation has been changed to 'at risk'. This does not mean it has to be done once a patient is admitted, it can be done any time. It is not possible to give a time frame as it is resource dependant.
5.2.1	HS	Clear and explicit – no comment	No action required
	MW	Limit use as much as possible	No action required
	NA	Agree no change	No action required
	RS	Whilst important to acknowledge that haloperidol prolongs the QTc (often dose related) the way the guideline is written (referring to product characteristics) it almost excludes the use of haloperidol due to interactions with other medication. This leaves practitioners with little recourse other than benzodiazepines to use, which are not suitable. Nearly all antipsychotic medications (included so-called second generation types) have been associated with prolongation of the corrected QTc. Whilst the guideline is heavily weighted towards non-pharmacological management, there must be a recommendation that is viable in today's modern polypharmacy patients.	This is more relevant to section 7.1.1 If contraindicated the guideline cannot change that. If used it should be treated as use of an unlicensed therapy
	SS	Should there be a reference here to 7.3	Disagree, It is not appropriate for prophylaxis.
	TQ	No comment	No action required
	VM	No comment	No action required

5.2.2	HS	Clear and explicit – no comment	No action required (now Section 5.4)
	MW	Avoid if possible	No action required
	NA	Agree no change	No action required
	RS	Ok	No action required
	TQ	No comment	No action required
	VM	No comment	No action required
5.3.1	HS	Clear and explicit – no comment	No action required
	JA	Lines 1-7: I feel it is worth pointing out that although the referenced meta-analysis [93] showed benefit of dexmedetomidine overall, benefit did not reach significance when compared with propofol, only midazolam, which is far less commonly used now in the ICU. Lines 11-13: This subgroup analysis [93] is also used to support using dexmedetomidine in patients receiving NIV. This subgroup was in fact very small with only 8 events over 2 trials, reflected by the wide confidence intervals, with the upper end of CI 95% >1.00. Do the authors feel that this reference supports the assertion? Line 11: A p-value could be given to support the results here, reference [95], which was significant. Line 30: In the result given demonstrating the increased risk of hypotension, the 95% CI figures are missing. Reference 100.	The following sentence has been added: However, there were high levels of heterogeneity in the incidence plot; the greatest effect evident when midazolam was used as the comparator. The sentence on subgroup analysis has been removed. P value has been added. This sentence has been removed in favour of results of a more recent meta-analysis.
	MW	Role in management discussed	No action required
	NA	Agree no change	No action required
	RS	Ok	No action required
	SMc	Early mobility is a vital component in delirium prevention. Strategies to promote that not mentioned in ICU setting like daily sedation hold, no sedation. Clonidine mentioned in annex 1 but nowhere else.	Early mobilisation is discussed in section 4. It was felt that there was unlikely to be evidence on withholding sedation. It is hoped that when the guideline is ready for an update there may be evidence in this area. No evidence was identified for clonidine.
	TQ	No comment	No action required
	VM	No comment	No action required

5.3.2	HS	Clear and explicit – no comment	No action required. Evidence from this section has been moved to section 5.2.
	MW	Importance of short term use stressed	No action required
	NA	Agree no change	No action required
	RS	Ok	No action required
	TQ	No comment	No action required
	VM	No comment	No action required
Section 6			
General	CC	There are studies that talk about education as a non-pharmacological treatment. Education also has evidence which demonstrates a reduction in delirium severity, length of stay and better recognition. I think this should be included.	Further advice on educating patients and carers has been added to section 4. No robust evidence to provide definitive advice on education for healthcare professionals was identified.
	CH	I would be curious as to if there is not any evidence in 2018 for Psychological treatments in assisting delirium non-pharmacologically? The NICE guidelines (1.6.2; 1.6.3) emphasize effective communication, reorientation and reassurance in a suitable care environment. Verbal and non-verbal de-escalation techniques are promoted. So mentioning these here may be helpful to readers. *https://www.nice.org.uk/guidance/cg103/chapter/1-guidance#treating-delirium* From the authors' reviews (I appreciate that Dr Mulhern is a Neuropsychologist) of the published literature, is it possible to comment on any studies where there may be some positive findings of intervention, even if the quality of evidence is relatively suboptimal compared to RCTs? *https://www.tandfonline.com/doi/abs/10.1179/096992607X177854?journalCode=yppc20* *https://onlinelibrary.wiley.com/doi/abs/10.1080/00050060008257479*	There is insufficient RCT evidence at the moment. We have included as a recommendation based on expert consensus. At present there is also a lack of resource in NHSScotland to implement wider recommendations for psychological therapies.

	HM	"Communicate the diagnosis to patient and carers and provide on-going engagement and support" - could this be widened to emphasise allowing/promoting access to carers for the person with delirium?	'Encourage involvement of carers' has been added to the recommendation. Allowing wider access is a local implementation issue.
	HOOPPS	Examples of good practice of multicomponent packages (that are biopsychosocially informed) can be seen via NES Psychological Interventions in Response to Stress and Distress in Dementia. Whilst it is acknowledged that Delirium is not always in a Dementia context, work undertaken by Psychology and AHP colleagues could serve as a useful area to signpost colleagues too. For more information please see: *http://www.nes.scot.nhs.uk/education-and-training/by-iscipline/psychology/multiprofessionalpsychology/psychology-and-psychological-interventions-in-dementia.aspx* It may also be helpful to state that colleagues can seek guidance from AHP or Clinical Psychologists who are likely to hold expertise in the knowledge of non pharmacological intervention planning and use. There are additional examples of service evaluated staff protocols specifically addressing risk reduction and management of distress behaviour during delirium. One such example is the CEASE (Edgar, 2017, Journal of Dementia Care) model which has recently been adapted for distress during delirium. The present contributor would be willing to pass on pdf documentation of a staff resource poster which details this guidance for care staff. This is particularly appropriate to a range of care settings.	We agree that these are good principles of care that could support local implementation of the guideline. See response to the same comment in section 4.1.
	HS	Rather than saying 'good basic care' could 'good fundamental care' be used? Basic de-values the worth of such important care	Changed to fundamental
	MW	Evidence reviewed	No action required
	NA	Agree no change	No action required
	RS	Ok	No action required

	SS	Links to good practice for promoting natural sleep in this section could be essential. Again linking with relatives or trusted companion. It would have been good to have a good practice statement on bed move reduction / streamline hospital pathway for those at risk of, or with, delirium	We agree this is important but the group considered that providing specific guidance was outside of scope. A GPP on ward move reduction has been added to section 4.1
	TQ	No comment	No action required
	VM	Mention of a personalised profile tool like 'getting to know me' may be of use here.	This has been added to section 9.1
Section 7			
7.1.1	HM	"Haloperidol is CI in combination with any drug that is associated with QTC prolongation". Perhaps reference how it can be used off licence if needed in what is often a palliative situation. The changes to the licence for haloperidol may result in a very vulnerable population not accessing drugs they need for distress. I am uncertain of the actual as opposed to perceived risk and not sure if there is any evidence that supports the change.	If contraindicated this is a decision outwith SIGN's control. Advice on prescribing outside licensing is in section 1.3.2. A reference to this section has been added to section 7. Use in palliative care is different. Different therapeutic combinations may be used compared to other indications.
	HS	Clear and explicit – no comment	No action required
	JB	Last paragraph - first 2 sentences repeat same point?	Text amended
	JS	The evidence for the pharmacological management is minimal, however I think it is important to provide an overarching statement similar to that stated by Liz Wilson in the consultation - that whilst there is no evidence, it is imperative that the patient and staff safety is considered, and that medication can and should be used if the patient is in danger of hurting themselves or others when all non-pharmacological have been exhausted.	This is highlighted in section 7.5
	MW	Evidence reviewed	No action required
	NA	Agree no change	No action required
	RS	Ok	No action required
	SM	In clinical experience, the use of anti-psychotics (predominately low dose, short duration haloperidol or Quetiapine) is only prescribed where	As there are no recommendations to use antipsychotics it is not appropriate to include the caveats listed.

		"...there is a significant risk of harm or ill-being to self or others, when the patient cannot otherwise have their agitation or distress alleviated by direct nursing support..." The decision to prescribe should be discussed with Power of Attorney / relative / carer where possible. Assessment for QTc prolongation and other prescribed drugs with QTc prolonging effects should be undertaken. Specific care to be taken in Patients with Parkinsons and Lewybody dementia.	
	TQ	No comment	No action required
	VM	No comment	No action required
7.1.2	HS	Clear and explicit – no comment	No action required
	MW	Evidence reviewed	No action required
	NA	Agree no change	No action required
	RS	Ok	No action required
	TQ	No comment	No action required
	VM	No comment	No action required
7.1.3	DG	Reference 105 does not tie in with an AIDs study. There is a Sept 17 study however, *JAMA, suggesting haloperidol and lorazepam are effective in palliative patients with delirium.JAMA. 2017 Sep 19;318(11):1047-1056*	The AIDs study is within the systematic review referenced. 'In a systematic review' has been added to the first sentence for clarity. This is an underpowered study which uses a very high dose of lorazepam, so was rejected from the evidence review.
	HS	Clear and explicit – no comment	No action required
	MW	Evidence reviewed	No action required
	NA	Agree no change	No action required
	RS	Ok	No action required
	SM	Clinical experience and a number of studies has indicated that diazepam can prolong and exacerbate delirium in older adults.	The key question covered benzodiazepines but no evidence was found for diazepam.
	TQ	No comment	No action required
	VM	No comment	No action required
7.2.1	HS	Clear and explicit – no comment	No action required
	MW	Limited use stressed	No action required
	NA	Agree no change	No action required
	RS	Ok	No action required

	TQ	No comment	No action required
	VM	No comment	No action required
7.2.2	HS	Clear and explicit – no comment	No action required
	MW	Role discussed – unlikely to be beneficial	No action required
	NA	Agree no change	No action required
	TQ	No comment	No action required
	VM	No comment	No action required
7.2.3	HS	Clear and explicit – no comment	No action required
	MW	Role discussed	No action required
	NA	Agree no change	No action required
	TQ	No comment	No action required
	VM	No comment	No action required
7.3	HS	Should this be a GPP?	Disagree, it is more appropriate to signpost to the TIME bundle pathway.
	LI	More clarity in relation to what this would mean in practice ie examples.	The guideline group think it is sufficient to keep to the two examples already stated: patients in intractable distress and where the safety of the patient and others is compromised.
	MW	Explored and evidence reviewed	No action required
	NA	Agree no change	No action required
	SS	Overall section 7 at least needs some good practice points or it may have no impact on practice.	Rather than good practice points it signposts Annex 4 which is a pathway for care.
	SM	There is little mention across this guideline on the impact of commonly prescribed analgesics in incident delirium. There are a number of studies and advisories in the BNF indicating the impact of a) Gabapentin and Pregabalin – *https://www.google.com/url?sa=t&source=web&rct=j&url=https://www.rcpe.ac.uk/sites/default/files/jrcpe_47_4_morrison.pdf&ved=2ahUKEwjam9zcwOfbAhWP66QKHZbSCQIQFjAGegQIBRAB&usg=AOvVaw3Sa42P7YFWRfHUTfSLrm0d* b) Dihydrocodiene and Tramadol have also been regularly indicated in causing delirium.	There are a wide number of therapies which may have a risk of causing delirium, too many to list and with varying evidence. It is preferable to check the BNF when prescribing.
	TQ	No comment	No action required
	VM	No comment	No action required

Section 8			
General	BGS	In the follow-up section it would be helpful to provide some guidance on the preferred approach to assessing for dementia in people who have had delirium and it would be helpful to provide links to appropriate assessment tools. There is a recommendation that the patient record should be “coded” to highlight a previous episode of delirium: is this realistic? There is already a desire to code various types of infection, complications of procedures, specific diagnoses (e.g. Parkinson’s) etc and there is a danger of a flurry of alerts none of which are looked at.	This is outside the remit. GP will know what approach to take to assess for dementia. It is important to highlight coding as best practice as it stresses the point that the information on delirium should be provided in the notes.
	CC	Should there be a mention of the IQCODE in this section? I note there is a comment of previously undiagnosed cognitive disorders that require f/up. Thomas Jackson's paper would be the reference.	This is too specific for the remit of this guideline.
	CH	Some guidance/evidence-based recommendations here from the authors regarding when to do cognitive assessment (ACE-III) and how long can a persistent delirium last before it's no longer a delirium, would be helpful. A persistent delirium, presumably cannot last for years? So what would be an agreed consensus ceiling amongst the authors from having read the published literature? 12 months? 18 months? This is key to guiding health & social care and decision making in the community, particularly around medico-legal capacity issues where this issue can impact on long term finance and welfare decision making. The relatively "woolly" diagnosis of "persistent delirium" would benefit from a clearly stated definition, regarding its characteristics and when it should be reclassified as chronic cognitive impairment. This is a genuine issue for GPs across Scotland involved in POA and capacity decision making with both relatives and our Health & Social Care Partnership colleagues	Use of ACE is outside the remit of the guideline. The diagnosis of ‘persistent delirium’ is a difficult clinical decision without a specific definition. It requires clinical judgement on a case-by-case basis.

		(Social Workers and Care at Home Managers) as well as the Courts and Office of The Public Guardian (Scotland). Some precise clarity here, to guide NHS staff faced with having to decide if a patient originally diagnosed with "delirium", who still lacks capacity at 6+ months, has permanent incapacity or merely "persistent delirium" -which might resolve- would be worthwhile. Every patient is different, but some guidance and clear direction in this SIGN guideline would assist NHS staff, particularly GPs, when faced with such scenarios.	
	HS	Clear and explicit – no comment	No action required
	MW	Role of primary care in long term follow up stressed	No action required
	NL	I would encourage the expert panel to extend their recommendations for follow up - stronger encouragement for diagnosis of delirium to always be included in the discharge letter - consider which patient cohorts should be followed up with regards to depression / further cognitive screen rather than leaving this on a case by case basis	This is covered in the GPP on coding which is included as a key recommendation. There is insufficient evidence to be more specific about which patient groups should be followed up.
	NA	Agree no change	No action required
	SS	Patient and relatives being given information could be added as a good practice statement	This is covered in section 9.2
	SM	We run a delirium follow up clinic at 12 weeks post discharge. This predominately targets incident delirium cases although we also see those who had pre-existing "confusion" (but no formal pre-admission dementia diagnosed). Of those who returned to clinic over the past 5 years; over 60% were diagnosed with dementia, leading to faster access to Post Diagnostic Support. Early (raw) data from our initial analysis indicates that those who return to the clinic and accept Community Mental Health Team follow up, have a 70% chance of surviving the first 12 months after	Agree that larger studies are needed. The guideline development group encourage the reviewer to publish their data.

		hospital discharge, compared with only 20% of those who did not accept this. Specific Delirium follow up clinics have the potential to improve mortality and consideration should be given to their formal development. Larger research studies are needed.	
	TQ	Again, while I agree with the recommendations, they should be labelled as good practice in the absence of any evidence. The recommendation is to assess for dementia in those with delirium. Some guidance on the preferred approach to this assessment would be useful *and here there are some robust data including meta-analyses). Many of the assessment tools require collateral information from family/caregivers and including these tools in the guidance would align with the recommendation to involve caregivers in assessment and management.	The recommendations are based on observational studies and case series. The recommendations are conditional, which reflects the robustness of the evidence. It is outside the remit of the delirium guideline to advise on assessment for dementia.
	VM	No comment	No action required
Section 9			
General	HS	Recognition that it is important there is a public awareness about delirium - public health depts., GP's, Government has a responsibility to increase awareness and understanding about delirium across society	It is hoped that the guideline will improve recognition.
	MW	Good comprehensive section	No action required
	NA	Agree no change	No action required
	TQ	No comment	No action required
	VM	No comment	No action required
9.1	HOOPPS	A further recommended source includes MindEd for families online learning resource on Delirium. This is one chapter of a range of resources designed for Older People, their family members or carers on topics relevant to later life: *https://mindedforfamilies.org.uk/Content/delirium_sudden_confusion_in_physical_illness/#/id/5a7b08854b8648d476fd0561* For more information on MindEd please see:	Added

		https://mindedforfamilies.org.uk/older-people/about-us/	
	HS	Clear and explicit – no comment	No action required
	JB	Really useful and comprehensive list of resources.	No action required
	MW	Good list	No action required
	NA	Agree no change	No action required
	TQ	No comment	No action required
	VM	No comment	No action required
9.2	CH	I would highlight the "If a patient develops delirium" and "Let the family/carer know how to help" sections prominently within the document. Practical tips like these are key to hopefully facilitating the best chance of recovery and return to prior functioning. In my experience, post discharge support for delirium patients from the NHS in the community is most frequently suboptimal (GPs lack the spare capacity and community mental health staff tend to focus more on patients with psychoses and severe affective disorders). Few patients are given the THINK DELIRIUM info leaflet. This SIGN document has the potential to promote an approach to empowering NHS Health Boards to provide information, guidance and re-enablement (sometimes referred to as a bundle) at the point of delirium diagnosis and thereafter following the patient, irrespective of Acute or Community location. The NHS does it for MRSA as a HEAT target! (Whereas most patients with MRSA are clinically unaffected unless systemically compromised or immunosuppressed.) Such support might be based on section 9.2; but, mindful that many SIGN guidelines remain on the shelf of GP surgeries or unread; generating recovery guidance and tips (akin to the THINK DELIRIUM info leaflet) to ensure consistent support in all hospital wards, care homes, community mental health teams, intermediate care services, AHP services and GP surgeries would emphasize that the recovery challenges, as much as the initial	It is SIGN style to collate this non-evidence based but practical advice in its own section. Signposting to section 9.2 has been added to sections 4.2 and 6. A patient/carer version of the guideline will also be produced. Dissemination of the guideline and implementation events will be planned to raise awareness of the guideline and supporting materials.

		diagnosis perspective, of delirium.	
	HM	The checklist is a valuable resource. I'd suggest some modifications.	
		Bringing many of the things families can do to support into the risk reduction part and adding promoting visiting.	A list of ways to support has been added.
		Should cognitive decline as well as diagnosed dementia be added into "those most at risk"	'Cognitive impairment' has been added.
		If a patient develops delirium - add in "patient" to explain to the family/carers.	Added
		Delirium is often perceived not as just confusion but as change in personality, abnormal ideas or perceptions, and therefore describing is as a change in mental state rather than acute confusion may be more inclusive.	'Change in mental state' has been added
		I think we need to be careful that we don't give inaccurate prognosis - perhaps "given them the best chance of getting back to good health" rather than "see them back"	Changed
		Under different types of change could add falls and difficulties taking enough food and drink in.	Added
		Let the family carer know how to help - could reference the giving of personalized information via GTKM and being happy to be called if the person is distressed.	Added
	HOOPPS	It could be beneficial to add information on a debriefing session, to inform patients/family members that they may never remember what has happened in hospital, and would encourage discussion or use of diaries to help fill the memory 'gap' which can be left behind following delirium. Providing information to families on keeping a diary, and what to include in this diary, could be helpful.	Added
		Related to this, in section 9.2 – Checklist for Provision of Information, it could be useful to add a sentiment similar to the text in bold below:	
		If a patient develops delirium:	
		Explain to the family/carers that delirium is mental confusion that	

		often starts suddenly but usually improves when the physical condition improves and the underlying cause gets better. The person may not remember what has happened whilst in hospital. At discharge following an acute episode of delirium: The person may not remember what has happened to them whilst in hospital. When delirium has resolved, it can be helpful for them to sit down with someone who can explain how long they were hospital, that they were affected by delirium, any treatments they received, and that it is normal to not remember what has happened whilst delirious. This discussion can be with a family member, a carer or their doctor.	This is covered in the suggestion to use a diary and helping to make sense of the experience once the person is recovering.
	HS	Clear and explicit – no comment	No action required
	LI	Reference to invitation of family to participate in care and support their loved on. Completion and use of the Getting To Know Me document for all not just those with a diagnosis of dementia	Added
	NA	Agree no change	No action required
	RS	Idealistic, verbal information should suffice in most cases	This is best practice.
	SS	If a patient develops delirium could mental confusion be changed? If we are trying to get Health care professionals not to use other terminology over delirium then this is creating other terminology. Could it be e.g. " the brain is struggling to do what it is supposed to do and this causes... at be less aware of surroundings can the risks associated with this be added eg falls or pressure damage? Please don't use the term wander, it is considered disrespectful for people with dementia and would cause more confusion during the attempt to stop its use for this patient group. Family can help using they or them can be perceived as disrespectful language. It can be addressed by making statements eg where used hearing aids, glasses and dentures should be available at all times in a	Change to ‘change in mental state’. Removed Reworded to avoid the use of ‘they’ and ‘them’.

		clean and working condition. (sorry). It would be good to have a strong message that identifies the importance of someone the patient trusts being around when possible, without making anyone feel they are letting the person down if they can't help. At discharge could be useful to say that home is sometimes a good option for patients even when confusion still present (How do you measure a little confused?) this might reassure family that are scared about discharge and some staff also! Should something about fluctuating symptoms and information about looking for signs of recurrence be helpful here	'ask the family/carer to help, if they feel able to do so' has been added to the first box. 'a little confused' has been replaced with 'may still be recovering'.
	TQ	I would have liked to see some patient, carer, lay public feedback on these resources	A carer was one of the lead authors of this section. Patients and carers were invited to comment on the draft at peer review, and attended the open consultation meeting.
	VM	No comment	No action required
Section 10			
10.1	BGS	Under implementation strategy: it isn't clear whether there are audit tools in place; it would be helpful to define "at risk" and "critically ill" patients; and is there an intention that all patients with a diagnosis of delirium should be followed up by their GP in a specific way? Should the service making the diagnosis provide the follow-up at least initially after discharge?	It is not possible to provide a specific definition for 'high risk' – please see response to comments in section 1. A GPP has been added to section 8 and the audit point has been changed from GP to Primary Care Team.
	CC	I think this needs to be stronger and mention the responsibility of Health Boards to incorporate it into induction programs for all healthcare staff - esp if clinical governance is being mentioned. I also think there needs to mention of a robust education program for staff as well	Sentence has been amended to 'Mechanisms should be in place to educate staff and review care provided against the guideline recommendations.'
	HM	Is this part to be developed? If not then suggest change the language of the last paragraph of 10.1 as has left me looking for the tools	The sentence on tools has been removed.
	HS	Should this be wider than just NHS boards. Perhaps mention other settings where implementation is just as important eg care home setting, private hospitals, etc.	The sentence has been changed to 'NHS Board and care providers'.

	MW	Needs wider circulation	No action required
	NA	Agree no change	No action required
	TQ	No comment	No action required
	VM	No comment	No action required
10.2	HS	Clear and explicit – no comment	No action required
	MW	Minimal	No action required
	NA	Agree no change	No action required
	TQ	No comment	No action required
	VM	No comment	No action required
10.3	CH	In the environment of the new April 2018 Scottish GP GMS Contract (voted on and now agreed between the Government and profession), it will be unrealistic to expect GPs to specifically follow up delirium patients (in respect of "patients followed up by GP after delirium") The NHS Scotland direction of travel is to empower AHPs and other healthcare staff to take on more enhanced roles. GPs henceforth will take more responsibility for managing chronic long term conditions and complex multiple co-morbidities, across NHS Scotland. Whether such a "delirium follow up role" could/should be taken on more by CPNs and Community Mental Health Teams, given the crossover with many patients experiencing dementia and chronic cognitive impairment, may reflect funding decisions, resources and prioritisation of workload; but this SIGN guideline and its authors are best to be cognisant of how General Practice is about to radically change in Scotland, and how that will determine what is possible in the Health Board regions of NHS Scotland: *https://www.bma.org.uk/-/media/files/pdfs/collective%20voice/committees/gpc/gpc%20scotland/the-2018-general-medical-servicescontract-in-scotland-contract-framework.pdf?la=en*	This has been changed from GP to primary care team.

	HM	How to define "at risk patients" otherwise audit will be difficult How to define "critically ill" - needing 2 or 3 level bed? The guideline doesn't specify all patients with delirium should be followed up by GP - should they be? Difficult to know what the standard to audit against should be	See previous comments in section 1 on risk. The wording for 'critically ill' has been changed to 'patients in a critical care environment'. A GPP has been added to section 8.
	HS	Clear and explicit – no comment	No action required
	MW	Useful research opportunity	No action required
	NA	Agree no change	No action required
	NMAHP	Staff knowledge and skills needs to form part of the audit of current practice – NES Delirium modules available on Learnpro shows very good uptake but how does this translate into practice	This is within NES's remit. The audit points here are to check on adherence to the recommendations in the guideline.
	TQ	No comment	No action required
	VM	No comment	No action required
10.4	SR	Assessing the use of Mobile Video EEG units at the bedside. Mobile Video EEG units are inexpensive, record video and EEG simultaneously and can be used in multiple clinical and non-clinical settings. Recordings can be uploaded / transferred / recorded onto a cloud enabling remote reading and interpretation of EEG. Potentially, there can be training modules / programmes developed to allow clinicians (doctors, nurses, intensive care unit staff) to interpret EEG by the bedside to identify non-convulsive seizures or non-convulsive status epilepticus. Alternatively, software could be developed to developed / sourced to provide basic interpretation, which could then prompt more systematic review by trained clinicians.	The group are aware that trials of mobile video EEG units are already taking place. It was not considered a priority for research for the guideline.
	TQ	No comment	No action required
	VM	No comment	No action required
11.1	HS	Clear and explicit – no comment	No action required
	MW	Wide and comprehensive	No action required
	NA	Agree no change	No action required
	TQ	No comment	No action required
	VM	No comment	No action required

11.1.1	HS	Clear and explicit – no comment	No action required
	NA	Agree no change	No action required
	TQ	No comment	No action required
	VM	No comment	No action required
11.1.2	HS	Clear and explicit – no comment	No action required
	NA	Agree no change	No action required
	TQ	No comment	No action required
11.2	HOOPPS	Extension of setting for trials of multi component interventions to include community based 24 hour care settings such as care homes, care provided via hospital at home/care at home teams.	A call for research in community settings and care homes has been added.
	HS	Clear and explicit – no comment	No action required
	NA	Agree no change	No action required
	SR	Use of prolonged EEG (24 hour to 48 hour EEG) in patients with delirium	The group felt that EEG was adequately covered.
	SS	I would like to see something on impact of bed moves?	A GPP on bed moves has been added to section 4.
	SM	a) Further research is needed to explore the impact of post-delirium follow up clinics and community mental health support, in improving first year mortality. b) Further research is needed to examine the high correlation between delirium in post hip fracture surgery patients and dementia; and whether better/targeted pre-surgical screening and post operative delirium preventative measures can identify and mitigate risks of dementia. See "Delirium in elderly patients and the risk of postdischarge mortality, institutionalization, and dementia: a meta-analysis" – https://jamanetwork.com/journals/jama/article-abstract/186304 : See also "Dementia after Delirium in Patients with Femoral Neck Fractures" *https://onlinelibrary.wiley.com/doi/full/10.1046/j.1365-2389.2003.51315.x*	This has been added. This is outside the remit. The research recommendations highlight gaps identified in the searches based on the key questions in Annex 1.
	TQ	No comment	No action required
11.3	HS	Clear and explicit – no comment	No action required
	NA	Agree no change	No action required
	TQ	No comment	No action required

Annexes			
Annex 1	CH	Question 2: I take it that ACE-III wasn't considered as a monitoring tool?	It was not included because it is not a tool specifically for assessing delirium.
	HS	Clear and explicit – no comment	No action required
	JB	Relevant to practice in medical and surgical settings.	No action required
	NA	No other comments	No action required
	TQ	No comment	No action required
Annex 2	CH	Blood tests, I might add Glucose/BM, as a confused "delirious" patient may have deranged blood glucose levels. Some hypoglycaemic patients present as aggressive. Easily missed if a diabetic status is unknown. I might also mention the Abbey Pain Tool (for assessing pain in patients with cognitive impairment) here as a helpful resource when a patient presenting with behaviour presumed to be hyperactive delirium, but who may simply have pain and be unable to communicate the cause of their distress.	Blood tests are covered in paragraph 4. Pain assessment tools has been added.
	HS	Rather than saying 'good basic care' could 'good fundamental care' be used? Basic de-values the worth of such important care.	Changed
	JB	Re: urinalysis - not sure agree with statement that a negative test is helpful. Recent review highlighted in BGS newsletter January 2018 suggests significant false negative rate of 6-30% (references in article).	Wording changed to 'less likely'.
	NA	No other comments	No action required
	SM	There appears a high risk of Delirium in those with Atrial Fibrillation (AF) and Congestive Cardiac Failure (CCF): should investigations also include routine ECG?	EEG is on the list.
	TQ	No comment	No action required
Annex 3	HS	Clear and explicit – no comment	No action required
	MW	Very practical protocol	No action required
	NA	No other comments	No action required
	TQ	No comment	No action required
Annex 4	HS	Clear and explicit – no comment	No action required
	JB	Comprehensive and useful in	No action required

		practice	
	JA	In the draft provided, sadly the image was low resolution and text was bordering on illegible. However the pathway looks excellent, just the sort of practical information and advice the reader will be searching for	The image quality will be improved in the final document.
	NA	No other comments	No action required
	PS	"The patient not improving" tab does not specify who these patients should be referred to. These patients should have access to neurology to undertake further assessment and investigations.	The referral pathway to the liaison psychiatry is clarified in the pathway and it is beyond the scope of this pathway to mention about the 'reasons and specifying speciality' in the 'Patient not improving' section as it could be neurology, endocrinology, rheumatology etc.
	SM	The SDA pathway indicates the use of Haloperidol specifically. Earlier recommendations seem to contradict the efficacy (and clinicians will refer to this pathway as 'advice'). Since its use is not clearly "Recommended" in this guideline and its use being a pragmatic approach in "Specific situations"; should the earlier text referring to haloperidol use be clearer / less vague. This is a daily concern for clinicians. Personally; the earlier paragraph reads like an afterthought for situations that are frequent and daily across most hospitals.	The evidence for the use of haloperidol is inconclusive and a recommendation cannot be made. The earlier text reflects the evidence. The SDA pathway is a pragmatic solution for situations where other options aren't sufficient to manage distress or agitation. The group felt it was sufficient to refer to the pathway rather than making a recommendation for pharmacological therapies without sufficient supporting evidence.
	SMc	Comprehensive but very word heavy. I need it blown up to 400% to read it. The medication review here is very important but not elaborated on in the rest of the text. The anti-cholinergic burden of drugs is not mentioned either nor what might be safer prescribing alternative.	The image will be of better quality in the final version. The medication review section has been revised (see section 5.1)
	TQ	No comment	No action required