Australian and New Zealand Guideline for Hip Fracture Care

Improving Outcomes in Hip Fracture Management of Adults

Public Consultation Submissions Summary

September 2014

ANZHFR

Australian & New Zealand Hip Fracture Registry

Public consultation submissions summary

Summary of consultation

- The Public Consultation Notices for the Australian and New Zealand Guideline for Hip Fracture Care appeared in The Australian newspaper on 31 Oct 2013 and the New Zealand National Herald on 2 Nov 2013.

- The Public consultation letter and drafts of the Guideline, Technical Report, and Dissemination Plan were published on the Australian & New Zealand Hip Fracture Registry website www.anzhfr.org on 31 Oct 2013.

- Formal letters inviting submissions from key stakeholders in Australia and New Zealand were sent out on 31 Oct 2013.

- Appendix I lists the stakeholders that were formally invited to provide comment on the Guideline and whether a response was received.

- In total there were 23 responses from Commonwealth or State level organisation or professional bodies and a further 10 responses from individuals.

- All feedback is collated in Appendix II under themes and reflecting the layout of chapters in the Guideline. An initial draft response was put together in advance of the final Guideline Adaptation Committee meeting on 7 Mar 2014. All members of the Committee received the document 10 days in advance of the meeting. During the meeting, each of the response items was covered to ensure that the Committee was happy with the response or to identify where changes were required. Consensus was defined as a decision reached by the Committee as a whole. Majority view reflects a failure to reach consensus but a view that was reached by the majority of the Committee.

- Common themes contained within the collated feedback include:

    - The importance of patient/carer engagement
    - Decision making re surgery and involvement of the patient and family
    - Use of professional interpreters in clinical care
    - Cultural interpretation of issues such as fasting, pain and early mobilisation
    - The importance of basic care – nutrition, hydration, pressure care
    - Request to have specific recommendations on areas stated as outside scope of the document – nutrition, osteoporosis
    - Request to include recommendations on areas where national guidelines already exist – osteoporosis, falls, thromboprohylaxis.

- Main decisions taken in response to feedback:
    - Each evidence-based recommendation has been assigned an overall grade based on NHMRC guidance.
    - Changes have been made throughout the Guideline to reflect the importance of patient/carer engagement, use of professional interpreters, and the cultural interpretation of issues such as fasting, pain and early mobilisation.
    - The Plain English Summary has been rewritten with input from lay organisations.
    - The Guideline has been modified to reflect the fact that not all patients will be offered, or want, surgery.
    - More emphasis has been placed on the importance of basic care – nutrition, hydration, pressure care including the addition of a recommendation on management of nutritional status.

Appendix I: Stakeholders contacted and whether a response was received

Organisation	Submission received
Australasian College of Emergency Medicine	Yes
Australasian Faculty of Rehabilitation Medicine	Yes
Australian and New Zealand Bone and Mineral Society	Yes
Australian and New Zealand College of Anaesthetists	Yes
Australian and New Zealand Orthopaedic Nurses' Association	Yes
Australian and New Zealand Society of Geriatric Medicine	Yes
Australian Commission on Safety and Quality in Health Care	Yes
Australian Indigenous Doctors' Association	Yes
Australian Orthopaedic Association	Yes
Australian Physiotherapy Association	No
Chief Executive Officer, NT Health	No
Chief Executive, SA Health	Yes
Commonwealth Department of Health	No
Commonwealth Department of Health– Indigenous Health	Yes
Commonwealth Department of Social Services	No
Council on the Ageing	No
Director-General, ACT Health	No
Director-General, NSW Health	Yes
Director-General, QLD Health	No
Director-General, WA Health	No
Health Quality and Safety Commission New Zealand	Yes
Māori Medical Practitioners Association, New Zealand	No
Medical Services Advisory Committee	Yes
Multicultural Health Service and Aboriginal Health Unit - South Eastern Sydney Local Health District	Yes
New Zealand Orthopaedic Association	Yes
Osteoporosis Australia	No
Osteoporosis New Zealand	No

Appendix II: Submitted comments and guideline developer's responses/decisions

Comment	Source	Guideline developer's response/decision	Changes made in document
General Comments			
Should this be called ANZ Guideline for Fragility Hip Fracture care given there are some exclusions	Queensland Hip Fracture Network	The Committee does not wish to change the name of the Guideline. No changes made to the Guideline.	
The framework of the ANZ document (similar to the NICE document) appears to be that all hip fracture patients will proceed to surgery. In reality most patients do, but some do not. As the stated purpose of the document is to "assist professionals providing care for hip fracture patients", it would be most helpful if there were an explicit recommendation as to the ideal process for shared decision-making for (or against) surgery, for patients with hip fracture. Such a recommendation could allow patients/carers and an opportunity to "trade off" the risks and benefits of surgery/anaesthesia against the risks of no surgery. It would also be important to clearly communicate the expected outcomes of proposed surgery. In this way the values of patients/carers could be clarified and more closely incorporated into the decision-making process.	Individual	The respondent raises an important point in relation to the option of non-operative management in a person with a hip fracture. These people are within the scope and target of the guideline (Section 1.4 and 1.5) and many of the recommendations are relevant to them. Section 1.4 has been modified to reflect the fact that not all patients will be offered surgery and not all patients want surgery. Section 3.2 has been modified so as not to assume that surgery is the only management option. Section 3.2 has been modified so as to ensure that the recommendations around management of pain are not solely for those undergoing operative intervention.	Section 1.4 Section 3.2

		Section 3.3 inserts a caveat that assumes that surgery is the chosen approach to management. Section 4.1 already states that most but not all patients will be offered surgery. The Guideline Adaptation Committee felt it was appropriate to add an additional practice point recommendation in Section 8.1 which explicitly refers to the need to engage with the patient and carer in the decision making processes around surgical intervention.	Section 3.3 Section 8.1
Although the concept of palliative surgery receives some attention at section 4.1 (Anaesthesia p51), along with mention of "the goals of treatment", it would be very helpful if the document as a whole better reflected the importance of this concept. It is essential that all members of the multidisciplinary team (including patient/carers) are well aware of the expectations and intended outcome of surgery. It is not only anaesthetists who need this information in order to frame their discussions/recommendations with patients. Surgeons are likely to be best placed to advise regarding the expected outcomes of their interventions. The multidisciplinary team should have this information, and in most cases will help inform expectations. I would prefer to see a section covering Communicating Expectations and Planning either incorporated into, or immediately after, Diagnosis and Preoperative care (sect 3). This section should incorporate risk communication and risk management for the peri-operative journey.	Individual	An additional recommendation has been added to Section 8.1 to reflect the need to engage the patient and carer/family in key decisions relevant to their care including: • the pros and cons of operative versus non-operative intervention • goals and limitations of treatment including resuscitation • palliation and end of life care	Section 8.1

Re decision making on surgery, as follows: Considering the mortality associated with fracture neck of femur and given the age, cognitive status ie possible dementia, the dependency, often residential/institutional, chronic comorbidities and acute deterioration often seen in these patients. It is considered a major omission that no mention is made of the importance of assessing quality of life, assessing likely outcomes and determining not only limits to treatment but also "Not for Resuscitation" status and the threshold at which an end of life clinical care pathway such as the Liverpool care pathway should be implemented. There is no doubt that there are some patients who given the choice, a theme which comes up very frequently, would chose not to have surgery. Survival is not always the ideal or desired outcome. These decisions are difficult but it would be a deficiency of the document if not addressed at all.	Quality and Safety Committee, ANZCA	An additional recommendation has been added to Section 8.1 to reflect the need to engage the patient and carer family in key decisions relevant to their care including: • the pros and cons of operative versus non-operative intervention • goals and limitations of treatment including resuscitation • palliation and end of life care	Section 8.1
Health literacy • 60% of the population are health illiterate and have difficulty navigating their way around the health system, making health related decisions and following health care programs. (ABS, 2006) • People from NESB for whom English is a second language at greater risk of having low health literacy. More info at http://www.safetyandquality.gov.au/wp-	Multicultural Health Service, SESLHD, NSW	We have now referred to the low levels of health literacy in Australia in Section 8.	Section 8.1

content/uploads/2012/01/Consumers-the-health-system-and-health-literacy-Taking-action-to-improve-safety-and-quality3.pdf			
Interpreters All Australian Government Health services are required to engage in plain English and use professional interpreters for informed consent. For example in NSW Health http://www0.health.nsw.gov.au/policies/pd/2006/PD2006_053.html NSWHealth - patients have a **right** to a *professional* health care interpreter http://www0.health.nsw.gov.au/policies/pd/2011/PD2011_022.html Professional interpreters are NAATI accredited provide confidential services More information on interpreters: http://seslhnweb/Diversity_Health/interpreters.asp When do I use an interpreter? What are the legal issues concerning the use of health care interpreters? Why is it important to use professional interpreters rather than family or friends? Research shows not using professional interpreters leads to poorer health outcomes (can provide publications is required). Need to use interpreters for carers and deaf. P81 & 85 - Need to use interpreters to ensure informed consent and understanding of risks. Useful to note hearing impaired as many elderly have	Multicultural Health Service, SESLHD, NSW	These are all relevant points and a number of changes have been made throughout the document to emphasise the use of professional interpreting services and particularly around the issue of informed consent.	Sections 3.1, 3.2, 3.3, 4.1, 4.3, 6.1, 6.2, 6.3, 7.1, 7.2, 8.1.

hearing problems.			
Use of carers or family as interpreters can be used for clinical instruction like mobility etc. However cannot be relied on for consent or education about diagnostic imaging as represented in the document.	Individual	The Guideline has been modified to reflect the importance of the use of professional interpreting services particularly in relation to informed consent.	As above with additional emphasis in Sections 3.1 and 3.3
Patient, family and/or carer considerations | Section 8 and throughout document Cultural considerations go beyond language. Our cultural beliefs, values and experiences impact on how we understand health, health care and influence our health care decisions. As health professionals we need to be mindful of how our personal backgrounds impact on expectations, understandings and actions. Our professional backgrounds also determine our world views. As health professionals we need to take this into account when conducting education sessions eg medicine management. For example when sick it is a time to rest -not get up and walk around. Need to explain why need to be mobile or wanting them to recover at home. Can be interpreted as being uncaring. Our cultural backgrounds will influence how we interpret and deal with pain. Importance of using interpreters and understanding cultural and individual influences on pain. http://www.anzca.edu.au/events/ANZCA%20annual%20scientific%20meetings/csm-2011/fpm_abstracts/embracing-cultural-perspectives-in-pain-management.pdf	Multicultural Health Service, SESLHD, NSW	Comments noted. No additional changes made to the Guideline (see above).	
None of the evidence based recommendations are graded. This is a mandatory requirement for NHMRC approval	Individual	We have now applied the NHMRC grading system to each evidence-based recommendation.	Executive Summary

[1](2011 Standard, Section D Guideline recommendations, D.3)-either the NHMRC or GRADE may be used. The language of evidence based recommendations should also reflect the overall quality of the body of evidence (taking into account the evidence base, and the consistency, clinical impact, generalizability and applicability of the data). If the evidence is poor it may be preferable to make a consensus based recommendation rather (CBR) than a weak evidence based recommendation.		Methods have been added to Chapter 2. Detailed methods and completed Evidence Statement Forms have been added to the Technical Report.	and in Sections 3, 5, 6, 7. Section 2.3.3. Technical Report Section 3.4.3 and Appendix J
Local guidelines are frequently not incorporated into the document and should be included. For example the CHOPs site should be referenced.	Individual	CHOPs is a program specific to NSW. This is a document for Australia and New Zealand and it is the responsibility of States, Local Health Districts and hospitals to give consideration as to how this Guideline sits alongside other health care initiatives. No changes made to the Guideline.	
There is a danger that this document regularly references other guidelines for key areas such as delirium and pressure area care. These major comorbidities that have significant impact upon patient outcome. The referencing of other guidelines means that these guidelines as presented cannot be used as a stand alone tool for clinicians, thereby limiting their clinical utility. It is suggested that there be a focus on reducing the length of the current document to facilitate inclusion of these other very relevant areas.	Individual	This guideline produces recommendations that are specific to the needs of a specific population – hip fracture patients. It is fully acknowledged that there will be areas of care which overlap with other populations and most commonly older hospitalised adults. We believe it appropriate to reference existing guidelines in relation to aspects of care that are not generic to hip fracture such as delirium, and thromboprophylaxis, for which there is good	

		evidence to direct approaches to care. No changes made to the Guideline.	
The guideline provides a lot of detail regarding surgical procedures but it would benefit from including more information on the rehabilitation process itself.	AFRM / RACP	This guideline produces recommendations that are specific to the needs of a specific population – hip fracture patients. Detail around surgical procedure is considered appropriate. The rehabilitation process is covered in the document and based on available literature relating to hip fracture care. The principals underpinning rehabilitation are not specific to hip fracture and are not within the scope of the document. There was nothing specific to hip fracture care identified on the AFRM website. The only organisation that appears to have a position statement on hip fracture care is the Australian and New Zealand Society of Geriatric Medicine. No changes made to the Guideline.	
The guideline does not mention the Australasian Rehabilitation Outcomes Centre (AROC). AROC is of particular relevance to this draft guideline as its aim is to improve clinical rehabilitation outcomes in both the public and private sectors as well as produce information on the efficacy of interventions through the systematic collection of outcomes information in both the inpatient and ambulatory settings.	AFRM / RACP	The Guideline focuses on the evidence base for care as opposed to measuring outcomes. The Committee believes it is important to be able to measure outcomes and this will be of relevance when moving on to develop standards of care for hip fracture. No changes made to the Guideline.	

P20 The 2012 facility level audit across Australia and New Zealand operating on hip fracture patients included 116 public hospitals. DAA recommends that the ANZHFR promote the completed Guidelines in the public and private sectors.	Dietitians Association of Australia	The Committee does plan to promote the Guideline to both the public and private sector. This is covered in the Implementation Plan. No changes made to the Guideline.	
That the authors review the decision to exclude nutritional support from the scope of this Guideline.	Dietitians Association of Australia	The Guideline is explicit in that it is a version of an existing high quality guideline adapted for the Australian and New Zealand context. The Guideline Adaptation Committee acknowledges the importance of nutrition in health and particularly in people who are hospitalised. However the issue of nutrition is not specific to hip fracture. There is an existing NICE Guideline specifically looking at nutrition in adults and in which there is direct reference to hip fracture patients. This document was published in 2006 and reviewed in 2011. We now refer to this document in the Guideline – Section 10.3. The Guideline Adaptation Committee took on board a number of comments made in relation to nutrition and hip fracture care and elected to develop a practice point recommendation to highlight the importance of assessment and management of nutritional status in the hip fracture population. It has been added to Section 7.1 which considers models and pathways for care.	Section 10.3 Section 7.1
Adaptation of the current draft is required to include a	NOFEAR, Qld	The Committee acknowledges that nutrition is	Section

recommendation considerate of nutrition care which highlights the substantial impact of malnutrition as a comorbidity in hip fracture and provides consensus guidance towards appropriate nutritional care. In the absence of adequate evidence to guide nutritional interventions specific to hip fracture, it is recommended that existing evidence based guidelines for the identification and treatment of malnutrition in elderly inpatients be considered (15, 16, 24, 25). Healthcare providers should target preventing nutritional decline or improve the nutritional status of hip fracture patients who are at risk of malnutrition or already malnourished (16). Individualised, systematic, or combined interventions may include modifications to food provision methods, feeding support by healthcare assistants, nutrition education and/or counselling, multi-nutrition oral nutritional supplements, systematic foodservices, enteral or venous tube feedings, nutrition support teams, or multi-disciplinary nutritional care (16, 22). 15. Volkert D, Berner YN, Berry E, Cederholm T, Coti Bertrand P, Milne A*, et al.* ESPEN Guidelines on Enteral Nutrition: Geriatrics. *Clinical Nutrition*. 2006; 25: 330-60. 16. Watterson C, Fraser A, Banks M. Evidence based practise guidelines for the nutritional management of malnutrition in adult patients across the continuum of care. *Nutr Diet*. 2009; 66: S1-34. 22. Bell JJ, Bauer JD, Capra S, Pulle RC. Multi-disciplinary action research improves nutritional outcomes in hip fracture. *Clinical Nutrition*. 2013; 32 s17-s8. 25. National Institute for Health and Clinical Excellence		important in this population. The issue is not specific to hip fracture care and is referred to under the supporting information in Chapter 10. We thank NOFEAR for the list of references and have referred to the one felt to be most appropriate in Chapter 10 The Guideline Adaptation Committee took on board a number of comments made in relation to nutrition and hip fracture care and elected to develop a practice point recommendation to highlight the importance of assessment and management of nutritional status in the hip fracture population. It has been added to Section 7.1 which considers models and pathways for care.	10.3 Section 7.1

(NICE). Nutrition support in adults: oral nutrition support, enteral tube feeding and parenteral nutrition (clinical guideline 32). 2006.			
Submission entitled "Nutritional support for hip fracture recovery. Recommendations for the Australian and New Zealand Guideline for Hip Fracture Care" which included the following recommendations with supporting text and references: **Recommendation** 1: Malnutrition screening performed on all hip fracture patients within 24 hours of admission. **Recommendation 2:** If malnutrition or risk of malnutrition is observed, nutritional support provided to ensure nutritional adequacy, especially for protein intake. The form of nutritional support would be dependent on the status of the patient. **Recommendation 3:** Nutritional support is provided in the form of the provision of a protein-enriched menu, including foods (either fortified or not) that support recovery, in particular skeletal recovery. **Recommendation 4:** During admission, patients are supported to consume their food to ensure intake is adequate. **Recommendation 5**: Nutritional support continue during the rehabilitation period (using methods above).	Individual	We thank the reviewer for the work put in to compiling this document. However nutrition is outside the scope of this Guideline (Section 1.7) and we now refer to an evidence-based guideline relating to nutrition in hospital. The Guideline Adaptation Committee took on board a number of comments made in relation to nutrition and hip fracture care and elected to develop a practice point recommendation to highlight the importance of assessment and management of nutritional status in the hip fracture population. It has been added to Section 7.1 which considers models and pathways for care.	Section 10.3 Section 7.1
That the reference to the Australian Dietary Guidelines is deleted and a more appropriate reference in this population be included.	Dietitians Association of Australia	Reference has been removed and substituted with more appropriate reference.	Section 10.1 & 10.3
P25 DAA considers that the impact and prevalence of malnutrition in hip fracture is considerable and would like to see that topic in scope of the Guideline, if not in this	Dietitians Association of Australia	The Guideline Adaptation Committee took on board a number of comments made in relation to nutrition and hip fracture care and elected to develop a practice point recommendation to	Section 7.1

edition then in a later revision.		highlight the importance of assessment and management of nutritional status in the hip fracture population. It has been added to Section 7.1 which considers models and pathways for care.	
Malnutrition in Australian hip fracture inpatients has an estimated prevalence of one in two patients on admission to hospital with a further 11% incidence during admission[1]. Malnutrition in this patient group is also documented in studies in other countries[2-4]. Protein-energy malnutrition in elderly inpatients including those with hip fracture is associated with poor nutritional, patient and healthcare outcomes[5], and malnutrition has been recognised as the most costly co-morbidity associated with acute hip fracture[6].	Dietitians Association of Australia	The Dietitians Association of Australia may wish to consider developing or adapting a clinical guideline for nutrition in hospital for use in Australia. The Guideline Adaptation Committee took on board a number of comments made in relation to nutrition and hip fracture care and elected to develop a practice point recommendation to highlight the importance of assessment and management of nutritional status in the hip fracture population. It has been added to Section 7.1 which considers models and pathways for care.	
Although the literature is lacking to inform specific nutrition interventions in patients with hip fracture[7], DAA suggests the addition of relevant evidence based guidelines for the identification and treatment of malnutrition[8-11]. In particular, DAA recommends the inclusion of *DAA Evidence based practice guidelines for the nutritional management of malnutrition in adult patients across the continuum of care*[9] as a reference rather than the *Australian Dietary Guidelines* (ADGs) which should be deleted. The ADGs are intended for a healthy population, and consequently do not apply to older people with hip fracture who require energy dense nutrient dense foods for healing.	Dietitians Association of Australia	The reference to the Australian Dietary Guidelines have been removed and replaced with a more appropriate reference.	Section 10.1 & 10.3
We also suggest the addition of two practice points. Firstly,		The Guideline Adaptation Committee took on	Section 7.1

health care facilities have systems directed by Accredited Practising Dietitians to provide routine nutrition support to vulnerable groups such as older people with hip fracture. Secondly, individuals with malnutrition, at risk of malnutrition, swallowing disorders, or other identified specialised nutrition needs, or who have poor intake despite routine nutrition support, should be individually assessed by an Accredited Practising Dietitian.		board a number of comments made in relation to nutrition and hip fracture care and elected to develop a practice point recommendation to highlight the importance of assessment and management of nutritional status in the hip fracture population. It has been added to Section 7.1 which considers models and pathways for care.	
Dehydration & under/mal nourishment are significant risks in this patient population that are often neither well recognised nor appreciated by clinicians. Both these conditions can lead to poor short and long term outcomes. ANZONA recommends inclusion of more discussion and detail in the guidelines in the assessment of both these areas.	ANZONA	The Guideline Adaptation Committee took on board a number of comments made in relation to nutrition and hip fracture care and elected to develop a practice point recommendation to highlight the importance of assessment and management of nutritional status in the hip fracture population. It has been added to Section 7.1 which considers models and pathways for care.	Section 7.1
I write to encourage the authors of the guideline to increase the emphasis on the importance of good basic care in hip fracture cases i.e. for management of nutrition, hydration, bowel care, and dementia/delirium. I understand that the focus of the guidelines is on the technical aspects designated as being in scope of the guideline. However, without adequate attention to aspects of basic care, I fear that the objectives of the Guideline will not be realised.	Individual	The Committee accepts this point. It believes that a number of the basic aspects of care referred to are core to the role of the geriatrician / physician / surgeon having oversight of the patient and working in partnerships with the rest of the multidisciplinary team. The introduction to Chapter 7 has been modified to reflect this comment.	Chapter 7
That more emphasis be placed in the document about the necessity for basic care in nutrition, hydration and bowel management. Without attention to these fundamental issues, the application of the Guideline is unlikely to achieve the intended objectives.	Dietitians Association of Australia	The Committee accepts this point. It believes that a number of the basic aspects of care referred to are core to the role of the geriatrician / physician having oversight of the patient and working in partnerships with the rest of the multidisciplinary	Chapter 7

		team. The introduction to Chapter 7 has been modified to reflect this comment.	
We would like to congratulate you on the development of these guidelines for hip fracture. Our major concern is that the guidelines should emphasise more strongly and explicitly the critical importance of subsequent fracture prevention for hip fracture patients. We would recommend that the guidelines state that evaluation of osteoporosis and implementation of secondary fracture prevention should be a quality standard for all patients with hip fracture, and would suggest that this is stated right from the start as part of the *Plain English* section. Although secondary fracture prevention is mentioned in various places, it is not emphasised (for example, it is hidden away in the *Models of Care* section (p.25) along with a long list of other things that integrated care should achieve). This is the pattern in all other places where secondary prevention is mentioned (e.g. the *Patient and Carer* section on p.103-4)).	ANZBMS	The issue of treatment of osteoporosis is not specific to hip fracture and is not within the scope of the guideline. This is stated in Section 1.7 and reference is made to osteoporosis and falls guidelines in Chapter 10. In terms of developing standards for hip fracture care, the Committee agrees that assessment and management of osteoporosis should be considered. However this is not the purpose and scope of the Guideline. We would anticipate working with ANZBMS and others in the future around development of standards. No changes made to the Guideline.	
There is no recommendation regarding follow up and prevention of further osteoporotic fractures	NZOA	The issue of treatment of osteoporosis is not specific to hip fracture and is not within the scope of the guideline. This is stated in Section 1.7 and reference is made to osteoporosis and falls guidelines in Chapter 10. No changes made to the Guideline.	
The sections that mention secondary fracture prevention state that no quality standard will be developed. However, the proportion of fracture patients that receive advice on	ANZBMS	Section 7.1 on models of care does recommend a standard be developed and included within the accompanying recommendation is secondary	

secondary fracture prevention is one of the easiest things to measure – so this could represent a good surrogate for quality of care more generally.		fracture prevention. We would anticipate working with ANZBMS and others in the future around development of standards. No changes made to the Guideline.	
Given that a stated purpose of the guidelines is to develop measurable standards of care, it would seem reasonable to state that all patients sustaining a hip fracture should have secondary fracture prevention considered - for example, the list of *Main Outcomes* could include proportion of patients who are put onto treatment (p.25-6). We are not suggesting the document provide a detailed treatment guideline for osteoporosis, but we would recommend an obvious and emphatic mention.	ANZBMS	The Guideline provides a synopsis of the evidence base to support a number of aspects of hip fracture care. It will form the basis for the development of standards of care but not in exclusion of other existing guidelines which are relevant to but not specific to hip fracture care. Osteoporosis would be an example of a related area as would falls prevention, delirium management and thromboprophylaxis. No changes made to the Guideline.	
It is noticeable that the word osteoporosis is used very rarely in the document (a "find 'osteoporosis'" search illustrates this point). This is the underlying cause of almost all cases of hip fracture in the elderly (with the exceptions of fractures related to trauma and malignancy). The failure to make a link between hip fracture and osteoporosis is common in Australia (Eisman et al. (2004) *J Bone Miner Res*) and is reflected in our national failure to recognise that doing something about osteoporosis might be important for these patients (Teede et al.(2007) *Med J Aust*) – despite trials showing that treatment for osteoporosis (even when restricted to post hip fracture specifically) doesn't just reduce the risk of future fracture	ANZBMS	The Committee is in no doubt about the contribution of both falls and osteoporosis to a hip fracture event. The cause of the hip fracture in the majority of cases is a fall. The presence of poor bone quality increases the chances of a fracture in the event of a fall. Osteoporosis is underdiagnosed and undertreated despite the existence of national guidelines which might suggest that guidelines alone are not sufficient to change practice. Equally falls prevention strategies are still adequately adopted across Australia and New Zealand.	

but also reduces mortality (Lyles et al. (2007) *N Engl J Med*). This document could help enhance the understanding that hip fracture is inextricably linked to osteoporosis; currently we feel it misses the opportunity to do so.		The ANZ Hip Fracture Registry Steering group is committed to taking this work further in terms of developing standards of care, a minimum dataset and a registry to support implementation and monitor against agreed standards. We anticipate working with ANZBMS in relation to the standards of care. No changes made to the Guideline.	
P11. Should osteoporosis treatment be on its own to develop a quality standard. Osteoporosis remains a undertreated and underdiagnosed disease with hip fracture being the sentinel event after years of bone loss. Osteoporosis treatment has significantly low treatment rates worldwide from both hospital and community care. We think by having treatment rates as an outcome and separate recommendation, this will highlight the need for standardised osteoporosis treatment for all hip fractures.	Queensland Hip Fracture Network	The Committee agrees that osteoporosis remains underdiagnosed and undertreated despite existing national and international guidelines. The issue of treatment of osteoporosis is not specific to hip fracture and is not within the stated scope of the Guideline. This is stated in Section 1.7 and reference is made to osteoporosis guidelines in Chapter 10. Secondary fracture prevention is listed as a recommended component of multidisciplinary care in Section 7.1. Consideration of osteoporosis as a standard in relation to hip fracture care is not the purpose of this Guideline but is something that should be considered when standards are developed. No changes made to the Guideline.	
We would highlight that bone health assessment is a required part of the UK fiscal reward system attached to care of patients with hip fracture (p.19). Failing to note	ANZBMS	It is not the purpose of the guideline to determine what are the future standards of care for hip fracture or who is responsible for delivering them.	

bone health assessment as a quality indictor in Australia is likely to continue the current pattern of failed treatment initiation. Adding to this point, on p.9 and various other places in the document, there is an implication that it is the ortho-geriatrician's role to do all the secondary fracture prevention - we would suggest that orthopaedic surgeons also need to be responsible for ensuring appropriate secondary fracture prevention occurs. Relevant to this point, a discussion of the (proven) effectiveness of fracture liaison services could be included, with an emphasis of the importance of the development of such services nationally.		See comments above. Secondary fracture prevention is not within the scope of the guideline. However it should be considered as a possible standard of care for the future. No changes made to the Guideline.	
As specific feedback from our falls programme team, we strongly endorse the statement on page 22: *"However, it should not be overlooked that much can be done to reduce falls and fractures with a substantial evidence base available to guide practice and shape intervention*" and would strongly support the addition of a paragraph (either at that point or in Section 10) outlining the wider relationship between falls, osteoporosis and hip fractures (hip fractures being a subset of fall-related fragility fractures occurring in older people with osteoporosis) and the criticality of planning and implementing effective programmes to prevent falls and reduce harm from falls.	Reducing Harm from Falls HQSC NZ	The Guideline already refers the reader to other related guidelines and documents in Section 10. This includes guidelines on both falls and fracture prevention. Falls prevention and secondary fracture prevention are listed in the recommendation in 7.1 as important components of multidisciplinary rehabilitation from admission. Topics with existing guidelines which are related to, but not specific to, hip fracture care are explicitly referred to in Section 1.7 No changes made to the Guideline.	
Our national programme has a learning activity Topic 6: Why hip fracture prevention and care matters as one of 10	Reducing Harm from Falls	Noted	

Topics in reducing harm from falls. The topics are presented as interactive pdfs offering 60 minutes of professional development. You will see that the webpage introduction to Topic 6 provided notice of the consultation process for the guideline and a link.	HQSC NZ	No changes made to the Guideline.	
ANZHFR is are attempting to standardise the management, including operative management, of a common orthopaedic presenting problem. Standards and common pathways are useful, particularly to those who are not familiar with the normal processes that follow. What is not well understood, outside the orthopaedic profession, is that these patients are not uniform and do not always present in the same way. There are many different types of patients, many different types of fracture patterns. Some patients need lots of intervention, some need very little. Some hospitals have well run Orthopaedic Departments that do not have access to geriatricians, but have developed other resources to achieve the same outcome. The Orthopaedic team are educated, trained, qualified and experienced to make these flexible decisions. For this reason, any pathway should remain flexible, not overly prescriptive, and be aligned with the recommendations of the most recent orthopaedic literature and in reference to THJR post fracture neck of femur, be aware of the AOA NJRR outcome data. In particular, there should be a flexibility to allow the surgeon to determine the most appropriate operative intervention and the extent to which post-operative management is devolved.	AOA	Noted Noted	

There are a number of excellent initiatives within the document but AOA believes that the document itself needs to be a little more succinct and less unwieldy to ensure good take up of the Guideline.	AOA	A shortened version of the Guideline will be developed for clinicians.	
AOA is unsure whether the Guideline will gain traction within the orthopaedic community unless ANZHFR can work with AOA to engage AOA's membership. In our experience unless members feel the need to have guidelines and have had a significant input into their final development it is unlikely that they will ever use them.	AOA	AOA is formally represented on the Committee and five orthopaedic surgeons from Australia and New Zealand have contributed to the development of the Guideline. ANZHFR looks forward to working with AOA to ensure that the Guideline will gain traction within the orthopaedic community.	
On page 4 of the draft document, The Pedorthic Association of Australia would like to formally endorse the production of this document. Appropriate acknowledgement to this effect would be welcome.	Pedorthic Association of Australia	Thank you and noted.	
Nursing actions are directly linked to outcomes for this patient population and therefore influence many aspects of hospital care and long term patient outcomes. Health units employ advanced practice and/or specialist nurses in a (fragility) fracture liaison role. While these roles vary often they are case managers who perform specialised assessments and ongoing reviews to ensure standards of care are maintained. They also perform an important role in discharge planning whilst working collaboratively with orthopaedic medical staff and orthopaedic based geriatricians to ensure positive outcomes for the patients	ANZONA	The Committee acknowledges the importance of future fracture prevention and it is included in the recommendation around models of care where there is specific mention of secondary fracture prevention. Fracture liaison services are one model by which this can be addressed. No changes made to the Guideline.	
ANZONA believes that inclusion of a more detailed description of the nursing role and recommendations for	ANZONA	Nursing is acknowledged as one of the core disciplines routinely involved in the care of a	

the inclusion of a nursing liaison role in appropriate aspects of patient care would strengthen the guidelines.		patient with a hip fracture in the introduction to Chapter 7. Nursing is also considered integral to all recommendations relating to multidisciplinary rehabilitation. The role of specialist orthopaedic nursing is also referred to in the Section 6.1 in relation to early mobilisation strategies. No changes made to the Guideline.	
There is no guidance on thromboprophylaxis which is an important issue be it mechanical or chemical	NZOA	The Guideline focuses on issues specific to hip fracture care. It also acknowledges that there are aspects of care that are not specific to hip fracture care but which are important and for which we already have evidence-based guidelines to support practice. Chapter 10 directs the reader to relevant associated guidelines including thromboprophylaxis. No changes made to the Guideline.	
Plain English Summary			
Surgical Intervention: intracapsular fractures that are undisplaced, particularly in younger patients, may be treated by internal fixation (e.g. DHS) rather than by replacement. This is included in 5.1 discussion, but seems to have been missed in the summary.	Individual	The plain English summary has been revised in line with feedback from our consumer and carer representatives. No reference is made to the detail of the type of fracture. It is clear in other parts of the document that the guideline addresses displaced intracapsular fractures. This has been further clarified by adding	Plain English summary Section 5.1

		"displaced" to the relevant clinical questions.	
P8. Osteoporosis as the underlying cause of hip fracture should be noted here.	Queensland Hip Fracture Network	The plain English summary has been revised in line with feedback from our consumer and carer representatives.	Plain English summary
p9 Models of Care: I do not think that "cognition" belongs in a plain english summary.	Individual	The plain English summary has been revised in line with feedback from our consumer and carer representatives.	Plain English summary
Pg 9 – the guidelines mention that patients and their family and carers should be kept informed about the care that they receive and this should include regular verbal information, as availability of printed information – however, there is no mention of using interpreters or providing information in community languages.	Multicultural Health Service, SESLHD, NSW	Amended to include use of interpreting services and providing information in community languages	Plain English summary
Chapter 1 Introduction			
The document is mainly focused on hip fractures that occur in people over the age of 65; this guideline should include details about best practice hip fracture care for patients of all ages. In addition, in Australia, rehabilitation services have orthopaedic streams based on functional needs rather than age as stated in the document.	AFRM / RACP	The target population for the Guideline is “adults aged 18 years and older presenting with a clinical diagnosis of a fragility fracture of the hip”. This is stated in Section 1.5 The reality is that people aged 65 years make up the vast majority of the target population and this is also reflected in the literature which is used to derive the evidence statements and ultimately the recommendations.	

		No changes made to the Guideline.	
P24 would it be worth listing the common exclusions (metastatic bone disease, pagets, OI etc)	Queensland Hip Fracture Network	Metastatic bone disease has been provided as an example.	Section 1.5
P25 – Main outcomes others we feel should be listed: * time from admission to surgery * implementation of osteoporosis treatment on discharge * other complications – delirium should other complications [other than "Requirement for surgical intervention"] be discussed or mentioned Re "Short-term and long-term mortality." Is this ["short term"] 30 days? Is this ["long-term"] 12 months? Re "Length of stay in hospital" should this [hospital] be defined as acute or subacute in line with ABF.	Queensland Hip Fracture Network	The Guideline is an adaptation of an existing high quality guideline. These are the outcomes that were used in the meta-analyses in the original NICE guideline. No changes made to the Guideline. As above The exact definitions for some of the outcomes vary between studies. For each research question there are an accompanying set of evidence statements which specify the measure being used. It is not possible to extrapolate from the numerous studies which component of LOS is acute or subacute.	
Chapter 2 Methods			
P34 Re "Future updating of the guideline" should a review process not be undertaken every 3 years from implementation of the guideline	Queensland Hip Fracture Network	The 5 year period for updating the Guideline is consistent with the NHMRC recommendation. No changes made to the Guideline.	
Chapter 3 Diagnosis and pre-operative care			
Section 3.1 Imaging options			
The Orthopaedic team and theatre may be geared up and ready for # hips but if you wait 36 hours for an echo, then	Individual	Noted	

12 hours for its review by the anaesthetist– readiness serves no purpose.		No changes made to the Guideline.	
Pg 37 – the guidelines mention that if English is not the first language of a patient, 'the treating team should ensure that the patient is informed about planned tests using either family or an interpreting service'. The family should not be used for interpreting – unless they are trained interpreters with expertise in health terminology, the health professionals cannot be sure that the information is transmitted accurately and completely. Family members may lack the terminology and understanding of the concepts being explained to accurately transmit information to the patient, and may tell their relative incorrect information. Family members may also censor information either through lack of understanding, or an inability to find correct terminology, or a belief that the patient does not need to know about such matters. The health professional also may be given incomplete information that will affect their treatment plans by relying on information from a non professional family member who may explain the situation incorrectly. Although face to face health care interpreter services are generally only available in public hospitals, other facilities should access the Telephone Interpreter Service to ensure that all communication about the diagnosis and treatment of a patient who does not speak English is facilitated accurately by a professional interpreter. The interests of both the patient and the clinical team are supported by the use of professional interpreters.	Multicultural Health Service, SESLHD, NSW	Section 3.1 has been modified to reflect the importance of using professional interpreters.	Section 3.1
Section 3.2 Analgesia			

On p38 when discussing patient management guidelines add 'refer to guidelines such as the ACI guidelines in NSW for the insertion of Fascia iliac blocks")	Individual	The Guideline is intended for Australia and New Zealand. It is outside the scope of this guideline to refer to specific State or local services in relation to implementation of the recommendations. No changes made to the Guideline.	
On p39 and in exec summary need to add that the patient should be monitored for the effectiveness of the analgesia as well as side effects.	Individual	It is explicit in the clinical question that analgesics should provide adequate pain relief. The recommendation in Section 3.2 states pain should be monitored regularly. No changes made to the Guideline.	
p39 consider reversing the compound predicate to "Consider adding nerve block to limit opioid dosages or if paracetamol and opioids do not provide sufficient preop pain relief without significant side effects"	Individual	The clinical question was determined by the original NICE Guideline and was agreed to by the ANZ Guideline Adaptation Committee. The evidence statements and subsequent recommendation reflect the way the question was asked. No changes made to the Guideline.	
Recommendation on p 39 should state offer nerve block if suitably trained staff and adequate equipment is on site	Individual	There is already specific recommendation around trained staff. It is assumed that any clinician undertaking a procedure should have the necessary equipment to undertake that procedure. No changes made to the Guideline.	
Pg 43 – pain assessment – 'Language should not be a barrier to appropriate assessment and management of	Multicultural Health Service,	Section 3.2 has been modified to reflect the importance of using professional interpreters.	Section 3.2

pain. As pain management is a critical component of care, staff should routinely have available to them the translation of the word pain and appropriate pain scales in a number of languages commonly encountered in Australia and New Zealand to aid assessment and management'. A professional health care interpreter could assist with administering these pain scales as well as providing clinicians with useful information about cultural beliefs about expression of pain.	SESLHD, NSW		
3.2 "Consider adding nerve blocks if paracetamol and opioids do not provide sufficient preoperative pain relief, or to limit opioid dosage. Nerve blocks should be administered by trained personnel. Do not use nerve blocks as a substitute for early surgery." The NICE guideline[2] identified one systematic review of RCTs[3] (Parker et al 2002). Of the included studies all except three were low quality. Thirteen outcomes were evaluated. Five achieved statistical significance: unsatisfactory pain control preoperatively, unsatisfactory pain control preoperatively, nausea and vomiting, any cardiac complication, and pruritus. The body of evidence indicates that at best a Grade C (NHMRC) or 2 B (GRADE) recommendations may be made.	Individual	An NHMRC grade has been established for each evidence-based recommendation following NHMRC guidance. Methods have been added to the text. Assessments were carried out by two individuals independently and without referring to the grade suggested in this submission. Consensus grades were derived by third party arbitration when the two assessors did not agree. The proposed grade for this recommendation agrees with that of the respondent: C	Executive Summary, Section 3.2, and Appendix VII
The sentences "Nerve Blocks should be administered by trained personnel" and "Do not use nerve blocks as a substitute for early surgery" are intuitive however these outcomes were not evaluated by the systematic review. I suggest their removal from the evidence based	Individual	Agree The recommendation has been split to reflect the component that is evidence-based and those which are practice points	Executive Summary and Section 3.2

recommendation and inclusion in a supporting practice point			
Of major concern was the statement: "Non-steroidal anti-inflammatory drugs (NSAIDs) are not recommended." There is disagreement with such an outright rejection of the use of a group of drugs with proven efficacy and low risk of adverse effects if used appropriately. This contradicts the evidence on these drugs as per the referenced document *Acute pain management – scientific evidence* (third edition), 2010. This document states with NHMRC Level 1 evidence: • Non-selective NSAIDs and Coxibs are effective in the treatment of acute postoperative pain • Non-selective NSAIDs given in addition to paracetamol improve analgesia compared with paracetamol alone • Non-selective NSAIDs given in addition to PCA opioids reduce opioid consumption and the incidence of nausea, vomiting and sedation • With careful patient selection and monitoring, the incidence of non-selective NSAID-induced perioperative renal impairment is low The committee suggests that this general recommendation on non-use of NSAIDs should be reconsidered in view of the evidence in favour of this group of analgesics. This is in particular the case in this specific patient group, which is at high risk of opioid related adverse effects causing potential morbidity and even mortality and the well-proven opioid-sparing effect of NSAIDs. One should consider replacing this with a more balanced	Quality and Safety Committee, ANZCA	The Guideline Adaptation Committee discussed this comment in detail and after prolonged discussion there was agreement that a total ban on non-steroidals did not best reflect the evidence. However, a number of Committee members continued to express concerns about injudicious use of NSAIDs in this population. The recommendation has been modified to reflect the fact that there is some evidence to support the potential analgesia benefits of NSAIDs but also taking in to consideration to significant side effects also associated with their use in a hip fracture population. The Committee did not wish to differentiate between non-selective NSAIDs and COX-2 inhibitors as we do not differentiate between different opioids which are more commonly used in this population.	Section 3.2

recommendation of judicious use of NSAIDs in this patient group. This would be in line with the statement in the ANZHFR Guidelines on page "…the choice and dose of analgesia should be age appropriate with close monitoring for associated side effects." Such a statement could specify risk factors in line with the *Acute pain management: scientific evidence (third edition), 2010* Practice Point: "The risk of adverse renal effects of non-selective NSAIDs and coxibs is increased in the presence of factors such as pre-existing renal impairment, hypovolaemia, hypotension, use of other nephrotoxic agents and ACE inhibitors."' It is the opinion of some members of committee, that such a recommendation should include a specification of coxibs as the preferred NSAIDs in this setting based on the following NHMRC Level 1 and 2 evidence from the same document: • Coxibs do not appear to produce bronchospasm in individuals known to have aspirin exacerbated respiratory disease (Level 1) • Non-selective NSAIDs and coxibs are effective analgesics of similar efficacy for acute pain (Level 1) • Preoperative coxibs reduce postoperative pain and opioid consumption, and increase patient satisfaction (Level 1) • Parecoxib and/or valdecoxib compared with placebo do not increase the risk of cardiovascular adverse events after non-cardiac surgery (Level 1) • Coxibs do not impair platelet function; this leads to reduced perioperative blood loss in comparison with non-			

selective NSAIDs (Level 2) • Short-term use of coxibs results in gastric ulceration rates similar to placebo (Level 2) A proposed wording to replace the outright refusal could be: "NSAIDs with a preference for COX-2 selective agents should be considered in selected patients under specific consideration of renal risk factors." This is the practice of most acute pain services. If the guideline Committee is interested in our input here, we would be most happy to remain involved and to fine-tune this recommendation with some more time at hand.			
We also wish to comment on the recommendation "Consider adding nerve blocks if paracetamol and opioids do not provide sufficient preoperative pain relief, or to limit opioid dosage." It is the opinion of some members of the committee that nerve blocks should not only be considered if paracetamol and opioids (better to be replaced by "systemic analgesics") fail, in particular in view of the fact that opioid-related adverse effects, as outlined above, are a considerable risk to this patient group. We wonder if the recommendation should be changed to: "Nerve blocks should be considered in all patients in view of their low rate of complications and to limit opioid use."	Quality and Safety Committee, ANZCA	The evidence statements to inform the actual recommendation are derived from studies that compare systemic analgesia to nerve blocks on a number of outcomes. The reality in practice is that systemic analgesia can and is administered quicker than nerve blocks and pain management is one of the most important aspects of care from a patient perspective. After consideration, the Guideline Adaptation Committee remains of the view that nerve blocks provide a useful adjunct to systemic analgesia. No changes made to the Guideline.	
Preoperative skin traction is not mentioned and although there is no good evidence in the literature it can add significantly to the pain management in some cases.	NZOA	Noted. Not within scope of the Guideline.	

		No changes made to the Guideline.	
Section 3.3 Timing of surgery			
Pg 48 – informed consent –' Language should not be a barrier to ensuring timely access to surgery. Informed consent is required and family or an interpreting service should be used to ensure that the consent process does not lead to unnecessary delays'. Use of a family member to obtain informed consent should be avoided. Family members, unless they are professionally trained interpreters with expertise in health terminology, may not be able to accurately transmit the information. In their haste to avoid 'unnecessary delays' the failure to use a properly trained interpreter could result in more complex and difficult outcomes for the patient and their family, and result in complaints about their care. The Telephone Interpreter Service can assist if the facility lacks a dedicated health care interpreter service.	Multicultural Health Service, SESLHD, NSW	Section 3.3 has been modified to reflect the importance of using professional interpreters.	Section 3.3
Pg 49 – cultural understandings of fasting – 'Being repeatedly fasted only to be told late in the day that surgery is cancelled due to lack of availability of theatre time is problematic and can impact on overall nutritional and cognitive status'. Fasting in some community groups means abstaining from specific foods only – possibly need to ensure that the patient is advised what fasting is in the context of preparation for major surgery. An interpreter should be used to explain the reason for fasting to the patient and their family	Multicultural Health Service, SESLHD, NSW	Section 3.3 has been modified to reflect the importance of interpreters and the cultural issues around interpretation of the meaning of fasting.	Section 3.3

Nutrition Patients maybe engaging in fasting as part of religious practices. Nutritional advice needs to be culturally and religiously appropriate.	Multicultural Health Service, SESLHD, NSW	Noted (see above) No changes made to the Guideline.	
Timing of surgery May want to consult with other staff to optimise health outcomes (eg haematology staff when exploring blood related problems (eg anaemia) which may impact on surgical outcomes) or if there are religious issues (eg Jehovah Witness).	Multicultural Health Service, SESLHD, NSW	Noted. No changes made to the Guideline.	
"Perform surgery on the day of, or the day after presentation to hospital with a hip fracture. " The NICE guideline[2] review question was "In patients with hip fractures what is the clinical and cost effectiveness of early surgery (within 24, 36 or 48 hours) on the incidence of complications such as mortality, pneumonia, pressure sores, cognitive dysfunction and increased length of hospital stay?". The search strategy searched for randomised controlled trials (RCTs) and well conducted cohort studies and observational studies. Specifically cohort studies using logistic regression to adjust for confounders such as comorbidity and age were identified. Ten studies were included in the analysis. The quality of the evidence for the following outcomes when comparing early versus late surgery (> 24, >36, or >48 hours) was very low or low: mortality (all time points) return to independent living, pressure ulcers and major complications. While on humanitarian criteria initiatives to reduce delay are important the evidence that early surgery may be	Individual	We present a clear definition of evidence-based recommendations in the Guideline. We do not agree with the respondent that this is not an evidence-based recommendation as the systematic review of the literature carried out by NICE identified a number of studies meeting the inclusion criteria for this clinical question. NHMRC grade of recommendation has been added. After rigorous assessment by three people using the NHMRC tool (Appendix VII) we assess this recommendation as NHMRC grade C. No changes have been made to the wording of the recommendation.	Executive Summary and Section 3.3

beneficial is extremely poor. It is not possible to make a strong EBR based on the outcomes that were systematically reviewed. And an EBR to "perform surgery on the day of, or the day after presentation" should not be made. Rather "consider performing surgery on the day of, or the day after presentation" Grade D (NHMRC) or 2C (GRADE) is more appropriate. A CBR to "perform surgery on the day of, or the day after presentation" may be considered in lieu of a weak EBR. Clinical equipoise exists-further research is recommended by NICE and you support this. I find it difficult to understand how you can suggest this recommendation should be a quality standard while acknowledging further research is indicated.		Whilst there is some evidence to support timely access to surgical intervention, the Guideline Adaptation Committee did not feel that there was therefore no justification for undertaking further research in this area. Opportunities still exist to further explore factors that impact on time to surgery in Australia and New Zealand specifically including some that have the potential to be modified and affect outcome. The Committee is strongly of the view that time to surgery is a high level marker of overall efficiency in a service but also believes that a standard on time to surgery must be integrally linked to other quality outcomes.	
The list of comorbidities in Point 3.3 (pages 12 and 45) is limited and overly prescriptive. Although most organ derangements are covered, a more general 'metabolic derangement' could be added to cover other issues eg. Hepatic failure. Acute chest infection could be modified to acute chest conditions including infection to acknowledge acute respiratory issues that may occur preoperatively	Individual	The suggested changes have been made to the recommendation.	Section 3.3

is there any evidence to support surgeries within daylight hours??	Queensland Hip Fracture Network	This question is not part of the systematic review of the evidence undertaken for the NICE Guideline. The Guideline Adaptation Committee is of the view that the term "appropriately skilled team" best described the intent of the recommendation. There has been a recent paper on this topic in the Geriatric Orthopaedic Surgery and Rehabilitation which did not show an effect of operating in daylight on outcome following surgery.	
P 12 "Identify and optimise correctable co-morbidities immediately so that surgery is not delayed." DAA agrees with this principle and recommends that malnutrition should be added to the list of co-morbidities as older people presenting with hip fracture are likely to be malnourished. While malnutrition is not a reason for delaying surgery, identification of malnutrition is important so that measures can be instituted immediately post surgery to provide nutrition support to promote recovery. Documentation of malnutrition is also needed to ensure adequate case-mix reimbursement for the recognised increased costs associated with treating malnourished hip fracture patients.	Dietitians Association of Australia	This recommendation specifies conditions that should be rapidly optimised so as to avoid unnecessary delay in those undergoing surgical intervention. DAA in its comment states that malnutrition is not an indication to delay surgery. The Committee acknowledges the importance of nutrition in the overall care of a hip fracture patient. No changes made to this section of the Guideline.	
I understand that the original NICE document refers throughout to "fitness" for surgery and for anaesthesia, but I think the ANZ document would be more objective and transparent (and a more sophisticated document) if it replaced the concept of "fitness" (dichotomous- i.e. fit vs unfit) with an assessment of the patient's risk profile (a continuum, from very low to very high risk, for perioperative morbidity and mortality). This would better	Individual	Inverted commas have been inserted around the word "unfit for surgery" on p 48 so as to indicate that this term was extracted from the NICE Guideline. We have also modified the wording on what was previously p49 to reflect the comments from the respondent. "Equally, patients want to feel	Section 3.3

inform patient/carer expectations, and also allow for decisions which more closely align with patient/carer values (see below). In my opinion, the statement on p49 "patients want to feel reassured that they are fit enough for surgery" is not meaningful, and should be restated simply as "patients want to feel reassured that their risks of adverse postoperative outcomes have been appropriately identified, managed and, where possible, minimised".		reassured that their risks of adverse peri- and post-operative outcomes have been appropriately identified, managed and, where possible, minimised."	
Chapter 4 Peri-operative care			
ACEM agrees with the Steering Group's view that NICE guideline recommendations regarding the use of local anaesthetics in the form of a nerve block, do not any require modification for the Australian or New Zealand context. However, while nerve blocks are now commonly done under ultrasound guidance, ACEM is unaware of any studies which reviews the benefits of reduced adverse effect with this more targeted method of anaesthetic delivery and would encourage such research. In addition, while the use of nerve blocks in the ED has been noted as low (7%), ACEM considers this to be in line with current NICE recommendations.	ACEM	Noted. No changes made to the Guideline.	
4.1 "Consider intraoperative nerve blocks for all patients undergoing surgery" The language of this recommendation is consistent with the body of evidence. It would be Grade C (NHMRC) or 2B or 2C (GRADE).	Individual	This recommendation has been reviewed by the Committee in relation to the evidence base and has been modified to a consensus-based recommendation. No NHMRC grade is therefore assigned.	
In certain very high risk patients with intracapsular	Quality and	The Guideline aims to provide guidance based on	

fractures, cannulated screws can be inserted with local infiltration and minimal use of sedation/analgesia (for example, ketamine) to avoid the risks of general/neuraxial blockade.	Safety Committee, ANZCA	the available body of evidence and is not prescriptive. As with all recommendations there will be clinical exceptions. The Guideline does not serve to be prescriptive. See 'Disclaimer' on first page. No changes made to the Guideline.	
Chapter 5 Operative intervention			
Section 5.4 The surgeons felt that type of fracture and bone quality need to be considered when discussing weight bearing status of patients rather than general 'all patients;'	Individual	Noted No changes made to the Guideline.	
Chapter 6 Post-operative mobilisation strategies			
Pg 85 – Early mobilisation post surgery – 'Language should not be seen as a barrier to early mobilisation and often family and carers are willing and able to interpret instructions given by clinical staff if the patient is understand the English language'. Different cultural beliefs and experiences with other health care systems may impact patient and family acceptance of early mobilisation post surgery. Some patients and their families may be resistant to mobilisation and other rehabilitation activities. Using professional health care interpreters can assist clinicians explain why mobilisation is important for rehabilitation and also assist clinicians navigate through some of the cultural beliefs that may be influencing the patient and their family.	Multicultural Health Service, SESLHD, NSW	Section 6.1 has been modified to reflect these comments	Section 6.1
6.1 "Unless medically or surgically contraindicated,	Individual	An NHMRC grade of evidence has been assigned and we are in agreement with the respondent re	Section 6.1

mobilisation should start the day after surgery. Offer patients a physiotherapy assessment." The evidence base for this recommendation is one small Australian single centre randomised controlled trial (n=60)[4]. Concern regarding the methodology of this study was raised by the NICE reviewers (small sample size , unclear allocation concealment and blinding of outcome assessors). It is not possible to make a strong evidence based recommendation on the results of this study. A low level evidence based recommendation (C) is indicated. A 2011 Cochrane review concluded "there is insufficient evidence from randomised trials to establish the best strategies for enhancing mobility after hip fracture surgery"[5].		the grade assigned. .	
Pg 88 – Physiotherapy – "Language should not be seen as a barrier to frequency of mobilisation and often family and carers are more than happy to interpret instructions given by clinical staff if the patient is unable to understand the English language. Key phrases and instructions commonly used during rehabilitation should be available in written format." Although the use of written instructions in community languages should be encouraged, need to understand that not all community members may be literate in the languages that they speak, and may not be able to read such instructions (especially in older populations). The reliance on written information instead of using an interpreter also denies the patient their opportunity to ask questions and seek feedback and explanations about their treatment.	Multicultural Health Service, SESLHD, NSW	Section 6.2 has been modified to reflect these comments. Also the recommendation in Section 8.1 has been amended to reflect the use of a variety of media, not just written material.	Section 6.2 Section 8.1
We have identified some areas of concern and omission from the guidelines.	Pedorthic Association	All comments noted	

Post operative mobilisation strategies Omission from the strategy the importance to review in the short, medium and long term the possibilities of a unequalisation of the lower limbs and the alignment of left and right lower limbs Certified Pedorthists (C.Ped) normally are not referred patients after hip replacement, knee replacement and hip fracture surgery. Detrimental to the patient recovery is the non-routine review of footwear, and leg alignment and correction where necessary. C.Peds report seeing a case regularly where it is post six months or more when a patient of hip surgery is having reviews done of hip pain and a misalignment of the ankle, knee or leg length is contributing to ongoing pain at the site of the surgery or surrounding areas. There are clinical tools to access a leg length discrepancy. Radiographical tools as well as Physiotherapists have access to some rudimentary ways of checking a shortness on weight bearing. Areas that do not get proper supervision is the frontal and sagital alignment of both lower limbs in conjunction with a proper normalised gait cycle and the use of rehabilitative footwear or the eventual use of commercial footwear at home and external use. We recommend that • Include into the standard rehabilitation post surgery regime the checking of Leg Length Discrepancy	Australia	The issues highlighted are not within the scope of the Guideline. No changes made to the Guideline.	

• Include into the standard rehabilitation post surgery regime the checking of Leg Length Alignment			
Post operative mobilisation strategies Omission from the strategy the importance to review patient's footwear choices to support the work of the surgery or non-surgery and to provide valuable choices of falls-prevention footwear. Patients who are referred to a C.Ped have access to a range of therapeutic footwear choices and expert information. These are based around the 4 major areas of Pedorthic shoe fitting • Correct fitting • Correct shoe choice • Appropriate shoe choice considering personal factors (weight, easy access etc) • Falls prevention house footwear We recommend that • On discharge a referral is made to a Certified Pedorthist for a footwear and gait assessment. • Health Professionals in the rehabilitation stage be educated on the work of a Pedorthist in managing footwear related issues of hip alignment and ankle and knee gait	Pedorthic Association Australia	Noted The issues highlighted are not within the scope of the Guideline. No changes made to the Guideline.	
Postoperative mobilisation strategies Our referring surgeons have advised us that leg lengths can vary post surgery. There is also research literature available to support this view. Pedorthists are trained in assessing	Pedorthic Association Australia	Noted No changes made to the Guideline.	

leg length discrepancy (LLD) and with the appropriate advice, can provide more appropriate footwear, can alter footwear with a shoe raise, add a rocker sole or add a stabiliser to a shoe, depending on the nature of the surgery. Analysis of gait is part of this protocol. Pedorthists believe in and encourage team work. Other potential mobility and stability issues can also be identified during this assessment process.			
Chapter 7 Models of care			
Section 7.1 Hospital-based multidisciplinary rehabilitation			
Pg 91 – Discussion about rehabilitation care - Hospital-based multidisciplinary rehabilitation versus usual care. Often rehabilitation is done in separate rehabilitation facilities (ie not the same hospital where surgery may have occurred). In some local health districts rehabilitation facilities are coupled with palliative care units and there may be some community reluctance to attend such a facility due to limited understanding of the range of services offered. Clinicians should be sensitive to the environments to where rehabilitation is occurring and be prepared to use an interpreter to fully explain the care plan and projected outcomes for each patient from their stay in the facility.	Multicultural Health Service, SESLHD, NSW	Noted. No changes made to the Guideline.	
7.1 "From admission, offer patients a formal, acute orthogeriatric service" The NICE guideline[2] identified eleven studies that met their inclusion criteria with a total of 2214 patients. Studies that	Individual	We present a clear definition of evidence-based recommendations in the Guideline. We do not agree with the respondent that this is not an evidence-based recommendation as the systematic review of the literature carried out by NICE identified a number of studies meeting the	

evaluated a Hip Fracture Program (HFP) incorporating early orthogeriatric input and alternative models of multidisciplinary care were included. One single centre Spanish RCT[6] (whose primary endpoints were mortality, length of stay and major complications) demonstrated a significant reduction in the number of pressure sores (16.9% vs. 5.2% p= 0.001). How pressure ulcers were assessed and graded is not clearly detailed in the methodology- the incidence of pressure ulcers was determined by "interviewing the patient's nurse and chart review"[5] rather than a blinded (or even unblinded) assessor. I therefore disagree that the evidence base for this endpoint is of high quality- the risk of bias is significant. The evidence for the other multiple outcomes, with exception of mortality at discharge (HFP), was of low to moderate quality and demonstrates either no statistically significant or clinically significant effect. This reflects genuine uncertainty with regards to the effectiveness of these interventions on patient centred outcomes. I do not believe an EBR can be made. Any recommendation should be consensus based.		inclusion criteria for this clinical question and there is evidence to support the clinical benefits of an orthogeriatric service and no evidence to support harm. All 11 studies meeting the inclusion criteria included geriatric input. The recommendation isn't just drawing on the one study relating to Hip Fracture Programmes. There is also evidence to support cost benefits of this approach to care. We have also identified an error in the original NICE guideline which we have highlighted and when corrected provides further evidence to support the recommendation. No change made to the level of recommendation. NHMRC grade of C.	
The Orthogeriatric model is seen and acknowledged as central to hip fracture management throughout the document. However, a large part of the model involves the diagnosis and management of acute post-operative medical issues and optimisation of comorbidities. This is not acknowledged and needs to be incorporated into the document	Individual	It is already stated that in the orthogeriatric model of care the geriatrician is "involved in the pre-operative optimisation of the patient in preparation for surgery and then takes a lead in the postoperative medical care and coordinates the discharge planning process" (Chapter 7 Introduction). No changes made to the Guideline.	

Ortho geriatric teams are only available in big centers and perhaps it would be better to recommend that a physician is involved in the patient's care in the perioperative period	NZOA	This is already stated in Section 7.1 where it is stated that "another physician with an interest in perioperative medical care may fulfil this role". No changes made to the Guideline.	
The Models of Care presented focus on the 'orthogeriatric model of care' in Australia and New Zealand. As it stands, this model overlooks the ongoing role of rehabilitation physicians for the rehabilitation of patients with hip fractures of all ages including elderly patients.	AFRM / RACP	It is stated in the introduction to Section 7 that in Australia and New Zealand that rehabilitation is undertaken by either a geriatrician or rehabilitation physician. We have also added a sentence in Section 7.1 to reflect the situation in Australia and New Zealand in relation to who provides rehabilitation and the important role played by rehabilitation physicians in the rehabilitation phase of care for a hip fracture patient.	Section 7.1
P14 provide osteoporosis education and implement osteoporosis treatment post fracture. document length of treatment if previously been on antiresorptives (rationale to identify atypical bisphosphonate induced femoral fractures)	Queensland Hip Fracture Network	The respondent is referring to the Executive Summary which contains the recommendations. It is not the purpose of the clinical question or recommendation to determine which treatment option should be considered for management of osteoporosis. Guidelines for assessment and management of osteoporsosis are referred to in Chapter 10 Section 10.1 No changes made to the Guideline.	
P15 consider doing MSQ on admission to achieve baseline status of cognition. consider doing daily post operative CAM scores to identify delirium	Queensland Hip Fracture Network	The Committee does not wish to be prescriptive with tools for assessment of cognition.	

		Guidelines for assessment and management of delirium are referred to in Chapter 10 Section 10.3 No changes made to the Guideline.	
Specialist Falls Assessment: should include a physiotherapist as a member of the team that may be involved in the assessment.	Queensland Orthopaedic Physiotherapy Network	The Committee has not referred specifically to any discipline in relation to falls assessment. The relevant recommendation refers to multidisciplinary review and integration with related services. No changes made to the Guideline.	
The guideline underplays the role and importance of rehabilitation physicians in hip fracture care. Further information about the role of rehabilitation physicians can be found on the AFRM website.	AFRM / RACP	The Guideline is explicitly an adapted version of the NICE Clinical Guideline. It covers multidisciplinary rehabilitation and a rehabilitation physician would be considered as part of this team. They are specifically mentioned in several sections in the Guideline. There was nothing specific to hip fracture care identified on the AFRM website. The only organisation that appears to have a position statement on hip fracture care is the Australian and New Zealand Society of Geriatric Medicine. An additional sentence has been added to reflect the fact that in Australia and New Zealand rehabilitation physicians play an important role in the rehabilitation phase of the care of a hip fracture patient.	Section 7.1
Section 7.2 Community-based multidisciplinary			

rehabilitation			
7.2 "Consider early supported discharge" The NICE guideline[2] identified two single centre studies in this area. The NICE reviewers "confidence in the results is low" and their recommendation was "based partly on evidence and partly on GDG consensus opinion". Accordingly I believe this recommendation should be a CBR rather than an EBR.	Individual	Applying our definition of EBR this is an evidence-based recommendation with an NHMRC grade of C. This is compatible with the GRADE assessment used by NICE, as there is moderate and high quality evidence to support the clinical benefits of early supported discharge. There is also cost-effectiveness evidence with minor limitations to support early supported discharge. No changes made to the Guideline.	
On page 102, mention is made of early supported discharge programs to RACFs. At present there is no consistent model to allow delivery of such a service. Having this as a recommendation is therefore not an implementable recommendation without appropriate funding and resources.	Individual	The purpose of this recommendation is not to preclude people already living in a Residential Aged Care Facility (RACF) from the opportunity to maximise their chance of functional recovery – either in the hospital or home setting. Whilst the models of care available across Australia and New Zealand may not be consistent, that is not considered a reason not to make such a recommendation. No changes made to the Guideline.	
Discharge planning: access to ongoing rehabilitation or community based services is very resource driven and would vary greatly across the states – especially challenging in rural areas. Needs to be aimed at optimising outcomes for patients.	Individual	Noted No changes made to the Guideline.	

Chapter 8 Patient can carer perspective			
p.9: Patients and their family / carers should be kept informed about the care they receive. This should include regular verbal communication as well as the availability of printed information *Should include: and provided choices of options available about the care they receive both pre-operatively and post operatively*	Individual	A new recommendation has been formed in relation to this and a number of other comments received in the consultation period.	Section 8.1
Pg – 15-16 – same – although the guidelines discuss the importance of verbal and printed information, no mention is made of interpreters or information in community languages.	Multicultural Health Service, SESLHD, NSW	The Committee elected to modify the wording of the recommendation as information can and should be provided using a range of mediums and in appropriate languages.	Section 8.1
P14 culturally sensitive discussion with patient and family in relation to Acute resuscitation plan in line with their wishes	Queensland Hip Fracture Network	A new recommendation has been formed in relation to this and a number of other comments received in the consultation period.	Section 8.1
Pg 106 – Re translated information – 'Information should be made available to patients in their preferred language. Whilst easy access to interpreters can be a problem, written information highlighting the pathway for hip fracture care should be provided in languages that reflects the makeup of the local population. Any written material developed for Indigenous peoples should be done in partnership with people with expertise in Indigenous health issues. The use of validated methods in production of written information is encouraged including the back translation of any material to ensure linguistic and cultural appropriateness.'	Multicultural Health Service, SESLHD, NSW	The importance of access to professional interpreters has been added to this section.	Section 8.1

Interpreters are a preferred option for providing patient information as they allow patients to ask questions and seek further information. If face to face interpreters are an issue, the telephone interpreter service can assist with providing priority interpreters for health professionals. Translated written information, although encouraged, also is limited in its usefulness as some communities have poor levels of literacy, even in their preferred language. Also the use of quality assurance processes in the production of translated information is to be encouraged and supported – these procedures should include using only NAATI accredited translators (the Australian accrediting body), the use of one translator to do initial translation, and a second translator to check the material. Back translation is rare – a more useful approach to ensure that the written material works within its intended environment is to use a focus group from the target community to review the content and ensure that the information provided is understood within its correct context. This can be time consuming but will ensure that the material is developed to meet the information needs of the target community, is written at the appropriate level for literacy and health literacy within that community, and is translated accurately in context.			
P16 patients are often not given a choice - provide rationale for specialist treatment decision	Queensland Hip Fracture Network	The Committee is not recommending that the treatment decision should be that of the specialist alone. No changes made to the Guideline.	
Chapter 9 Areas of further research			
The committee supports the suggestion of the guidelines	Quality and	Noted.	

re further research on: • 9.2 Analgesia: Nerve blocks • NICE research question • What is the clinical and cost effectiveness of preoperative and postoperative nerve blocks in reducing pain and achieving mobilisation and physiotherapy goals sooner in patients with hip fracture? This should be investigated in a multi centre trial which would be feasible in Australia and New Zealand.	Safety Committee, ANZCA		
Chapter 10 Relevant associated guidelines and reports			
Page 25 places malnutrition beyond scope of the document and refers to Section 10. Section 10 (page 113) refers to the 'Eat for Health, Australian Dietary Guidelines', which is considered an entirely inappropriate document to guide nutrition support practices for post surgical, multi-morbid inpatients prone to malnutrition.	NOFEAR, Qld	We have replaced the existing reference on nutrition with the reference provided by the reviewer: National Collaborating Centre for Acute Care. Nutrition support in adults: Oral nutrition support, enteral tube feeding and parenteral nutrition. 2006. London: National Collaborating Centre for Acute Care. [cited Mar 2014]. Available from: http://www.nice.org.uk/nicemedia/live/10978/29981/29981.pdf.	Section 10.3
With regard to referenced guidelines, we suggest the addition of the PROSPECT website www.postoppain.org, which provides an evidence-based procedure specific analgesic approach to Total Hip Joint Replacement, which has recommendations very applicable to this patient group. The evidence-based recommendations based on this methodology match our suggestions as above: • Recommended pre-operative interventions o COX-2-selective inhibitors in time to	Safety Committee, ANZCA	The PROSPECT website is funded by the pharmaceutical industry and by a company which markets a COX-2. The Committee have elected not to add this website in Section 10. No changes made to the Guideline	

provide sufficient analgesia when the patient wakes • Recommended postoperative interventions o Posterior lumbar plexus block (psoas sheath blocks) (grade A) or femoral nerve block (grade B)			
In this context the text of the guidelines should possibly also mention (in view of the increasing data becoming available here) Local Anaesthetic Infiltration (LIA) as a technique to provide postoperative analgesia with minimal systemic adverse effects. This technique is now a Grade A recommendation in PROSPECT: • Intra-operative, high-volume, low-concentration wound infiltration (LIA) (grade A)	Safety Committee, ANZCA	The Committee discussed this point and reviewed the information on the website. It recognises that this technique may be something with potential benefit in the future but at this point in time the evidence in hip fracture is lacking. The Committee did not agree with the conclusion that the evidence is "grade A". No changes made to the Guideline.	
Inclusion of other New Zealand resources in chapter 10 may also be beneficial. Suggestions: • Australian and New Zealand Bone and Mineral Society (ANZBMS) https://www.anzbms.org.au/Index.asp • Ministry of Health New Zealand http://www.health.govt.nz/our-work/life-stages/health-older-people • Osteoporosis New Zealand www.bones.org.nz	ANZONA	Chapter 10 provides links to guidelines and reports which are specifically related to hip fracture care as opposed to general resources in this area which would be considerable. No changes made to the Guideline.	
Grammar and typographical errors			
Typo p110 acute trusts should be acute wards		Acute trust is the terminology used by NICE to reflect the organisation of health services in the UK. An acute trust is an acute hospital. This has been inserted in brackets to aid understanding in the Australia and New Zealand context.	

Care homes (pg 112) maybe should read Aged care facility		Care home is the generic term used by NICE to describe residential aged care facilities in Australia rest homes in New Zealand. These terms have been inserted in brackets to aid understanding in the Australia and New Zealand context.	
P24 incorrect spelling - change osteopaenic to osteopenic and osteopaenia to osteopenia	Queensland Hip Fracture Network	Corrected	
P81 third line from bottom – typo. Should be “or” rather than “of”	Queensland Hip Fracture Network	Corrected	
P85 typo on cultural and linguistic section	Queensland Hip Fracture Network	Corrected	
P 85 (86 of 161 of guideline) appears to contain a typographical error which should probably read “if the patient is unable to understand the English language”.	NOFEAR, Qld	Corrected	
P90 DAA is pleased to see acknowledgment of the need to include a variety of disciplines in the care of older people with hip fracture, including dietitians. DAA requests that the authors change the spelling from dietician to dietitian which is the accepted international spelling.	Dietitians Association of Australia	Corrected	

Abbreviations

ACEM Australasian College for Emergency Medicine

AFRM	Australasian Faculty of Rehabilitation Medicine
ANZBMS	Australian and New Zealand Bone and Mineral Society
ANZCA	Australian and New Zealand College of Anaesthetists
ANZONA	Australian & New Zealand Orthopaedic Nurses Association
AOA	Australian Orthopaedic Association
CHOP	Confused hospitalised older person
HQSC NZ	Health Quality & Safety Commission New Zealand
NESB	Non-English Speaking Background
NOFEAR	Fractured Neck of Femur Education and Research
NZOA	New Zealand Orthopaedic Association
RACP	Royal Australasian College of Physicians
SESLHD	South Eastern Sydney Local Health District