Template for MI: Secondary Prevention (Update) scope SH subgroup discussions – Group 3 (LS/KJ)
Date: 24th November 2011

NB – please note that this is an update of the MI: Secondary Prevention guideline and therefore we should update areas where there is new evidence available that will change current recommendations.

3.3.1 Key clinical issues that will be updated: **3.3.2 Key clinical issues that will not be updated:**	**<u>Group 1:</u>** Relevant issues are reported in question 1. **<u>Group 2:</u>** • The group queried why only barriers specific to South Asian populations were included. The group felt that this should be changed to barriers in all populations and specifically all ethnic minority groups listed in Section 4.1. • It was noted that an area where there had been a particular change in practice, was engagement with cardiac rehabilitation. It was noted that this had fallen since patients are now discharged more quickly, particularly following PPCI. There is a common misconception amongst patients that, because they are discharged quickly, they are not seriously ill. This may be an important area to update in the guideline as the number of patients undergoing primary PCI has increased. The group noted that there was a lots of evidence in this area. • The group noted that the optimisation of medicine is not always occurring, as GPs not always happy to be responsible for this. The group agreed that if this was part of cardiac rehabilitation then this would be carried out. • The group agreed that telemedicine has the potential to increase both uptake and adherence and therefore potentially reduce costs – especially in rural areas. There is evidence available in this area. • It is important that cardiologists promote cardiac rehabilitation, not

	as optional, but as part of an ongoing treatment plan. There should also be resources available to help inform health professionals and patients where patients should be sent. This is particularly important given the increase in PPCIs, as outlined above. • The group agreed that vitamin K antagonists should be included but noted that new anticoagulants are now available as alternatives to warfarin: dabigatran and rivaroxaban. Therefore this issue should cover the use of antiplatelets in patients taking warfarin but also those taking these alternative anticoagulants. • The group felt that titration of ACE inhibitors was important. It was also discussed whether up titration of other drugs should also be covered, such as beta blockers. The group initially agreed, though discussion subsequently revealed that there was no special issue with beta blockers as is the case with ACE inhibitors, and this was not necessary. **<u>Group 3:</u>** The group raised the following points for the team to consider including in the guideline: • Staffing – it was noted that there were particular issues relating to staffing in cardiac rehabilitation and that it would be helpful for the guideline to make recommendations relating to staffing levels. The group noted that it was important that the current NICE Cardiac Rehabilitation Service commissioning guide is updated in line with any changes made to CG48. The group also noted that there were specific issues relating to the provision of dieticians, which was particularly relevant given the importance of diet and lifestyle changes in secondary prevention of a myocardial infarction. • Referral to cardiac rehabilitation – the group felt that the

	identification and referral of patients for cardiac rehabilitation is important. They felt it should be made a priority that all patients are assessed for cardiac rehabilitation. The guideline should reflect this by giving direct recommendations rather than vague statements. • Referral to cardiac rehabilitation - this should also include ways of increasing uptake, for example, there is evidence on how invitation letters should be formatted and the information that should be included to maximise uptake to cardiac rehabilitation programmes. The group noted that the current guideline references the National Service Framework, which states that target for cardiac rehabilitation is 85%. The group agreed that referring to this target often means that services do not always aim for 100% referral and that this should be removed from the updated guideline. • Early initiation of cardiac rehabilitation – the group felt that the guideline could consider when cardiac rehabilitation is initiated to ensure maximum uptake from patients. It was agreed that ideally, patients should be invited to take up cardiac rehabilitation programmes in hospital however, the group acknowledged that there were staffing implications to starting cardiac rehabilitation at this time. It was noted that there may be cost effectiveness evidence to show that early initiation of cardiac rehabilitation is cost effective despite these implications. • Evidence for cardiac rehabilitation – the group felt like there was little evidence that would change the current recommendations on promoting cardiac rehabilitation. • High risk groups – the group noted that the current guideline scope states that it will consider the barriers to south asian populations in uptake of cardiac rehabilitation. The group felt strongly that this should consider all high risk ethnic groups as NACR data suggests

	that there is no difference between ethic groups in terms of adherence to cardiac rehabilitation programmes. It was noted that there were other barriers which should also be considered, for example, being a resident in a nursing home. • Discharge planning and information – although the group acknowledged that this was not strictly secondary prevention, it was felt that this was an important area for inclusion. The group agreed that this could include recommendations on documentation such as discharge letters and documentation. In particular, it was agreed that it was important to recommend that all patients receive copies of discharge documentation (e.g, the discharge summary). • Reducing readmissions – it was noted that there are specific programmes available to help reduce readmission (e.g., goal setting). The group felt that tackling readmission was as important as adherence to cardiac rehabilitation. • Primary care – The group agreed that, whilst secondary care often provided many aspects of care following a myocardial infarction, responsibility should also lie within primary care, particularly GPs. The group felt that there was often no steer on when first contact should be made with primary care following discharge from hospital. The group felt strongly that it would be helpful to include a recommendation on when first contact should be made with primary care. A suitable recommendation would be for all patients to make contact with primary care within 10 days of discharge from hospital following a myocardial infarction. • Nursing staff – The group agreed that the majority of responsibility for patients following a myocardial infarction sat with nursing staff, who often had variable skills. The guideline could consider training for nursing staff. • Titration – the group agreed that titration of ACE inhibitors was an

	important area for the guideline update to cover. It was noted that there was evidence to support the assertion that patients rarely meet the optimum dosage for drugs and that it was common for patients to remain on the dosages recommended on discharge for long periods. However, the group felt that it was important that, as well as being prescriptive regarding the dosages for ACE inhibitors, it was important to provide recommendation on who is responsible for making these changes. The group also noted that the guideline could look at differences in titration between ethnic groups and adherence to medications, though it was agreed that the latter would be covered by cross reference to the NICE guideline on Medicines Adherence. • Omega-3-acid ethyl esters – the group agreed that there was likely to be new evidence in this area to change current recommendations. The group noted that, although this recommendation was important, it was crucial that the guideline acknowledged that other lifestyle recommendations relating to healthy diet were of greater benefit to patients. The group suggested that it would be helpful to highlight specific populations for which omega-3-acid ethyl esters provide particular benefit. • Vitamin K antagonists – the group felt that there was evidence regarding other anticoagulants (e.g. direct thrombin antagonists) in combination with antiplatelets in addition to vitamin K antagonists. • Statins – the group felt there was discrepancy on the dose of statins used in clinical practice and that recommended in the guideline. Nor is there information on the time-line for prescribing high dose statins. • Anti-platelet medication – the existing recommendations do not highlight the risk to patients if they switch between different classes of anti-platelet medication.

Further Questions:

1. Are there any critical **clinical** issues that have been missed from the Scope that will make a difference to patient care?

Group 1:

- PPIs
- Encouraging people to take part in research in this area as it has been shown that this can lead to improved health outcomes. To what extent does involvement of people in clinical trials improve adherence?
- TeleCardiology
- Online management
- South Asian trials run by South Asian people
- Section 4.3.1 b) suggested wording change; a. should refer to innovations / interventions instead of barriers. There should also be reference to other specific populations. b. should be intervention for programmes. This makes the question more active rather than passive.
- The focus of rehabilitation should be about the quality of care overall and not just a focus on exercise.
- The area of rehabilitation should :
    - cover all seven aspects – core components
    - Have an underpinning message for rehabilitation of longevity and lifelong change
    - Include the involvement of partners
    - focus on a return to work
    - include goal setting for patients which should be arranged pre discharge - should be mandated
    - include a structured review for patients - worthwhile to look at the diabetes structured review procedure
    - identify patients that need psychosocial support

Group 2:

- The group noted a number of additional areas that should be included relating to cardiac rehabilitation. These are:
    1 One stakeholder suggested that an important issue was that users of cardiac rehabilitation programmes reach the end of the initial

formal programme and there are issues over continuation of support, including lifestyle changes such as exercise. It is said that any continuing exercise should only be given by a qualified ACR instructor, whom are not always available and many sports centres will not take them. **Therefore it would be good to have guidance on where patients can go after they have finished cardiac rehabilitation.** It was noted that patients required more than just cardiac rehabilitation programmes of a specific length but rather, ongoing support. Continuity of what happens at the end of 12 weeks with, for example, diet, exercise, support and smoking cessation. This could even be expert patient-led. It was noted that it would also be useful to have standardisation of formal follow-up. The group agreed that there were studies about different models of long term care.

2. It was highlighted that there has been new guidelines from the DoH about cardiac rehabilitation and that the team should check this to make sure the guideline is consistent with this document and if not, update these areas too.
3. The group noted that there were new models after 2007 BACPR documents and that these should be cross referenced. We need to look at new publications and see if areas do not match up.
4. Euraction RCT – introduction in UK outcomes contribute to national database. The group were unsure whether this would change current recommendations but it may provide information about the content of programmes.
5. It was also felt that it is important to specify what makes up a cardiac rehabilitation programme as this varies greatly and it is an important to ensure it is a quality programme.
6. Since 2007, there have been many new studies on cardiac rehabilitation since 2007 and many of these studies are no in line with the current recommendations. There should be evidence comparing new and old programmes.

- The group felt that it was important to ensure that the guideline is clear where it is referring to new evidence. Clarification should be given for sections on new evidence. It was asked whether this would change the recommendations in the guideline – it was unclear that it would but it was felt that it should be looked at. It may also inform what should make up a cardiac rehab programme (point 4 above).
- The group noted a number of additional areas that should be included relating to pharmacological agents. These are:
    1. Betablockers – stakeholders raised that guideline should make a recommendation about giving cardioselective drugs specifically. There also needs to be clarification about what to do in patients with asthma and COPD, as asthmatics should not take betablockers, whereas COPD patients can have cardio-selective drugs but often don't get this treatment. Stakeholders also raised if contraindications for all drugs should be added into guideline but it was highlighted that this would not usually be done unless there was a particular problem with misuse.
    2. Use of aldosterone antagonists – the research recommendation in the last guideline was to look at this area. An HTA was carried out (this was done by industry rather than NICE). There is a specific guideline for heart failure, and 50% or more of MI will have heart failure. There was disagreement about whether this was covered, for example, if an echo shows that there is heart failure it should be repeated at 6 weeks, and if there is still evidence, the patient should be managed under NICE Heart Failure guideline.

Group 3:

- The group noted that there was a disparity between the recommendations in the NICE guideline on NSTEMI and those in the current CG48 for ant platelet therapy for low-risk patients.

2. Are there any areas from the original guideline, where you believe there is new evidence to change the current recommendations that we have not currently included for update in the scope?

Group 1:

- Heart failure drugs:
    - patients do not always know whether they have heart failure
    - they do not receive an ECHO straight away. There should be a scheduled time for an ECHO
        - quality standard --- to include the patient having a status report when discharged from hospital
        - a BNP blood test for heart failure should be done prior to discharge post MI
- Rehabilitation:
    - there is now evidence that early access to rehabilitation programmes improves outcomes
    - rehabilitation programmes needs to include all core components
    - look at yoga for South Asian women
    - inclusion of partners, especially in home-based rehabilitation
- Lipids / Hypertension: need to take into account / be aware of the Joint British Societies' 3 guidelines which will be reported in March 2012 https://www.rsm.ac.uk/academ/lic02.php
- Omega 3s – pharmaceutical preparation compared to over the counter preparations. Need direction on dose and vegetarian equivalent.
- Ensure that other populations are looked at including women, the elderly other ethnic minorities.

Group 2:

See question 1 and 2

Group 3:

- Air travel – the group noted that the current guideline cross refers to another guideline when making recommendations on when patients should

fly following a myocardial infarction. It was noted that there was new evidence in this area which may change these recommendations and that this is an area where the guideline should review the evidence.

- Driving – the group noted that, as with recommendations on air travel, the guideline currently cross references to another guideline when making recommendations on when patients should drive following a myocardial infarction. Again, it was noted that this is an area where there may be new evidence and that the guideline should review this evidence directly.
- Inhospital echo assessment – it was noted that currently, there was variation in whether echo assessment takes place in hospital to diagnose myocardial infarction retrospectively. The group felt that there was evidence available to support the use of echo assessment rather than left ventricular assessment, which is currently used in some cases. It was noted that this was often important for patients as there were important implications with regards to driving and insurance.
- Proton pump inhibitors – the group noted that there was new evidence available on the use of proton pump inhibitors in combination with antiplatelet agents. Although it was noted that the current guideline cross references to the NICE Dyspepsia guideline, it was noted that this was now out of date.

3. Are there any areas that we have included for update in the Scope that are **irrelevant** and do not require updating?

Group 1:
No comments

Group 2:
No comments

Group 3:
The group did not raise any specific points.

4. Are there areas of **diverse or unsafe practice** or uncertainty that require addressing within the scope?

Group 1:

- Prescriptions:
    - Timing – patients get confused as to what time of the day they should take different medications. This should be made clear prior to discharge.
        - E.g. antiplatelets; if patients switch to atorvastatin problem of taking simvastatin at night will go away as atorvastatin can be taken in the morning
    - continuity – patients sometimes leave the hospital on medication which is then changed in primary care

- look at the Medicines Adherence guideline
- Clinical Commissioning Groups may influence prescribing in the future

- Lipids: duration of statins, post-MI. This should be linked to lipid prevention guideline to ensure what it says about myocardial infarction is correct

Group 2:
See question 1 and 2

Group 3:
The group did not raise any specific points.

5. Which area of the scope is likely to have the most marked or biggest health implications for patients?

Group 1:

- Antiplatelet management, the choice of agent and how it is managed has an effect on morbidity/mortality
- Adherence to statins - after a year, 50% of patients don't adhere

Group 2:
See question 1 and 2

Group 3:
The groups felt that the following areas would have the biggest implications for patients:

- Titration of drugs
- Adherence to cardiac rehabilitation

6. Which practices will have the most marked/**biggest cost** implications for the NHS?

Group 1:

- Antiplatelet prescribing:
  - differential prescribing; this can be difficult as there is a danger of being too general within each patient group category
  - cost effectiveness vs cost to primary care

Group 2:

- The group agreed that fish diet and omega-3 acid ethyl esters should be updated as this was an important area and may have a costing issue in some practices.
- The group suggested that it would be worthwhile to consider what will come off patent by time of publication of update. For cardiac rehabilitation, it was noted that increasing uptake can increase costs in the short term however there are new methods rather than attending clinic such as email, use of telemedicine (interventions to improve uptake and adherence). It was noted that in the long term, costs would be decreased.

Group 3:

The group agreed that the following issues were likely to result in the biggest cost implications for the NHS:

- Reducing readmissions
- Increasing adherence to cardiac rehabilitation – it was noted that, although there were initial increased costs in increasing adherence to rehabilitation, there would be long term cost savings. It was also noted that adherence to rehabilitation programmes can promote adherence and reduce costs resulting from medicines wastage.
- Antiplatelet agents - the group felt that there could be a huge increased cost to the NHS if current NICE technology appraisals on new antiplatelet agents were implemented and that ticagrelor and prasugrel were prescribed in place of clopidogrel.

7. Are there any **new practices** that might **save the NHS money** compared to existing practice?

Group 1:

- Early start cardiac rehabilitation. This can cost £500 per patient. There is a reduced readmission benefit.

Group 2:

- The group noted that cardiac rehabilitation was being increasingly carried out in the community.

Group 3:

As above.

8. Do you think that the outcomes included in Section 4.4 are appropriate?

Group 1:

It was established that the definition of myocardial reinfarction is a 'minefield'.

Group 2:
The group raised the possibility of including 'Return to work' however it was highlighted that this would be part of quality of life outcomes. Cardiovascular mortality as well as all cause.

The following outcomes were suggested for inclusion: Unstable angina, TIA/Stroke/Heart failure, disabling/non-disabling stroke.

Group 3:
The group agreed that the outcomes were appropriate and that the most relevant were Quality of Life, adherence and symptom relief.

The group noted that revascularisation was not necessarily an appropriate outcome as it was not always clear what we are measuring. For example, many patients will undergo further revascularisation after a myocardial infarction, as they have only had revascularisation of the culprit lesion following a myocardial infarction.

9. Any comments on the proposed GDG membership?

Group 1:

- There is a difference between the roles of a hospital pharmacist and a commercial pharmacist and therefore both should be included.
- Include a Network Manager.
- Having one GP was suggested but it was felt that if possible 2 would be better as one should be a commissioning GP. There is no need for an exercise physiologist.
- The psychologist could be a co-opted member.
- Advertise for either a community nurse or district nurse.
- Advertise for a cardiac rehab specialist nurse and not a cardiac specialist nurse.
- The dietician should be a full member.
- Co-opt someone with lipid interest.
- Co-opt a researcher to look at patients post rehabilitation
- There should be equal representation from primary and secondary care

Group 2:

- The group agreed that a dietician and psychologist would be useful co-optees, the former for omega-3-acid ethyl esters and the latter for cardiac rehabilitation.

Group 3:

The group noted that this was currently disproportionate and the following changes should be made:

- A cardiac rehabilitation practitioner should be included on the group, rather than a cardiac rehabilitation nurse
- An exercise scientist or physiotherapist would be more appropriate than a physiologist
- Representation from social services may be useful

10. There are currently recommendations on the use of lipids in both the guideline on Secondary Prevention and the guideline on Lipid monitoring. We are proposing removing the recommendations from this guideline and referring to the Lipids guideline. Do you think that this would be appropriate?

Group 1:

A group thought that this would be appropriate.

- co-opt someone with a lipid interest when get feedback from the lipid guideline

Group 2:

- The group noted the proposal for recommendations on lipid lowering agents. Stakeholders agreed that lipids guideline was a more appropriate place to review evidence and make recommendations. Stakeholders thought it would however be good to keep a summary of what is recommended in this guideline too as lipids should be lowered as much as possible, perhaps by including a recommendation that people should have their lipids managed. Stakeholders were very keen that it is communicated properly that these recommendations are in the Lipid Modification guideline. The group felt that the most important recommendation related to the targets and that this should be repeated in this guideline (as per the hypertension recommendation that is there currently). Ideally, the guideline would include a recommendation on the importance of lowering lipids to a certain target then refer to lipids guideline.

Group 3:

- The group were of mixed agreement regarding this proposal. It was agreed that it was appropriate to refer to the NICE guideline on Lipid Modification, however it was important that recommendations remained in CG48 on the need to provide statins and high dose statins for acute management. It would also be helpful to include details on duration for high dose statins.

11. The current chapter on antiplatelets focuses on the use of clopidogrel, although it is acknowledged that there are other antiplatelets available. Although there are technology appraisals available on the use of these drugs, are there are any areas where you believe that a new review may need to be carried out?

Group 1:

- There are separate technology assessments but there is no guidance as to which actual drug to pick. There is no head-to-head data. This leads to the question of how are we going to incorporate the TAs.
- Prasugrel is used as its clinical indications, whereas Ticagrelor is used for other indications not covered by Prasugrel.
- Look at oral anticoagulants? Trial data is coming up to some other anticoagulants. Should consider other anticoagulants not just warfarin. In the scope change 4.3.1.d) b. to say oral anticoagulants instead of VKA. Consideration of these with antiplatelet agents.
- It would be useful to determine which instrument will be best to pick up improvement in QALYs. Which could determine that a patient has a greater need? EQSD is a poor instrument for cardiac rehabilitation. Maybe this should be picked up as a research recommendation?
- Increased levels of C protein – immunisation - is that post MI? This is out of scope.
- Check whether there is a high risk of atrial fibrillation post MI. Check the AF guideline. This is probably out of scope
- Look at plaque stabilisers – Darapladib. *(Darapladib inhibits Lp-PLA(2) activity in plasma and in arterial plaques and may confer clinical benefit in preventing cardiovascular events. The SOLID-TIMI 52 trial is a randomized, double-blind, placebo-controlled, multicenter, event-driven trial. The median treatment duration is anticipated to be approximately 3 years, with a total study duration of approximately 4.1 years. AM Heart J 2011 Oct;162(4):613-619)*

Group 2:

- The group agreed that antiplatelets were an important area to update. There are a number of new antiplatelets available. It was clarified by the group that these agents are used in the acute phase and then are continued as part of secondary prevention. The group felt that anything that clarified the situation with regard to these agents would be helpful. The issue of how long drugs were continued for was discussed and was considered an area that would warrant clarification in this guideline, particularly following STEMI and following stent (particularly drug eluting stent) placement. The issue of initiation of agents when not initiated acutely was also discussed. It was felt that this was not done currently. It was felt that this should perhaps be looked at again in the context of all the available agents, although it was not clear whether there would be any new evidence.

Group 3:

- The group agreed that there should be a recommendation that patients should not be switched from one antiplatelet to another as outcomes are worse.

12. Other issues raised during subgroup discussion for noting:

Group 1:

- Include: Protocol for preventing bleeds
    - Strategies for readmission.

Group 2:

- The criteria for myocardial infarction has changed and what was previously covered by the definition of secondary prevention of MI may now not be covered. Previously, the majority of unstable angina patients would have been included (i.e. all acute coronary syndrome events). This is a big change and as such, there should be reference to this at the beginning of guideline. The guideline should only cover secondary prevention following any acute coronary syndrome (UA, NSTEMI, STEMI) or this issue should at least should be referenced at the beginning of the guideline.
- The group were asked whether there was any new evidence relating to the population included in the guideline. The group noted that they have the same treatments and should be standard practice. The group noted that there may not be specific evidence however newer studies may be in ACS rather than just MI and older studies will use old definitions of MI.
- The group felt that groups for special consideration (section 4.1.1) were very important and that these were correct. Mental health and learning disabilities are specific groups that need to be considered.
- The group noted that the healthcare setting (section 4.2) should be amended to 'the guideline will address care in **community** and hospital settings'. There is a movement of services to new community services with cardiac rehab programmes being moved into the community rather than hospitals. This was considered a subtle difference to primary care which is interpreted to be specifically general practice.
- The group agreed that updating cross referrals in the current guideline was important, including the updated hypertension guideline.
- The group felt that it was important that a quality standard for secondary prevention of myocardial infarction is developed.

Group 3:

The group felt strongly that the current title of the guideline was not reflective of its content and hindered implementation. The group felt that including 'Optimising quality of care following myocardial infarction' as a subtitle would help to clarify the purpose of the guideline and encourage people to use it.